Section 27

Automation Products

Modicon Zelio Logic Controller

Modicon M221 PLC

Modicon M241 PLC

Modicon M340 PAC

Modicon Quantum PAC

Magelis GTU Univeral Panels

Modicon™ Zelio™ Logic Controller

To meet the demand for applications that require more flexibility than a simple relay, timer or counter, but are too small or simple for the smallest Nano PLC, the new generation of Zelio Logic smart relays are now available. Designed to accept and control outputs just like a relay, Zelio Logic features dual language capability, using either Function Block Diagram (FBD) or Ladder Logic Programming (LL), and can easily be programmed by using either the front panel or by utilizing ZelioSoft software. This new generation of Zelio Logic smart relays provides customers with considerable gains from the design stage to the monitoring of their applications, due to its simplicity and flexibility.

More information is available at www.schneider-electric.com or in catalog DIA3ED2111202EN.

Modicon M221 PLC

Providing “Best in Class” performance for compact machine automation, the Modicon M221 PLC features intuitive machine programming using SoMachine Basic software, ready-to-use applications and standard function blocks. Its flexible and scalable machine control allows you to easily upgrade to higher performance platforms when necessary. With Ethernet, USB and serial ports, the Modicon M221 PLC provides optimum connectivity for simplified machine integration and maintenance.

Catalog Number	Description	Inputs	Outputs	Supply Volts
TM221C16R	Compact PLC 16 I/O Relay	9 Digital, 2 Analog	7 Relay	120 AC
TM221C24R	Compact PLC 24 I/O Relay	14 Digital, 2 Analog	10 Relay	120 AC
TM221C40R	Compact PLC 40 I/O Relay	24 Digital, 2 Analog	16 Relay	120 AC
TM221CE16R	Ethernet Compact PLC 16 I/O Relay	9 Digital, 2 Analog	7 Relay	120 AC
TM221CE16T	Ethernet Compact PLC 16 I/O PNP Transistor	9 Digital, 2 Analog	7 PNP	24 DC
TM221CE24R	Ethernet Compact PLC 24 I/O Relay	14 Digital, 2 Analog	10 Relay	120 AC
TM221CE24T	Ethernet Compact PLC 24 I/O PNP Transistor	14 Digital, 2 Analog	10 PNP	24 DC
TM221CE40R	Ethernet Compact PLC 40 I/O Relay	24 Digital, 2 Analog	16 Relay	120 AC
TM221CE40T	Ethernet Compact PLC 40 I/O PNP Transistor	24 Digital, 2 Analog	16 PNP	24 DC
TM221ME16R	Ethernet Modular PLC 16 I/O Relay	8 Digital, 2 Analog	8 Relay	24 DC
TM221ME16T	Ethernet Modular PLC 16 I/O PNP Transistor	8 Digital, 2 Analog	8 PNP	24 DC

Modicon M241 PLC

Designed for high-performance compact machines, incorporating speed and position control functions–the Modicon M241 PLC features a dual core processor–that provides tremendous processing power and memory size for complex applications. Machine programming is highly intuitive using SoMachine software, function blocks and ready-to-use applications. And, the M241 PLC’s simplified motor control integration and wiring allow for quick start-up and commissioning.

Catalog Number	Description	Inputs	Outputs	Supply Volts
TM241CE24R	Ethernet PLC 24 I/O Relay	14 Digital	4 PNP, 6 Relay	24 dc
TM241CE24T	Ethernet PLC 24 I/O PNP Transistor	14 Digital	10 PNP	24 dc
TM241CE40R	Ethernet PLC 40 I/O Relay	24 Digital	4 PNP, 12 Relay	24 dc
TM241CE40T	Ethernet PLC 40 I/O PNP Transistor	24 Digital	16 PNP	24 dc
TM241CEC24R	Ethernet CANopen PLC 24 I/O Relay	14 Digital	4 PNP, 6 Relay	24 dc
TM241CEC24T	Ethernet CANopen PLC 24 I/O PNP Transistor	14 Digital	10 PNP	24 dc

Modicon™ M251 PLC

The Modicon M251 PLC provides innovative, high-performance solutions for modular machines and distributed architectures with line control. Its intuitive SoMachine software, ready-to-use applications and function blocks allow you to optimize your programming time. And, its flexible and scalable machine control allows you to change the PLC hardware type to fit the application, using the same programming across the range. The M251 PLC allows you to stay connected everywhere via Ethernet, wireless access, web servers and remote visualization… simplifying machine integration and maintenance. Its integrated Ethernet switch - on a separate channel from the machine control network - allows data exchange with other machines and system networks, while keeping the machine control on a dedicated high-performance local network.

Catalog Number	Description	Com 1	Com 2	Supply Volts
Modicon M251 Programmable Logic Controllers. I/O not included. Refer to TM3 I/O expansion module selection to increase I/O count.				
TM251MESE	Dual Channel Ethernet PLC	Dual Port Ethernet	Ethernet as Master	24 dc
TM251MESC	Ethernet and CANopen PLC	Dual Port Ethernet	CANopen as Master	24 dc

Catalog Number	Description
TM3 I/O Expansion Modules for M221, M241, M251 PLCs. Up to 7 modules per PLC. Add TM3XTRA1 + TM3XREC1 to add 8-14 TM3 modules. Additional TM3 modules are available.	
TM3AI4	I/O Module 4 Analog Inputs
TM3AI8	I/O Module 8 Analog Inputs
TM3AM6	I/O Module 4 Analog Inputs and 2 Analog Outputs
TM3AQ2	I/O Module 2 Analog Outputs
TMA3Q4	I/O Module 4 Analog Outputs
TMA3DI16	I/O Module 16 Inputs
TM3DI8	I/O Module 8 Inputs
TM3DI8A	I/O Module 8 Inputs 120 Vac
TM3DM8R	I/O Module 8 IO Relays
TM3DQ16R	I/O Module 16 Outputs Relays
TM3DQ16T	I/O Module Outputs Transistor PNP
TM3DQ8R	I/O Module 8 Outputs Relays
TM3DQ8T	I/O Module Outputs Transistor PNP
TM3TI4	I/O Module 4 Inputs Temperature
TM3TI8T	I/O Module 8 Inputs Temperature
TM3XTRA1	I/O Expansion Transmitter for 8–14 TM3 Modules
TM3XREC1	I/O Expansion Receiver for 8–14 TM3 Modules

Modicon™ M258 PLC

The Modicon M258 logic controller is a compact, high-performance and fully expandable PLC. It forms a part of Flexible Machine Control approach, a key component of Machine Struxure, which brings you maximum flexibility and ensures the most optimized control solution. This PLC is designed for machine manufacturers (OEMs) focusing on applications such as packaging, conveying and storage, textiles and woodworking, etc. It offers high-performance solutions for speed control, counting, axis control, and communication functions. The Modicon M258 logic controller's dual-core processor provides extremely high performance. Core 1 is dedicated exclusively to managing program tasks and offers the maximum resources for real-time execution of the application code. Core 2 is dedicated to executing communication tasks, which have no impact on the application performance.
More information is available at **www.schneider-electric.com**.

Altivar™ IMC Integrated Controller Card

The Altivar IMC integrated controller card forms a part of Flexible Machine Control approach, a key component of MachineStruxure, which brings you maximum flexibility and ensures the most optimized control solution. The Altivar IMC integrated controller card VW3 A3521S0 is a compact optimized solution developed for Altivar 61 and 71 variable speed drives. When equipped with the ATV IMC card, Altivar 61 and 71 drives become controllers capable of meeting the needs of machine manufacturers (OEMs) in applications such as textiles, hoisting, pumping or woodworking, etc. The Altivar IMC integrated controller card VW3 A3521S0 is configured and programmed using SoMachine software (see page 27-10). The expansion capability of the Altivar IMC card is based on Schneider Electric's "Flexible Machine Control" concept. The Altivar IMC card boosts the expansion capability of machines and allows us to meet the OEM market's requirements in terms of performance, simplicity of use and openness.

More information is available at www.schneider-electric.com or in catalog MKTED2140202EN.

SoMachine™ Software Suite

SoMachine is the OEM solution software for developing, configuring and commissioning the entire machine in a single software environment, including logic, motion control, HMI and related network automation functions. SoMachine allows you to program and commission all the elements in Schneider Electric's Flexible and Scalable Control platform, the comprehensive solution-oriented offer for OEMs, which helps you achieve the most optimized control solution for each machine's requirements. Flexible and Scalable Control platforms include:

Controllers:

- HMI controllers: SCU, XBT GC, XBT GT/GK CANopen
- Logic controllers: Modicon M238, M241, M251, and M258
- Motion Controller Modicon LMC 058 and LMC 078
- Integrated Controller Card Altivar IMC
- TM2, TM3, TM4, TM5 and TM7 offers

HMI:

- HMI Magelis graphic panels: Magelis STO, STU, GTO, GTU, GT/GK

SoMachine is a professional, efficient, and open software solution for integrating Vijeo™ Designer. It also integrates the configuring and commissioning tool for motion control devices. It features all six IEC 61131-3 languages, integrated field bus configurators, expert diagnostics and debugging, as well as outstanding capabilities for maintenance and visualization.

More information is available at www.schneider-electric.com or in catalog MKTED2140202EN.

Modicon™ TSX Micro™ PLC

Compact and cost-efficient, this mid-range PLC boasts the power and flexibility OEMs find most desirable. Optional integrated safety relays, half-size I/O and web-enabled modules provide seamless connection to supervisory maintenance systems plus minimize real estate. PCMCIA memory cards preserve your investment when expanding. Communication options include Ethernet and ASi for global access using Open standards. More details are available at More information is available at www.schneider-electric.com or in catalog **MKTED204012EN.**

PL7™ Application Software

PL7 application software complies with the IEC 61131 standard for programming software. PL7 can be programmed in four IEC languages including two text-based editors (Structured Text and Instruction List), and two graphic-based editors (Sequential Function Chart and Ladder Diagram). PL7 software promotes productivity by using structured programming, which increases reusability, while reducing maintenance costs, and can be used to program both the Micro PLC and the Premium PAC. More information is available at **www.schneider-electric.com**.

Modicon™ Unity Momentum PLC

The small footprint and open architecture of the Momentum PLC product line make it extremely versatile for a variety of automation applications. The Unity Momentum PLC is ideal for PC-based control, distributed control, distributed I/O, and traditional, standalone PLC control. The Momentum PLC product line includes I/O bases and communication adapters that are interchangeable and snap together to deliver optimal flexibility throughout the control system life cycle. Using Ethernet as its communications backbone, the Modicon Unity Momentum CPU delivers all the performance benefits of real-time control. The open architecture of the Unity Momentum CPU makes it a universal controller for distributed I/O, compatible with many of the major fieldbus and control network environments. An integral Ethernet port in the Unity Momentum CPU allows users to perform a wide range of functions over Ethernet, including data acquisition, peer-to-peer communications, and I/O scanning. Embedded web pages enable the use of a standard web browser to read status and diagnostic information from the processor. The Unity Momentum CPU not only seamlessly connects I/O and other control devices via open standards; it delivers the performance of a full function, realtime controller for stand-alone and distributed system configurations in one moneysaving unit. Additional information can be found at **www.schneider-electric.com**.

Twido™ Nano™

The Twido Nano PLC is a feature-rich ultra-compact controller designed especially for small control systems. Flexible, affordable, and adaptable, Twido makes it easy to build just the right control solution for your customer's application. Offering software with graphical development, the Twido Nano PLC makes it easy to create, configure, and manage applications. Communication options include CANopen, Ethernet TCP/IP, Modbus, and ASi.
More information is available in catalog **DIA3ED2090202EN**.

Modicon M340™ PAC

Our latest midrange PAC is the most integrated ever! Highly requested by industrial OEMs and end users, the all-power-inside concept boasts high-performance processing and small size to create a system that provides flexibility beyond any before. With up to three built-in CPU communication ports, large memory options, sixty-four channel high-density modules, and embedded web servers, the Modicon M340 is a powerful solution for industrial OEMs and end users demanding more productivity in their PACs. The Modicon M340 PAC supports advanced communications such as enhanced Ethernet/IP which support Ethernet/IP, Modbus TCP/IP, and daisy chain loop communications on the same four-port, rack mounted switch module. It will also support DNP3.0 in serial or Ethernet in a rack-mounted RTU module. The Modicon M340 PAC is programmed with Unity Pro software, which allows users to dramatically reduce setup time and effort with features like drag 'n drop CANopen bus setup and standard IEC 61131–3 language selection. Designers gain fast, easy and efficient startups. More details are found on our website or in the latest Modicon M340 catalogs and brochures. More details are available at

www.schneider-electric.com.

Modicon M580™ ePAC

The Modicon M580 ePAC (Ethernet Programmable Automation Controllers) features openness, flexibility, robustness and sustainability. The M580 ePAC is designed with an Ethernet backbone to optimize connectivity and communications. The microprocessor has three native Ethernet ports on the chip. Schneider Electric collaborated with the supplier to design the microprocessor, and in 2013 the supplier agreed to provide the microprocessor for 20 years, helping to protect customers' long-term investments. The powerful processors offer high levels of computation for complex networked communication, display and control applications. The M580 ePAC is designed for cybersecurity. It has an Achilles Level 2 certification. Achilles Level 2 certification by Wurldtech is considered to be the best cybersecurity certification available for PACs. The M580 has other advanced embedded cyber security features that are defined by IEC 62443. This includes, but is not limited to the ability to disable unused services, control of remote access to the PAC and integrity checks of Unity Pro executable files. The M580 ePAC supports X80 common I/O modules which can be easily integrated into its architecture. More details are available at **www.schneider-electric.com**.

Modicon Premium™ PAC

Ideally suited for discrete manufacturing, complex OEM applications as well as municipality and infrastructure applications, this cost-effective PAC line features integrated functions such as weighing, interpolated motion control, and process loops. Using the built-in Ethernet port, user-customized web page capabilities, and a range of popular open-standard fieldbus connections, the Modicon Premium enables seamless communication with enterprise systems providing low-cost remote maintenance diagnostics. More details are available at **www.schneider-electric.com**.

Modicon Quantum™ PAC

The Modicon Quantum PAC is our high-end, full function PLC designed for high I/O count industrial applications that require high performance such as Pharmaceutical, Petrochemical, Food and Beverage, Automotive, and others. Quantum also offers true bumpless hot standby. Quantum processors can be programmed with Unity Pro software, and can also support legacy 984 ladder logic programs in the LL984 Unity Pro editor by simply importing the legacy application program. Concept™ application software and ProWORX™ 32 application software are also supported on the Quantum platform. The Unity Quantum's onboard memory can exceed 3 Mbytes, and can have more than 7 Mbytes of extended memory on a PCMCIA card for data and application storage combined. It can also provide over 8 Mbytes of data storage alone. The Quantum PLC also offers Safety PAC versions certified for use in up to SIL3 applications. This includes both standard and hot standby capability as well as redundant I/O. It programs with Unity Pro XLS. The SIL3 offer stresses both high reliability as well as high availability. More details are available at www.schneider-electric.com. Information about the SIL3 Quantum is available in brochure 8000BR0808R03/10.

Unity™ Pro Application Software

Unity Pro software for application development is compliant with IEC 61131-3. It includes the five IEC editors and an LL984 editor to support imported 984 ladder logic from legacy hardware. Unity Pro is compatible with all Industrial midrange and high-end controllers including Modicon Momentum, M340, Premium, M580 and Quantum PACs. Unity Pro provides a collaborative automation environment that enables individuals and teams to work together more effectively, reducing the cost of developing and managing automation solutions. Unity Pro XLS software is used to program the SIL3 Quantum as well as all other Unity-based platforms. Since one software package can program all the platforms, it greatly simplifies development and support issues. It integrates commercial IT technologies like Ethernet, VBA, XML and hyperlinks within the traditional control framework to enable customers to reduce the cost of automating both discrete and batch control applications. More details are available at www.schneider-electric.com, or in brochure 8000BR0935R0210.

Magelis™ Small Panels HMI Products

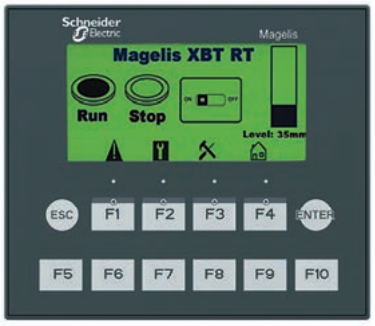
The Magelis XBTN, XBTR, XBTRT, STO and STU Small Panels have been specifically designed to satisfy the requirement for panels that are compact and easy to use. These terminals are easy to configure, and they work seamlessly with other Schneider Electric equipment to provide a complete automation solution, dedicated to simple or compact machines.

Magelis XBT N/R/RT

The Magelis XBTN/R/RT small HMI are an ideal solution for simple machines. The XBTN and XBTR models can accommodate up to four lines of twenty characters and are available with a tri-color backlight (green/orange/red). The XBTRT models have a semi-graphical display with resistive touch screen. All models have customizable function keys.

Key features of the Magelis XBTN/R/RT:

- Monochrome alphanumeric display
- Tri-color backlight available on some models (green/orange/red)
- Semi-graphical display and touch screen on the XBTRT models
- Serial communication port for PLC connection
- Powered by 5 Vdc from PLC terminal port or 24 Vdc externally
- Operating temperature: 32—151 °F (0—55 °C)
- Configured by Vijeo Designer Lite
- IP65, NEMA 4X (outdoor use), XBTN/R only
- Certifications include CE, cULus, Class 1 Div 2



Catalog Number	Screen Type	Keys	Touch Screen	Supply Voltage	Com Port
XBTN200	2x20 Alphanumeric LCD with Green Backlight	4 fixed + 4 customizable	—	5 Vdc (PLC Port)	RS232C/RS485 (RJ45)
XBTN400	4x20 Alphanumeric Matrix LCD (122x32) with Green Backlight	4 fixed + 4 customizable	—	5 Vdc (PLC Port)	RS232C/RS485 (RJ45)
XBTN401	4x20 Alphanumeric Matrix LCD (122x32) with Green/Orange/ Red Backlight	4 fixed + 4 customizable	—	24 Vdc (external)	RS232C/RS485 (SUB-D 25)
XBTN410 *[1]*	4x20 Alphanumeric Matrix LCD (122x32) with Green Backlight	4 fixed + 4 customizable	—	24 Vdc (external)	RS232C/RS485 (SUB-D 25)
XBTNU400	4x20 Alphanumeric Matrix LCD (122x32) with Green Backlight	4 fixed + 4 customizable	—	24 Vdc (external)	RS232C/RS485 (SUB-D 25)
XBTR400	4x20 Alphanumeric Matrix LCD (122x32) with Green Backlight	8 fixed + 12 customizable	—	5 Vdc (PLC Port)	RS232C/RS485 (SUB-D 25)
XBTR410	4x20 Alphanumeric Matrix LCD (122x32) with Green Backlight	8 fixed + 12 customizable	—	24 Vdc (external)	RS232C/RS485 (SUB-D 25)
XBTR411	4x20 Alphanumeric Matrix LCD (122x32) with Green/Orange/ Red Backlight	8 fixed + 12 customizable	—	24 Vdc (external)	RS232C/RS485 (SUB-D 25)
XBTRT500	Semi-graphical Matrix LCD (198x80) with Green Backlight	2 fixed + 10 customizable	Yes	5 Vdc (PLC Port)	RS232C/RS485 (RJ45)
XBTRT511	Semi-graphical Matrix LCD (198x80) with Green/Orange/ Red Backlight	2 fixed + 10 customizable	Yes	24 Vdc (external)	RS232C/RS485 (RJ45)

[1] Preloaded with application for connection to Tesys model U motor starter.

Magelis STO

The Magelis STO is a compact, panel-mounted HMI that bring a cost-effective solution to machine builders. With its touch screen, 3.4 inch monochrome display, and multi-color backlight options, it is a great fit for small, compact or simple machines.

Key features of the Magelis STO:

- 3.4 inch monochrome (200x80 pixel) STN LCD display with multi-color backlight
- Resistive touch screen
- One USB v2.0 host type A port + one USB v2.0 mini-B port
- Serial or Ethernet communication port
- Powered by 24 Vdc
- Operating temperture: 32—151 °F (0—55 °C)
- Configured by Vijeo Designer
- IP65, NEMA 4X (indoor use)
- Certifications include CE, cULus, Class 1 Div 2

Catalog Number	Backlight Colors	Com Port	Ethernet
HMISTO501	White, Pink, Red	RS232C for Zelio *[2]* (removable terminal block)	—
HMISTO511	Green, Orange, Red	RS232C/RS485 (RJ45)	—
HMISTO512	White, Pink, Red	—	Ethernet (RJ45)
HMISTO531	White, Pink, Red	RS232C/RS485 (RJ45)	—
HMISTO532	White, Pink, Red	—	Ethernet (RJ45)

Magelis STU

The Magelis STU is a compact HMI that is mounted using a 22 mm diameter hole - similar to a push button. This helps reduce overall cost by minimizing the labor for installing the HMI. The STU is a cost-effective solution for machine builders.

Key features of the Magelis STU:

- 3.5 or 5.7 inch TFT color display, QVGA (320 x 240)
- Resistive touch screen
- One USB v2.0 host-type A port + one USB v2.0 mini-B port
- Serial and Ethernet communication ports
- Powered by 24 Vdc
- Operating temperature: 32–122°F (0–50°C)
- Configured by Vijeo Designer
- IP65, NEMA 4X (indoor use)
- Certifications include CE, cULus, Class 1 Div. 2, Marine

Catalog Number	Screen Size	Com Port	Ethernet
HMISTU655	3.5 in. TFT Color (320x240)	RS232C/RS485 (RJ45)	Ethernet (RJ45)
HMISTU855	7.5 in. TFT Color (320x240)	RS232C/RS485 (RJ45)	Ethernet (RJ45)

[2] Enables direct communication with the Zelio Logic SR2/SR3 range of controllers.

Magelis SCU Small HMI Controllers

The ultra-compact range of Magelis SCU small HMI controllers are part of Schneider Electric's Flexible Machine Control concept, a key element in MachineStruxure™. The Magelis SCU HMI Controllers product offer brings together Human Machine Interface and control functions within a single product. This reduces the amount of equipment required and the associated costs throughout the life cycle of the machine. It is mounted using a 22 mm diameter hole, which considerably simplifies installation.

Key features of the Magelis SCU:

- 3.5 or 5.7 inch TFT color display, QVGA (320 x 240)
- Resistive touch screen
- One USB v2.0 host type A port + one USB v2.0 mini-B port
- Serial, Ethernet and CANopen communication ports
- Removable terminal blocks for I/O connections
- Powered by 24 V dc
- Operating temperature: 32–122°F (0–50°C)
- Configured by SoMachine
- IP65 NEMA 4X (indoor use)
- Certifications include CE, cULus, Class 1 Div. 2

Catalog Number	Screen Size	Digital Inputs	High Speed Counter Inputs	Digital Relay Outputs	Pulse Train Outputs	Analog Inputs	Temperature Inputs	Analog Outputs
HMISCU6A5	3.5 in.	14	2	8	2	—	—	—
HMISCU6B5	3.5 in.	6	2	6	2	2	2	2
HMISCU8A5	5.7 in.	14	2	8	2	—	—	—
HMISCU8B5	5.7 in.	6	2	6	2	2	2	2

See catalog DIA5ED2130505EN for more information.

Magelis Advanced Panels HMI Products

The Magelis Advanced Panels are touch screen HMIs that are designed for the most demanding industrial applications. Choose between several platforms and screen sizes for the best cost and performance to suit your needs.

Magelis GTO Optimized Panels

The Magelis GTO Optimized Panels are ideal for OEMs that need a cost-effective solution with enough functionality for demanding applications. The GTO's build-in connectivity includes serial ports, Ethernet, and USB. Via Ethernet, they support a Web server, FTP, e-mail, and remote access from a PC, smart phone, or tablet applications. The panels are designed for industrial environments. A stainless steel version is available that is resistant to high-pressure cleaning (conforming to DIN 40050–9).
Key features of the Magelis GTO:

- TFT color LCD display with 50,000 hour backlight
- Resistive analog touch screen
- One USB v2.0 host type A port + one USB v2.0 mini-B port
- Powered by 244 V dc
- Configured by Vijeo Designer
- IP65, NEMA 4X (indoor use), IP66K for Stainless Steel models
- Certifications include CE, cULus, Class 1 Div. 2, Marine

See Catalog DIA5ED2130616EN for more information.

Catalog No.	Screen Size	Stain-less Steel	Fun-ction Keys	Com Ports	Ether-net	SD Card Socket	Operating Temp
HMIGTO1300	3.5 in. QVGA (320x240)	—	Yes	2 Ports	—	—	32—131 °F (0—55 °C)
HMIGTO1310	3.5 in. QVGA (320x240)	—	Yes	1 Port	1 Port	Yes	32—131 °F (0—55 °C)
HMIGTO2300	5.7 in. QVGA (320x240)	—	—	2 Ports	—	—	32—131 °F (0—55 °C)
HMIGTO2310	5.7 in. QVGA (320x240)	—	—	2 Ports	1 Port	Yes	32—131 °F (0—55 °C)
HMIGTO2315	5.7 in. QVGA (320x240)	Yes	—	2 Ports	1 Port	Yes	32—131 °F (0—55 °C)
HMIGTO3510	7.0 in. WVGA (800x480)	—	Yes	2 Ports	1 Port	Yes	32—131 °F (0—55 °C)
HMIGTO4310	7.5 in. VGA (640x480)	—	—	2 Ports	1 Port	Yes	32—131 °F (0—55 °C)
HMIGTO5310	10.4 in. VGA (640x480)	—	—	2 Ports	1 Port	Yes	32—131 °F (0—55 °C)
HMIGTO5315	10.4 in. VGA (640x480)	Yes	—	2 Ports	1 Port	Yes	32—131 °F (0—55 °C)
HMIGTO6310	12.1 in. SVGA (800x600)	—	—	2 Ports	1 Port	Yes	32—131 °F (0—55 °C)
HMIGTO6315	12.1 in. SVGA (800x600)	Yes	—	2 Ports	1 Port	Yes	32—131 °F (0—55 °C)

Magelis XBTGH Handheld HMI

The Magelis XBTGH is a handheld HMI that enables operator mobility around a machine. It is ideal for machine setup and troubleshooting as well as normal operation.
Key Features of the Magelis XBTGH:

- 5.7 in. color TFT LCD display, VGA (640 x 480), 50,000 hour backlight
- Resistive analog touch screen
- Eleven programmable function keys with customizable labels + one enable button
- Emergency stop button with two NC safety contacts and one NO auxiliary contact
- Key switch for turning the HMI on/off
- Three-position grip switch to signal that the operator is ready
- Designed to be held by one hand
- Integrated stylus for touch screen operation
- Connectivity includes one serial port, one Ethernet port, and one USB Type A port

Catalog Number	Description
XBTGTH2460	Handheld HMI with E-stop button
XBTGTH2460B	Handheld HMI without E-stop button
XBTZGJBOX	Junction box for handheld HMI
XBTZGHL3	3 meter cable for handheld HMI
XBTZGHL10	10 meter cable for handheld HMI
XBTZGHL20	20 meter cable for handheld HMI

New!

Magelis GTU Universal Panels

The Magelis GTU Universal Panels are a high performance HMI product range designed with the uniqueness of modularity that allows you to select and assemble the best combination of display unit and CPU module for the application requirements. Magelis GTU features operator efficiency, simplified installation and flexibility that fits almost any system. This product range includes: display modules (Advanced and Smart) and CPU box modules (Premium and Open).

Key features of the Magelis GTU:

Premium Box CPU Module:

- Magelis proprietary OS
- SD Card for OS and application
- Second SD Card socket for user data
- 2x USB 2.0 (Type A) and 1x USB 2.0 (mini-B)

Open Box CPU Module:

- Window Embedded 7 OS
- CFast Card for OS and application
- SD and CFast Card sockets for user data
- 3x USB 2.0 (Type A) and 1x USB 2.0 (mini-B)
- DVI-D output for external monitor

CPU Box Type	Catalog Number	Operating System	Video Out	Com Ports	Ether-net	USB 2.0 Ports	Memory Card Socket
Premium Box	HMIG3U	Magellis Proprietary OS	—	2 Ports	2 Ports	2x (Type A) 1x (mini-B)	1x SD for system (included) 1x SD socket for user data
Open Box	HMIG5U	Windows Embedded 7	DVI-D	2 Ports	2 Ports	3x (Type A) 1x (mini-B)	1x CFast for system (included) 1x CFast socket for user data 1x SD socket for user data

Common Features:

- Modular design, any combination of display module and CPU box
- Two serial and two Ethernet ports for communications
- Powered by 12....24 Vdc
- Operating temperature: 32–140°F (0–60°C)
- Configured by Vijeo Designer
- IP66/67, NEMA 4X (indoor use)
- Certifications include: CE, cULus, Class 1 Div. 2, Marine

Smart Display Module:

- 16M color TFT LCD display (4:3 format)
- Resistive analog touch screen, multi-touch capable
- Front panel USB 2.0 ports, 1x (Type A) and 1x (mini-B)
- Sensor for automatic backlight brightness control

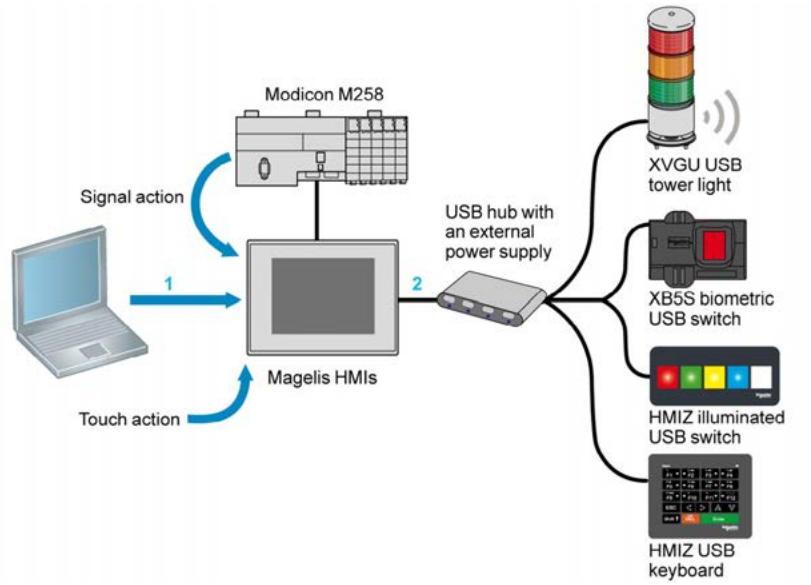
Advanced Display Module:

- 262k color TFT LCD display (16:9 format)
- Resistive analog touch screen, single touch

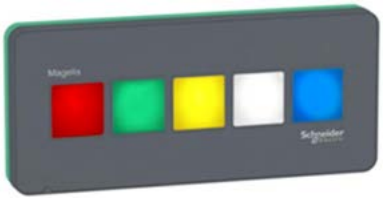
Display Type	Catalog No.	Screen Size	Front USB Ports	Brightness Sensor	Built-in Wireless LAN	Multi-touch Capable *[3]*
Smart Display (4:3) 16 M Colors	HMIDT542	10.4 in. SVGA (800x600)	Yes	Yes	—	Yes
	HMIDT642	12. 1 in. XGA (1024x768)	Yes	Yes	—	Yes
	HMIDT643	12.1 in. XGA (1024x768)	Yes	Yes	Yes	Yes
	HMIDT732	15.0 in. XGA (1024x768)	Yes	Yes	—	Yes
Advanced Display (16:9) 262k Colors	HMIDT351	7.0 in. WVGA (800x480)	—	—	—	—
	HMIDT551	10.1 in. WVGA (1280x800)	—	—	—	—
	HMIDT651	12.1 in. WVGA (1280x800)	—	—	—	—

[3] Projects created in Vijeo Designer do not support multi-touch.

USB Accessories for Magelis HMI Terminals



The USB accessories for Magelis are designed to expand the selection range of user applications by offering value-added/differentiated HMI solutions. These innovative USB accessories can be easily installed and operated with HMI terminals.



Illuminated Switch Panel

The illuminated USB switch is uniquely designed for easy visualization and quick acknowledgement of alarm (wide view angle and brightness). This switch with tactile feedback can also be used as function keys in HMI applications that involve repetitive operations in dirty environments. This keeps the touch panel clean and protected by avoiding continuous finger contact.

Key features of the Illuminated USB Switch:

- Five programmable switches with tactile feedback
- Programmable six-color LED illumination per switch
- Connect to the Magelis HMI via USB
- Mount to the panel through a 22 mm hole
- Powered by the HMI via the USB cable
- Configured in Vijeo Designer
- IP65, NEMA 4X (indoor use)
- Certifications include CE, cULus, Class 1 Div. 2
  Catalog Number: HMIZRA1
  See Catalog DIA5ED2130901EN for more information.

Keyboard Panel

The USB Keyboard is designed for flexible mounting and easy configuration. The tactile keys are suited for HMI applications with repetitive operations or dirty environments (oil, dust). Functionality of the HMI can be extended with external function keys, status indicator LEDs and both numeric and text data entry.

Key features of the USB Keyboard:

- Twenty-key membrane keyboard with tactile feedback
- Includes twelve programmable keys with integrated LEDs
- Connect to the Magelis HMI via USB
- Mount to the panel through a 22 mm hole
- Powered by the HMI via the USB cable
- Configured in Vijeo Designer
- IP65, NEMA 4X (indoor use)
- Certifications include CE, cULus, Class 1 Div. 2
  Catalog Number: HMIZKB1

  See Catalog DIA5ED2130901EN for more information.

Biometric Switch

The XB5S Biometric USB Switch of the Harmony® XB5S product range controls and secures access to systems and machines by checking users' authorization through fingerprint recognition.

Key features of the Harmony XB5S Biometric Switch:

- Register up to 200 users, two fingerprints per user
- Connect to the Magelis HMI via USB
- Mount to the panel through a 22 mm hole
- Powered by external 24 V dc source
- IP65
- Certifications include CE, cULus
  Catalog Number: XB5S5B2L2

  See Catalog DIA5ED2130901EN for more information.

Tower Light

The monolithic USB tower lights of the Harmony XVGU product range have multi-color LEDs that are unique and simple-to-use. The states and patterns are directly set and modified in the HMI application. The XVGU tower lights provide long distance indication of the operating status or sequences of a machine or installation, both visually by illuminated signaling units with 360° visibility, and audibly by a buzzer.

Key features of the Harmony XVGU USB Tower Light:

- Unique one-piece LED tower design, 60 mm
- Three transparent signaling layers
- Two-tone buzzer with three level volume control and four colors
- Variety of signal patterns (flashing/non-flashing lights)
- Power and signaling managed by the HMI
- Installation options (on direct base or tube plate)
  Catalog Number: XVGU3SHAV (100 mm length pole with mounting base

  Catalog Number: XVGU3SWV (direct base mounting)

  See Catalog DIA5ED2130901EN for more information.

Magelis™ Industrial PC Products

Magelis Panel PC

The Magelis Panel PC is a family of panel-mounted all-in-one industrial PCs, certified for automation applications.
Features of the Magelis Panel PCs:

- TFT color LCD display, available in 10.4, 12.1, 15.0, and 19.0 in. screen sizes
- Resistive analog touch screen
- Stainless steel models available
- Variety of CPUs and performance levels
- Options for mass storage (HDD, SDD, memory card, DVD-RW, RAID)
- Variety of Windows operating systems options
- Options for add-in card slots
- Communication options including COM ports, Ethernet, and USB
- Fanless models available
- Supply power, 100...240 V ac or 24 V dc with option for battery back-up
- Vijeo Designer Run-time trial mode pre-installed
- IP65, NEMA 4X (indoor use)
- Certifications inlcude CE, cULus, Class 1 Div. 2

Magelis Box PC

The Magelis Box PC is a family of wall-mounted, Industrial PCs certified for automation applications. The Box PC interfaces seamlessly with a Magelis Display Industrial Monitor.

Key features of the Magelis Box PC:

- Variety of CPUs and performance levels
- Options for mass storage (HDD, SDD, memory card, DVD-RW, RAID)
- Variety of Windows operating system options
- Options for add-in card slots
- Communication options including COM ports, Ethernet and USB
- Fanless models available
- Supply power: 24 V dc with option for battery backup

New!

Magelis Simple Box PC

The Magelis S-Box PC is a simpler, more basic alternative to the Magelis Box PC. This cost effective, tested, and validated solution is suitable for repetitive machines and infrastructure applications. These low-maintenance PCs provide a high level of connectivity in a compact design. Remote monitoring capability gives you peace of mind that the system is performing as desired.

Key features of the Magelis S-Box PC:

- CPU options, ATOM N270 (single core) or ATOM N2600 (dual core)
- No moving parts (fanless, solid state disks)
- Windows operating systems options
- Mini PCIe slot for option cards
- Communication options including COM ports, Ethernet, and USB
- DC power supply
- Remote system monitor utility included
- Vijeo Designer Run-time trial mode pre-installed
- Certifications include CE, cULus

The Magelis S-Box PCs are available as catalog items, with pre-configured features such as CPU, RAM, storage type, operating system, and other options. For more information and a list of available catalog numbers, please www.schneider-electric.com.

See Catalog DIA5ED2140501EN for more information.

New!

Magelis Rack PC

Magelis Rack PC easily installs into standard 19 inch racks in control room applications. Choose between several platforms for the best cost and performance to suit your needs. The Rack PC can serve as an engineering and SCADA server or an operator station. Supported software includes: Vijeo Designer, Run-time, Vijeo Citect, and PlantStruxure PES Distributed Control System.

Key features of the Magelis Rack PC:

- Available in 2U and 4U form factors
- Variety of CPUs and performance levels
- Options for mass storage (HDD, SDD, memory card, DVD-RW, RAID)
- Hot swap drive trays
- Options for add-in card slots
- Windows operating systems options
- Mini PCIe slot for option cards
- Communication options including COM ports, Ethernet, and USB
- Redundant power supply option
- Remote system monitoring utility included
- Vijeo Designer Run-time trial mode pre-installed
- Certifications include CE, cULus

Magelis Rack PCs are available as catalog items, with pre-configured features such as CPU, RAM, storage type, operating system, and other options. For more information and a list of available catalog numbers, please visit www.schneider-electric.com.

See Catalog DIA5ED2140501EN for more information.

New!

Magelis iDisplay Industrial Multi-Touch Monitor

The next generation of Magelis iDisplays feature multi-touch monitors enabling the operator to use common gestures such as swiping and pinching in industrial applications. They also provide updated connectivity to seamlessly connect to a Magelis Box PC, Rack PC (or third party PC) via DVD-D (for video) and USB (for touch screen.

Key features of the Magelis iDisplay:

- TFT LCD display, 16M colors, XGA (1024 x 768), 4:3 format
- 50,000 hour backlight
- Resistive analog touch screen, multi-touch supported
- Panel mount or VESA mount
- DVI-D video input from host PC
- USB connection to host PC for touch screen interface
- Front panel USB v2.0 host type A port for keyboard, mouse, or memory stick, etc.
- Powered by 12–24 V dc
- Operating temperature: 32–140°F (0–60°C)
- IP66/67, NEMA 4X (indoor use)
- Certifications include CE, cULus, Class 1 Div. 2, Marine
  Catalog Numbers: HMIDID64DTD1(12.1 in. display); HMIDID73DTD1(15.0 in. display)

See Catalog DIA5ED2140501EN for more information.

Vijeo Designer HMI Software

Vijeo™ Designer

Vijeo Designer is the configuration software for creating operator interface applications for Magelis HMI's and Industrial PCs. It is the ideal design tool for the simplest control application right up to the most complex HMI installations. It offers advanced script functions, recipe management, alarm management, data management, remote access, e-mail and multi-protocol connectivity.
Vijeo Designer features a screen graphics editor, including simple objects, a library of animated opjects (bar graphs, meters, charts and tanks), and preconfigured advanced objects (buttons, lamps, numeric and message displays and enumerated lists).
Vijeo Designer has advanced communication support for Schneider Electric products. It also includes drivers for several third-party PLCs and devices.

Catalog Number	Description
VJDSNDTGSV62M	Single license
VJDSUDTGAV62M	Single license, with transfer cable
VJDGNDTGSV63M	Group license, three stations
VJDTNDTGSV62M	Team license, ten stations
VJDFNDTGSV62M	Facility license, unlimited stations for one site
VJDSNRTMPC	Run-time license for a Magelis iPC

Visit www.schneider-electric.com for the latest versions and catalog numbers.
See Catalog DIA5ED2130614EN for more information.

Vijeo Designer Intelligent Data Services

The Intelligent Data Services (IDS) add-on for Vijeo Designer is a powerful, flexible and innovative software, fully compliant with FDA 21 CFR PART 11. It provides full traceability of the process, enables process variables to be monitored, and allows tracking of all operator actions. IDS software is easily accessible from any Web browser, enabling data collection via Ethernet, providing dashboards and reports generation.

Catalog Number *[1]*	Description
VJDSNTRCKV62M	IDS run-time license, single station
VJDSNTRPRV62M	IDS report printing add-on
VJDSNTRPKV62M	IDS report printing add-on with run-time license

See Catalog DIA5ED2130614EN for more information.

Vijeo Design'Air

Vijeo Design'Air is an HMI application for Android and iOS tablets and smartphones. This feature enables you to remotely connect to a Magelis HMI terminal over a WiFi network and have a graphical view of the HMI terminal on your tablet and smartphone.

During the design phase, you have the ability to set the HMI terminal to be detectable by Vijeo Design'Air. You can secure access to the HMI by requiring user authentication during login. You can also configure the HMI's accessibility level to view only or full control. In this configuration, the HMI terminal acts as the server, while the tablet or smartphone acts as the client. The server and client communicate over a WiFi wireless, 3G, 4G, or LTE network.
After a connection is established, you can use some of the functionalities of tablets and smartphones to remotely interact with the HMI terminal. For example, you can perform touch or swipe actions to start or stop a process or to navigate between screens. You can also use pinch action to zoom in and out of a screen for better viewing.

Download Vijeo Design'Air from Google Play® or the App Store® in iTunes®.
See Catalog DIA5ED2130614EN for more information.

[1] 62=current version number.

Vijeo Design'Air Plus

Vijeo Design'Air Plus is a feature in Vijeo Designer and application for Android and iOS tablets and smartphones. Vijeo Design'Air Plus enables you to create a tablet/ smartphone project specifically for the tablet or smartphone display size. At runtime, an operator can access the user application to display data and control automation processes on the tablet or smartphone.
You can use Vijeo Designer's drawing tools to create and edit a visual representation of the automation process. You can draw shapes and parts (such as rectangles, arcs, and pies), Toolchest parts (such as numeric displays, switches, and bar graphs), use the gradient feature to enhance the color of the drawn objects, and set up an Alarm Panel for remote alarm monitoring.
Vijeo Design'Air Plus provides operators with the capability to select a user application, and on successful login, download and launch the tablet/smartphone application. The operator can view and monitor an automation process, and for example, change values in numeric displays and string displays. In the Alarm Panel, the operator can monitor and acknowledge alarms.
Download Vijeo Design'Air Plus from Google Play® or the App Store® in iTunes®.
See Catalog DIA5ED2130614EN for more information.

Vijeo Citect SCADA Software

SCADA Expert Vijeo Citect, is the operating and monitoring component of PlantStruxure™, the new Process Automation system of Schneider Electric. With powerful visualization capabilities and operational features, it delivers actionable insight faster, enabling operators to respond quickly to process disturbances and thereby increase their effectiveness. SCADA Expert Vijeo Citect is now part of StruxureWare, the brand name identifying Schneider Electric's various software applications and suites to drive business performance while conserving enterprise resources. SCADA Expert Vijeo Citect can be tailored to a wide array of industry rigors and demands, and continuously seeks to meet the increasing requirements of emerging industry sectors. Many of the world's leading organizations successfully utilize SCADA Expert Vijeo Citect, as it meets their specific industry needs.

Vijeo Historian

Plant Operation Vijeo Historian, is the information management component of PlantStruxure™ architecture. It comprises the historian and portal functionalities of the solution, enabling you to accurately store data while connecting your production and business systems through its active data transfers and simple, easy-to-use reporting. Plant Operation Vijeo Historian is now part of StruxureWare. StruxureWare is the brand name identifying Schneider Electric's various software applications and suites to drive business performance while conserving enterprise resources.

Modicon OTB

The open and modular new Modicon OTB distributed I/O system offers an ideal solution for IP20 distributed input/output requirements. Users can create I/O islands managed by a master controller, via a fieldbus or communcication network. It includes three communication bases for the various types of fieldbus: CANopen™ , Ethernet TCP/IP, or Modbus™ RS 485 serial. Discrete or analog I/O is available.
More information is available in catalog DIA3ED2040801EN-US.

Modicon STB

The Modicon STB is a highly modular distributed I/O platform, integrated wiring solution, and power management system that delivers effective and targeted control. With an open network adaptable to most major field buses, a flexible "island" I/O structure, and simple configuration via the STBSUP1000 software, Modicon STB is the right choice. The Modicon STB distributed I/O can also be configured directly from Unity™ Pro application software. More information is available at **www.schneider-electric.com**.

Modicon Telefast™ ABE7 Sub-bases, IP20

The Modicon Telefast ABE7 pre-wired system enables connection and adaptation of control signals of industrial PLC cards that are fitted with HE10 connectors. It rationalizes cabling by replacing PLC terminals and traditional terminal blocks—thus improving simplicity and economy. More information is available at **www.schneider-electric.com**.

Modicon Telefast ABE9 Passive Splitter Boxes, IP67

Modicon Telefast ABE9 splitter boxes eliminate long and difficult cable runs by avoiding the use of intermediate junction boxes. Due to their modularity and size, they are perfect for the requirements of your varying applications. More information is available at **www.schneider-electric.com**.

Modicon TM7 I/O Blocks, IP67

Compact and flexible, the TM7 IP67 I/O Blocks allow connection of sensors and actuators at the heart of processes or machines in severe environments. The wide range of modules provides solutions to match your exact needs. It includes connectivity to CANopen. More information is available at www.schneider-electric.com, or in catalog MKTED211041EN.

Modicon Momentum™ Distributed I/O and PLC

The small footprint and open architecture of the Momentum PLC product line make it extremely versatile for a variety of automation applications. The Momentum PLC is ideal for PC-based control, distributed control, distributed I/O, and traditional, standalone PLC control. Momentum PLC options and accessories include: I/O bases, processor adapters, option adapters and communication adapters that are interchangeable and snap together to deliver optimal flexibility throughout the control system lifecycle. Using Ethernet as its communications backbone, the Modicon Momentum M1E Processor delivers all the performance benefits of real-time control. The open architecture of the M1E processor makes it a universal controller for distributed I/O, compatible with many of the major fieldbus and control network environments. An integral Ethernet port in the M1E allows users to perform a wide range of functions over Ethernet, including data acquisition, peer-to-peer communications, and I/O scanning. Five embedded web pages enable the use of a standard web browser to read status and diagnostic information from the processor. The most recent addition to the Momentum product offer is the Momentum M1E ConneXium switch. This model combines the power and functionality of the M1E processor with the communication versatility of four Modbus Ethernet TCP/IP ports. The award winning M1E not only seamlessly connects I/O and other control devices via open standards; it delivers the performance of a full function, real-time controller for stand-alone and distributed system configurations in one money-saving unit. Additional information can be found at **www.schneider-electric.com** or in catalog **MKTED205061EN.**

Ethernet TCP/IP Products

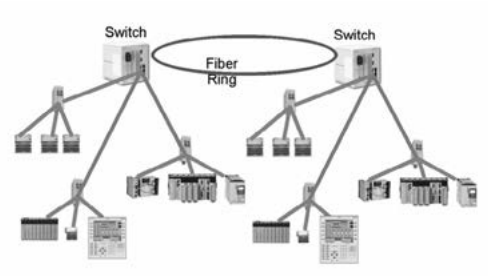
The recognition of Ethernet TCP/IP, both in organizations and on the internet, has made it the communication standard of today. Its wide use is leading to a reduction in connection costs, increased performance and the addition of new functions, which all combine to ensure its durability.
Ethernet TCP/IP meets the connection requirements of every application:

- Twisted pair copper cables for simplicity and low cost
- Optical fiber for immunity to interference and for long distances
- Communication redundancy, inherent in the IP (internet protocol)
- Remote point-to-point access via the telephone network or the Internet for the cost of a local call

Ethernet TCP/IP, a truly open technology, supports all types of communication:

- Web pages
- File transfer
- Industrial messaging

With its high speed, the network no longer limits the performance of the application. The architecture can evolve without any difficulty. The products or devices remain compatible, ensuring the long-term durability of the system.
More information on Ethernet and Ethernet Products is available in catalog MKTED208054EN-US.

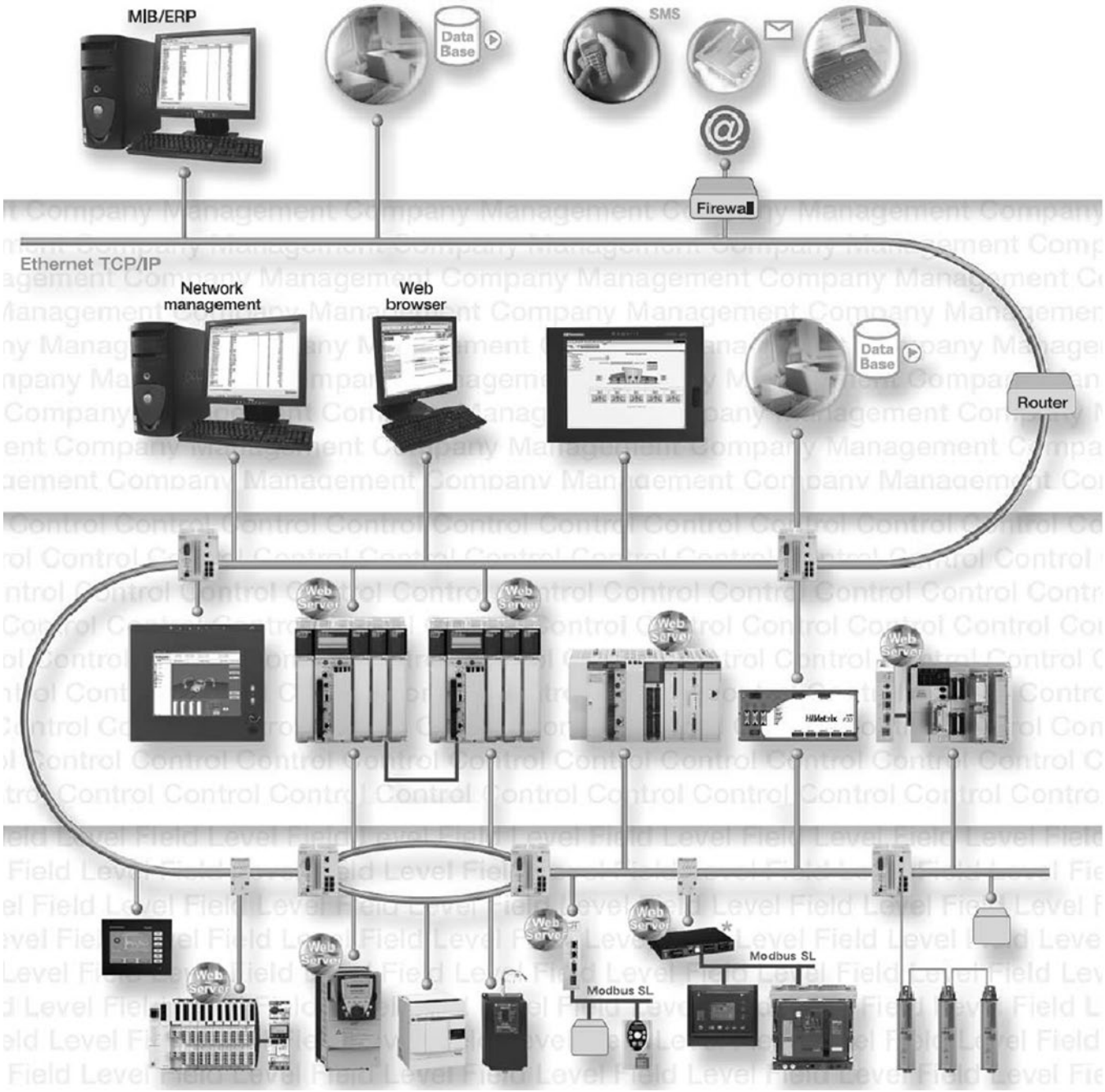


ConneXium™ Ethernet Products

The ConneXium line of networking products offers a complete range of Ethernet switches (managed and unmanaged), hubs, transceivers, gateways, cabling, and diagnostic monitoring software for demanding industrial environments. With fiber and redundant capabilities, along with advanced filtering and security features, ConneXium products improve the performance and security of the network. More details can be found at **www.schneider-electric.com**.

Transparent Ready™ Solutions

Transparent Ready products cover solutions in Industrial automation to electrical Distribution, and are based on universal Ethernet TCP/IP and Web technologies. They provide seamless communication between plant floor devices, like PLCs, drives, and MCCs, with corporate business systems. Use of the open Modbus TCP/IP and EtherNet/IP protocols that are the leading industrial Ethernet protocols, broadens the scope of dedicated machine diagnostics to remote management. Choosing Transparent Ready means opting for flexible, open automation architectures. More details can be found at **www.schneider-electric.com**.



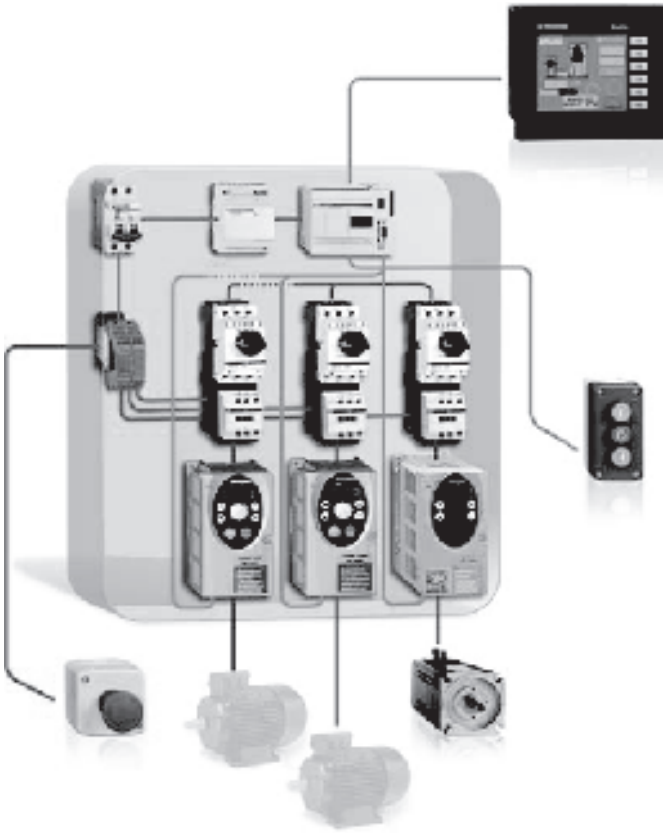
CANopen Network Products

CANopen is an open network that is supported by over 400 companies world wide and promoted by CAN in Automation. CANopen is standardized in the EN50325-4 and in ISO15745-2 for its device description.

The main reason for using a network is the performance and the flexibility to adapt the network exactly to the requirements of the application. CANopen provides a unique feature for the adaptation of the data transmission. Based on the producer/consumer model, CANopen allows for a data transmission broadcast, peer-to-peer, change-of-state and cyclic communication. This means it transmits data only when required or on a specified time base. Process data objects can be individually configured. Parameters can be changed at runtime.

CANopen combines ease of installation with inexpensive devices. CANopen provides an integrated equipotential bounding in the cable. Therefore, an additional cable or stranded copper ribbon to achieve the same potential on all network devices is not necessary. Installation costs are heavily reduced.

More information on CANopen and CANopen Products is available in catalog MKTED208054EN-US.



Lexium 23 Plus

Lexium ILM62

Lexium 32

Lexium ILA / ILS / ILE

Lexium 52 / 62

Lexium 32i

Lexium™ Motion Control Products

Complete Motion Offer: Schneider Electric provides a complete and scalable motion product ratnge with outstanding servo control loops for virtually all kinds of machines. Choose from a wide range of linear motion and robotic products with the capacity for customization and third party motors.

Simplicity: Our motion products are designed for maximum simplicity over the entire machine lifecycle to reduce cost and make your machine processes even more productive. They're easy to integrate into your machine environments through standard software tools, motion libraries, and application function blocks.

Openness: Our products supports standardized motion interfaces: CANopen, CANmotion, Profibus, DeviceNet, Ethernet IP, EtherCAT, Ethernet Powerlink, Modbus TCP, and Pulse Train. This allows you to efficiently design machines which can easily be integrated to your customer's automation architectures.

Safety: Safe Torque Off (STO) function is embedded in the drives. Advanced safety functions: Safe Stop (SS1, SS2), Safety Limited Speed (SLS), or Safe Operating Stop (SOS) are available options. With superior performance in the market and embedded safety, our wide range of motion products supports standardized motion interfaces to assist integration.

Higher Performance: If you need even more performance, Schneider Electric's PacDrive offer is your product of choice. With its centralized system architecture, PacDrive is the ideal solution for controlling a broad range of servo-driven production and packaging machines, as well as material handling equipment.

HVAC/R Controllers

Schneider Electric Modicon M171 Programmable Solution

Modicon M171 logic controller: best-in-class for scalability and energy efficiency, dedicated for HVAC/R and pumping applications. Designed to meet customer's needs by reducing time-to-market, reducing costs, improving machine efficiency, and simplifying integration. Reduce overall time-to-market with our application experts, pre-developed proven architectures, and existing applications (libraries, applicaion function blocks, and baseline examples). Reduce costs through our optimized platforms, embedded webserver, and scalable platforms. Improve overall machine efficiency with integration of variable speed drives, Coefficient of Performance monitoring, and remote interface capabilities. Simplify equipment integration and maintenance through a wide choice of connectivity options scalable to small and large applications, along with an embedded webserver interface.

The M171 programmable platform consists of the **SoMachine™ HVAC** software suite, **M171O**, and **M171P**, a complete range from simple and compact through complex and BMS connected applications.

Key accessories include the plug-in communication modules to facilitate integration with Building Management Systems in residential, commercial, and industrial end-user applications, along with I/O expansion modules, and a variety of remote user interface devices.

SoMachine HVAC

Modicon M171 integrated software development suite allows for intuitive management of every step in the process: developing the application, programming and servicing controllers, configuring communication networks, design of user interface and web pages, and full de-bug and simulation capabilities. Software languages are compliant with IEC 61131-3 programming standards, including Structured Text, Function Block Diagram, Ladder, Instruction List, and Sequential Flow Chart.

M171O

The **Modicon M171** optimized logic controller for simple and compact machines is the smallest programmable controller on the market, offering termendous versatility. Packaging comes standard in either a 4-DIN or 32x74 mm panel mount option, with or without the user interface. Power input can be specified with either 12–24 V or 100–240 Vac, depending on the model. The controller features up to twenty-two I/O, including three analog outputs and five analog inputs. One I/O expansion module and two remote user interface devices can be added to expand capabilities.

M171P

The **Modicon M171** performance logic controller for complex and BMS connectable machines provides more processing power, I/Os, connectivity, and an embedded webserver. Packaging comes standard 8 DIN rail-mounted configuration with or without the display and in an alternative Panel mount version, ideally for distributed control systems or as a centralized gateway device. Designed with integrated RS-485 and CAN ports, a conectivity module can be added to expand capabilities with Modbus RTU and TCP, BACnet MSTP and IP, HTTP, CAN, and Modbus ACSII. Power input can be specified to operate with 24 Vac/Vdc or 48 Vdc. The controller features up to twenty-seven I/O, including five analog outputs and six analog inputs. Up to twelve I/O expansion modules and two remote user interface terminals can be added to meet almost any application need.