



# Modicon ABE7 / ABE9

Telefast Pre-wired system

Modicon ABE7 IP20 connection sub-bases

Modicon ABE9 IP67 passive splitter boxes



# Modicon

## Discover [Modicon](#)

Edge control for Industrial IoT

Modicon IIoT-native edge controllers manage complex interfaces across assets and devices or directly into the cloud, with embedded functional safety and cybersecurity. Modicon provides performance and scalability for a wide range of industrial applications up to high-performance multi-axis machines and high-available redundant processes.

## Explore our offer

- [Modicon HVAC Controllers](#)
- [Modicon PLC](#)
- [Modicon Motion Controllers](#)
- [Modicon PAC](#)
- [Modicon I/O](#)
- [Modicon Networking](#)
- [Modicon Power Supply](#)
- [Modicon Wiring](#)
- [Modicon Safety](#)

Life Is On

**Schneider**  
Electric

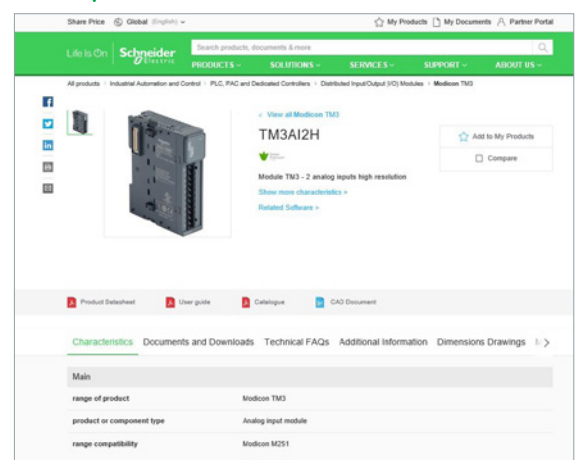
# Quick access to product information

## Get technical information about your product

References

**Modicon TM3**  
I/O expansion modules for Modicon controllers  
Analog I/O modules

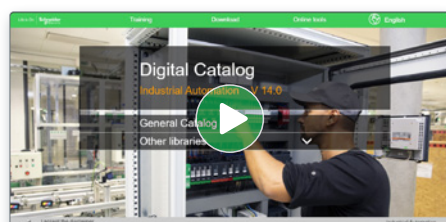
| Module and type of channel                 | Input range                          | Resolution               | Output range        | Resolution               | Input terminal block (V) | Output terminal block (V) | Reference | Weight (g) |
|--------------------------------------------|--------------------------------------|--------------------------|---------------------|--------------------------|--------------------------|---------------------------|-----------|------------|
| 2 refrigerant inputs                       | -10...+10 VDC<br>0...20 mA/4...20 mA | 10 bits/12<br>10 bits/12 | 0...20 mA/4...20 mA | 10 bits/12<br>10 bits/12 | 2882-2                   | 2882-2                    | TM3AI2H   | 5,100      |
| 4 refrigerant inputs                       | -10...+10 VDC<br>0...20 mA/4...20 mA | 10 bits/12<br>10 bits/12 | 0...20 mA/4...20 mA | 10 bits/12<br>10 bits/12 | 2882-2                   | 2882-2                    | TM3AI2H   | 5,100      |
| 4 refrigerant inputs or temperature inputs | -10...+10 VDC<br>0...20 mA/4...20 mA | 10 bits/12<br>10 bits/12 | 0...20 mA/4...20 mA | 10 bits/12<br>10 bits/12 | 2882-2                   | 2882-2                    | TM3AI2H   | 5,100      |
| 4 differential temperature inputs          | -10...+10 VDC<br>0...20 mA/4...20 mA | 10 bits/12<br>10 bits/12 | 0...20 mA/4...20 mA | 10 bits/12<br>10 bits/12 | 2882-2                   | 2882-2                    | TM3AI2H   | 5,100      |



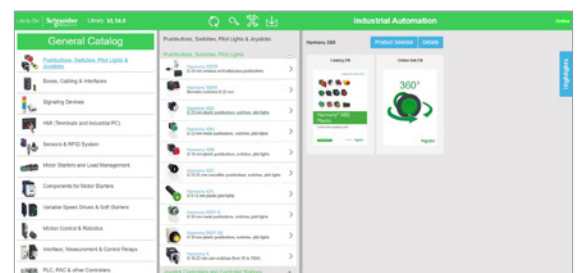
Each commercial reference presented in a catalog contains a hyperlink. Click on it to obtain the technical information of the product:

- Characteristics, Dimensions and drawings, Mounting and clearance, Connections and schemas, Performance curves
- Product image, Instruction sheet, User guide, Product certifications, End of life manual

## Find your catalog



- > With just 3 clicks, you can access the Industrial Automation and Control catalogs, in both English and French
- > Consult digital automation catalogs at [Digi-Cat Online](#)

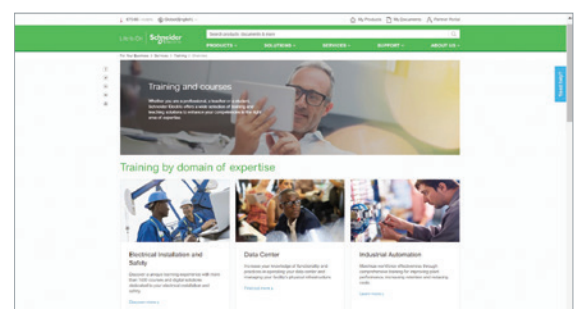


- Up-to-date catalogs
- Embedded product selectors, 360° pictures
- Optimized search by commercial references

## Select your training



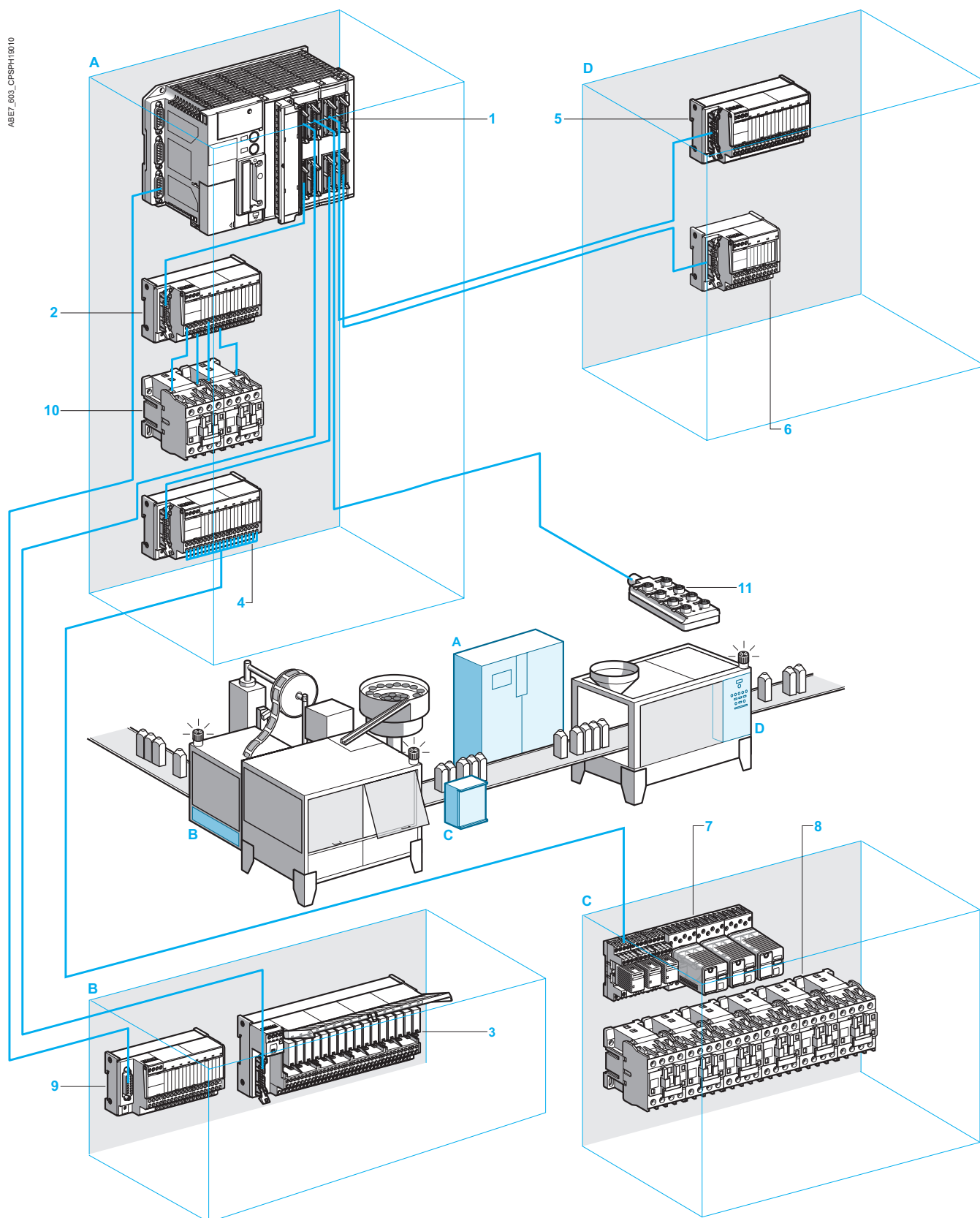
- > Find the right [Training](#) for your needs on our Global website
- > Locate the training center with the selector tool, using this [link](#)



# General content

## Telefast Pre-wired System

|                                                                                                          |         |
|----------------------------------------------------------------------------------------------------------|---------|
| ■ Modicon ABE7 connection sub-bases (IP 20) for                                                          |         |
| > Modicon M221 Book logic controllers,                                                                   |         |
| > Modicon TM3 I/O expansion modules,                                                                     |         |
| > Modicon X80 I/O expansion modules,                                                                     |         |
| > Modicon Premium automation platforms,                                                                  |         |
| > Modicon Quantum automation platforms,                                                                  |         |
| > Modicon TSX Micro Compact/modular PLC                                                                  |         |
| > Modicon STB (Distributed I/O solution)                                                                 |         |
| □ Presentation .....                                                                                     | page 2  |
| □ Selection guides of connection sub-bases:                                                              |         |
| - Discrete inputs or outputs,<br>Outputs for solid state and/or electromechanical relays sub-bases ..... | page 10 |
| - Discrete outputs sub-bases .....                                                                       | page 12 |
| - Analog and application-specific sub-bases .....                                                        | page 14 |
| □ References                                                                                             |         |
| - Passive connection sub-bases for discrete signals .....                                                | page 16 |
| - Adapter sub-bases with fixed relays and removable terminal blocks ...                                  | page 17 |
| - Adapter sub-bases with plug-in relays .....                                                            | page 18 |
| - Connection sub-bases for counter and analog channels .....                                             | page 19 |
| - Cordsets for connection .....                                                                          | page 20 |
| - Cabled connectors for Modicon Quantum I/O modules .....                                                | page 21 |
| - Accessories .....                                                                                      | page 22 |
| - Plug-in solid state/electromechanical relays .....                                                     | page 23 |
| □ Combinations                                                                                           |         |
| - sub-bases for Modicon M221 logic controllers<br>and Modicon TM3 modules .....                          | page 24 |
| - sub-bases for Modicon X80 I/O modules .....                                                            | page 26 |
| - sub-bases for Modicon Premium platform .....                                                           | page 30 |
| - sub-bases for Modicon Quantum platform .....                                                           | page 34 |
| - sub-bases for TSX Micro PLC .....                                                                      | page 36 |
| - sub-bases for Modicon STB I/O modules .....                                                            | page 38 |
| ■ Modicon ABE9 IP 67 passive splitter boxes (IP 67)                                                      |         |
| □ Selection guide .....                                                                                  | page 40 |
| □ Presentation .....                                                                                     | page 42 |
| □ Description .....                                                                                      | page 42 |
| □ References .....                                                                                       | page 43 |
| ■ Index                                                                                                  |         |
| □ Product reference index .....                                                                          | page 44 |



### General presentation

Telefast Pre-wired system is a set of products for rapid connection of I/O modules (24 V  $\overline{\text{---}}$  discrete, analog, and counter) to operative parts. It acts as a substitute for screw terminal blocks, remotely locating and partly eliminating the single-wire connection.

The Telefast system only connects to channels that have HE 10 and SUB-D connectors or to standard terminal blocks with a cabled connector. It consists of connecting cables and interface sub-bases.

The relay and connection functions, with or without polarity distribution, considerably reduce wiring time and eliminate the risk of error.

### Connections between the PLC and the operative part

#### Connection between the PLC and Telefast sub-bases

Telefast sub-bases connect directly via cables to all discrete I/O modules equipped with HE 10 connectors [1](#).

I/O modules not equipped with HE 10 connectors are connected to Telefast sub-bases by means of a cabled connector, which consists of a cable with conductors (AWG 22/0.34 mm<sup>2</sup> c.s.a.) connected to the standard terminal block at one end and to the HE 10 connectors at the other. These cabled connectors are available in 3 m (9.84 ft) lengths.

#### Connection between Telefast sub-bases and the operative part

The Telefast range is suitable for several types of connection found in control system devices.

##### ■ Connection of I/O located in the PLC cabinet [A](#) or nearby [B](#)

Some sub-bases [2](#) enable two wires (signal and common) or three wires (signal, 24 V, 0 V) to be connected directly from sensors or preactuators [10](#) when these are installed in the same enclosure or very close by. They effectively eliminate all intermediate terminal blocks.

Other versions offer the possibility of adapting the voltage or current via plug-in relay sub-bases [3](#), or of connecting analog signals [9](#).

In cases where size is of prime importance [D](#), fixed relay sub-bases **ABE7R16S111** [5](#) (125 mm/4.92 in. long) and passive sub-bases **ABE7H16R50** [6](#) (84 mm/3.31 in. long) reduce the required surface area by about 50% compared with standard products.

##### ■ Connection of I/O located outside the PLC cabinet [C](#)

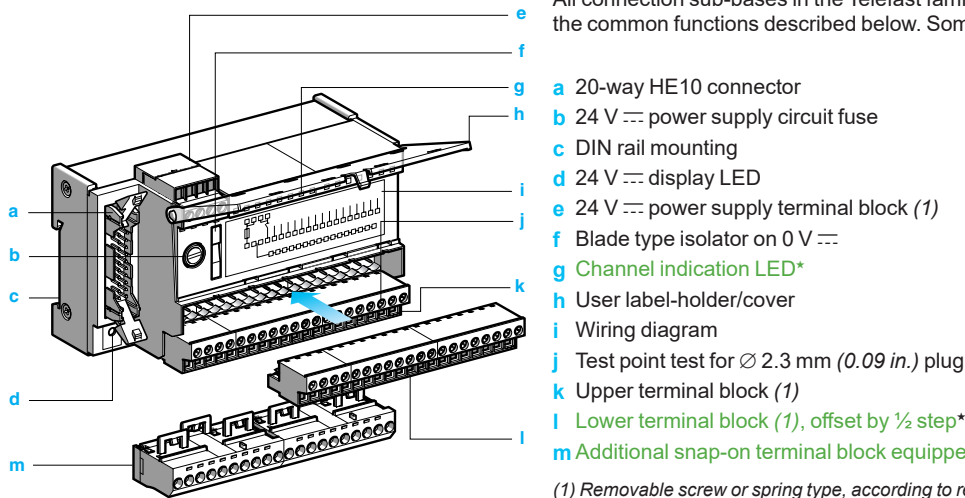
These sub-bases [4](#) fulfill the same function as traditional terminal blocks and connect connector leads from sensors or preactuators [7](#), [8](#).

##### ■ IP67 dust and damp-proof connections for enclosures and cabinets

8-channel versions offer, in addition, the possibility of directly connecting **Modicon ABE9** dust and damp proof splitter boxes (see [page 42](#)) [11](#) for 8 sensors.

### Description of a Telefast® connection sub-base

All connection sub-bases in the Telefast family have a standardized design and offer the common functions described below. Some of these functions are **optional\***.



(1) Removable screw or spring type, according to reference, at 5.08 mm (0.2 in.) intervals.

### Passive connection sub-bases

Designed to simplify I/O connection to a PLC within a control panel, the range of passive sub-bases has the same functions as traditional terminal blocks to which they add, depending on the models: compact size, connection of proximity sensor commons (3-wire and type 2), LED indication, protected and isolated channels. For high sales volume products, screw or spring connections are available (references ending with E).

#### Terminal block sub-bases

**ABE7H16R11, ABE7H16R10:** These products can be used to connect inputs or outputs. The commons are made on the device and brought into the sub-base by a single wire. The output terminals are on a single row. The signal state for each channel can be indicated via an LED (**R11**) or not (**R10**). An ABE7BV20 terminal block can be added.

**ABE7H20E000, ABE7H20E100, ABE7H20E200:** These **economy** products are supplied with a direct connection cable for TSX Micro, Premium, or other PLCs using splitter sub-bases (**H20E**). The cable is available in various lengths. The output terminals are on 2 rows.

#### Compact sub-bases

**ABE7H16R50:** These products fulfill the same functions as the sub-bases above but they are almost half the size. The output terminals are on 2 rows.

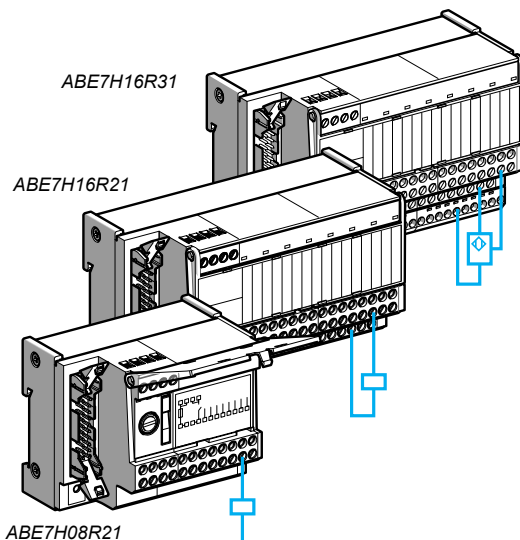
**ABE7H16C10 and ABE7H16C11:** These are **miniature** products. The signal state for each channel can be indicated via an LED (**C11**) or not (**C10**). The output terminals are on a single row. An ABE7BV20 terminal block can be added.

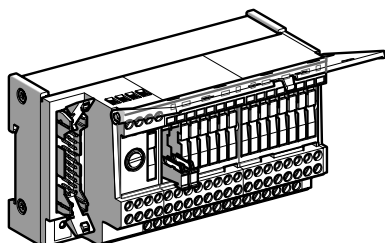
#### Universal sub-bases

**ABE7H08R21 and ABE7H16R20:** These sub-bases are used to connect I/O and all the commons.

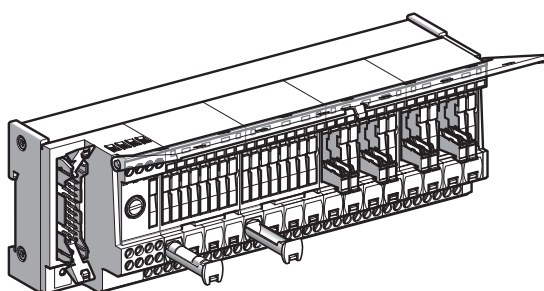
The potential (0 V or 24 V ---), distributed over the row of screw terminals that allow the commons to be connected, is selected via a jumper. Both wires from the sensor or actuator can be connected to the sub-base. The output terminals are on 2 rows. The signal state for each channel can be indicated via an LED (**R21**) or not (**R20**).

**ABE7H16C21:** This is a **miniature** product. The signal state for each channel can be indicated via an LED.

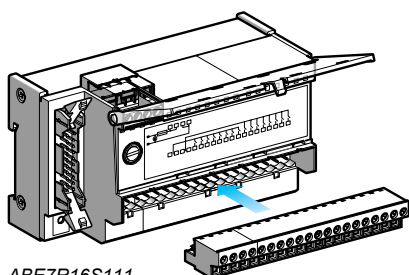




ABE7H16S21



ABE7H16S43



ABE7R16S111

### Passive connection sub-bases (continued)

#### Sub-bases for 2-wire sensors

**ABE7H16R23:** This product is identical to the **ABE7H16R21** sub-base but, in addition, enables connection of 2-wire type 2 sensors on TSX Micro and Premium PLCs, and numerical controllers (NUM). The output terminals are on 2 rows.

#### Sub-bases for 3-wire sensors

**ABE7H16R31:** The 24 V and 0 V signals are brought into the sub-base for each channel. The output terminals are on 3 rows. This function can also be achieved by adding an **ABE7BV20** to **ABE7H16R21** and **ABE7H16R20** sub-bases. The signal state for each channel can be indicated via an LED.

**ABE7H16C31:** These are **miniature** products. They also enable connection of inputs equipped with 3-wire proximity sensors. The output terminals are on 3 rows.

#### Sub-base with isolator for each channel

**ABE7H16S21:** This product has the same function as the **ABE7H16R21** universal sub-base. It also has a blade isolator for each channel.

#### Sub-bases with isolator and protection for each channel

**ABE7H16S43:** These products are used exclusively for connecting 24 V inputs. Both wires are brought to the screw terminals on a single row. Each channel has 2 blade isolators, attached together, to isolate the signal and its 24 V power supply. The 24 V power supply to each channel is protected by a 5 x 20 fuse. A red LED indicates if the fuse has blown.

**ABE7H16F43:** These products are designed for connecting 24 V outputs. Both wires are brought to the screw terminals on a single row. Each channel has 2 blade isolators, attached together, to isolate the signal and its 0 V common.

### Electromechanical relay output sub-bases

Relay output sub-bases are designed to adapt both current and voltage signals. They also have the following functions, depending on the model: various contact combinations (1 NO, 1 C/O, 2 C/O), common potentials, channel protection by 5 x 20 fuse.

There are 3 ranges of sub-bases: fixed relay, plug-in relay, and high-performance. For high sales volume products, screw or spring connections are available (references ending with E).

#### Sub-bases with fixed relays and removable terminal blocks

**ABE7R08S210**, **ABE7R16S210**, and **ABE7R16S212**: These products are equipped with a fixed relay with integral NO contact, 10 mm (0.394 in.) wide. Their 5 A Ith characteristic must be derated according to the duty cycles used and the number of operations required. They are available in 8- and 16-channel module formats. All the terminal blocks are removable.

**ABE7R08S111** and **ABE7R16S111**: Almost 50% smaller than the standard sub-bases, these products have a fixed relay with integral NO contact, 5 mm (0.197 in.) wide. Their 2 A Ith characteristic must be derated according to the duty cycles used and the number of operations required. They are available in 8- and 16-channel module formats. All the terminal blocks are removable.

### Electromechanical relay output sub-bases (continued)

#### Plug-in relay sub-bases

**ABE7P16T210, ABE7P16T230, ABE7P16T214, ABE7P16T215, ABE7R16T210, ABE7R16T212, and ABE7R16T230:** These products may or may not be equipped with plug-in relays, with integral NO or C/O contact, 10 mm (0.394 in.) wide. Their 5 A lth characteristic must be derated according to the duty cycles used and the number of operations required. They are available as 16-channel modules only.

It is possible to combine **ABR7S21** and **ABR7S23** electromechanical relays and **ABS7SC2E** and **ABS7SA2M** solid state relays on the same sub-base. Some sub-bases, not equipped with relays, are offered with 5 x 20 fuse protection for each channel.

**ABE7P16T111, ABE7R16T111, and ABE7R16M111:** These **miniature** products use plug-in relays, 5 mm (0.197 in.) wide, with integral NO contact, rated up to 5 A. products are pre-equipped with relays (**R**) or not (**P**). They can accept both electromechanical and solid state relays.

The **ABE7R16M111** sub-base offers two connection methods, which make it possible to connect both inputs and outputs and obtain 8 inputs (passive connection) and 8 outputs (active relay connection). The signal state for each channel can be indicated via an LED. The terminals are on one row and the commons are brought in in groups of 4. The sub-base is supplied with a relay extractor; this accessory is also available as a spare part.

#### High-performance sub-bases for plug-in relays

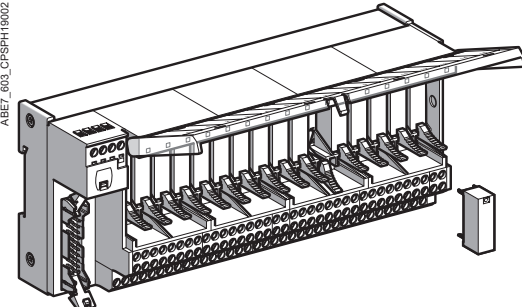
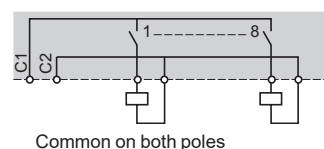
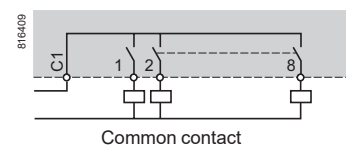
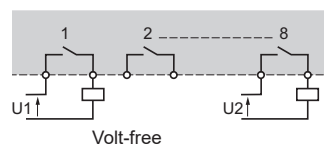
**ABE7P16T330, ABE7P16T334, ABE7P16T318, ABE7R16T330, and ABE7R16T370:** These products may or may not be equipped with plug-in relays, with integral 1 C/O or 2 C/O contacts, 12 mm (0.472 in.) wide. Their 8 A lth characteristic must be derated according to the duty cycles used and the number of operations required.

The relays are equipped with reinforced Faston type clips for easy attachment.

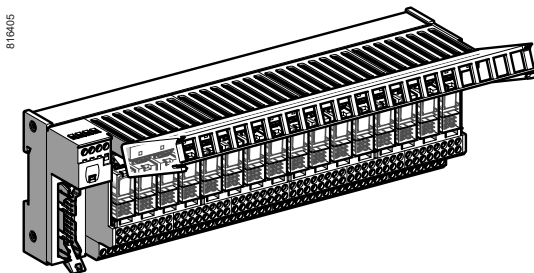
They are available in 8- and 16-channel module formats. It is possible to combine **ABR7S33** electromechanical relays, **ABS7SC3E** solid state relays **ABS7SA3M**, and the **ABE7ACC21** continuity block on the same sub-base. Some sub-bases, not equipped with relays, are offered with 5 x 20 fuse protection and isolation for each channel.

### Connections

These relay sub-bases can be connected according to three possible schemes: volt-free, contact common, and common on both poles.

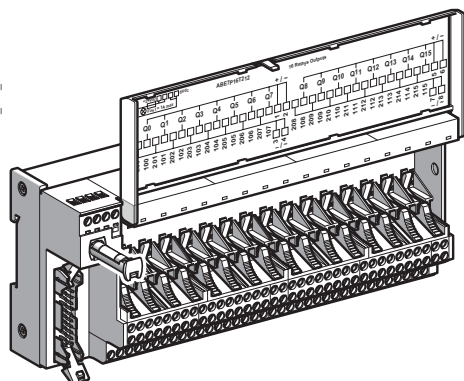


ABE7R16T2●●



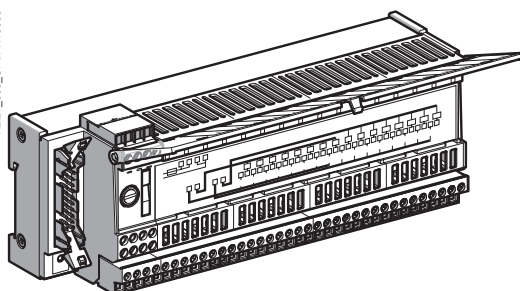
ABE7R16T3●●

ABE7\_603\_CPSPH19008



ABE7P16T215

ABE7\_603\_CPSPH19008



ABE7S16E2B1

### Solid state input or output sub-bases

Solid state input or output sub-bases are designed to adapt both current and voltage signals. They can be used to interface either inputs or outputs. Their technology enables high-speed signal switching, while maintaining a high level of electrical durability. For high sales volume products, screw or spring connections are available (references ending with E).

### Input adapter sub-bases

**ABE7S16E2B1, ABE7S16E2E0, ABE7S16E2F0, and ABE7S16E2M0** sub-bases equipped with solid state channels: These sub-bases enable sensors with different voltages to be connected (24 V  $\overline{\text{---}}$  to 230 V  $\sim$  depending on the reference). These products provide electrical isolation for the various power supply inputs. They are available as 16-channel modules only and the terminal blocks are removable.

**ABE7P16F310 and ABE7P16F312** sub-bases for plug-in solid state relays: These sub-bases enable sensors with different voltages to be connected (24 V  $\overline{\text{---}}$  to 230 V  $\sim$ ), either on each channel or on each group of 8 channels.

They are available as 16-channel modules only.

The solid state relays are available separately. It is also possible to equip the sub-bases with electromechanical relays (please contact our [Customer Care Center](#)).

### Output adapter sub-bases

**ABE7S16S2B0 and ABE7S16S1B2:** These sub-bases enable actuators to be connected at 24 V  $\overline{\text{---}}$ . The outputs are not isolated. The output current is either 0.5 or 2 A per channel depending on the products.

The occurrence of overloads or short-circuits on the outputs can be transmitted to the PLC to be managed by program. These "fault signal" functions can only be used with TSX Micro and Premium PLCs, or with any other PLCs that have protected outputs.

They are available in 8- and 16-channel module formats, and the terminal blocks are removable.

### Plug-in solid state relays

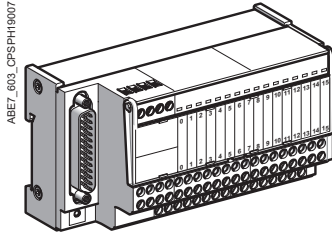
ABS7S plug-in relays are not available mounted directly on the sub-bases. They have to be ordered separately.

These relays are available for two power levels:

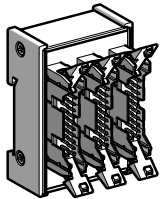
5 V  $\overline{\text{---}}$  to 240 V  $\sim$ /0.5 A, 10 mm (0.394 in.) wide. These are for mounting on **ABE7P16T210, BE7P16T230, ABE7P16T214, and ABE7P16T215** sub-bases. 5 V  $\overline{\text{---}}$  to 240 V  $\sim$ /1.5 and 2 A, 12 mm (0.472 in.) wide. These are for mounting on **ABE7P16T330, ABE7P16T334, and ABE7P16T318** sub-bases.

It is possible to combine electromechanical relays, solid state relays, and continuity blocks on the same sub-base.

They are available as 16-channel modules only.



ABE7CPA02



ABE7ACC02

### Analog sub-bases and special functions

Analog signals are connected on the following products:

- **ABE7CPA01** sub-base for counter modules in the TSX Micro and Premium ranges. This also communicates with the Altivar 18 variable speed drive.
- **ABE7CPA02** sub-base for connection and distribution of 8 channels over screw terminals while maintaining shielding continuity.
- **ABE7CPA21** sub-base with identical functions to the previous sub-base for the 4 analog output channels.
- **ABE7CPA03** sub-base, which can also supply 2 or 4-wire sensors, channel by channel, with 24 V  $\overline{\text{DC}}$  protected voltage and current limiting at 25 mA. It also ensures continuity of the current loops when the 25-way SUB-D connector is unplugged.
- **ABE7CPA31** sub-base for distribution and isolation of the 24 V  $\overline{\text{DC}}$  power supply required for the 8 analog input channels while maintaining isolation between channels of the TSXAEY810 module. All channels are self-limited to 25 mA.

### Accessories for connection sub-bases

The Modicon Telefast pre-wired system offers a range of accessories to simplify the installation of equipment and to enable full use of all features offered by the connection sub-bases.

#### Cable connections to the PLC

##### Cables

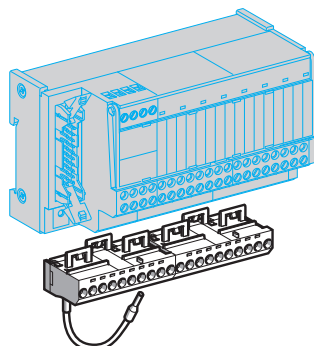
- Only **ABFH20H100** and **ABFH20H200** cables, made from rolled ribbon cable and HE 10 insulation piercing connectors, are truly universal. Owing to their small size, they can be connected to any I/O modules or terminal blocks equipped with 20-way HE 10 connectors. They are available in lengths of 0.5 to 5 m (1.64 to 16.4 ft), but the user can create custom cables up to a maximum length of 30 m (98.43 ft) using additional cable and HE 10 connectors.
- **TSXCDP053**, **TSXCDP103**, **TSXCDP203**, and **TSXCDP303** molded cables are only used with the TSX Micro and Premium ranges. They are multicore cables and have a high quality finish.

##### Splitter sub-bases

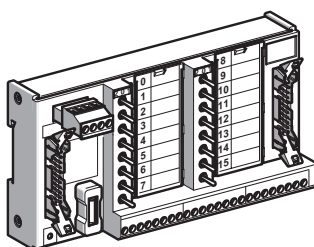
When module configuration and signal distribution are not compatible, the Telefast system can use **ABE7ACC02**, **ABE7ACC10**, **ABE7ACC11**, and **ABE7ACC21** splitter sub-bases:

- 16 channels (2 x 8) for all 16-channel outputs
- 24 channels (3 x 8) for DST2472 modules
- 32 channels (2 x 16) for NUM inputs
- 24 channels (3 x 8) for NUM outputs

Other sub-bases enable I/O redundancy on 2 input modules in parallel (**ABE7ACC11**) or on 2 output modules in parallel (**ABE7ACC10**).



ABE7BV20



ABE7TES160

### Accessories for connection sub-bases (continued)

#### Cabling accessories

##### Cable gland assembly

Using the cable gland assembly enables 3 cables to run outside the enclosure without the addition of a series connection.

##### ABE7BV10 and ABE7BV20 add-on terminal blocks

With 8 and 16 channels, these products give wider connection options: common, shielding, etc.

#### Other accessories

##### Plug-in continuity blocks

Available in 10 and 12 mm (0.39 and 0.47 in.) widths, the blocks are mounted on **ABE7P16T111**, **ABE7P16T210**, **ABE7P16T230**, **ABE7P16T214**, **ABE7P16T215**, **ABE7P16T330**, **ABE7P16T334**, and **ABE7P16T318** relay sub-bases in place of **ABR7** and **ABS7** relays. They make use of the sub-base functions to connect the channel without the need to adapt the channel using a relay.

##### ABE7TES160 simulator sub-base

This can be used to force or inhibit the discrete I/O.

##### 5 x 20 fuses

References for all fuses can be found under accessories.

##### Label marking software

This produces finished labels for channels, simplifying installation and reducing the risk of error during maintenance by marking the labels according to the sub-base mounting. The program runs under Windows.

### Sub-base/plug-in output relay combinations

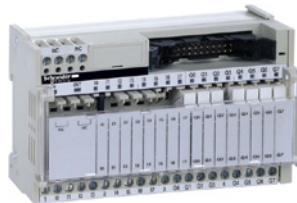
| Relays for ABE7●16T●● sub-bases               |  | Relay width 10 mm (0.39 in.) |                         |                           |                                       | Relay width 5 mm (0.2 in.) |                         |
|-----------------------------------------------|--|------------------------------|-------------------------|---------------------------|---------------------------------------|----------------------------|-------------------------|
| Relay                                         |  | ABR7S21                      | ABR7S23                 | ABS7SA2M                  | ABS7SC2E                              | ABR7S11                    | ABS7SC1B                |
| Function                                      |  | Relay 1 NO                   | Relay 1 C/O             | Output<br>230 V ~ - 0.5A  | Output<br>48 V --- - 0.5A             | Relay 1 NO                 | Output<br>24 V --- - 2A |
| Sub-bases/modules                             |  |                              |                         |                           |                                       |                            |                         |
| ABE7P16T210, ABE7R16T210                      |  |                              |                         |                           |                                       |                            |                         |
| ABE7P16T111, ABE7R16T111, ABE7R16M111         |  |                              |                         |                           |                                       |                            |                         |
| ABE7R16T212                                   |  |                              |                         |                           |                                       |                            |                         |
| ABE7P16T214                                   |  |                              |                         |                           |                                       |                            |                         |
| ABE7P16T215                                   |  |                              |                         |                           |                                       |                            |                         |
| ABE7R16T230                                   |  |                              |                         |                           |                                       |                            |                         |
| 12.5 mm width relay for ABE7●16T3●● sub-bases |  |                              |                         |                           |                                       |                            |                         |
| Relay                                         |  | ABR7S33                      | ABS7SA3M                | ABS7SC3E                  | ABS7SC3BA                             | ABE7ACC21<br>(1)           |                         |
| Function                                      |  | Relay 1 C/O                  | Output<br>230 V ~- 1.5A | Output<br>48 V --- - 1.5A | Output<br>24 V --- - 2 A<br>Protected | Continuity 0.5 A           |                         |
| Sub-bases/modules                             |  |                              |                         |                           |                                       |                            |                         |
| ABE7P16T318                                   |  |                              |                         |                           |                                       |                            |                         |
| ABE7P16T330, ABE7R16T330                      |  |                              |                         |                           |                                       |                            |                         |
| ABE7P16T334                                   |  |                              |                         |                           |                                       |                            |                         |
| ABE7R16T370                                   |  |                              |                         |                           |                                       |                            |                         |

Compatible

(1) Product mounted on ABE7P16F310/ABE7P16F312 plug-in input sub-bases

## Telefast Pre-wired System

Modicon ABE7 connection sub-bases  
Discrete input and/or output sub-bases - IP20

|                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                  |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| Applications                                                                                                                                                                                                                                                                                                                                         | Discrete inputs or outputs                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                  |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Outputs for solid state and/or electromechanical relays                                      |
|                                                                                                                                                                                                                                                                                                                                                      | Optimum "Economy"                                                                                                                                                                                                                                                                           | Optimum "Miniature"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Universal        |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Optimum and Universal                                                                        |
| Compatibility <input type="checkbox"/> Direct                                                                                                                                                                                                                                                                                                        | <input type="checkbox"/> Modicon X80 I/O expansion modules (see <a href="#">page 26</a> )<br><input type="checkbox"/> Modicon Premium automation platforms (see <a href="#">page 30</a> )<br><input type="checkbox"/> Modicon TSX Micro compact/modular PLCs (see <a href="#">page 36</a> ) | <input type="checkbox"/> Modicon M221 Book logic controllers (see <a href="#">page 24</a> )<br><input type="checkbox"/> Modicon TM3 I/O expansion modules (see <a href="#">page 24</a> )<br><input type="checkbox"/> Modicon X80 I/O modules (see <a href="#">page 26</a> )<br><input type="checkbox"/> Modicon Premium automation platforms (see <a href="#">page 30</a> )<br><input type="checkbox"/> Modicon TSX Micro compact/modular PLCs (see <a href="#">page 36</a> )<br><input type="checkbox"/> Modicon STB (distributed I/O solution) (see <a href="#">page 38</a> ) |                  |                                                      | <input type="checkbox"/> Modicon M221 Book logic controllers (see <a href="#">page 24</a> )<br><input type="checkbox"/> Modicon TM3 I/O expansion modules (see <a href="#">page 24</a> )<br><input type="checkbox"/> Modicon X80 I/O modules (see <a href="#">page 26</a> )<br><input type="checkbox"/> Modicon Premium automation platforms (see <a href="#">page 30</a> )<br><input type="checkbox"/> Modicon TSX Micro compact/modular PLCs (see <a href="#">page 36</a> ) |                                                                                              |
|                                                                                                                                                                                                                                                                                                                                                      | <input type="checkbox"/> Indirect                                                                                                                                                                                                                                                           | <input type="checkbox"/> Via Modicon X80 I/O modules:<br>- Modicon 340 automation platforms<br>- Modicon 580 automation platforms                                                                                                                                                                                                                                                                                                                                                                                                                                               |                  |                                                      | <input type="checkbox"/> Via Modicon TM3 I/O expansion modules:<br>- Modicon M241 logic controllers<br>- Modicon M251 logic controllers<br><input type="checkbox"/> Via Modicon X80 I/O modules:<br>- Modicon 340 automation platforms<br>- Modicon 580 automation platforms<br>- Modicon Quantum automation platforms                                                                                                                                                        |                                                                                              |
| <div></div> |                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                  |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                              |
| Sub-base type                                                                                                                                                                                                                                                                                                                                        | Passive connection sub-bases                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                  |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Plug-in electromechanical or solid state relays                                              |
| Equipped with relays                                                                                                                                                                                                                                                                                                                                 | –                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                  |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Yes                                                                                          |
| Control voltage                                                                                                                                                                                                                                                                                                                                      | 24 V ~                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                  |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 24 V ~                                                                                       |
| Output voltage                                                                                                                                                                                                                                                                                                                                       | 24 V ~                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                  |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 24V ~ (solid state)<br>5... 24 V ~, 230 V ~ (electromechanical)                              |
| Output current per channel                                                                                                                                                                                                                                                                                                                           | 0.5 A                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                  |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 5 A (th)                                                                                     |
| Modularity                                                                                                                                                                                                                                                                                                                                           | 16 channels                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 8-12-16 channels |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 16 channels<br>8 passive inputs<br>8 relay outputs                                           |
| No. of terminals per channel                                                                                                                                                                                                                                                                                                                         | 1                                                                                                                                                                                                                                                                                           | 1 to 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 1                | 2                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1                                                                                            |
| Type of connection terminals                                                                                                                                                                                                                                                                                                                         | Signal                                                                                                                                                                                                                                                                                      | Signal, common (configurable as 24 V or 0 V ~)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Signal           | Signal, common (configurable as 24 V or 0 V ~)       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 1 NO contact and common, 4 output channels<br>2 input connection points                      |
| Connectors                                                                                                                                                                                                                                                                                                                                           | 20-way HE10 connector                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                  |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 20-way HE10 connectors                                                                       |
| Terminal block                                                                                                                                                                                                                                                                                                                                       | Removable                                                                                                                                                                                                                                                                                   | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                  |                                                      | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                              |
|                                                                                                                                                                                                                                                                                                                                                      | Terminal type                                                                                                                                                                                                                                                                               | Screw                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                  |                                                      | Screw                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                              |
| Additional or optional function                                                                                                                                                                                                                                                                                                                      | Economy version available in kit form (sub-base plus cordset)                                                                                                                                                                                                                               | Miniature sub-bases                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Compact size     | Type 2 input (1)                                     | Isolator                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Miniature sub-base - Common per group of 4 channels<br>Synergy with Tego Power and Micro PLC |
| Type of device                                                                                                                                                                                                                                                                                                                                       | ABE7H20E000                                                                                                                                                                                                                                                                                 | ABE7H16C10<br>ABE7H16C11<br>ABE7H16C21<br>ABE7H16C31                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ABE7H16R50       | ABE7H08R21<br>ABE7H16R20<br>ABE7H16R21<br>ABE7H16R23 | ABE7H16S21                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ABE7R16M111                                                                                  |
| Page                                                                                                                                                                                                                                                                                                                                                 | 16                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 16               |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 18                                                                                           |

(1) For Modicon TSX Micro and Modicon Premium PLCs.

Telefast Pre-wired System  
Modicon ABE7 connection sub-bases  
Discrete input and/or output sub-bases - IP20

| Applications                                                                       |  | Discrete outputs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                    |                                                                                                                     |             | Discrete outputs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                     |                                                                 |                                           | Discrete inputs or outputs |                |                                                   |                                                          |                                          |        |                               |  |   |
|------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------------------|-------------------------------------------|----------------------------|----------------|---------------------------------------------------|----------------------------------------------------------|------------------------------------------|--------|-------------------------------|--|---|
|                                                                                    |  | Optimum                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Universal                                          | Optimum                                                                                                             | Universal   | Universal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                     |                                                                 |                                           | Universal                  |                |                                                   |                                                          |                                          |        |                               |  |   |
| Compatibility <input type="checkbox"/> Direct                                      |  | <input type="checkbox"/> Modicon M221 Book logic controllers (see <a href="#">page 24</a> )<br><input type="checkbox"/> Modicon TM3 I/O expansion modules (see <a href="#">page 24</a> )<br><input type="checkbox"/> Modicon X80 I/O modules (see <a href="#">page 26</a> )<br><input type="checkbox"/> Modicon Premium automation platforms (see <a href="#">page 30</a> )<br><input type="checkbox"/> Modicon TSX Micro compact/modular PLCs (see <a href="#">page 36</a> )<br><input type="checkbox"/> Modicon STB (distributed I/O solution) (see <a href="#">page 38</a> ) |                                                    |                                                                                                                     |             | <input type="checkbox"/> Modicon M221 Book logic controllers (see <a href="#">page 24</a> )<br><input type="checkbox"/> Modicon TM3 I/O expansion modules (see <a href="#">page 24</a> )<br><input type="checkbox"/> Modicon X80 I/O modules (see <a href="#">page 26</a> )<br><input type="checkbox"/> Modicon Premium automation platforms (see <a href="#">page 30</a> )<br><input type="checkbox"/> Modicon TSX Micro compact/modular PLCs (see <a href="#">page 36</a> )<br><input type="checkbox"/> Modicon STB (distributed I/O solution) (see <a href="#">page 38</a> ) |                                                     |                                                                 |                                           |                            |                |                                                   |                                                          |                                          |        |                               |  |   |
| <input type="checkbox"/> Indirect                                                  |  | <input type="checkbox"/> Via Modicon TM3 I/O expansion modules:<br>- Modicon M241 logic controllers<br>- Modicon M251 logic controllers<br><input type="checkbox"/> Via Modicon X80 I/O modules:<br>- Modicon 340 automation platforms<br>- Modicon 580 automation platforms<br>- Modicon Quantum automation platforms                                                                                                                                                                                                                                                          |                                                    |                                                                                                                     |             | <input type="checkbox"/> Via Modicon TM3 I/O expansion modules:<br>- Modicon M241 logic controllers<br>- Modicon M251 logic controllers<br><input type="checkbox"/> Via Modicon X80 I/O modules:<br>- Modicon 340 automation platforms<br>- Modicon 580 automation platforms<br>- Modicon Quantum automation platforms                                                                                                                                                                                                                                                          |                                                     |                                                                 |                                           |                            |                |                                                   |                                                          |                                          |        |                               |  |   |
|  |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                    |                                                                                                                     |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                     |                                                                 |                                           |                            |                |                                                   |                                                          |                                          |        |                               |  |   |
| Relay sub-base                                                                     |  | Electromechanical, fixed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                    | Electromechanical or solid state                                                                                    |             | Electromechanical, plug-in                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                     | Solid state, fixed                                              |                                           | –                          |                | Solid state, plug-in                              |                                                          |                                          |        |                               |  |   |
| Equipped with relays                                                               |  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                    | Yes                                                                                                                 | No          | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Yes                                                 | Yes                                                             | –                                         | –                          | Yes            | No                                                |                                                          |                                          |        |                               |  |   |
| Control voltage                                                                    |  | 24 V $\overline{\text{---}}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                    |                                                                                                                     |             | 24 V $\overline{\text{---}}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                     |                                                                 |                                           |                            |                | From 24 V $\overline{\text{---}}$ to 230 V $\sim$ |                                                          | From 5 V TTL to 230 V $\sim$             |        |                               |  |   |
| Output voltage                                                                     |  | 5 V...30 V $\overline{\text{---}}$<br>230 V $\sim$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 5 V...48 V $\overline{\text{---}}$<br>230 V $\sim$ | 24 V $\overline{\text{---}}$ (solid state)<br>5 V...24 V $\overline{\text{---}}$ , 230 V $\sim$ (electromechanical) |             | 5 V...150 V $\overline{\text{---}}$<br>230 V $\sim$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 5 V...150 V $\overline{\text{---}}$<br>230 V $\sim$ |                                                                 | 24 V $\overline{\text{---}}$              |                            |                |                                                   |                                                          |                                          |        |                               |  |   |
| Output current per channel                                                         |  | 2 A (th)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 5 A (th)                                           | 2 A (solid state)<br>6 A (electromechanical)                                                                        |             | 0.5 to 10 A<br>(depending on relay)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                     | 5 A (th)                                                        | 8 A (th)                                  | 0.5 to 2 A                 | 125 mA         | 0.5 A                                             | 125 mA                                                   | 12 mA                                    |        |                               |  |   |
| Modularity                                                                         |  | 8-16 channels                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                    | 16 channels                                                                                                         |             | 8 or 16 channels                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                     | 16 channels                                                     |                                           |                            |                |                                                   |                                                          |                                          |        |                               |  |   |
| No. of terminals per channel                                                       |  | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2                                                  | 1                                                                                                                   |             | 2 to 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                     | 2 to 3                                                          | 2 to 6                                    | 2                          |                | 3                                                 | 2                                                        |                                          |        |                               |  |   |
| Type of connection terminals                                                       |  | 1 NO contact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 1 NO contact and common                            | 1 NO contact                                                                                                        |             | Signal, polarities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                     | 1 C/O contact or 1 NO contact and common                        | 1 C/O contact or 2 NO contacts and common |                            | Signal and 0 V |                                                   | 24 V and 0 V $\overline{\text{---}}$ signal              | Signal can be isolated, protected common | Signal | Signal and common             |  |   |
| Connectors                                                                         |  | 20-way HE 10 connector                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                    |                                                                                                                     |             | 20-way HE 10 connector                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                     |                                                                 |                                           |                            |                |                                                   |                                                          |                                          |        |                               |  |   |
| Terminal block                                                                     |  | Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Yes                                                | No                                                                                                                  |             | No                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                     | No                                                              |                                           | Yes                        | No             | No                                                |                                                          | Yes                                      | No     |                               |  |   |
| Terminal type                                                                      |  | Screw or spring                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                    | Screw                                                                                                               |             | Screw                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                     | Screw or spring                                                 |                                           | Screw                      |                | Screw or spring                                   |                                                          | Screw or spring                          |        |                               |  |   |
| Additional or optional function                                                    |  | Volt-free or common per group of 8 channels                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                    | Miniature sub-bases<br>Common per group of 4 channels                                                               |             | Isolator and fuse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                     | Volt-free or common per group of:<br>8 channels      4 channels |                                           | Fault signal               |                | Isolator and fuse (indicator)                     |                                                          | 3-wire proximity sensor                  |        | Isolator and fuse (indicator) |  | – |
| Type of device                                                                     |  | ABE7R08S111<br>ABE7R16S111                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ABE7R08S210<br>ABE7R16S210<br>ABE7R16S212          | ABE7R16T111                                                                                                         | ABE7P16T111 | ABE7P16T210<br>ABE7P16T230<br>ABE7P16T214<br>ABE7P16T215<br>ABE7P16T330<br>ABE7P16T334<br>ABE7P16T318                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | ABE7R16T210<br>ABE7R16T212<br>ABE7R16T230           | ABE7R16T330<br>ABE7R16T370                                      | ABE7S16S2B0<br>ABE7S16S1B2                | ABE7H16F43                 | ABE7H16R31     | ABE7H16S43                                        | ABE7S16E2E1<br>ABE7S16E2E0<br>ABE7S16E2F0<br>ABE7S16E2M0 | ABE7P16F310<br>ABE7P16F312               |        |                               |  |   |
| Page                                                                               |  | 17                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                    | 18                                                                                                                  |             | 18                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                     | 17                                                              |                                           | 16                         |                | 17                                                |                                                          | 18                                       |        |                               |  |   |

Telefast Pre-wired System  
Modicon ABE7 connection sub-bases  
Analog and application-specific sub-bases - IP20

| Applications                                                                                                                                                                                                                                                                                       | Analog signals and special functions                       |                                                    |                                                                                                                                                                                                                                   |                                                                                                                                                                                 | Analog signals and special functions                                                                                           |                                                                                                                        |                                                                                                                                                                                          |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Compatibility                                                                                                                                                                                                                                                                                      | Modicon TSX Micro:<br>- TSX3722<br>- TSXCTZ●A              | Modicon Premium:<br>- TSXCTY●A<br>- TSXCAY●1       | Modicon Premium:<br>- TSXASY800<br>- TSXAEY1600<br>- TSXA●Y800<br>Modicon X80 I/O platforms:<br>- BMXAMI0800<br>- BMXAMI0810<br>- BMXAMO0802 Modicon Quantum:<br>- 140AVI03000<br>- 140ACI03000<br>- 140ACI04000<br>- 140ACO13000 | Modicon Premium:<br>- TSXASY410<br>- TSXAEY420<br>Modicon X80 I/O platforms:<br>- BMXAMO0210<br>- BMXAMO0410<br>- BMEAHO0412 Modicon Quantum:<br>- 140AVO02000<br>- 140ACO02000 | Modicon X80 I/O platforms:<br>- BMXAMI0410<br>- BMXAMI0410<br>- BMXART0414<br>- BMXART0814<br>Modicon Premium:<br>- TSXAEY1614 | Modicon Premium:<br>- TSXAEY800<br>- TSXAEY1600<br>Modicon Quantum:<br>- 140AVI03000<br>- 140ACI03000<br>- 140ACI04000 | Modicon Premium:<br>- TSXAEY810<br>Modicon X80 I/O platforms:<br>- BMXAMI0800<br>- BMXAMI0810<br>- BMEAHI0812 (1)<br>Modicon Quantum:<br>- 140AVI03000<br>- 140ACI03000<br>- 140ACI04000 |
| <div><div></div><div></div><div></div></div> |                                                            |                                                    |                                                                                                                                                                                                                                   |                                                                                                                                                                                 |                                                                                                                                |                                                                                                                        |                                                                                                                                                                                          |
| Type of signal                                                                                                                                                                                                                                                                                     | Counter inputs and analog I/O                              | Counter inputs<br>Axis control<br>Position control | Analog inputs<br>Current/Voltage<br>Pt 100                                                                                                                                                                                        | Analog inputs<br>Current<br>Voltage                                                                                                                                             | Analog inputs                                                                                                                  | Analog inputs<br>Current<br>Voltage<br>Pt 100                                                                          | Isolated analog inputs                                                                                                                                                                   |
| Functions                                                                                                                                                                                                                                                                                          | Passive connection, point-to-point with shield continuity  |                                                    |                                                                                                                                                                                                                                   |                                                                                                                                                                                 | Direct connection of 4 thermocouples with cold junction compensation<br>Provision and distribution of isolated power supplies  | Distribution of sensor power supplies by limiter (25 mA)                                                               | Distribution of isolated sensor power supplies by converter                                                                                                                              |
| Modularity                                                                                                                                                                                                                                                                                         | 1 counter channel or<br>8 analog inputs + 2 analog outputs |                                                    | 8 channels                                                                                                                                                                                                                        | 4 channels                                                                                                                                                                      | 4 channels                                                                                                                     | 8 channels                                                                                                             | 8 channels                                                                                                                                                                               |
| Control voltage                                                                                                                                                                                                                                                                                    | 24 V ---                                                   |                                                    |                                                                                                                                                                                                                                   |                                                                                                                                                                                 | —                                                                                                                              | 24 V ---                                                                                                               |                                                                                                                                                                                          |
| Output voltage                                                                                                                                                                                                                                                                                     | 24 V ---                                                   |                                                    |                                                                                                                                                                                                                                   |                                                                                                                                                                                 | —                                                                                                                              | 24 V ---                                                                                                               |                                                                                                                                                                                          |
| Output current per channel                                                                                                                                                                                                                                                                         | 25 mA                                                      |                                                    |                                                                                                                                                                                                                                   |                                                                                                                                                                                 | —                                                                                                                              | 25 mA                                                                                                                  |                                                                                                                                                                                          |
| No. of terminals per channel                                                                                                                                                                                                                                                                       | 2                                                          |                                                    | 2 or 4                                                                                                                                                                                                                            | 2 or 4                                                                                                                                                                          | 2 or 4                                                                                                                         | 2 or 4                                                                                                                 |                                                                                                                                                                                          |
| Type of connector                                                                                                                                                                                                                                                                                  | 15-way SUB-D + 9-way SUB-D                                 |                                                    | 25-way SUB-D                                                                                                                                                                                                                      |                                                                                                                                                                                 | 25-way SUB-D                                                                                                                   | 25-way SUB-D                                                                                                           | 25-way SUB-D                                                                                                                                                                             |
| Fuse terminal block                                                                                                                                                                                                                                                                                | Removable                                                  |                                                    | No                                                                                                                                                                                                                                |                                                                                                                                                                                 | No                                                                                                                             | No                                                                                                                     | No                                                                                                                                                                                       |
|                                                                                                                                                                                                                                                                                                    | Terminal type                                              |                                                    | Screw                                                                                                                                                                                                                             |                                                                                                                                                                                 | Screw                                                                                                                          | Screw                                                                                                                  | Screw or spring                                                                                                                                                                          |
| Type of device                                                                                                                                                                                                                                                                                     | ABE7CPA01                                                  |                                                    | ABE7CPA02                                                                                                                                                                                                                         | ABE7CPA21                                                                                                                                                                       | ABE7CPA412<br>ABE7CPA410                                                                                                       | ABE7CPA03                                                                                                              | ABE7CPA31<br>ABE7CPA31E                                                                                                                                                                  |
| Page                                                                                                                                                                                                                                                                                               | 19                                                         |                                                    |                                                                                                                                                                                                                                   |                                                                                                                                                                                 |                                                                                                                                | 19                                                                                                                     |                                                                                                                                                                                          |

(1) BMEAHI0812 is only supplied with ABE7CPA31.

# Telefast Pre-wired System

## Modicon ABE7 connection sub-bases

Passive connection sub-bases for discrete signals



ABE7H20E000



ABE7H20E100  
ABE7H20E200



ABE7H34E100  
ABE7H34E200



ABE7H08R21



ABE7H16R●●



ABE7H16S43



ABE7H16F43

### Passive connection sub-bases for discrete signals

#### Optimum "Economy" sub-base

| Function        | No. of channels | No. of terminals per channel | No. of terminals on row number | For PLCs                                                                                                                                                                                                             | Length of PLC connection cable m/ft | Type of connection | Reference   | Weight kg/lb |
|-----------------|-----------------|------------------------------|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|--------------------|-------------|--------------|
| Input or output | 16              | 1                            | 2                              | <input type="checkbox"/> Modicon M221<br><input type="checkbox"/> TSX Micro<br><input type="checkbox"/> Modicon Premium<br><input type="checkbox"/> Modicon X80 I/O modules<br><input type="checkbox"/> Modicon M340 | —                                   | Screw              | ABE7H20E000 | —            |

#### Kits (Optimum Economy sub-base + cordset)

| Kit contents                                                                                               | Compatibility                                                                             | Reference   | Weight kg/lb   |
|------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|-------------|----------------|
| 1x 16-channel Economy sub-base (type ABE7H20E000) and 1 cordset (type ABFH20H100, length 1 m/3.28 ft)      | <input type="checkbox"/> TSX Micro<br><input type="checkbox"/> Modicon Premium            | ABE7H20E100 | 0.330<br>0.728 |
| 1x 16-channel Economy sub-base (type ABE7H20E000) and 1 cordset (type ABFH20H200, length 2 m/6.56 ft)      | <input type="checkbox"/> TSX Micro<br><input type="checkbox"/> Modicon Premium            | ABE7H20E200 | 0.410<br>0.904 |
| 2x 16-channel Economy sub-bases (type ABE7H20E000) and 1 Y-cordset (type ABFH34M100, length 1 m/3.28 ft)   | <input type="checkbox"/> Modicon X80 I/O modules<br><input type="checkbox"/> Modicon M340 | ABE7H34E100 | 0.582<br>1.283 |
| 2x 16-channel "Economy" sub-bases (type ABE7H20E000) and 1 Y-cordset (type ABFH34M200, length 2 m/6.56 ft) | <input type="checkbox"/> Modicon X80 I/O modules<br><input type="checkbox"/> Modicon M340 | ABE7H34E200 | 0.725<br>1.598 |

#### Optimum "miniature" sub-bases

| Function        | No. of channels | No. of terminals per channel | No. of terminals on row number | LED per channel | Polarity distribution | Type of connection | Reference  | Weight kg/lb   |
|-----------------|-----------------|------------------------------|--------------------------------|-----------------|-----------------------|--------------------|------------|----------------|
| Input or output | 16              | 1                            | 1                              | No              | No                    | Screw              | ABE7H16C10 | 0.160<br>0.353 |
|                 |                 |                              |                                | Yes             | No                    | Screw              | ABE7H16C11 | 0.160<br>0.353 |
|                 |                 | 2                            | 2                              | Yes             | 0 or 24 V             | Screw              | ABE7H16C21 | 0.205<br>0.452 |
|                 |                 |                              |                                | Yes             | 0 or 24 V             | Screw              | ABE7H16C31 | 0.260<br>0.573 |

#### Universal sub-bases

| Function         | No. of channels | No. of terminals per channel | No. of terminals on row number | LED per channel | Polarity distribution | Isolator (S) Fuse (F) per channel | Type of connection | Reference  | Weight kg/lb   |
|------------------|-----------------|------------------------------|--------------------------------|-----------------|-----------------------|-----------------------------------|--------------------|------------|----------------|
| Input or output  | 8               | 2                            | 2                              | Yes             | 0 or 24 V             | —                                 | Screw              | ABE7H08R21 | 0.218<br>0.481 |
|                  | 16              | 1                            | 1                              | No              | No                    | —                                 | Screw              | ABE7H16R10 | 0.274<br>0.604 |
|                  |                 |                              |                                | Yes             | No                    | —                                 | Screw              | ABE7H16R11 | 0.274<br>0.604 |
|                  |                 | 2                            | 2                              | No              | No                    | —                                 | Screw              | ABE7H16R50 | 0.196<br>0.432 |
|                  |                 |                              |                                | No              | 0 or 24 V             | —                                 | Screw              | ABE7H16R20 | 0.300<br>0.661 |
|                  |                 | 2                            | 2                              | Yes             | 0 or 24 V             | —                                 | Screw              | ABE7H16R21 | 0.300<br>0.661 |
|                  |                 |                              |                                | —               | —                     | S                                 | Screw              | ABE7H16S21 | 0.375<br>0.827 |
|                  | 3               | 3                            | 3                              | Yes             | 0 or 24 V             | —                                 | Screw              | ABE7H16R31 | 0.346<br>0.763 |
|                  |                 |                              |                                | —               | —                     | —                                 | Screw              | ABE7H16R23 | 0.320<br>0.705 |
| Type 2 input (1) | 16              | 2                            | 2                              | Yes             | 0 or 24 V             | —                                 | Screw              | ABE7H16R23 | 0.320<br>0.705 |
| Input            | 16              | 2                            | 1                              | Yes             | 24 V                  | S, F (2)                          | Screw              | ABE7H16S43 | 0.640<br>1.411 |
| Output           | 16              | 2                            | 1                              | Yes             | 0 V                   | S, F (2)                          | Screw              | ABE7H16F43 | 0.640<br>1.411 |

(1) For TSX Micro, Modicon Premium.

(2) With LED to indicate blown fuse.

## Telefast Pre-wired System

Modicon ABE7 connection sub-bases

Adapter sub-bases with fixed relays



ABE7S16E2●●



ABE7S16S●●



ABE7R08S21●

## Adapter sub-bases with fixed relays and removable terminal blocks

## Universal input sub-bases with solid state relays

| Number of channels | Number of terminals per channel | Isolation of PLC/ Operative part | Voltage                      | Type of connection | Reference                   | Weight kg/lb   |
|--------------------|---------------------------------|----------------------------------|------------------------------|--------------------|-----------------------------|----------------|
| 16                 | 2                               | Yes                              | 24 V $\overline{\text{---}}$ | Screw              | <a href="#">ABE7S16E2B1</a> | 0.370<br>0.816 |
|                    |                                 |                                  | 48 V $\overline{\text{---}}$ | Screw              | <a href="#">ABE7S16E2E1</a> | 0.370<br>0.816 |
|                    |                                 |                                  | 48 V $\sim$                  | Screw              | <a href="#">ABE7S16E2E0</a> | 0.386<br>0.851 |
|                    |                                 |                                  | 110 V $\sim$                 | Screw              | <a href="#">ABE7S16E2F0</a> | 0.397<br>0.875 |
|                    |                                 |                                  | 230 V $\sim$                 | Screw              | <a href="#">ABE7S16E2M0</a> | 0.407<br>0.897 |

## Universal output sub-bases with solid state relays

| Number of channels | Isolation of PLC/ Operative part | Output voltage               | Output current | Fault detection signal (1) | Type of connection | Reference                   | Weight kg/lb   |
|--------------------|----------------------------------|------------------------------|----------------|----------------------------|--------------------|-----------------------------|----------------|
| 16                 | No                               | 24 V $\overline{\text{---}}$ | 0.5 A          | Yes (2)                    | Screw              | <a href="#">ABE7S16S2B0</a> | 0.405<br>0.893 |
|                    |                                  |                              |                | No                         | Screw              | <a href="#">ABE7S16S1B2</a> | 0.400<br>0.882 |

## Optimum and Universal output sub-bases with electromechanical relays

| Number of channels | Number of contacts | Output current | Polarity distribution/ operative part        | Type of connection | Reference                   | Weight kg/lb   |
|--------------------|--------------------|----------------|----------------------------------------------|--------------------|-----------------------------|----------------|
| 8                  | 1 NO               | 2 A            | Contact common per group of 4 channels       | Screw              | <a href="#">ABE7R08S111</a> | 0.252<br>0.556 |
|                    | 1 NO               | 5 A            | Volt-free                                    | Screw              | <a href="#">ABE7R08S210</a> | 0.448<br>0.988 |
| 16                 | 1 NO               | 2 A            | Contact common per group of 8 channels       | Screw              | <a href="#">ABE7R16S111</a> | 0.405<br>0.893 |
|                    | 1 NO               | 5 A            | Volt-free                                    | Screw              | <a href="#">ABE7R16S210</a> | 0.405<br>0.893 |
|                    |                    |                | Common per group of 8 channels on both poles | Screw              | <a href="#">ABE7R16S212</a> | 0.400<br>0.882 |

(1) A fault on a sub-base output Qn will set PLC output Qn to safety mode, which will be detected by the PLC.

(2) Can only be used with modules with protected outputs.

# Telefast Pre-wired System

## Modicon ABE7 connection sub-bases

### Adapter sub-bases with plug-in relays



ABE7P16F31●

#### Adapter sub-bases with plug-in relays (1)

##### Universal input sub-bases for solid state relays, supplied without relays

| No. of channels | Number of terminals per channel | For relay type            | Isolation of PLC/Operative part | Input connection      | Type of connection | Reference   | Weight kg/lb   |
|-----------------|---------------------------------|---------------------------|---------------------------------|-----------------------|--------------------|-------------|----------------|
| 16              | 2                               | ABS7E<br>ABR7<br>ABS7S33E | Yes                             | Volt-free             | Screw              | ABE7P16F310 | 0.850<br>1.874 |
|                 |                                 |                           |                                 | Polarity distribution | Screw              | ABE7P16F312 | 0.850<br>1.874 |



ABE7R16M111

##### Optimum and Universal output sub-bases, supplied with electromechanical relays (2)

| No. of channels | Relay width        | Relay type supplied | Number and type of contacts | Polarity distribution/operative part                                     | Reference       | Weight kg/lb   |
|-----------------|--------------------|---------------------|-----------------------------|--------------------------------------------------------------------------|-----------------|----------------|
| 16              | 5 mm<br>0.197 in.  | ABR7S11             | 1 NO                        | Contact common per group of 4 channels                                   | ABE7R16T111     | 0.600<br>1.323 |
|                 |                    |                     |                             | Contact common per group of 4 output channels + 2 common input terminals | ABE7R16M111 (3) | 0.600<br>1.323 |
|                 | 10 mm<br>0.394 in. | ABR7S21             | 1 NO                        | Volt-free                                                                | ABE7R16T210     | 0.735<br>1.620 |
|                 |                    |                     |                             | Common on both poles (3)                                                 | ABE7R16T212     | 0.730<br>1.609 |
|                 | 12 mm<br>0.472 in. | ABR7S23             | 1 C/O                       | Volt-free                                                                | ABE7R16T230     | 0.775<br>1.709 |
|                 |                    |                     |                             | Volt-free                                                                | ABE7R16T330     | 1.300<br>2.866 |
|                 |                    | ABR7S37             | 2 C/O                       | Volt-free                                                                | ABE7R16T370     | 1.300<br>2.866 |



ABE7R16T210



ABE7P16T111

##### Optimum and Universal output sub-bases for solid state relays and/or electromechanical relays (1)

| No. of channels | Relay width        | For relay type                               | Isolator per channel | Fuse per channel | Polarity distribution/operative part   | Type of connection | Reference       | Weight kg/lb   |
|-----------------|--------------------|----------------------------------------------|----------------------|------------------|----------------------------------------|--------------------|-----------------|----------------|
| 16              | 5 mm<br>0.197 in.  | ABR7S11<br>ABS7SC1B                          | No                   | No               | Contact common per group of 4 channels | Screw              | ABE7P16T111     | 0.550<br>1.213 |
|                 |                    |                                              |                      |                  | Volt-free                              | Screw              | ABE7P16T210 (4) | 0.615<br>1.356 |
|                 | 10 mm<br>0.394 in. | ABR7S2●<br>ABS7SA2●<br>ABS7SC2●              | No                   | No               | Volt-free                              | Screw              | ABE7P16T230 (4) | 0.655<br>1.444 |
|                 |                    |                                              |                      |                  | Yes                                    | Screw              | ABE7P16T214     | 0.675<br>1.488 |
|                 | 12 mm<br>0.472 in. | ABR7S33<br>ABS7A3●<br>ABS7SC3●●<br>ABE7ACC21 | No                   | No               | Volt-free                              | Screw              | ABE7P16T215     | 0.670<br>1.477 |
|                 |                    |                                              |                      |                  | Volt-free                              | Screw              | ABE7P16T330     | 0.900<br>1.984 |
| 16              | 12 mm<br>0.472 in. | ABR7S33<br>ABS7SA3M<br>ABS7SC3E<br>ABE7ACC21 | No                   | Yes              | Volt-free                              | Screw              | ABE7P16T334     | 0.900<br>1.984 |
|                 |                    |                                              |                      |                  | Yes                                    | Screw              | ABE7P16T318     | 1.000<br>2.205 |
|                 |                    |                                              |                      |                  | Common on both poles (5)               | Screw              |                 |                |



ABE7P16●●●●

(1) Not equipped with relays.

(2) The sub-bases are supplied as standard with electromechanical relays, all or some of which can be replaced by solid state relays of the same width (it is possible to combine these different technologies on a single sub-base).

(3) Two connection methods are available, enabling inputs and outputs to be connected to the same sub-base at the same time.

(4) For use with ABR7S21 relay for ABE7P16T210 sub-base and ABR7S23 relay for ABE7P16T230 sub-base.

(5) Per group of 8 channels.

## Telefast Pre-wired System

## Modicon ABE7 connection sub-bases

## Connection sub-bases for counter and analog channels



ABE7CPA01



ABE7CPA11



ABE7CPA21/410/412

| Connection sub-bases for counter and analog channels                                                           |                                        |                                                          |                                    |                    |            |                |
|----------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------------------------------------------|------------------------------------|--------------------|------------|----------------|
| Functions                                                                                                      | For platforms                          | Compatible modules                                       | Type of connection on Telefast end | Type of connection | Reference  | Weight kg/lb   |
| Counter and analog, axis control, position control                                                             | TSX Micro<br>Modicon Premium           | TSX3722<br>TSXCTZ●A<br>TSXCTY●A<br>TSXCAY●1              | 15-way SUB-D                       | Screw              | ABE7CPA01  | 0.300<br>0.661 |
| Distribution of 4 thermocouples                                                                                | Modicon X80 I/O                        | BMXART0414<br>BMXART0814                                 | 25-way SUB-D                       | Screw              | ABE7CPA412 | 0.180<br>0.397 |
| Passive distribution of 8 analog I/O channels on screw terminals, with shield continuity                       | Modicon Premium                        | TSXASY800<br>TSXAEY1600<br>TSXA●Y800                     | 25-way SUB-D                       | Screw              | ABE7CPA02  | 0.290<br>0.639 |
|                                                                                                                | Modicon X80 I/O                        | BMXAMI0800<br>BMXAMI0810<br>BMEAH10812<br>BMXAMO0802     |                                    |                    |            |                |
|                                                                                                                | Modicon Quantum                        | 140AVI03000<br>140ACI03000<br>140ACI04000<br>140ACO13000 |                                    |                    |            |                |
| Provision and distribution of protected isolated power supplies for 4 analog input channels                    | Modicon M340                           | BMXAMI0410                                               | 25-way SUB-D                       | Screw              | ABE7CPA410 | 0.180<br>0.397 |
| Distribution of 4 analog output channels                                                                       | Modicon Premium<br>TSXASY410 TSXAEY420 |                                                          | 25-way SUB-D                       | Screw              | ABE7CPA21  | 0.210<br>0.463 |
|                                                                                                                | Modicon X80 I/O                        | BMXAMO0210<br>BMXAMO0410 BMEAH00412                      |                                    |                    |            |                |
|                                                                                                                | Modicon Quantum                        | 140AVO02000<br>140ACO02000                               |                                    |                    |            |                |
| Distribution and supply of 8 analog input channels (with limitation of each current loop)                      | Modicon Premium                        | TSXAEY800<br>TSXAEY1600                                  | 25-way SUB-D                       | Screw              | ABE7CPA03  | 0.330<br>0.728 |
|                                                                                                                | Modicon Quantum                        | 140AVI03000<br>140ACI03000 140ACI04000                   |                                    |                    |            |                |
| Distribution and supply of 8 analog input channels isolated from one another with 25 mA limitation per channel | Modicon Premium                        | TSXAEY810                                                | 25-way SUB-D                       | Screw              | ABE7CPA31  | 0.410<br>0.904 |
|                                                                                                                | Modicon X80 I/O                        | BMXAMI0800<br>BMXAMI0810<br>BMEAH10812<br>(1)            |                                    | Spring             | ABE7CPA31E | 0.410<br>0.904 |
|                                                                                                                | Modicon Quantum                        | 140AVI03000<br>140ACI03000 140ACI04000                   |                                    |                    |            |                |

(1) The BMEAH10812 module is not compatible with the ABE7CPA31E connection sub-base.

# Telefast Pre-wired System

## Modicon ABE7 connection sub-bases

### Cordsets



ABFH20H...

#### Cordsets for connection between TSX Micro, Modicon Premium, and sub-bases

| Description                                                             | Compatibility                                         | Cross-section Gauge         | Connector type | Length m/ft | Reference                   | Weight kg/lb |
|-------------------------------------------------------------------------|-------------------------------------------------------|-----------------------------|----------------|-------------|-----------------------------|--------------|
| <b>Cordsets</b><br>equipped with an HE10 (20-way) connector at each end | TSX Micro or Modicon Premium and ABE7H20E000 sub-base | AWG 28/0.08 mm <sup>2</sup> | HE10 - HE10    | 1/3.281     | <a href="#">ABFH20H100</a>  | —            |
|                                                                         |                                                       |                             |                | 2/6.562     | <a href="#">ABFH20H200</a>  | —            |
|                                                                         |                                                       |                             |                | 3/9.843     | <a href="#">ABFH20H301</a>  | —            |
|                                                                         |                                                       |                             |                | 10/32.81    | <a href="#">ABFH20H1000</a> | —            |



ABFH34M...

#### Cordsets for connection between Modicon X80 and Modicon M340 I/O and sub-bases

| Description                                                                                | Compatibility                                                    | Cross-section Gauge         | Connection type      | Length m/ft | Reference                  | Weight kg/lb |
|--------------------------------------------------------------------------------------------|------------------------------------------------------------------|-----------------------------|----------------------|-------------|----------------------------|--------------|
| <b>Y-cordsets</b><br>equipped with one 40-way FCN connector and two HE10 20-way connectors | Modicon X80 or Modicon M340 I/O modules and ABE7H20E000 sub-base | AWG 28/0.08 mm <sup>2</sup> | FCN 40-way - 2x HE10 | 1 / 3.281   | <a href="#">ABFH34M100</a> | —            |
|                                                                                            |                                                                  |                             |                      | 2/6.562     | <a href="#">ABFH34M200</a> | —            |



ABFT20E...



ABFTE20P...



TWDFCW...

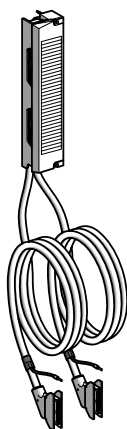
#### Cordsets for connection between M221 controllers, Modicon TM3 expansion modules, and sub-bases

| Description                         | Compatibility                                                     | Cross-section                | Connection type     | Length m/ft | Reference                    | Weight kg/lb   |
|-------------------------------------|-------------------------------------------------------------------|------------------------------|---------------------|-------------|------------------------------|----------------|
| <b>Cordsets for digital inputs</b>  | TM3DI16K, TM3DI32K, TM3DQ16TK, TM3DQ32TK, TM3DQ16UK, TM3DQ32UK    | AWG 28/0.08 mm <sup>2</sup>  | HE10 - HE10         | 0.5 / 1.64  | <a href="#">ABFT20E050</a>   | 0.060<br>0.132 |
|                                     |                                                                   |                              |                     | 1 / 3.281   | <a href="#">ABFT20E100</a>   | 0.080<br>0.176 |
|                                     |                                                                   |                              |                     | 2/6.56      | <a href="#">ABFT20E200</a>   | 0.140<br>0.308 |
|                                     |                                                                   |                              |                     |             |                              |                |
|                                     | TM221M32TK, TM221ME32TK, TM3DI16K, TM3DI32K                       | AWG 28/0.08 mm <sup>2</sup>  | HE10 - HE10         | 1 / 3.281   | <a href="#">ABFTE20EP100</a> | —              |
|                                     |                                                                   |                              |                     | 2/6.562     | <a href="#">ABFTE20EP200</a> | —              |
|                                     |                                                                   |                              |                     | 3/9.843     | <a href="#">ABFTE20EP300</a> | —              |
| <b>Cordsets for digital outputs</b> | TM221M32TK, TM221ME32TK, TM3DQ16TK, TM3DQ32TK                     | AWG 28/0.08 mm <sup>2</sup>  | HE10 - HE10         | 1/3.28      | <a href="#">ABFTE20SP100</a> | —              |
|                                     |                                                                   |                              |                     | 2/6.56      | <a href="#">ABFTE20SP200</a> | —              |
|                                     |                                                                   |                              |                     | 3/9.843     | <a href="#">ABFTE20SP300</a> | —              |
| <b>Cordsets for digital I/O</b>     | TM221M32TK, TM221ME32TK, TM3DI16K, TM3DI32K, TM3DQ16TK, TM3DQ32TK | AWG 22/0.035 mm <sup>2</sup> | HE10 - Flying leads | 3/9.84      | <a href="#">TWDFCW30K</a>    | 0.405<br>0.893 |
|                                     |                                                                   |                              |                     | 5/16.4      | <a href="#">TWDFCW50K</a>    | 0.670<br>1.477 |

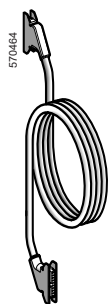
## Telefast Pre-wired System

Modicon ABE7 connection sub-bases

Cabled connectors for Modicon Quantum I/O modules



ABFM32H●●1



TSXCDP●03

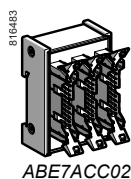
| Cabled connectors for Modicon Quantum I/O modules |                            |                                             |           |                               |             |                 |            |                |
|---------------------------------------------------|----------------------------|---------------------------------------------|-----------|-------------------------------|-------------|-----------------|------------|----------------|
| Type of signal                                    | I/O modules                | Connector type                              | Gauge AWG | Cross-section mm <sup>2</sup> | Length m/ft | No. of channels | Reference  | Weight kg/lb   |
| Relay inputs and outputs                          | 140DDI353                  | 2 x 20-way HE 10                            | 22        | 0.324                         | 3/ 9.843    | 2 x 16          | ABFM32H300 | 1.150          |
|                                                   | 140DDI853                  |                                             |           |                               |             |                 |            | 2.535          |
|                                                   | 140DDO353                  |                                             |           |                               |             |                 |            |                |
| 0.5 A outputs                                     | 140DDO353                  | 2 x 20-way HE 10<br>+ external power supply | 22        | 0.324                         | 3/ 9.843    | 2 x 16          | ABFM32H301 | 1.150<br>2.535 |
| Inputs or outputs (96 channels)                   | 140DDI36400<br>140DDO36400 | 2 x 20-way HE 10                            | 22        | 0.324                         | 0.5/1.640   | 6 x 16          | TSXCDP053  | 0.085<br>0.187 |
|                                                   |                            |                                             |           |                               | 1/ 3.281    | 6 x 16          | TSXCDP103  | 0.150<br>0.331 |
|                                                   |                            |                                             |           |                               | 2/ 6.562    | 6 x 16          | TSXCDP203  | 0.280<br>0.617 |
|                                                   |                            |                                             |           |                               | 3/ 9.843    | 6 x 16          | TSXCDP303  | 0.410<br>0.904 |
|                                                   |                            |                                             |           |                               | 5/ 16.404   | 6 x 16          | TSXCDP503  | 0.670<br>1.477 |
| Analog inputs                                     | 140AVI03000<br>140ACI03000 | 1 x 25-way SUB-D                            | 24        | 0.22                          | 2/ 6.562    | 8               | ABFM08S201 | 0.600<br>1.323 |

(1) The BMEAH10812 module is not compatible with the ABE7CPA31E connection sub-base.

# Telefast Pre-wired System

## Modicon ABE7 connection sub-bases

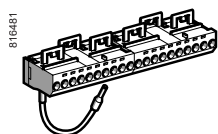
### Accessories



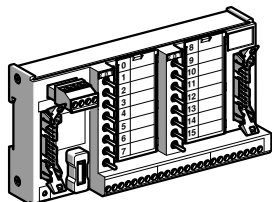
ABE7ACC02



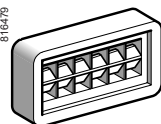
ABC6HE20F



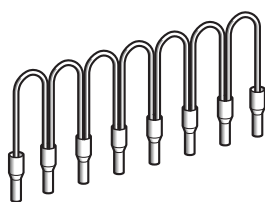
ABE7BV20



ABE7TES160



AR1SB3



ABEC08R...

| Accessories                                               |                 |                                              |                             |                |                |
|-----------------------------------------------------------|-----------------|----------------------------------------------|-----------------------------|----------------|----------------|
| Description                                               | No. of channels | Characteristics                              | Order in multiples of       | Unit reference | Weight kg/lb   |
| Splitter sub-base                                         | 16              | 16 as 2 x 8 channels                         | 1                           | ABE7ACC02      | 0.075<br>0.165 |
| HE10 connector                                            | 20              | 20 female channels                           | 1                           | ABC6HE20F      | 0.075<br>0.165 |
| Redundant output sub-base                                 | 16              | 16 as 2 x 16 channels                        | 1                           | ABE7ACC10      | 0.075<br>0.165 |
| Redundant input sub-base                                  | 16              | 16 as 2 x 16 channels                        | 1                           | ABE7ACC11      | 0.075<br>0.165 |
| Plug-in continuity blocks                                 | —               | Width 12 mm<br>0.472 in.                     | 4                           | ABE7ACC21      | 0.010<br>0.022 |
| Additional snap-on terminal blocks<br>(shunted terminals) | 8               | 10 screw terminals                           | 5                           | ABE7BV10       | 0.030<br>0.066 |
|                                                           | 16              | 20 screw terminals                           | 5                           | ABE7BV20       | 0.060<br>0.132 |
| I/O simulator sub-base                                    | 16              | For display, forcing, inhibition, continuity | 1                           | ABE7TES160     | 0.010<br>0.022 |
| Self-adhesive marker tag holder                           | —               | For 6 characters                             | 50                          | AR1SB3         | 0.010<br>0.022 |
| Quick-blow fuses<br>5 x 20, 250 V, UL                     | —               | 0.125 A                                      | 10                          | ABE7FU012      | 0.010<br>0.022 |
|                                                           |                 | 0.315 A                                      | 10                          | ABE7FU030      | 0.010<br>0.022 |
|                                                           |                 | 0.5 A                                        | 10                          | ABE7FU050      | 0.010<br>0.022 |
|                                                           |                 | 1 A                                          | 10                          | ABE7FU100      | 0.010<br>0.022 |
|                                                           |                 | 2 A                                          | 10                          | ABE7FU200      | 0.010<br>0.022 |
|                                                           |                 | 4 A                                          | 10                          | ABE7FU400      | 0.010<br>0.022 |
|                                                           |                 | 6.3 A                                        | 10                          | ABE7FU630      | 0.010<br>0.022 |
| Commoning link accessories                                |                 |                                              |                             |                |                |
| Description                                               | For common      | Color                                        | Distance between cable ends | Reference      | Weight kg/lb   |
| Commoning links<br>Modularity 8 x 1 mm <sup>2</sup>       | ~               | Red                                          | 2 cm<br>0.787 in.           | ABFC08R02R     | 0.010<br>0.022 |
|                                                           | ---             | Blue                                         | 2 cm<br>0.787 in.           | ABFC08R02B     | 0.010<br>0.022 |

## Telefast Pre-wired System

Modicon ABE7 connection sub-bases

Plug-in solid state relays

Plug-in electromechanical relays



ABS7SC1B



ABS7SC2E



ABS7SA2M

ABS7EC3B2  
ABS7EC3E2  
ABS7EA3E5  
ABS7EA3F5  
ABS7EA3M5ABS7SC3BA  
ABS7SC3E

ABS7SA3M

ABR7S11  
ABR7S21ABR7S23  
ABR7S33

## Plug-in solid state relays

| Relay width        | Functions | Input circuit |                 | Output circuit        |                     | Unit reference<br>Order in multiples of 4 | Weight<br>kg/lb |
|--------------------|-----------|---------------|-----------------|-----------------------|---------------------|-------------------------------------------|-----------------|
|                    |           | Current       | Nominal voltage | Current               | Nominal voltage (1) |                                           |                 |
| 5 mm<br>0.197 in.  | Output    | ---           | 24 V            | 2 A                   | 24 V ---            | ABS7SC1B                                  | 0.010<br>0.022  |
| 10 mm<br>0.394 in. | Output    | ---           | 24 V            | 0.5 A                 | 5...48 V ---        | ABS7SC2E                                  | 0.016<br>0.035  |
|                    |           |               |                 |                       | 24...240 V ~        | ABS7SA2M                                  | 0.016<br>0.035  |
| 12 mm<br>0.472 in. | Input     | ---           | 24 V            | —                     | 24 V ---            | ABS7EA3B5                                 | 0.014<br>0.031  |
|                    |           |               |                 | 24 V Type 2           | —                   | ABS7EC3B2                                 | 0.014<br>0.031  |
|                    |           |               | 48 V Type 2     | —                     | 24 V ---            | ABS7EC3E2                                 | 0.014<br>0.031  |
|                    |           |               |                 | —                     | 24 V ---            | ABS7EA3E5                                 | 0.014<br>0.031  |
|                    |           |               | ~ 50 Hz         | 48 V                  | —                   | ABS7EA3F5                                 | 0.014<br>0.031  |
|                    |           |               | ~ 60 Hz         | 110...130 V           | —                   | ABS7EA3M5                                 | 0.014<br>0.031  |
|                    | Output    | ---           | 24 V            | 2 A<br>Self-protected | 24 V ---            | ABS7SC3BA                                 | 0.016<br>0.035  |
|                    |           |               |                 | 1.5 A                 | 5...48 V ---        | ABS7SC3E                                  | 0.016<br>0.035  |
|                    |           |               |                 | 1.5 A                 | 24...240 V ~        | ABS7SA3M                                  | 0.016<br>0.035  |

## Plug-in electromechanical relays

| Relay width        | Control voltage | Output current (1) | Number of contacts | Order in multiples of | Unit reference | Weight<br>kg/lb |
|--------------------|-----------------|--------------------|--------------------|-----------------------|----------------|-----------------|
| 5 mm<br>0.197 in.  | 24 V ---        | 5 A (lth)          | 1 NO               | 4                     | ABR7S11        | 0.005<br>0.011  |
| 10 mm<br>0.394 in. | 24 V ---        | 5 A (lth)          | 1 NO               | 4                     | ABR7S21        | 0.008<br>0.018  |
|                    |                 |                    | 1 C/O              | 4                     | ABR7S23        | 0.008<br>0.018  |
| 12 mm<br>0.472 in. | 2 V ---         | 10 A (lth)         | 1 C/O              | 4                     | ABR7S33        | 0.017<br>0.037  |

## Accessory for relays

| Description                                    | Reference | Weight<br>kg/lb |
|------------------------------------------------|-----------|-----------------|
| Extractor for 5 mm (0.197 in.) miniature relay | ABE7ACC12 | 0.010<br>0.022  |

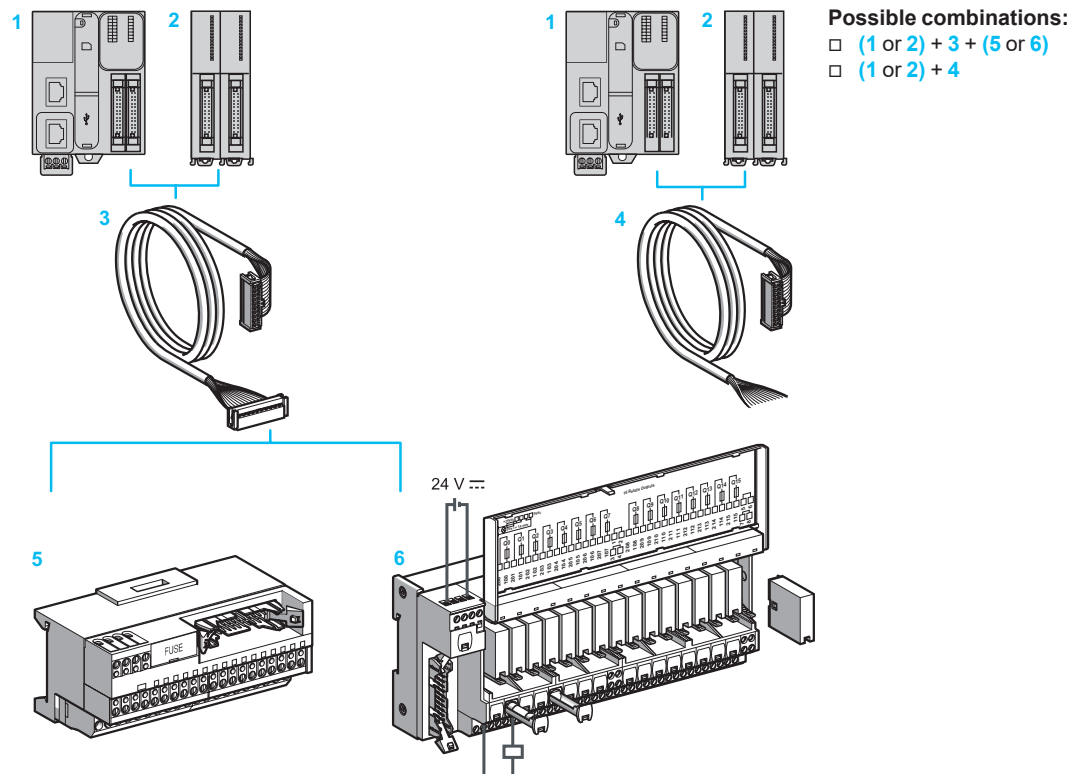
(1) In DC mode (---), nominal voltage varies from 5 to 48 V. In AC mode (~), nominal voltage varies between 24 and 240 V.

# Telefast Pre-wired System

Modicon ABE7 connection sub-bases  
Connection sub-bases for M221 Book logic controllers  
and Modicon TM3 expansion modules

## Telefast pre-wired system with Modicon ABE7

For 32-channel Modicon M221 Book logic controller and Modicon TM3 digital I/O expansion modules



- 1 32-channel Modicon M221 Book logic controllers (TM221M32TK, TM221ME32TK), equipped with HE 10 connectors
- 2 Digital I/O modules (TM3D●●●K) with 16 or 32 I/O, equipped with HE10 connectors
- 3 ABFTE20●●● cordsets with one HE 10 connector at each end
- 4 TWDFCW●●● cordsets, equipped with an HE 10 connector at one end and flying leads at the other end for direct connections to sensors, preactuators and terminal blocks
- 5 Optimum "miniature" sub-bases
- 6 16-channel sub-base for expansion modules

## Combinations

Combinations of Modicon ABE7 sub-bases with M221 Book logic controllers and Modicon TM3 expansion modules

| Modicon Telefast sub-bases                                |             | Modicon M221 Book logic controllers |                  | Modicon TM3 I/O expansion modules |                      |                      |
|-----------------------------------------------------------|-------------|-------------------------------------|------------------|-----------------------------------|----------------------|----------------------|
|                                                           |             | TM221M32TK, TM221ME32TK             |                  | TM3DI16K, TM3DI32K                | TM3DQ16TK, TM3DQ32TK | TM3DQ16UK, TM3DQ32UK |
| Type                                                      | Reference   | Inputs                              | Outputs (Source) | Inputs                            | Outputs (Source)     | Outputs (Sink)       |
| Passive sub-base                                          | ABE7H20E000 |                                     |                  |                                   |                      |                      |
|                                                           | ABE7H16C10  |                                     |                  |                                   |                      |                      |
|                                                           | ABE7H16C11  |                                     |                  |                                   |                      |                      |
|                                                           | ABE7H16C21  |                                     |                  |                                   |                      |                      |
|                                                           | ABE7H16C31  |                                     |                  |                                   |                      |                      |
| Electromechanical relay output sub-bases                  | ABE7R16S111 |                                     |                  |                                   |                      |                      |
|                                                           | ABE7R16T111 |                                     |                  |                                   |                      |                      |
| Empty sub-base for solid state or electromechanical relay | ABE7P16T111 |                                     |                  |                                   |                      |                      |

Compatible with inputs. For use with cordsets ABFTE20EP100, ABFTE20EP200, and ABFTE20EP300 (1)

Compatible with outputs. For use with cordsets ABFTE20SP100, ABFTE20SP200, and ABFTE20SP300 (1)

Not compatible

(1) Available lengths: 1, 2, and 3 m (3.28, 6.56, and 9.84 ft)

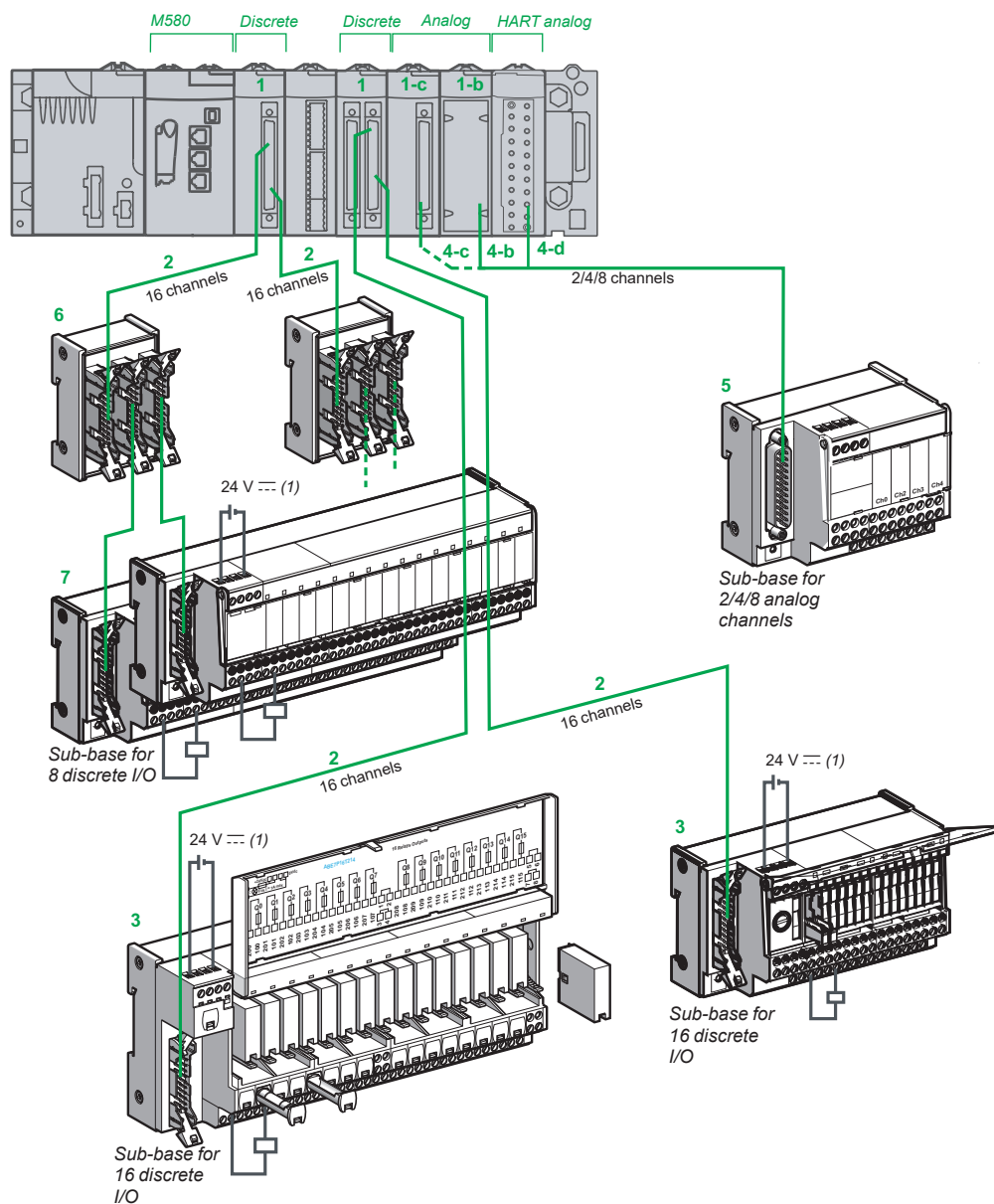
| Combinations                                                                                                   |             |                                                                                                 |                      |                      |
|----------------------------------------------------------------------------------------------------------------|-------------|-------------------------------------------------------------------------------------------------|----------------------|----------------------|
| Combinations of Modicon ABE7 sub-bases with M221/M241/M251 logic controllers and Modicon TM3 expansion modules |             |                                                                                                 |                      |                      |
| Modicon Telefast sub-bases                                                                                     |             | Connection via Modicon TM3 I/O expansion modules                                                |                      |                      |
|                                                                                                                |             | TM3DI16K, TM3DI32K                                                                              | TM3DQ16TK, TM3DQ32TK | TM3DQ16UK, TM3DQ32UK |
| Type                                                                                                           | Reference   | Inputs                                                                                          | Outputs (Source)     | Outputs (Sink)       |
| Passive sub-base                                                                                               | ABE7H16C10  |                                                                                                 |                      |                      |
|                                                                                                                | ABE7H16C11  |                                                                                                 |                      |                      |
|                                                                                                                | ABE7H16C21  |                                                                                                 |                      |                      |
|                                                                                                                | ABE7H16C31  |                                                                                                 |                      |                      |
|                                                                                                                | ABE7H16F43  |                                                                                                 |                      |                      |
|                                                                                                                | ABE7H16R10  |                                                                                                 |                      |                      |
|                                                                                                                | ABE7H16R11  |                                                                                                 |                      |                      |
|                                                                                                                | ABE7H16R20  |                                                                                                 |                      |                      |
|                                                                                                                | ABE7H16R21  |                                                                                                 |                      |                      |
|                                                                                                                | ABE7H16R31  |                                                                                                 |                      |                      |
|                                                                                                                | ABE7H16R50  |                                                                                                 |                      |                      |
|                                                                                                                | ABE7H16S21  |                                                                                                 |                      |                      |
|                                                                                                                | ABE7H16S43  |                                                                                                 |                      |                      |
|                                                                                                                | ABE7H20E000 |                                                                                                 |                      |                      |
| Solid state relay input sub-base                                                                               | ABE7P16F310 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7P16F312 |                                                                                                 |                      |                      |
| Output sub-base for solid state and/or electromechanical relays                                                | ABE7P16T111 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7P16T210 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7P16T214 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7P16T215 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7P16T318 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7P16T330 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7P16T334 |                                                                                                 |                      |                      |
| Electromechanical relay output sub-bases                                                                       | ABE7R16S111 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7R16S210 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7R16S212 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7R16T111 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7R16T210 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7R16T212 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7R16T230 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7R16T330 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7R16T370 |                                                                                                 |                      |                      |
| Solid state relay input sub-base                                                                               | ABE7S16E2B1 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7S16E2E0 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7S16E2E1 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7S16E2F0 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7S16E2M0 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7S16S1B2 |                                                                                                 |                      |                      |
|                                                                                                                | ABE7S16S2B0 |                                                                                                 |                      |                      |
|                                                                                                                |             | Compatible with inputs. For use with cordsets ABFTE20EP100, ABFTE20EP200, and ABFTE20EP300 (1)  |                      |                      |
|                                                                                                                |             | Compatible with outputs. For use with cordsets ABFTE20SP100, ABFTE20SP200, and ABFTE20SP300 (1) |                      |                      |
|                                                                                                                |             | Not compatible                                                                                  |                      |                      |

(1) Available lengths: 1, 2, and 3 m (3.28, 6.56, and 9.84 ft)

# Telefast Pre-wired System

## Modicon ABE7 connection sub-bases

### Connection sub-bases for Modicon X80 I/O modules



(1) The 24 V power supply is connected using Modicon Telefast ABE7 sub-bases only. The 0 V connections must be equipotential.

#### Presentation

##### I/O modules on the Modicon X80 platform

- 1 Discrete input modules **BMXDDI●●02K**, discrete output modules **BMXDDO●●02K**, and discrete mixed I/O modules (**BMXDDM3202K**) equipped with one or two 40-way FCN connectors. The modularity of each module (●●) is 32 or 64 channels.
  - **1-b** Analog input or output modules:
    - Analog inputs: **BMXAMI0410** (4 channels), **BMXAMI0800** (4 channels), and **BMXAMI0810** (8 channels)
    - Analog outputs: **BMXAMO0210** (2 channels), **BMXAMO0410** (4 channels), and **BMXAMO0802** (8 channels)
  - **1-c** Analog input modules **BMXART0414** (4 channels) and **BMXART0814** (8 channels)
  - **1-d** HART analog I/O modules **BMEAH0812** (8 channels) and **BMEAH00412** (4 channels)
- 2 Two types of cordset are available depending on the type of discrete module connected to the sub-base (for combinations, see [page 28](#)). These cordsets are available in 0.5, 1, 2, 3, 5, or 10 m/1.64, 3.28, 6.56, 9.84, 16.4, and 32.81 ft lengths:
  - **BMXFCC●●●1** cordsets with 20-wire sheath (AWG22) equipped with one 40-way FCN connector on the module end and one HE10 molded connector on the Telefast sub-base end
  - **BMXFCC●●●3** cordsets with two 20-wire sheaths (AWG22) equipped with one common 40-way FCN connector on the module end and two HE10 molded connectors on the Telefast sub-base end
- 3 16 channel Modicon Telefast ABE7 Optimum or Universal passive connection sub-bases or adapter sub-bases
- 4 Four types of cordset are available depending on the type of analog module connected to the sub-base (for combinations, see [page 29](#))
  - **4-b** : Connection to analog module with 20-way or 28-way removable terminal block:
    - **BMXFCA●●●0** cordsets with a 20-way removable terminal block on the module end and a 25-way SUB-D connector on the Telefast sub-base end. Cordsets available in 1.5 or 3 m/4.92 or 9.84 ft lengths.
    - **BMXFCA●●●2** cordsets with a 20-way terminal block on the module end and a 25-way SUB-D connector on the Telefast sub-base end. Cordsets available in 1.5 or 3 m/4.92 or 9.84 ft lengths.
    - **BMXFCA●●●0** cordsets with a 28-way terminal block on the module end and a 25-way SUB-D connector on the Telefast sub-base end. Cordsets available in 1.5 or 3 m/4.92 or 9.84 ft lengths.
  - **4-c**: Connection to analog module with 40-way FCN connector:
    - **BMXFCA●●●2** cordsets with a 40-way FCN connector on the module end and a 25-way SUB-D connector on the Telefast sub-base end. Cordsets available in 1.5 or 3 m/4.92 or 9.84 ft lengths.
  - **4-d**: Connection to HART analog input module:
    - **BMXFCA1522/3022** cordsets with a 20-way removable terminal block at the module end and a 25-way SUB-D connector at the Telefast sub-base end. Cordsets available in 1.5 or 3 m/4.92 or 9.84 ft lengths. Connection to HART analog input module:
    - **BMXFCA●●●0** (see description in section **4-b**)
- 5 Modicon Telefast ABE7CPA analog and application-specific connection sub-bases (for combinations, see [pages 29](#)):
  - **ABE7CPA410** allows connection on a screw terminal block of 4 current/voltage inputs, with provision and distribution of 4 isolated protected power supplies for the current loop inputs.
  - **ABE7CPA412** allows connection on a screw terminal block of 4 thermocouple inputs, with supply of cold-junction compensation for these inputs.
  - **ABE7CPA21** allows connection on a screw terminal block of 4 current/voltage outputs.
  - **ABE7CPA02** allows connection on a screw terminal block of 8 current/voltage I/O.
  - **ABE7CPA03** allows connection on a screw terminal block of 8 inputs, with provision and distribution of the power supply (with limitation of each current loop) for the current/voltage outputs of the **BMXAMO0210** analog module.
  - **ABE7CPA31** and **ABE7CPA31E** allow connection on a screw terminal block (**ABE7CPA31**) or a spring-type terminal block (**ABE7CPA31E**) of 8 inputs, with provision and distribution of the power supply (limited to 25 mA per input).
- 6 **ABE7ACC02 sub-base for splitting 16 into 2 x 8 channels**, allowing connection of 8 channels
- 7 8-channel Modicon Telefast ABE7 Optimum or Universal passive connection sub-bases or adapter sub-bases

| Combinations of discrete inputs/outputs on the Modicon X80 platform with ABE7 sub-bases |                                                                                                                                                       |                                                        |             |             |             |                    |
|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------|-------------|-------------|--------------------|
| (Items 1...7), see Presentation on page 26                                              |                                                                                                                                                       | Discrete I/O modules for Modicon X80 platform          |             |             |             |                    |
|                                                                                         |                                                                                                                                                       | Reference for 24 V $\pm$ discrete I/O modules (item 1) |             |             |             |                    |
|                                                                                         |                                                                                                                                                       | Inputs                                                 |             | Outputs     |             | I/O                |
|                                                                                         |                                                                                                                                                       | 2 x 16 I                                               | 4 x 16 I    | 2 x 16 Q    | 4 x 16 Q    | 1 x 16 I, 1 x 16 Q |
|                                                                                         |                                                                                                                                                       | BMXDDI3202K                                            | BMXDDI6402K | BMXDDO3202K | BMXDDO6402K | BMXDDM3202K        |
| Required cordsets                                                                       |                                                                                                                                                       |                                                        |             |             |             |                    |
| Preassembled cordsets (connectors at both ends)                                         | BMXFCC●●1, BMXFCC●●3 (item 2) (1)                                                                                                                     | Yes                                                    | Yes         | Yes         | Yes         | No                 |
|                                                                                         | BMXFCC●●3 (item 2) (1)                                                                                                                                | No                                                     | No          | No          | No          | Yes                |
|                                                                                         | Quantities to be ordered                                                                                                                              | 1                                                      | 2           | 1           | 2           | 1                  |
| Passive connection sub-bases                                                            |                                                                                                                                                       |                                                        |             |             |             |                    |
| Optimum 16 channels (item 3)                                                            | ABE7H34E100, ABE7H34E200<br>"Economy" (2)                                                                                                             |                                                        |             |             |             |                    |
|                                                                                         | ABE7H16C10, ABE7H16C11, ABE7H16C21, ABE7H16C31<br>"Miniature"                                                                                         |                                                        |             |             |             |                    |
| Universal 8 channels (item 7)                                                           | ABE7H08R21                                                                                                                                            | (3)                                                    | (3)         | (3)         | (3)         | (3)                |
| Universal 16 channels (item 3)                                                          | ABE7H16R10, ABE7H16R11                                                                                                                                |                                                        |             |             |             |                    |
|                                                                                         | ABE7H16R50                                                                                                                                            |                                                        |             |             |             |                    |
|                                                                                         | ABE7H16R20, ABE7H16R21, ABE7H16S21, ABE7H16R23                                                                                                        |                                                        |             |             |             |                    |
|                                                                                         | ABE7H16S21                                                                                                                                            |                                                        |             |             |             |                    |
|                                                                                         | ABE7H16S31                                                                                                                                            |                                                        |             |             |             |                    |
|                                                                                         | ABE7H16R23                                                                                                                                            |                                                        |             |             |             |                    |
|                                                                                         | ABE7H16S43                                                                                                                                            |                                                        |             |             |             |                    |
|                                                                                         | ABE7H16F43                                                                                                                                            |                                                        |             |             |             |                    |
| Input adapter sub-bases with solid state relays                                         |                                                                                                                                                       |                                                        |             |             |             |                    |
| Universal 16 channels (item 3)                                                          | ABE7S16E2B1, ABE7S16E2E1, ABE7S16E2E0, ABE7S16E2F0, ABE7S16E2M0<br>Fixed solid state relays, removable terminal blocks                                |                                                        |             |             |             |                    |
|                                                                                         | ABE7P16F310, ABE7P16F312<br>Plug-in solid state relays                                                                                                |                                                        |             |             |             |                    |
|                                                                                         |                                                                                                                                                       |                                                        |             |             |             |                    |
| Output adapter sub-bases with fixed relays, removable terminal blocks                   |                                                                                                                                                       |                                                        |             |             |             |                    |
| Optimum & Universal 8 channels (item 7)                                                 | ABE7R08S111, ABE7R08S210<br>Electromechanical relays                                                                                                  |                                                        |             | (3)         | (3)         | (3)                |
| Optimum & Universal 16 channels (item 3)                                                | ABE7S16S2B0, ABE7S16S1B2<br>Solid state relays                                                                                                        |                                                        |             |             |             |                    |
|                                                                                         | ABE7R16S111, ABE7R16S210, ABE7R16S212<br>Electromechanical relays                                                                                     |                                                        |             |             |             |                    |
| Output adapter sub-bases with plug-in relays                                            |                                                                                                                                                       |                                                        |             |             |             |                    |
| Optimum & Universal 16 channels (item 3)                                                | ABE7R16T111, ABE7R16T210, ABE7R16T212, ABE7R16T230, ABE7R16T330, ABE7R16T370<br>Electromechanical relays                                              |                                                        |             |             |             |                    |
|                                                                                         | ABE7P16T111, ABE7P16T210, ABE7P16T230, ABE7P16T214, ABE7P16T215, ABE7P16T330, ABE7P16T334, ABE7P16T318<br>Solid state and/or electromechanical relays |                                                        |             |             |             |                    |
| Sub-bases for analog I/O                                                                |                                                                                                                                                       |                                                        |             |             |             |                    |
| 4 channels (item 5)                                                                     | ABE7CPA410                                                                                                                                            |                                                        |             |             |             |                    |
|                                                                                         | ABE7CPA412                                                                                                                                            |                                                        |             |             |             |                    |
| 2 channels (item 5)                                                                     | ABE7CPA21                                                                                                                                             |                                                        |             |             |             |                    |
| 8 channels (item 5)                                                                     | ABE7CPA02                                                                                                                                             |                                                        |             |             |             |                    |
|                                                                                         | ABE7CPA03                                                                                                                                             |                                                        |             |             |             |                    |
|                                                                                         | ABE7CPA31, ABE7CPA31E                                                                                                                                 |                                                        |             |             |             |                    |

Compatible

Not compatible

(1) References for cordsets: to be completed, please refer to our "Modicon X80 I/O Platform" offer for Modicon M340, Modicon M580, and Modicon Quantum.

(2) ABE7H34E100 kit: ABE7H20E000 Optimum "Economy" sub-base + ABFH34M100 cordset (1 m/3.28 ft) included. ABE7H34E200 kit: ABE7H20E000 Optimum "Economy" sub-base + ABFH34M200 cordset (2 m/6.56 ft) included.

(3) Using splitter sub-base 6 ABE7ACC02, which allows 16 channels to be split into 2 x 8 channels.

| Combinations of analog inputs/outputs on the Modicon X80 platform with ABE7 sub-bases |                                                                     |                                                            |            |            |            |            |            |            |            |            |            |
|---------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| (Items 1...7), see Presentation on page 26                                            |                                                                     | Analog I/O modules for Modicon X80 platform                |            |            |            |            |            |            |            |            |            |
|                                                                                       |                                                                     | Reference for analog I/O modules (items 1-b, 1-c, and 1-d) |            |            |            |            |            |            |            |            |            |
|                                                                                       |                                                                     | Inputs                                                     |            |            |            |            |            | Outputs    |            |            |            |
|                                                                                       |                                                                     | 4 I                                                        | 4 I        | 2 x 4 I    | 8 I        | 8 I        | 8 I        | 2 Q        | 4 Q        | 8 Q        | 4 Q        |
|                                                                                       |                                                                     | BMXAMI0410                                                 | BMXART0414 | BMXART0814 | BMXAMI0800 | BMXAMI0810 | BMEAH10812 | BMXAMO0210 | BMXAMO0410 | BMXAMO0802 | BMEAH00412 |
| Required cordsets                                                                     |                                                                     |                                                            |            |            |            |            |            |            |            |            |            |
| Preassembled cordsets (connectors at both ends)                                       | BMXFCA●●0 (item 4-b) (1)                                            | Yes                                                        | No         | No         | No         | No         | No         | Yes        | Yes        | No         | Yes        |
|                                                                                       | BMXFCA●●2 (item 4-c) (1)                                            | No                                                         | Yes        | Yes        | No         | No         | No         | No         | No         | No         | No         |
|                                                                                       | BMXFCA●●0 (item 4-c) (1)                                            | No                                                         | No         | No         | Yes        | Yes        | No         | No         | No         | No         | No         |
|                                                                                       | BMXFCA●●2 (item 4-c) (1)                                            | No                                                         | No         | No         | No         | No         | No         | No         | No         | Yes        | No         |
|                                                                                       | BMXFCA●●22 (item 4-d) (1)                                           | No                                                         | No         | No         | No         | No         | Yes        | No         | No         | No         | No         |
| Quantities to be ordered                                                              |                                                                     | 1                                                          | 1          | 2          | 1          | 1          | 1          | 1          | 1          | 1          | 1          |
| Passive connection sub-bases                                                          |                                                                     |                                                            |            |            |            |            |            |            |            |            |            |
| Optimum 16 channels (item 3)                                                          | ABE7H16C●● "Miniature"                                              |                                                            |            |            |            |            |            |            |            |            |            |
| Universal 8 channels (item 7)                                                         | ABE7H08R21                                                          |                                                            |            |            |            |            |            |            |            |            |            |
| Universal 16 channels (item 3)                                                        | ABE7H16R1●●                                                         |                                                            |            |            |            |            |            |            |            |            |            |
|                                                                                       | ABE7H16R50                                                          |                                                            |            |            |            |            |            |            |            |            |            |
|                                                                                       | ABE7H16R2●●                                                         |                                                            |            |            |            |            |            |            |            |            |            |
|                                                                                       | ABE7H16S21                                                          |                                                            |            |            |            |            |            |            |            |            |            |
|                                                                                       | ABE7H16S31                                                          |                                                            |            |            |            |            |            |            |            |            |            |
|                                                                                       | ABE7H16R23                                                          |                                                            |            |            |            |            |            |            |            |            |            |
|                                                                                       | ABE7H16S43                                                          |                                                            |            |            |            |            |            |            |            |            |            |
|                                                                                       | ABE7H16F43                                                          |                                                            |            |            |            |            |            |            |            |            |            |
| Input adapter sub-bases with solid state relays                                       |                                                                     |                                                            |            |            |            |            |            |            |            |            |            |
| Universal 16 channels (item 3)                                                        | ABE7S16E2●●●<br>Fixed solid state relays, removable terminal blocks |                                                            |            |            |            |            |            |            |            |            |            |
|                                                                                       | ABE7P16F310, ABE7P16F312<br>Plug-in solid state relays              |                                                            |            |            |            |            |            |            |            |            |            |
| Output adapter sub-bases with fixed relays, removable terminal blocks                 |                                                                     |                                                            |            |            |            |            |            |            |            |            |            |
| Optimum & Universal 8 channels (item 7)                                               | ABE7R08S111, ABE7R08S210<br>Electromechanical relays                |                                                            |            |            |            |            |            |            |            |            |            |
|                                                                                       |                                                                     |                                                            |            |            |            |            |            |            |            |            |            |
| Optimum & Universal 16 channels (item 3)                                              | ABE7S16S●B●●<br>Solid state relays                                  |                                                            |            |            |            |            |            |            |            |            |            |
|                                                                                       | ABE7R16S111●, ABE7R16S210, ABE7R16S212<br>Electromechanical relays  |                                                            |            |            |            |            |            |            |            |            |            |
| Output adapter sub-bases with plug-in relays                                          |                                                                     |                                                            |            |            |            |            |            |            |            |            |            |
| Optimum & Universal 16 channels (item 3)                                              | ABE7R16T●●●, ABE7R16M111<br>Electromechanical relays                |                                                            |            |            |            |            |            |            |            |            |            |
|                                                                                       | ABE7P16T●●●<br>Solid state and/or electromechanical relays          |                                                            |            |            |            |            |            |            |            |            |            |
| Sub-bases for analog I/O                                                              |                                                                     |                                                            |            |            |            |            |            |            |            |            |            |
| 4 channels (item 5)                                                                   | ABE7CPA410                                                          |                                                            |            |            |            |            |            |            |            |            |            |
|                                                                                       | ABE7CPA412                                                          |                                                            |            |            |            |            |            |            |            |            |            |
| 2 channels (item 5)                                                                   | ABE7CPA21                                                           |                                                            |            |            |            |            |            |            |            |            |            |
| 8 channels (item 5)                                                                   | ABE7CPA02                                                           |                                                            |            |            |            |            |            |            |            |            |            |
|                                                                                       | ABE7CPA03                                                           |                                                            |            |            |            |            |            |            |            |            |            |
|                                                                                       | ABE7CPA31                                                           |                                                            |            |            |            |            |            |            |            |            |            |
|                                                                                       | ABE7CPA31E                                                          |                                                            |            |            |            |            |            |            |            |            |            |

Compatible

Not compatible

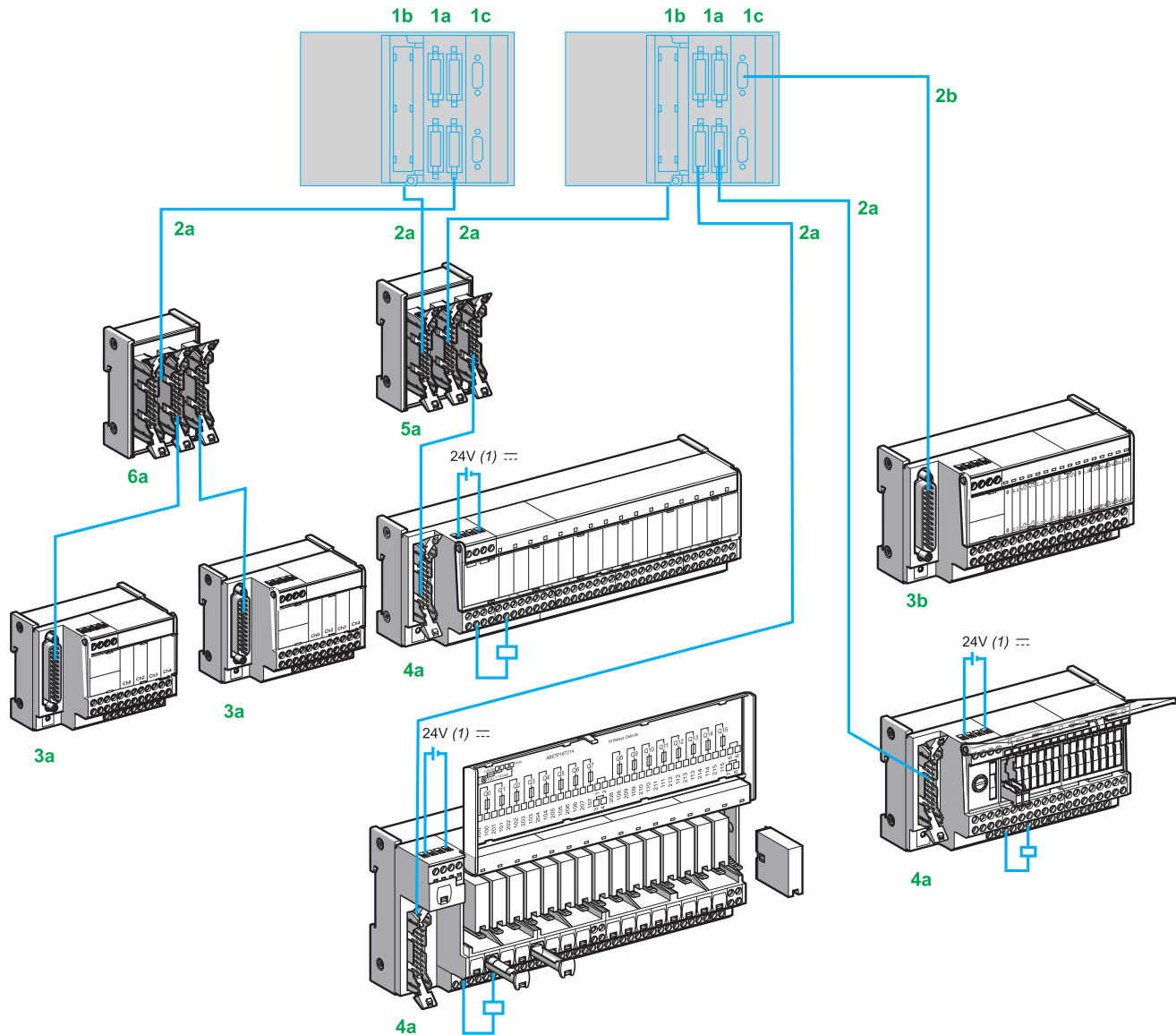
(1) References for cordsets: to be completed, please refer to our "Modicon X80 I/O Platform" offer for Modicon M340, Modicon M580, and Modicon Quantum.

# Telefast Pre-wired System

## Modicon ABE7 connection sub-bases

### Connection sub-bases for Modicon Premium platform

Information retained for the Modicon Premium range no longer commercially available



**1a** Discrete I/O modules equipped with HE 10 connectors

**1b** Analog I/O modules, equipped with 25-way SUB-D connectors

**1c** Application-specific modules equipped with screw terminals

**2a** A single type of cordset equipped with 20-way HE 10 connectors, for 8, 12, or 16-channel modularity. The HE 10 connectors can be molded, **TSXCDP●●●** (AWG 22), or insulation piercing, **ABFH20H●●●** (AWG 28). These cordsets are available in various lengths. They use AWG 28 (0.08 mm<sup>2</sup>) for connecting input and output sub-bases rated 100 mA directly, as well as sub-bases with relays. Adapter **ABE7ACC02** allows connection of sub-bases with 8-channel modularity.

**2b** All analog signals are connected with a **TSXCAP030/100** preassembled cordset equipped with 25-way SUB-D connectors, to provide shielding continuity.

**3a** 8-channel Modicon Telefast ABE7 sub-bases

**3b** Sub-bases dedicated to counter and analog channels:

- **ABE7CPA02** for connecting current, voltage, or PT100 inputs on a screw terminal block
- **ABE7CPA03** with 4-20 mA sensor loop power supply and 25 mA/channel limiter
- **ABE7CPA21** for connecting output modules with 4 analog channels on a screw terminal block
- **ABE7CPA31** with the 4-20 mA sensor loop isolated power supply for 8 input channels isolated from one another

**4a** 16-channel Modicon Telefast ABE7 sub-bases

**5a** Splitter sub-bases for connecting discrete I/O in parallel from a Modicon Telefast ABE7 sub-base on 2 different PLCs:

- **ABE7ACC10** for output redundancy
- **ABE7ACC11** for input redundancy

**6a** **ABE7CPA01** sub-base dedicated to connecting axis control and counter inputs on a terminal block

(1) The 24 V  $\text{---}$  power supply is connected using Telefast sub-bases only. The 0 V  $\text{---}$  connections must be equipotential.

Information retained for the Modicon Premium range no longer commercially available

## Combinations of discrete I/O on the Modicon Premium platform with ABE7 sub-bases

| (For item numbers, see Presentation on page 30)                       |                                                                                                                                                                | Discrete I/O modules for Modicon Premium                    |            |            |                            |                           |          |
|-----------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|------------|------------|----------------------------|---------------------------|----------|
|                                                                       |                                                                                                                                                                | Reference for 24 V $\square$ discrete I/O modules (item 1a) |            |            |                            |                           |          |
|                                                                       |                                                                                                                                                                | Inputs                                                      |            | Outputs    |                            | Inputs/outputs            |          |
|                                                                       |                                                                                                                                                                | 4 x 16 I<br>2 x 16 I                                        | 2 x 16 I   | 1 x 16 I   | 4 x 16 Q<br>2 x 16 Q       | 1 x 16 I                  | 1 x 12 Q |
|                                                                       |                                                                                                                                                                | TSXDEY64D2K<br>TSXDEY32D2K                                  | TSXDEY32DK | TSXDEY16FK | TSXDSY64T2K<br>TSXDSY32T2K | TSXDMY28FK<br>TSXDMY28RDK |          |
| Required cordsets                                                     |                                                                                                                                                                |                                                             |            |            |                            |                           |          |
| Pre-formed<br>cables<br>(at both ends)                                | TSXCDP053, TSXCDP103, TSXCDP203,<br>TSXCDP303, TSXCDP503<br>(item 2a)<br>see page 21                                                                           | Yes                                                         | Yes        | Yes        | Yes                        | Yes                       | Yes      |
|                                                                       | ABFH20H100, ABFH20H200<br>(item 2a)<br>see page 20                                                                                                             | Yes                                                         | Yes        | Yes        | Yes                        | Yes                       | Yes      |
| Passive connection sub-bases                                          |                                                                                                                                                                |                                                             |            |            |                            |                           |          |
| Universal<br>8 channels<br>(item 3a)                                  | ABE7H08R21                                                                                                                                                     | (1)                                                         |            | (1)        | (1)                        | (1)                       |          |
| Universal<br>16 channels<br>(item 4a)                                 | ABE7H08R21, ABE7H16R10, ABE7H16R11,<br>ABE7H16R50, ABE7H16R20, ABE7H16R21,<br>ABE7H16S21, ABE7H16R31, ABE7H16R23                                               |                                                             | ABE7H16R20 |            |                            |                           |          |
|                                                                       | ABE7H16C10, ABE7H16C11, ABE7H16C21,<br>ABE7H16C31                                                                                                              |                                                             | ABE7H16R20 |            |                            |                           |          |
|                                                                       | ABE7H20E, ABE7H20E100, ABE7H20E200<br>(2)                                                                                                                      |                                                             | ABE7H16R20 |            |                            |                           |          |
|                                                                       | ABE7H16S21                                                                                                                                                     |                                                             |            |            |                            |                           |          |
|                                                                       | ABE7H16R23                                                                                                                                                     |                                                             |            |            |                            |                           |          |
|                                                                       | ABE7H16F43                                                                                                                                                     |                                                             |            |            |                            |                           |          |
|                                                                       | ABE7H16S43                                                                                                                                                     |                                                             |            |            |                            |                           |          |
| Input adapter sub-bases with solid state relays                       |                                                                                                                                                                |                                                             |            |            |                            |                           |          |
| Universal<br>16 channels<br>(item 4a)                                 | ABE7S16E2B1, ABE7S16E2E1,<br>ABE7S16E2E0, ABE7S16E2F0,<br>ABE7S16E2M0<br>Fixed solid state relays, removable terminal<br>blocks                                |                                                             |            |            |                            |                           |          |
|                                                                       | ABE7P16F310, ABE7P16F312<br>Plug-in solid state relays                                                                                                         |                                                             |            |            |                            |                           |          |
| Output adapter sub-bases with fixed relays, removable terminal blocks |                                                                                                                                                                |                                                             |            |            |                            |                           |          |
| Optimum &<br>Universal<br>8 channels<br>(item 3a)                     | ABE7R08S111, ABE7R08S210<br>Electromechanical relays                                                                                                           |                                                             |            |            | (1)                        |                           |          |
| Optimum &<br>Universal<br>16 channels<br>(item 4a)                    | ABE7S16S2B0, ABE7S16S1B2<br>Solid state relays                                                                                                                 |                                                             |            |            |                            |                           |          |
|                                                                       | ABE7R16S111, ABE7R16S210,<br>ABE7R16S212<br>Electromechanical relays                                                                                           |                                                             |            |            |                            |                           |          |
| Output adapter sub-bases with plug-in relays                          |                                                                                                                                                                |                                                             |            |            |                            |                           |          |
| Optimum &<br>Universal<br>16 channels<br>(item 4a)                    | ABE7R16T111, ABE7R16T210,<br>ABE7R16T212, ABE7R16T230,<br>ABE7R16T330, ABE7R16T370<br>Electromechanical relays                                                 |                                                             |            |            |                            |                           |          |
|                                                                       | ABE7P16T111, ABE7P16T210,<br>ABE7P16T230, ABE7P16T214,<br>ABE7P16T215, ABE7P16T330,<br>ABE7P16T334, ABE7P16T318<br>Solid state and/or electromechanical relays |                                                             |            |            |                            |                           |          |

Compatible

Not compatible

- (1) Using splitter sub-base ABE7ACC02, which allows 16 channels to be split into 2 x 8 channels.  
(2) ABE7H20E100 and ABE7H20E200 Economy sub-bases including cordset.

Information retained for the Modicon Premium range no longer commercially available

## Combinations of analog I/O on the Modicon Premium platform with ABE7 sub-bases

(For item numbers, see Presentation on page 30)

|                                                                              |                                                     | Analog I/O modules for Modicon Premium     |           |           |           |           |           |                     |
|------------------------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------|-----------|-----------|-----------|-----------|-----------|---------------------|
|                                                                              |                                                     | Reference for analog I/O modules (item 1b) |           |           |           |           |           |                     |
|                                                                              |                                                     | Inputs                                     |           |           |           | Outputs   |           | Thermocouple inputs |
|                                                                              |                                                     | 2 x 8 I                                    | 8 I       | 8 I       | 4 I       | 4 Q       | 8 Q       | 2 x 8 I             |
|                                                                              |                                                     | TSXAEY1600                                 | TSXAEY800 | TSXAEY810 | TSXAEY420 | TSXASY410 | TSXASY800 | TSXAEY1614          |
| <b>Required cordsets</b>                                                     |                                                     |                                            |           |           |           |           |           |                     |
| Pre-formed cables (at both ends)                                             | TSXCAP●●0 (item 2b)                                 | Yes                                        | Yes       | Yes       | Yes       | (2)       | Yes       | Yes                 |
| <b>Passive connection sub-bases</b>                                          |                                                     |                                            |           |           |           |           |           |                     |
| Universal 8 channels (item 3a)                                               | ABE7H08R21                                          |                                            |           |           |           |           |           |                     |
| Universal 16 channels (item 4a)                                              | ABE7H16R●●                                          |                                            |           |           |           |           |           |                     |
|                                                                              | ABE7H16C●●                                          |                                            |           |           |           |           |           |                     |
|                                                                              | ABE7H20E●●● (1)                                     |                                            |           |           |           |           |           |                     |
|                                                                              | ABE7H16S21                                          |                                            |           |           |           |           |           |                     |
|                                                                              | ABE7H16R23                                          |                                            |           |           |           |           |           |                     |
|                                                                              | ABE7H16F43                                          |                                            |           |           |           |           |           |                     |
|                                                                              | ABE7H16S43                                          |                                            |           |           |           |           |           |                     |
| <b>Input adapter sub-bases with solid state relays</b>                       |                                                     |                                            |           |           |           |           |           |                     |
| Universal 16 channels (item 4a)                                              | ABE7S16E2●●                                         |                                            |           |           |           |           |           |                     |
|                                                                              | Fixed solid state relays, removable terminal blocks |                                            |           |           |           |           |           |                     |
|                                                                              | ABE7P16F3●●                                         |                                            |           |           |           |           |           |                     |
|                                                                              | Plug-in solid state relays                          |                                            |           |           |           |           |           |                     |
| <b>Output adapter sub-bases with fixed relays, removable terminal blocks</b> |                                                     |                                            |           |           |           |           |           |                     |
| Optimum & Universal 8 channels (item 3a)                                     | ABE7R08S111, ABE7R08S210                            |                                            |           |           |           |           |           |                     |
|                                                                              | Electromechanical relays                            |                                            |           |           |           |           |           |                     |
| Optimum & Universal 16 channels (item 4a)                                    | ABE7S16S●●●                                         |                                            |           |           |           |           |           |                     |
|                                                                              | Solid state relays                                  |                                            |           |           |           |           |           |                     |
|                                                                              | ABE7R16S●●●                                         |                                            |           |           |           |           |           |                     |
|                                                                              | Electromechanical relays                            |                                            |           |           |           |           |           |                     |
| <b>Output adapter sub-bases with plug-in relays</b>                          |                                                     |                                            |           |           |           |           |           |                     |
| Optimum & Universal 16 channels (item 4a)                                    | ABE7R16T●●●                                         |                                            |           |           |           |           |           |                     |
|                                                                              | Electromechanical relays                            |                                            |           |           |           |           |           |                     |
|                                                                              | ABE7P16T●●●                                         |                                            |           |           |           |           |           |                     |
|                                                                              | Solid state and/or electromechanical relays         |                                            |           |           |           |           |           |                     |
| <b>Sub-bases for analog channels</b>                                         |                                                     |                                            |           |           |           |           |           |                     |
| ABE7CPA01 (item 6a)                                                          |                                                     |                                            |           |           |           |           |           |                     |
| ABE7CPA02 (item 3b)                                                          |                                                     |                                            |           |           |           |           |           |                     |
| ABE7CPA21 (item 3b)                                                          |                                                     |                                            |           |           | (2)       |           |           |                     |
| ABE7CPA03 (item 3b)                                                          |                                                     |                                            |           |           | (3)       |           |           |                     |
| ABE7CPA31 (item 3b)                                                          |                                                     |                                            |           |           |           |           |           |                     |

Compatible

Not compatible

(1) ABE7H20E100 and ABE7H20E200 Economy sub-bases including cordset.

(2) ABFY25S200 cabled connector equipped with TSXBL Y01 terminal block.

(3) Only the first 4 channels are balanced.

Information retained for the Modicon Premium range no longer commercially available

| Combinations of application-specific I/O on the Modicon Premium platform with ABE7 sub-bases |                                                                    |                                                          |                  |                  |         |                    |         |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------|----------------------------------------------------------|------------------|------------------|---------|--------------------|---------|
| (For item numbers, see Presentation on page 30)                                              |                                                                    | Application-specific I/O modules for Modicon Premium     |                  |                  |         |                    |         |
|                                                                                              |                                                                    | Reference for application-specific I/O modules (item 1c) |                  |                  |         |                    |         |
|                                                                                              |                                                                    | Axis control                                             |                  | Counter          |         | High-speed counter |         |
|                                                                                              |                                                                    | Speed reference                                          | Auxiliary inputs | Auxiliary inputs | Counter | Auxiliary inputs   | Counter |
|                                                                                              |                                                                    | TSXCAY●1, TSXCFY●A                                       |                  | TSXCTY●A         |         | TSXCTY2C           |         |
| Required cordsets                                                                            |                                                                    |                                                          |                  |                  |         |                    |         |
| Pre-formed cables TSXCAP030 (at both ends) (item 2b)                                         |                                                                    | Yes                                                      | No               | No               | Yes     | No                 | Yes     |
| TSXCDP053, TSXCDP103, TSXCDP203, TSXCDP303, TSXCDP503 (item 2a)                              |                                                                    | No                                                       | Yes              | Yes              | No      | Yes                | No      |
| Passive connection sub-bases                                                                 |                                                                    |                                                          |                  |                  |         |                    |         |
| Universal 8 channels (item 3a)                                                               | ABE7H08R21                                                         |                                                          |                  | (1)              |         |                    |         |
| Universal 16 channels (item 4a)                                                              | ABE7H16R20, ABE7H16R21, ABE7H16S21, ABE7H16R31, ABE7H16R23         |                                                          | ABE7H16R20       | ABE7H16R20 (2)   |         | ABE7H16R20 (2)     |         |
|                                                                                              | ABE7H16C10, ABE7H16C11, ABE7H16C21, ABE7H16C31                     |                                                          | ABE7H16R20       | ABE7H16R20 (2)   |         |                    |         |
|                                                                                              | ABE7H20E, ABE7H20E100, ABE7H20E200 (2)                             |                                                          | ABE7H16R20       | ABE7H16R20 (2)   |         |                    |         |
|                                                                                              | ABE7H16S21                                                         |                                                          |                  |                  |         |                    |         |
|                                                                                              | ABE7H16R23                                                         |                                                          |                  |                  |         |                    |         |
|                                                                                              | ABE7H16F43                                                         |                                                          |                  |                  |         |                    |         |
|                                                                                              | ABE7H16S43                                                         |                                                          |                  |                  |         |                    |         |
| Input adapter sub-bases with solid state relays                                              |                                                                    |                                                          |                  |                  |         |                    |         |
| Universal 16 channels (item 5)                                                               | ABE7S16E2●●<br>Fixed solid state relays, removable terminal blocks |                                                          |                  |                  |         |                    |         |
|                                                                                              | ABE7P16F3●●<br>Plug-in solid state relays                          |                                                          |                  |                  |         |                    |         |
| Output adapter sub-bases with fixed relays, removable terminal blocks                        |                                                                    |                                                          |                  |                  |         |                    |         |
| Optimum & Universal 8 channels (item 3a)                                                     | ABE7R08S111, ABE7R08S210<br>Electromechanical relays               |                                                          |                  |                  |         |                    |         |
| Optimum & Universal 16 channels (item 4a)                                                    | ABE7S16S●●●<br>Solid state relays                                  |                                                          |                  |                  |         |                    |         |
|                                                                                              | ABE7R16S●●●<br>Electromechanical relays                            |                                                          |                  |                  |         |                    |         |
| Output adapter sub-bases with plug-in relays                                                 |                                                                    |                                                          |                  |                  |         |                    |         |
| Optimum & Universal 16 channels (item 4a)                                                    | ABE7R16T●●●<br>Electromechanical relays                            |                                                          |                  |                  |         |                    |         |
|                                                                                              | ABE7P16T●●●<br>Solid state and/or electromechanical relays         |                                                          |                  |                  |         |                    |         |
| Sub-bases for counter channels                                                               |                                                                    |                                                          |                  |                  |         |                    |         |
| ABE7CPA01 (item 6a)                                                                          |                                                                    |                                                          |                  |                  |         |                    |         |
| ABE7CPA02 (item 3b)                                                                          |                                                                    |                                                          |                  |                  |         |                    |         |
| ABE7CPA21 (item 3b)                                                                          |                                                                    |                                                          |                  |                  |         |                    |         |
| ABE7CPA03 (item 3b)                                                                          |                                                                    |                                                          |                  |                  |         |                    |         |
| ABE7CPA31 (item 3b)                                                                          |                                                                    |                                                          |                  |                  |         |                    |         |

Compatible

Not compatible

(1) 1-channel connection

(2) 2-channel connection

(2) ABE7H20E100 and ABE7H20E200 Economy sub-bases including cordset

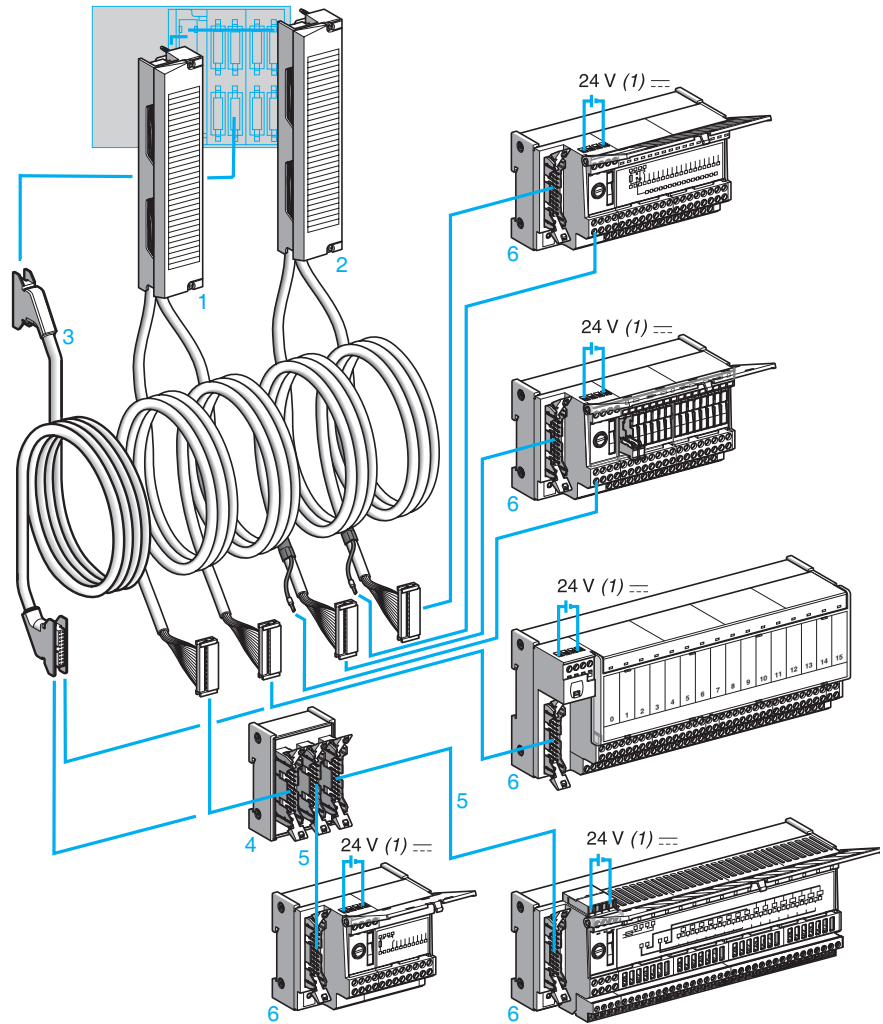
(3) Compatible with module TSXCAY●1 only.

# Telefast Pre-wired System

Modicon ABE7 connection sub-bases

Connection sub-bases for I/O modules for  
Modicon Quantum platforms

Information retained for the Modicon Quantum range no longer commercially available



- 1-2** Cabled connectors combining a standard screw terminal block, two multicore (AWG 22) cables and two 20-way HE 10 connectors. Two types of cabled connector are available:
  - **ABFM32H300 1** cabled connectors for I/O modules (32 channels) on the Modicon Quantum platform, with 2 HE 10 connectors each integrating 16 channels
  - **ABFM32H301 2** cabled connector I/O modules (32 channels) on the Modicon Quantum platform, with 2 HE 10 connectors each integrating 16 channels and an external power supply with a direct connection to the terminal marked (1) on the sub-bases **6**
- 3** Cordsets (AWG 22) equipped with a 20-way HE 10 connector **TSXCDP053/●03** for 96-channel I/O modules (connected on six 20-way HE 10 connectors)
- 4** **ABE7ACC02** splitter box (16 to 2 x 8 channels) for use with 8-channel sub-bases
- 5** A single type of cordset equipped with 20-way HE 10 connectors, irrespective of the 8 or 16-channel modularity. The HE 10 connectors can be molded **TSXCDP●●●** or insulation piercing **ABFH20H●●●**.
- 6** 8- and 16-channel connection sub-bases from the Modicon ABE 7 range

(1) The 24 V --- power supply for the Quantum I/O modules must only be connected via Telefast ABE7 sub-bases. The 0 V --- connections must be equipotential.

# Telefast Pre-wired System

Modicon ABE7 connection sub-bases  
Connection sub-bases for I/O modules for  
Modicon Quantum platforms

Information retained for the Modicon Quantum range no longer commercially available

| Quantum I/O modules      |                                                                                                                                                                                                                                                                                                                  |             |                                                             |             |                            |             |             |             |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------------------------------------------------|-------------|----------------------------|-------------|-------------|-------------|
|                          | 24 V --- discrete I/O                                                                                                                                                                                                                                                                                            |             |                                                             |             | Analog I/O                 |             |             |             |
|                          | Inputs                                                                                                                                                                                                                                                                                                           | Outputs     | Inputs                                                      | Outputs     | Inputs                     | Outputs     |             |             |
|                          | 32 I                                                                                                                                                                                                                                                                                                             | 32 Q        | 96 I                                                        | 96 Q        | 8 I                        | 4 Q         | 8 Q         |             |
|                          | 140DDI35300<br>140DDI85300                                                                                                                                                                                                                                                                                       | 140DDO35300 | 140DDI36400                                                 | 140DDO36400 | 140AVI03000<br>140ACI03000 | 140AVO02000 | 140ACO02000 | 140ACO13000 |
| Cabled connectors        | ABFM32H300                                                                                                                                                                                                                                                                                                       | ABFM32H301  | -                                                           | -           | ABFM08S201                 | -           | -           | -           |
| Cordsets                 | -                                                                                                                                                                                                                                                                                                                | -           | TSXCDP053, TSXCDP103,<br>TSXCDP203, TSXCDP303,<br>TSXCDP503 | -           | -                          | -           | -           | -           |
| Passive sub-bases        |                                                                                                                                                                                                                                                                                                                  |             |                                                             |             |                            |             |             |             |
| 8 channels               | ABE7H08R21                                                                                                                                                                                                                                                                                                       | (1)         |                                                             | (1)         |                            |             |             |             |
| 16 channels              | ABE7H16R10,<br>ABE7H16R11,<br>ABE7H16R50,<br>ABE7H16R20,<br>ABE7H16R21,<br>ABE7H16R31<br><br>ABE7H16C10,<br>ABE7H16C11,<br>ABE7H16C21,<br>ABE7H16C31<br><br>ABE7H16S21<br>ABE7H16R23<br>ABE7H16F43<br>ABE7H16S43                                                                                                 |             |                                                             |             |                            |             |             |             |
| Input adapter sub-bases  |                                                                                                                                                                                                                                                                                                                  |             |                                                             |             |                            |             |             |             |
| 16 channels              | ABE7S16E2B1,<br>ABE7P16F310,<br>ABE7P16F312                                                                                                                                                                                                                                                                      |             |                                                             |             |                            |             |             |             |
| Output adapter sub-bases |                                                                                                                                                                                                                                                                                                                  |             |                                                             |             |                            |             |             |             |
| 8 channels               | ABE7R08S111,<br>ABE7R08S210                                                                                                                                                                                                                                                                                      | (1)         |                                                             | (1)         |                            |             |             |             |
| 16 channels              | ABE7R16S111,<br>ABE7R16S210,<br>ABE7R16S212<br><br>ABE7R16T111,<br>ABE7R16T210,<br>ABE7R16T212,<br>ABE7R16T230,<br>ABE7R16T330,<br>ABE7R16T370<br><br>ABE7P16T111,<br>ABE7P16T210,<br>ABE7P16T230,<br>ABE7P16T214,<br>ABE7P16T215,<br>ABE7P16T330,<br>ABE7P16T334,<br>ABE7P16T318<br>ABE7S16S2B0,<br>ABE7S16S1B2 |             |                                                             |             |                            |             |             |             |
| Sub-bases for analog I/O |                                                                                                                                                                                                                                                                                                                  |             |                                                             |             |                            |             |             |             |
| 4 channels               | ABE7CPA21                                                                                                                                                                                                                                                                                                        |             |                                                             |             |                            |             |             |             |
| 8 channels               | ABE7CPA02<br>ABE7CPA03<br>ABE7CPA31                                                                                                                                                                                                                                                                              |             |                                                             |             |                            |             |             |             |

ABFM32H300, ABFM32H301 cabled connectors

TSXCDP053, TSXCDP103, TSXCDP203, TSXCDP303, TSXCDP503 cordsets

**Note:** For harsh environments, **Modicon ABE9** IP67 passive splitter boxes can be used in combination with I/O modules on the Modicon Quantum platform. Main characteristics:

- 8/16 I/O channels
- Connection of 1 to 16 sensors/actuators
- M12 I/O connectors
- Connection to the PLC by connector or multicore cable
- IP67 degree of protection
- Plastic case

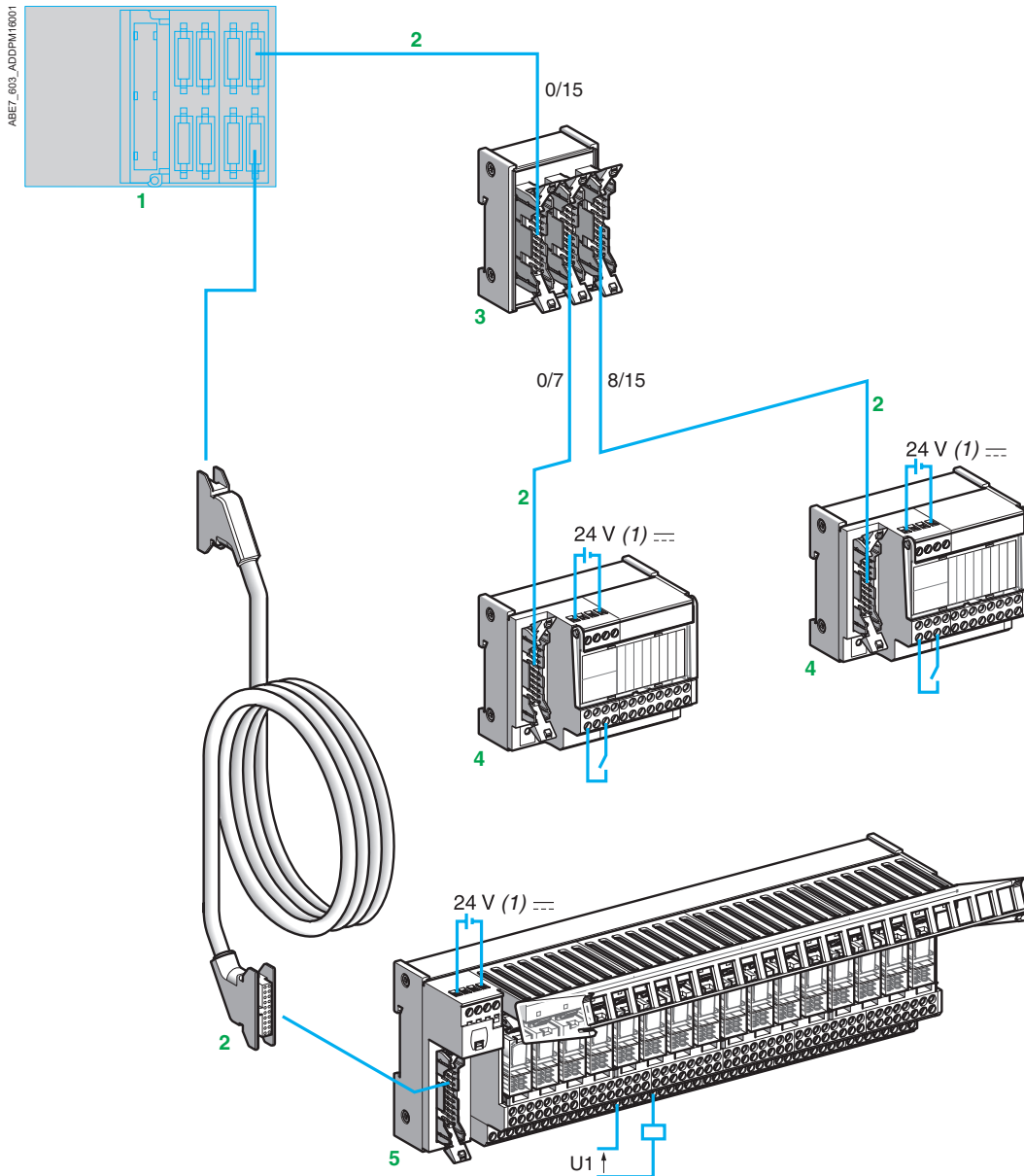
See pages 40 and 42.

(1) With the ABE7ACC02 splitter sub-base (16 channels as 2 x 8)

(2) With 140DDI35300 module only

(3) With 140DDI85300 module only

#### Information retained for after-sales service



- 1 I/O modules equipped with HE 10 connectors. Available in modules of 8, 12, 28, and 64 I/O.
- 2 A single type of cordset equipped with 20-way HE 10 connectors, irrespective of the 8-, 12-, or 16-channel modularity. The HE 10 connectors can be molded (TSXCDP●●●) or insulation piercing (ABFH20H●●●). These cordsets are available in 0.5 m/1.64 ft, 1 m/3.28 ft, 2 m/6.56 ft, 3 m/9.84 ft, and 5 m/16.4 ft lengths. They use AWG 28 (0.08 mm<sup>2</sup>) for connecting inputs and relay sub-bases, and AWG 22 (0.324 mm<sup>2</sup>) for direct connection of 0.5 A outputs of 8 and 28 I/O modules.
- 3 16 channels may be split into 2 x 8 channels using splitter sub-base ABE7ACC02.
- 4-5 8-channel and 16-channel sub-bases respectively.

(1) The 24 V --- power supply is connected using Telefast sub-bases only. The 0 V --- connections must be equipotential.

## Information retained for after-sales service

## Combinations

### I/O modules for TSX Micro PLCs

|                        | 24 V $\square$ discrete |                |          |                |          |              | Counter      |                  | Analog and counter |
|------------------------|-------------------------|----------------|----------|----------------|----------|--------------|--------------|------------------|--------------------|
|                        | I/O                     |                |          |                |          | Inputs       | Outputs      | Auxiliary inputs |                    |
|                        | 8 I + 8 Q               | 1 x 16 I       | 1 x 12 Q | 2 x 16 I       | 2 x 16 Q | 1 x 12 I     | 1 x 8 Q      | –                |                    |
| Integrated in the PLCs | –                       | TSX3710128DTK1 |          | TSX3710164DTK1 |          | –            | –            | –                | TSX3722001         |
|                        | –                       | –              | –        | –              | –        | –            | –            | –                | TSX3722011         |
| With modules           | TSX DMZ16DTK            | TSX DMZ28DTK   |          | TSX DMZ64DTK   |          | TSX DEZ12D2K | TSX DSZ08T2K | TSX CTZ1A        | TSX CTZ1A          |
|                        | –                       | –              | –        | –              | –        | –            | –            | TSX CTZ1A        | TSX CTZ1A          |

### Connection sub-bases

|                                                                                                                                                                                                                |  |     |  |     |     |  |                |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----|--|-----|-----|--|----------------|--|--|
| 8 channels ABE7H08R21                                                                                                                                                                                          |  | (1) |  | (1) | (1) |  |                |  |  |
| 16 channels ABE7H16R20, ABE7H16R21, ABE7H16S21, ABE7H16R31, ABE7H16R23, ABE7H16C10, ABE7H16C11, ABE7H16C21, ABE7H16C31, ABE7H20E, ABE7H20E100, ABE7H20E200 (2), ABE7H16S21, ABE7H16R23, ABE7H16F43, ABE7H16S43 |  |     |  |     |     |  | ABE7H16R20 (3) |  |  |

### Input adapter sub-bases

|                                                                                                       |  |  |  |  |     |  |  |  |  |
|-------------------------------------------------------------------------------------------------------|--|--|--|--|-----|--|--|--|--|
| 16 channels ABE7S16E2B1, ABE7S16E2E1, ABE7S16E2E0, ABE7S16E2F0, ABE7S16E2M0, ABE7P16F310, ABE7P16F312 |  |  |  |  | (4) |  |  |  |  |
|                                                                                                       |  |  |  |  | (4) |  |  |  |  |

### Input and output adapter sub-bases

|                         |  |  |  |  |  |  |  |  |  |
|-------------------------|--|--|--|--|--|--|--|--|--|
| 16 channels ABE7R16M111 |  |  |  |  |  |  |  |  |  |
| 8 I + 8 Q               |  |  |  |  |  |  |  |  |  |

### Output adapter sub-bases

|                                                                                                        |  |  |     |     |  |  |  |  |  |
|--------------------------------------------------------------------------------------------------------|--|--|-----|-----|--|--|--|--|--|
| 8 channels ABE7R08S111, ABE7R08S210                                                                    |  |  |     | (1) |  |  |  |  |  |
| 16 channels ABE7S16S2B0, ABE7S16S1B2                                                                   |  |  |     |     |  |  |  |  |  |
| ABE7R16S111, ABE7R16S210, ABE7R16S212                                                                  |  |  | (5) |     |  |  |  |  |  |
| ABE7R16T111, ABE7R16T210, ABE7R16T212, ABE7R16T230, ABE7R16T330, ABE7R16T370                           |  |  | (5) |     |  |  |  |  |  |
| ABE7P16T111, ABE7P16T210, ABE7P16T230, ABE7P16T214, ABE7P16T215, ABE7P16T330, ABE7P16T334, ABE7P16T318 |  |  | (5) |     |  |  |  |  |  |

### Sub-bases for analog/counter I/O

|           |  |  |  |  |  |  |  |  |  |
|-----------|--|--|--|--|--|--|--|--|--|
| ABE7CPA01 |  |  |  |  |  |  |  |  |  |
| ABE7CPA11 |  |  |  |  |  |  |  |  |  |
| ABE7CPA02 |  |  |  |  |  |  |  |  |  |
| ABE7CPA03 |  |  |  |  |  |  |  |  |  |

(1) Using splitter sub-base ABE7ACC02, which allows 16 channels to be split into 2 x 8 channels.

(2) ABE7H20E100 and ABE7H20E200 Economy sub-bases including cordset.

(3) With TSXCTZ2A module, to be used with sub-bases with no LED.

(4) The last four channels are not used.

(5) The last four channels are not used and remain at state 1.

 Preassembled cordsets

#### Presentation (1)

Using the Telefast connector or adapter system rationalizes and simplifies electrical enclosure wiring.

Far less space is required in the enclosure and the Modicon ABE7 sub-base replaces the connection terminals at the bottom of the enclosure.

The Telefast wiring system is particularly suitable for applications requiring:

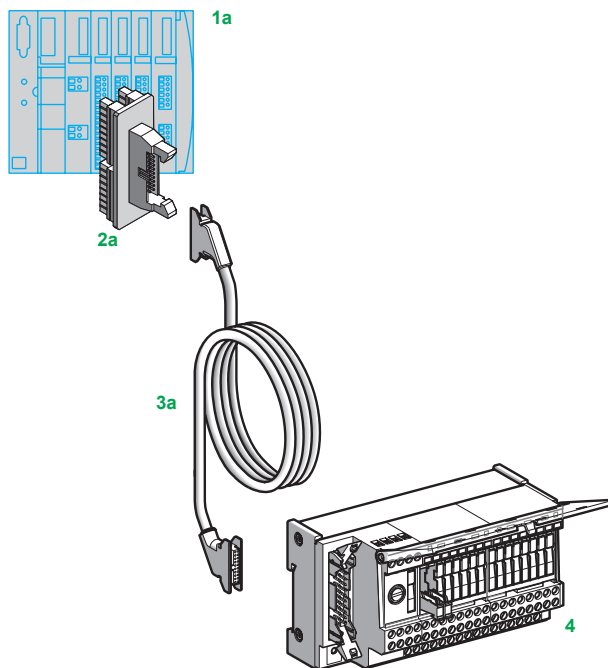
- 48 V  $\square$  and 48 V  $\sim$  I/O
- A large number of 115 V  $\sim$  and 230 V  $\sim$  I/O
- A large number of relay outputs

Connection of Modicon STB I/O modules to the Telefast system differs according to the type of module:

- **STBDDI3725** and **STBDDO3705** 16-channel digital I/O modules: connection via Telefast HE 10 connectors and their associated Telefast cables. These connection components must be ordered separately (see description below and combinations on [page 39](#)).
- Other Modicon STB digital and analog I/O modules: connection via screw or spring-type 5/6-way removable connectors, supplied with the I/O modules and the associated pre-wired cables. The latter must be ordered separately (see below).

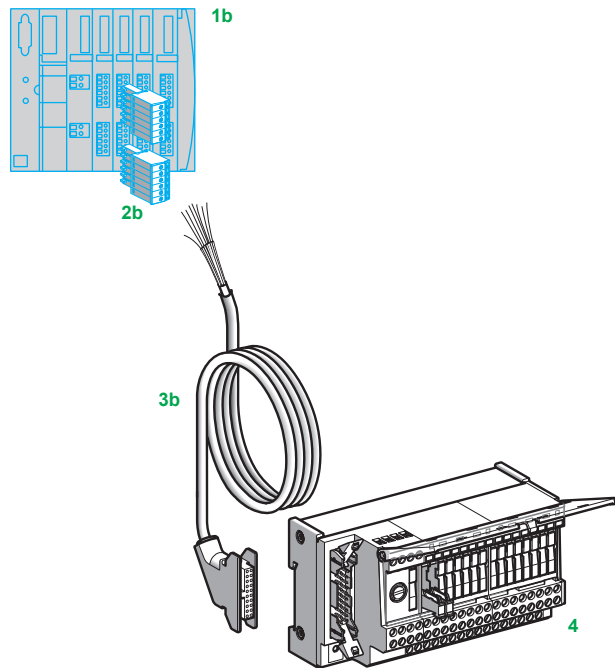
#### Description (1)

##### STBDDI3725 and STBDDO3705 16-channel digital I/O modules



- 1a Modicon STB I/O island incorporating a STBDDI3725 or STBDDO3705 module with 16 I/O
- 2a STBXTS5•10 (DDI) or STBXTS6•90 (DDO) HE10 connector
- 3a TSXCDP•02 or TSXCDP•03 connection cable equipped with two 20-way HE10 connectors
- 4 Modicon ABE7 connection or adapter sub-base (see compatibility table on [page 39](#))

##### Other Modicon STB digital and analog I/O modules



- 1b Modicon STB I/O island incorporating a digital I/O module STBDDI/DDO••••K (except for 16-channel modules) or an STBAVI/ACI/ART/AVO/ACO••••K analog I/O module
- 2b Screw or spring-type 5/6-way removable connectors, supplied with the STB I/O module
- 3b TSXCDP301/501/1001 pre-wired cable (3, 5, or 10 m/9.84, 16.4, or 32.81 ft), with HE10 connector at one end and flying leads at the other end (cross-section 0.324 mm<sup>2</sup>, AWG24)
- 4 Modicon ABE7 connection or adapter sub-base

#### Redundancy solution for Modicon STB I/O (1)

Two Modicon STB I/O modules of the same type, located in two separate islands, can be connected to a single Telefast pre-wired sub-base (I/O redundancy). This configuration is used, for example, in the context of a Premium Hot Standby architecture (please refer to our "Modicon Premium automation platform" catalog).

Digital I/O modules are connected via an **ABE7ACC11** (inputs) or **ABE7ACC10** (outputs) redundancy sub-base and the same connectors and cables or ribbon cables used for single connections.

STB analog I/O modules are connected via JM Concept JK 3000 N2 (inputs) and GK 3000 D1 (outputs) analog I/O multiplexers.

(1) If you require any more information on the Telefast pre-wired system, please contact our [Customer Care Center](#).

## Combinations of STB modules with 16 digital I/O and Modicon ABE7 sub-bases (1) (2)

| Modicon ABE7 sub-bases<br>(Item 4)           |                                                                                          | STBDDI3725<br>(item 1a)                                                                                                                                                                                                                                                                     |                                                                                                                        | STBDDO3705<br>(item 1a)                                                                                                          |                                                                                                   | Ribbon cables<br>(item 3a)                                                                                                       | Cables<br>(item 3a)                                                                               |           |
|----------------------------------------------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|-----------|
|                                              |                                                                                          | Associated STBXTS●●●●<br>connector (item 2a)                                                                                                                                                                                                                                                |                                                                                                                        |                                                                                                                                  |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
| Passive connection sub-bases (16-channel)    |                                                                                          |                                                                                                                                                                                                                                                                                             |                                                                                                                        |                                                                                                                                  |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
| Universal                                    | ABE7H16R10, ABE7H16R11, ABE7H16R50,<br>ABE7H16R20, ABE7H16R21, ABE7H16R31,<br>ABE7H16R23 |                                                                                                                                                                                                                                                                                             | STBXTS6510                                                                                                             | STBXTS6610                                                                                                                       | TSXCDP102,<br>TSXCDP202,<br>TSXCDP302                                                             | (100 mA total<br>max.) (3)<br>or<br>ABFH20H100,<br>ABFH20H200<br>(> 500 mA total<br>max.)                                        | TSXCDP053,<br>TSXCDP103,<br>TSXCDP203,<br>TSXCDP303,<br>TSXCDP503<br>(> 500 mA total<br>max.) (4) |           |
|                                              | ABE7H16S21                                                                               |                                                                                                                                                                                                                                                                                             |                                                                                                                        |                                                                                                                                  |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
|                                              | ABE7H16S43                                                                               |                                                                                                                                                                                                                                                                                             |                                                                                                                        |                                                                                                                                  |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
|                                              | ABE7H16F43                                                                               |                                                                                                                                                                                                                                                                                             |                                                                                                                        | STBXTS6610                                                                                                                       |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
| Miniature                                    | ABE7H16C10                                                                               |                                                                                                                                                                                                                                                                                             | STBXTS6510                                                                                                             |                                                                                                                                  | ABFH20H100,<br>ABFH20H200<br>(> 500 mA total<br>max.)                                             |                                                                                                                                  |                                                                                                   |           |
|                                              | ABE7H16C11                                                                               |                                                                                                                                                                                                                                                                                             |                                                                                                                        |                                                                                                                                  |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
|                                              | ABE7H16C21                                                                               |                                                                                                                                                                                                                                                                                             |                                                                                                                        |                                                                                                                                  |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
|                                              | ABE7H16C31                                                                               |                                                                                                                                                                                                                                                                                             |                                                                                                                        |                                                                                                                                  |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
| Input adapter active sub-bases (16-channel)  |                                                                                          |                                                                                                                                                                                                                                                                                             |                                                                                                                        |                                                                                                                                  |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
| Voltage                                      |                                                                                          | Modicon ABE7 sub-base                                                                                                                                                                                                                                                                       |                                                                                                                        |                                                                                                                                  |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
| V                                            |                                                                                          |                                                                                                                                                                                                                                                                                             |                                                                                                                        |                                                                                                                                  |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
| 48 ---                                       | ABE7S16E2E1                                                                              | STBXTS6510                                                                                                                                                                                                                                                                                  |                                                                                                                        | TSXCDP102,<br>TSXCDP202,<br>TSXCDP302,<br>(100 mA total<br>max.) (3) or<br>ABFH20H100,<br>ABFH20H200<br>(> 500 mA total<br>max.) | TSXCDP053,<br>TSXCDP103,<br>TSXCDP203,<br>TSXCDP303,<br>TSXCDP503<br>(> 500 mA total<br>max.) (4) |                                                                                                                                  |                                                                                                   |           |
| 48 ~                                         | ABE7S16E2E0                                                                              |                                                                                                                                                                                                                                                                                             |                                                                                                                        |                                                                                                                                  |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
| 115 ~                                        | ABE7S16E2F0                                                                              |                                                                                                                                                                                                                                                                                             |                                                                                                                        |                                                                                                                                  |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
| 230...240 ~                                  | ABE7S16E2M0                                                                              |                                                                                                                                                                                                                                                                                             |                                                                                                                        |                                                                                                                                  |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
|                                              | ABE7P16F310<br>ABE7P16F312                                                               |                                                                                                                                                                                                                                                                                             |                                                                                                                        |                                                                                                                                  |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
| Output adapter active sub-bases (16-channel) |                                                                                          |                                                                                                                                                                                                                                                                                             |                                                                                                                        |                                                                                                                                  |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
| Type                                         | Voltage                                                                                  | Current<br>per<br>channel                                                                                                                                                                                                                                                                   | Modicon sub-base<br>ABE7                                                                                               | Relay                                                                                                                            |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
|                                              | V                                                                                        | A                                                                                                                                                                                                                                                                                           |                                                                                                                        |                                                                                                                                  |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
| Relay                                        | 24 ---                                                                                   | 0.5                                                                                                                                                                                                                                                                                         | ABE7S16S2B0                                                                                                            | —                                                                                                                                | STBXTS6610                                                                                        | TSXCDP102,<br>TSXCDP202,<br>TSXCDP302,<br>(100 mA total<br>max.) (3) or<br>ABFH20H100,<br>ABFH20H200<br>(> 500 mA total<br>max.) | TSXCDP053,<br>TSXCDP103,<br>TSXCDP203,<br>TSXCDP303,<br>TSXCDP503<br>(> 500 mA total<br>max.) (4) |           |
|                                              |                                                                                          | 0.5                                                                                                                                                                                                                                                                                         | ABE7S16S1B2                                                                                                            | —                                                                                                                                |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
|                                              |                                                                                          | ≥ 0.7                                                                                                                                                                                                                                                                                       | ABE7P16T111, ABE7P16T210,<br>ABE7P16T230, ABE7P16T214,<br>ABE7P16T215, ABE7P16T330,<br>ABE7P16T334, ABE7P16T318<br>(5) | —                                                                                                                                |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
|                                              | 48 ---                                                                                   | 0.5                                                                                                                                                                                                                                                                                         | ABE7P16T210, ABE7P16T230,<br>ABE7P16T214, ABE7P16T215<br>(5)                                                           | ABS7C2E                                                                                                                          |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
|                                              | 48 ~                                                                                     | 0.5                                                                                                                                                                                                                                                                                         | ABE7P16T210, ABE7P16T230,<br>ABE7P16T214, ABE7P16T215<br>(5)                                                           | ABS7SA2M                                                                                                                         |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
|                                              | 115 ~                                                                                    | 0.5                                                                                                                                                                                                                                                                                         | ABE7P16T210, ABE7P16T230,<br>ABE7P16T214, ABE7P16T215<br>(5)                                                           | ABS7SA2M                                                                                                                         |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
|                                              | 230...240 ~                                                                              | 0.5                                                                                                                                                                                                                                                                                         | ABE7P16T210, ABE7P16T230,<br>ABE7P16T214, ABE7P16T215<br>(5)                                                           | ABS7SA2M                                                                                                                         |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
|                                              | Solid-state                                                                              | 24...240 ~                                                                                                                                                                                                                                                                                  | 1.5                                                                                                                    | ABE7P16T330, ABE7P16T334,<br>ABE7P16T318                                                                                         |                                                                                                   |                                                                                                                                  |                                                                                                   | ABS7SA3MA |
|                                              |                                                                                          | 24...48 ---                                                                                                                                                                                                                                                                                 | 1.5                                                                                                                    | ABE7P16T330, ABE7P16T334,<br>ABE7P16T318                                                                                         |                                                                                                   |                                                                                                                                  |                                                                                                   | ABS7SC3E  |
|                                              |                                                                                          | 24 ---                                                                                                                                                                                                                                                                                      | 2                                                                                                                      | ABE7P16T330, ABE7P16T334,<br>ABE7P16T318                                                                                         |                                                                                                   |                                                                                                                                  |                                                                                                   | ABS7SC3BA |
| Economy<br>relay                             | 30 ---                                                                                   | 2                                                                                                                                                                                                                                                                                           | ABE7R16S111, ABE7R16S210,<br>ABE7R16S212                                                                               | —                                                                                                                                |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
|                                              |                                                                                          | 2..5                                                                                                                                                                                                                                                                                        | ABE7R16S210, ABE7R16S212                                                                                               | —                                                                                                                                |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
|                                              | 230 ~                                                                                    | 2                                                                                                                                                                                                                                                                                           | ABE7R16S111, ABE7R16S210,<br>ABE7R16S212                                                                               | —                                                                                                                                |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
|                                              |                                                                                          | 2..5                                                                                                                                                                                                                                                                                        | ABE7R16S210, ABE7R16S212                                                                                               | —                                                                                                                                |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
|                                              | Compatible                                                                               | ⚠ The STB module can provide the 24 V --- power to the Modicon ABE7 block provided the current does not exceed 50 mA per group of 4 channels. Otherwise an external power supply will be required and only the reference 0 V should be connected between the STB module and the ABE7 block. |                                                                                                                        |                                                                                                                                  |                                                                                                   |                                                                                                                                  |                                                                                                   |           |
|                                              | Not compatible                                                                           |                                                                                                                                                                                                                                                                                             |                                                                                                                        |                                                                                                                                  |                                                                                                   |                                                                                                                                  |                                                                                                   |           |

(1) Combinations given for 16-channel Modicon STB digital I/O modules (STBDDI3725, STBDDO3705). For other Modicon STB modules (1b), connectors (2b) are included with the modules and the connection is made via TSXCDP●●●● pre-wired cable (3b). See page 38.

(2) The item numbers indicated in this table correspond to the item numbers mentioned in the description on page 38.

(3) In 1 to 5 m (3.28 to 16.4 ft) lengths.

(4) In 0.5 m to 5 m (1.64 to 16.4 ft) lengths.

(5) Empty sub-bases.

|                                 |                   |                                                                                    |                      |                        |
|---------------------------------|-------------------|------------------------------------------------------------------------------------|----------------------|------------------------|
| Splitter box and interface type |                   | IP67 passive splitter boxes                                                        |                      |                        |
|                                 |                   |  |                      |                        |
| Fieldbus type                   |                   | -                                                                                  |                      |                        |
| Inputs/outputs                  | Discrete          | 8 I/O (4 channels), 16 I/O (8 channels)                                            |                      |                        |
|                                 | Analog            | -                                                                                  |                      |                        |
| Functions                       |                   | Connection of 1 to 16 sensors/actuators<br>LED indicator depending on model        |                      |                        |
| Connections                     | Sensors/actuators | Female M12, 5-way connectors                                                       |                      |                        |
|                                 | Control system    | Male M23 connector                                                                 | Multicore cable      |                        |
|                                 |                   |                                                                                    | Length 5 m (16.4 ft) | Length 10 m (32.81 ft) |
| Housing type                    |                   | Plastic                                                                            |                      |                        |
| Module type                     |                   | ABE 9C12●●C23                                                                      | ABE 9C12●●L05        | ABE 9C12●●L10          |
| Page                            |                   | 42                                                                                 |                      |                        |

### Presentation

■ ABE9 passive splitter boxes for M12 connectors make it possible to eliminate long and difficult cabling operations. Their modularity and dimensions mean they are the ideal solution for a wide variety of customer applications.

Connection to the processing unit can either be made by connector or by multicore cable of different lengths.

IP67 protection allows these products to be used within processes or machines in harsh environments (splashing water, oil, dust, etc.).

The splitter boxes, available in 4 or 8-channel versions, allow connection of up to 16 signals maximum, depending on the version (2 per channel).

**The characteristics of ABE9C12 splitter boxes are as follows:**

- Connection of sensors and actuators using M12, 5-way connectors
- Modularity: 4 or 8 channels
- Mounting system and connection to the processing unit conforming to market standards:

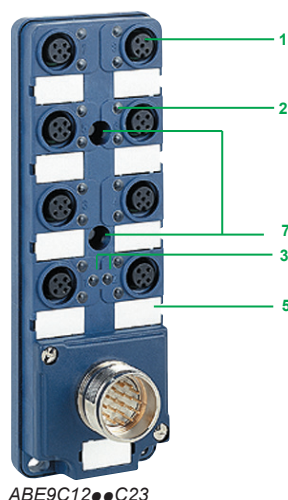
- center-to-center distances
- M23, 19-way connector, enabling the use of preassembled cables in order to reduce installation time and the risk of error
- multicore cable, 5 or 10 meters long. The splitter box comprises a connection cover equipped with plug-in terminals, which provides considerable flexibility for replacing damaged parts and changing the cable length.

ABE9C12●●L●● sub-bases enable the use of 2 separate commons, which can be used for emergency stop management, for example. This function is accessible beneath the terminal cover using 2 removable links. If both links are removed, the 2 supplies become independent.

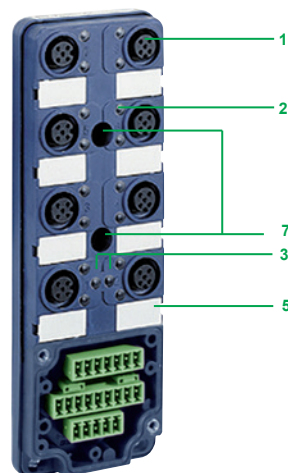
The use of a Y-connector allows 2 signals to be connected to the same M12 channel on the splitter box. For example, the **ABE9C1281** splitter box (8 channels) allows 16 signals to be connected to the processing unit.

The Y-connector is available in 2 versions:

- M12-M12 for connection of two M12 connectors to a single M12 channel on the splitter box
- M8-M12 for connection of two M8 connectors to a single M12 channel on the splitter box



ABE9C12●●C23



ABE9C12●●L●●



| Complete reference    | = Splitter box only | + Connector with cable |
|-----------------------|---------------------|------------------------|
| ABE9C1240L05          | = ABE9C1240M        | + ABE9XCA1405 (1)      |
| ABE9C1240L10          | = ABE9C1240M        | + ABE9XCA1410          |
| ABE9C1241L05          | = ABE9C1241M        | + ABE9XCA1405 (1)      |
| ABE9C1241L10          | = ABE9C1241M        | + ABE9XCA1410          |
| ABE9C1280L05          | = ABE9C1280M        | + ABE9XCA1805          |
| ABE9C1280L10          | = ABE9C1280M        | + ABE9XCA1810          |
| ABE9C1281L05          | = ABE9C1281M        | + ABE9XCA1805          |
| ABE9C1281L10          | = ABE9C1281M        | + ABE9XCA1810          |
| <b>Connector only</b> |                     |                        |
| ABE9CM12C             |                     |                        |

### Description

ABE9C12●●C23 passive splitter boxes have the following on the front face:

- 1 Four or eight M12 female connectors (depending on model) for connection of sensors and actuators (2 channels per connector)
- 2 Eight or sixteen channel status indicator lights (depending on model)
- 3 One "Power on" indicator light on the splitter box (depending on model)
- 4 One M23, 19-way male connector
- 5 Four or eight channel marker labels
- 6 One splitter box marker label
- 7 Splitter box fixing holes

ABE9C12●●L●● passive splitter boxes have the following on the front face:

- 1 Four or eight M12 female connectors (depending on model) for connection of sensors and actuators (2 channels per connector)
- 2 Eight or sixteen channel status indicator lights (depending on model)
- 3 Two "Power on" indicator lights on the splitter box (depending on model)
- 4 One removable connection cover equipped with plug-in terminals
- 5 Four or eight channel marker labels
- 6 One splitter box marker label
- 7 Splitter box fixing holes

(1) Product no longer commercially available, replaced by ABE9XCA1410.



ABE9C124●C23



ABE9C128●C23



ABE9C124●L●●



ABE9C128●L●●



ABE9C128●M



ABE9XCA1●●●



FTXCY1212

### References

#### Splitter boxes with connection by M23 connector

| Number of channels | Connection by             | LED indicator | Reference                    | Weight<br>kg<br>lb |
|--------------------|---------------------------|---------------|------------------------------|--------------------|
| 4                  | 4 x M12 female connectors | Yes           | <a href="#">ABE9C1241C23</a> | 0.080<br>0.176     |
| 8                  | 8 x M12 female connectors | Yes           | <a href="#">ABE9C1281C23</a> | 0.140<br>0.309     |
|                    |                           | No            | <a href="#">ABE9C1280C23</a> | 0.140<br>0.309     |

#### Splitter boxes with connection by cable

| Number of channels | Connection by             | Length<br>m<br>ft | LED indicator | Reference                    | Weight<br>kg<br>lb |
|--------------------|---------------------------|-------------------|---------------|------------------------------|--------------------|
| 4                  | 4 x M12 female connectors | 5<br>16.4         | Yes           | <a href="#">ABE9C1241L05</a> | 0.680<br>1.499     |
|                    |                           |                   | No            | <a href="#">ABE9C1240L05</a> | 0.680<br>1.499     |
|                    |                           | 10<br>32.8        | Yes           | <a href="#">ABE9C1241L10</a> | 1.700<br>3.747     |
|                    |                           |                   | No            | <a href="#">ABE9C1240L10</a> | 1.700<br>3.747     |
| 8                  | 8 x M12 female connectors | 5<br>16.4         | Yes           | <a href="#">ABE9C1281L05</a> | 1.610<br>3.549     |
|                    |                           |                   | No            | <a href="#">ABE9C1280L05</a> | 1.610<br>3.549     |
|                    |                           | 10<br>32.8        | Yes           | <a href="#">ABE9C1281L10</a> | 3.060<br>6.746     |
|                    |                           |                   | No            | <a href="#">ABE9C1280L10</a> | 3.060<br>6.746     |

#### Splitter boxes only, M12

| Number of channels | For use with connector |             | LED indicator | Reference                  | Weight<br>kg<br>lb |
|--------------------|------------------------|-------------|---------------|----------------------------|--------------------|
|                    | Terminal block         | With cable  |               |                            |                    |
| 4                  | ABE9CM12C              | ABE9XCA14●● | Yes           | <a href="#">ABE9C1241M</a> | 0.060<br>0.132     |
|                    |                        |             | No            | <a href="#">ABE9C1240M</a> | 0.060<br>0.132     |
| 8                  | ABE9CM12C              | ABE9XCA18●● | Yes           | <a href="#">ABE9C1281M</a> | 0.100<br>0.220     |
|                    |                        |             | No            | <a href="#">ABE9C1280M</a> | 0.100<br>0.220     |

#### Separate components

| Type                         | No. of channels | For use with splitter box | Length<br>m<br>ft | Reference                   | Weight<br>kg<br>lb |
|------------------------------|-----------------|---------------------------|-------------------|-----------------------------|--------------------|
| Terminal block connector (1) | —               | ABE9C124●M<br>ABE9C128●M  | —                 | <a href="#">ABE9CM12C</a>   | 0.040<br>0.088     |
| Connectors with cable        | 4               | ABE9C124●M                | 10<br>32.8        | <a href="#">ABE9XCA1410</a> | 2.080<br>4.585     |
|                              |                 |                           | 5<br>16.4         | <a href="#">ABE9XCA1805</a> | 1.510<br>3.328     |
|                              | 8               | ABE9C128●M                | 10<br>32.8        | <a href="#">ABE9XCA1810</a> | 2.240<br>4.938     |
|                              |                 |                           | 5<br>16.4         |                             |                    |

#### Accessories

| Description  | Composition                                                       | Reference                 | Weight<br>kg<br>lb |
|--------------|-------------------------------------------------------------------|---------------------------|--------------------|
| Y-connectors | Connection of 2 x M8 connectors to M12 connector on splitter box  | <a href="#">FTXCY1208</a> | 0.020<br>0.044     |
|              | Connection of 2 x M12 connectors to M12 connector on splitter box | <a href="#">FTXCY1212</a> | 0.030<br>0.066     |

(1) To be cabled by user.

## Telefast Pre-wired system

## Modicon ABE7 IP20 connection sub-bases

## Modicon ABE9 IP67 passive splitter boxes

## Product reference index

|             |    |            |    |             |    |             |    |             |    |
|-------------|----|------------|----|-------------|----|-------------|----|-------------|----|
| #           |    | ABE7H08R21 | 10 | ABE7H16R23  | 10 | ABE7P16T210 | 9  | ABE7R16S210 | 11 |
| 140ACI03000 | 35 |            | 16 |             | 16 |             | 11 |             | 17 |
| 140ACO02000 | 35 |            | 28 |             | 28 |             | 18 |             | 25 |
| 140ACO13000 | 35 |            | 31 |             | 31 |             | 25 |             | 28 |
| 140AVI03000 | 35 |            | 33 |             | 33 |             | 28 |             | 31 |
| 140AVO02000 | 35 |            | 35 |             | 35 |             | 28 |             | 35 |
| 140DDI35300 | 35 |            | 37 |             | 37 |             | 31 |             | 37 |
| 140DDI36400 | 35 | ABE7H16C10 | 10 |             | 39 |             | 37 |             | 39 |
| 140DDI85300 | 35 |            | 16 | ABE7H16R31  | 11 |             | 39 | ABE7R16S212 | 11 |
| 140DDO35300 | 35 |            | 24 |             | 16 | ABE7P16T214 | 9  |             | 17 |
| 140DDO36400 | 35 |            | 25 |             | 25 |             | 11 |             | 25 |
|             |    |            | 28 |             | 31 |             | 18 |             | 28 |
|             |    |            | 31 |             | 33 |             | 25 |             | 31 |
|             |    |            | 33 |             | 37 |             | 28 |             | 35 |
|             |    |            | 37 |             | 39 |             | 31 |             | 37 |
|             |    |            | 39 | ABE7H16R50  | 10 |             | 37 |             | 39 |
| A           |    | ABE7H16C11 | 10 |             | 16 |             | 39 | ABE7R16T111 | 9  |
| ABC6HE20F   | 22 |            | 16 |             | 25 | ABE7P16T215 | 9  |             | 11 |
| ABE7ACC02   | 22 |            | 24 |             | 28 |             | 11 |             | 18 |
| ABE7ACC10   | 22 |            | 25 |             | 31 |             | 18 |             | 24 |
| ABE7ACC11   | 22 |            | 28 |             | 39 |             | 25 |             | 25 |
| ABE7ACC12   | 23 |            | 31 | ABE7H16S21  | 10 |             | 28 |             | 28 |
| ABE7ACC21   | 9  |            | 33 |             | 16 |             | 31 |             | 31 |
|             | 22 |            | 37 |             | 25 |             | 37 |             | 37 |
|             |    |            | 39 |             | 28 |             | 39 | ABE7R16T210 | 9  |
| ABE7BV10    | 22 | ABE7H16C21 | 10 |             | 28 | ABE7P16T230 | 11 |             | 11 |
| ABE7BV20    | 22 |            | 16 |             | 31 |             | 18 |             | 18 |
| ABE7CPA01   | 12 |            | 24 |             | 33 |             | 28 |             | 25 |
|             | 19 |            | 25 |             | 35 |             | 31 |             | 28 |
|             | 33 |            | 28 |             | 37 |             | 37 |             | 31 |
|             | 37 |            | 31 |             | 39 |             | 39 |             | 37 |
| ABE7CPA02   | 12 |            | 33 | ABE7H16S31  | 28 | ABE7P16T318 | 9  | ABE7R16T212 | 9  |
|             | 19 |            | 37 | ABE7H16S43  | 11 |             | 11 |             | 11 |
|             | 28 | ABE7H16C31 | 10 |             | 16 |             | 18 |             | 18 |
|             | 29 |            | 16 |             | 25 |             | 25 |             | 25 |
|             | 32 |            | 24 |             | 28 |             | 28 |             | 28 |
|             | 35 |            | 25 |             | 31 |             | 31 |             | 31 |
| ABE7CPA03   | 12 |            | 28 |             | 35 |             | 37 |             | 37 |
|             | 19 |            | 31 |             | 37 | ABE7P16T330 | 9  | ABE7R16T230 | 9  |
|             | 28 |            | 33 | ABE7H20E    | 39 |             | 11 |             | 11 |
|             | 29 |            | 37 |             | 31 |             | 18 |             | 18 |
|             | 32 |            | 39 |             | 33 |             | 25 |             | 25 |
|             | 35 | ABE7H16F43 | 11 |             | 37 |             | 28 |             | 28 |
| ABE7CPA21   | 12 |            | 16 | ABE7H20E000 | 10 |             | 31 |             | 31 |
|             | 19 |            | 25 |             | 16 |             | 37 |             | 37 |
|             | 28 |            | 28 |             | 24 |             | 39 | ABE7R16T330 | 9  |
|             | 29 |            | 31 |             | 25 | ABE7P16T334 | 9  |             | 11 |
|             | 32 |            | 35 | ABE7H20E100 | 16 |             | 11 |             | 18 |
|             | 35 |            | 37 |             | 31 |             | 18 |             | 25 |
| ABE7CPA31   | 12 |            | 39 |             | 33 |             | 25 |             | 28 |
|             | 19 | ABE7H16R10 | 16 |             | 37 |             | 28 |             | 31 |
|             | 28 |            | 25 | ABE7H20E200 | 16 |             | 31 | ABE7R16T370 | 9  |
|             | 29 |            | 28 |             | 31 |             | 37 |             | 11 |
|             | 32 |            | 31 |             | 33 |             | 39 |             | 18 |
|             | 35 |            | 39 |             | 37 | ABE7R08S111 | 11 |             | 25 |
| ABE7CPA31E  | 12 | ABE7H16R11 | 16 | ABE7H34E100 | 16 |             | 17 |             | 28 |
|             | 19 |            | 25 |             | 28 |             | 28 |             | 31 |
|             | 28 |            | 28 | ABE7H34E200 | 16 |             | 31 |             | 37 |
|             | 29 |            | 31 |             | 28 |             | 35 | ABE7S16E2B1 | 17 |
|             |    |            | 39 | ABE7P16F310 | 11 |             | 37 |             | 25 |
| ABE7CPA410  | 12 | ABE7H16R20 | 10 |             | 18 | ABE7R08S210 | 11 |             | 28 |
|             | 19 |            | 16 |             | 25 |             | 17 |             | 31 |
|             | 28 |            | 25 |             | 35 |             | 28 |             | 35 |
|             | 29 |            | 28 |             | 37 |             | 31 |             | 37 |
| ABE7CPA412  | 12 |            | 31 |             | 39 |             | 35 | ABE7S16E2E0 | 17 |
|             | 19 |            | 33 | ABE7P16F312 | 11 |             | 37 |             | 25 |
|             | 28 |            | 37 |             | 18 | ABE7R16M111 | 9  |             | 28 |
|             | 29 |            | 39 |             | 25 |             | 10 |             | 31 |
| ABE7FU012   | 22 | ABE7H16R21 | 10 |             | 35 |             | 18 |             | 37 |
| ABE7FU030   | 22 |            | 16 |             | 37 |             | 37 |             | 39 |
| ABE7FU050   | 22 |            | 25 |             | 39 | ABE7R16S111 | 11 | ABE7S16E2E1 | 11 |
| ABE7FU100   | 22 |            | 28 | ABE7P16T111 | 9  |             | 17 |             | 17 |
| ABE7FU200   | 22 |            | 31 |             | 11 |             | 24 |             | 25 |
| ABE7FU400   | 22 |            | 33 |             | 18 |             | 25 |             | 28 |
| ABE7FU630   | 22 |            | 37 |             | 24 |             | 28 |             | 31 |
|             |    |            | 39 |             | 25 |             | 31 |             | 37 |
|             |    |            |    |             | 28 |             | 35 |             | 39 |
|             |    |            |    |             | 31 |             | 37 |             |    |
|             |    |            |    |             | 37 |             | 39 |             |    |
|             |    |            |    |             | 39 |             |    |             |    |

|              |                                              |              |               |             |                      |
|--------------|----------------------------------------------|--------------|---------------|-------------|----------------------|
| ABE7S16E2F0  | 11<br>17<br>25<br>28<br>31<br>37<br>39       | ABFH34M200   | 20            | <b>F</b>    |                      |
|              |                                              | ABFM08S201   | 21<br>35      | FTXCY1208   | 43                   |
|              |                                              | ABFM32H300   | 21<br>35      | FTXCY1212   | 43                   |
|              |                                              | ABFM32H301   | 21<br>35      | <b>S</b>    |                      |
| ABE7S16E2M0  | 11<br>17<br>25<br>28<br>31<br>37<br>39       | ABFT20E050   | 20            | STBDDI3725  | 39                   |
|              |                                              | ABFT20E100   | 20            | STBDDO3705  | 39                   |
|              |                                              | ABFT20E200   | 20            | <b>T</b>    |                      |
|              |                                              | ABFTE20EP100 | 20            | TM221M32TK  | 24                   |
|              |                                              | ABFTE20EP200 | 20            | TM221ME32TK | 24                   |
| ABE7S16S1B2  | 11<br>17<br>25<br>28<br>31<br>37<br>39       | ABFTE20EP300 | 20            | TM3DI16K    | 24<br>25             |
|              |                                              | ABFTE20SP100 | 20            | TM3DI32K    | 24<br>25             |
|              |                                              | ABFTE20SP200 | 20            | TM3DQ16TK   | 25                   |
|              |                                              | ABFTE20SP300 | 20            | TM3DQ16UK   | 24<br>25             |
|              |                                              | ABR7S11      | 9<br>23       | TM3DQ32TK   | 25                   |
| ABE7S16S2B0  | 11<br>17<br>25<br>28<br>31<br>35<br>37<br>39 | ABR7S21      | 9<br>23       | TM3DQ32UK   | 24<br>25             |
|              |                                              | ABR7S23      | 9<br>23       | TSXCAP030   | 33                   |
|              |                                              | ABR7S33      | 9<br>23       | TSXCDP053   | 21<br>31<br>33<br>35 |
| ABE7TES160   | 22                                           | ABS7C2E      | 39            | TSXCDP102   | 39                   |
| ABE9C1240L05 | 42<br>43                                     | ABS7EA3B5    | 23            | TSXCDP103   | 21<br>31<br>33<br>35 |
| ABE9C1240L10 | 42<br>43                                     | ABS7EA3F5    | 23            | TSXCDP202   | 39                   |
|              |                                              | ABS7EA3M5    | 23            | TSXCDP203   | 21<br>31<br>33<br>35 |
| ABE9C1240M   | 42<br>43                                     | ABS7EC3B2    | 23            | TSXCDP302   | 39                   |
| ABE9C1241C23 | 43                                           | ABS7EC3E2    | 23            | TSXCDP303   | 21<br>31<br>33<br>35 |
| ABE9C1241L05 | 42<br>43                                     | ABS7SA2M     | 9<br>23<br>39 | TSXCDP503   | 21<br>31<br>33<br>35 |
| ABE9C1241L10 | 42<br>43                                     | ABS7SA3M     | 9<br>23       | TWDFCW30K   | 20                   |
| ABE9C1241M   | 42<br>43                                     | ABS7SA3MA    | 39            | TWDFCW50K   | 20                   |
| ABE9C1280C23 | 43                                           | ABS7SC1B     | 9<br>23       |             |                      |
| ABE9C1280L05 | 42<br>43                                     | ABS7SC2E     | 9<br>23       |             |                      |
| ABE9C1280L10 | 42<br>43                                     | ABS7SC3BA    | 9<br>23<br>39 |             |                      |
| ABE9C1280M   | 42<br>43                                     | ABS7SC3E     | 9<br>23<br>39 |             |                      |
| ABE9C1281C23 | 43                                           |              |               |             |                      |
| ABE9C1281L05 | 42<br>43                                     | AR1SB3       | 22            |             |                      |
| ABE9C1281L10 | 42<br>43                                     | <b>B</b>     |               |             |                      |
| ABE9C1281M   | 42<br>43                                     | BMEAHI0812   | 29            |             |                      |
| ABE9CM12C    | 42<br>43                                     | BMEAHO0412   | 29            |             |                      |
|              |                                              | BMXAMI0410   | 29            |             |                      |
| ABE9XCA1410  | 42<br>43                                     | BMXAMI0800   | 29            |             |                      |
|              |                                              | BMXAMI0810   | 29            |             |                      |
| ABE9XCA1805  | 42<br>43                                     | BMXAMO0210   | 29            |             |                      |
|              |                                              | BMXAMO0410   | 29            |             |                      |
| ABE9XCA1810  | 42<br>43                                     | BMXAMO0802   | 29            |             |                      |
|              |                                              | BMXART0414   | 29            |             |                      |
| ABFC08R02B   | 22                                           | BMXART0814   | 29            |             |                      |
| ABFC08R02R   | 22                                           |              |               |             |                      |
| ABFH20H100   | 20<br>31                                     | BMXDDI3202K  | 28            |             |                      |
|              |                                              | BMXDDI6402K  | 28            |             |                      |
| ABFH20H1000  | 20                                           | BMXDDM3202K  | 28            |             |                      |
| ABFH20H200   | 20<br>31                                     | BMXDDO3202K  | 28            |             |                      |
|              |                                              | BMXDDO6402K  | 28            |             |                      |
| ABFH20H301   | 20                                           |              |               |             |                      |
| ABFH34M100   | 20                                           |              |               |             |                      |

Life Is On



Learn more about our products at  
[www.se.com](http://www.se.com)

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Design: Schneider Electric  
Photos: Schneider Electric

**Schneider Electric Industries SAS**

Head Office  
35, rue Joseph Monier - CS 30323  
F-92500 Rueil-Malmaison Cedex  
France

DIA3ED2160602EN  
October 2022 - V4.0