



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEX INE 14.0070X	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 5	Issue 4 (2023-09-20)
Date of Issue:	2024-04-16		Issue 3 (2022-05-17)
Applicant:	SCHNEIDER ELECTRIC Site Horizon 8 ème rue, ZI Carros 06516 Carros France		Issue 2 (2018-12-21)
Equipment:	Programmable Logic Controller type M340 BMX...* or M580 BME...*		Issue 1 (2017-07-03)
Optional accessory:	Accessories type BMX...* or ABE7CPA...*		Issue 0 (2015-03-18)
Type of Protection:	ec nC		
Marking:	Ex ec nC IIC T4 Gc		

Approved for issue on behalf of the IECEx
Certification Body:

Position:

Signature:
(for printed version)

Date:
(for printed version)



Thierry HOUÉIX

Ex Certification Officer

2024-04-16

Signé électroniquement
Digitally signed by
Thierry HOUÉIX
Ex Certification Officer
Délégué Certification

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Certificate issued by:

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Institut National de l'Environnement Industriel et des Risques
BP n2 / Parc Technologique ALATA
F-60550 Verneuil-en-Halatte
France



controlling risks
for sustainable development



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Manufacturer: **Schneider Electric**
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06516 Carros
France

Manufacturing locations: **Schneider Electric**
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This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-15:2017](#) Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

[IEC 60079-7:2017](#) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

[FR/INE/ExTR14.0071/00](#)
[FR/INE/ExTR14.0071/03](#)

[FR/INE/ExTR14.0071/01](#)
[FR/INE/ExTR14.0071/04](#)

[FR/INE/ExTR14.0071/02](#)

Quality Assessment Report:

[FR/INE/QAR10.0006/17](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Programmable Logic Controller (PLC) Type M340 BMX...* and M580 BME...* are electronic modules which are used to control and command machines and industrial processes.

The front panel of each programmable logic controller have terminals blocks and/or connectors.

Use in zone 2 for Gas application:

The modules are composed of printed circuit boards including electronic relays and are protected by the protection type Ex ec and Ex nC.

For a use in zone 2, the modules shall be placed in an enclosure EPL Gc insuring a minimal ingress protection IP54.

The maximum increased temperature of M340 BMX...* and M580 BME...* modules is 43K in normal conditions. Therefore, the equipment is certified with the following Level of Protection:

- Gc for Gas Group IIC and Temperature Class T4 for Gas Application.

Use in zone 22 for Dust application:

For a use in zone 22, the modules shall be placed in an enclosure EPL Dc insuring a minimal ingress protection IP6X.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The operating temperature range of M340 BMX...* or M580 BME...* and BMX...* or ABE7CPA...* is from 0°C to +60°C or from -25°C to +60°C or from -25°C to +70°C depending on the products or the accessories.
- The PLC type M340 BMX...* and M580 BME...* shall be mounted in an EPL Gc enclosure insuring a minimal ingress protection IP54 and used in an environment of not more than Pollution Degree 2 as defined in IEC 60664-1.
- The enclosure equipped with the Programmable Logic Controller (PLC) type M340 BMX...* and M580 BME...* must no be opened when energized.
- USB connectors, RJ45 connectors, SUB-D connectors, terminals 2 way (alarm relay), terminals 5 way (power supply), field wiring terminal block BMXFTBxxx and BMXFCAxxx as well as memory cards must not be connected or disconnected when energized.

The other conditions of use are stipulated in the instructions.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

The changes of the issue 01 are regarding:

- Introduction of new modules.
- Application of IEC 60079-7:2015
- Remove dust marking
- Add additional Manufacturing location (BATAM)

The changes of the issue 02 are regarding:

- The introduction of new programmable logic controllers and accessories (BMXDRA0815H, BMXDRC0805H, BMXCPS4022S, BMEP582040S, BMEP584040S, BMEH582040S, BMEH584040S, BMEH586040S, BMEP58CPROS3, BMXSAI0410, BMXSDI1602, BMXSDO0802, BMXSRA0405, BMXAMO0802H, BMENUA0100H, BMENOR2200H)
- Modification of minimal ambient temperature to -25°C for CPU modules BMEP58...C
- Application of IEC 60079-0:2017 and IEC 60079-7:2015 / A1:2017 standards.

The changes of the issue 03 are regarding:

- The introduction of new programmable logic controllers (BMEP586040S, BMED581020C, BMER581020C, BMECRA31310C, BMECRD0100C, BMXDDI3203H, BMXDDI3232H).
- Application of IEC 60079-15:2017 standard.

The changes of the issue 04 are regarding:

- Addition of new modules and accessories (BMXDDO3202H, BMXFCWxxx, BMXXBCxxx).
- Correction of reference: from BMECRA31310C to BMECRA31310H.
- Addition of Wuxi manufacturing location.

The changes of the issue 05 are regarding:

- Update of the manufacturing locations.

Annex:

[IECEX INE 14.0070X-05_Annex.pdf](#)



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PARAMETERS RELATING TO THE SAFETY

The different modules have to be supplied with the following rated voltage:

	Un
M340 BMX...*	3.3 / 24 / 48 V _{DC}
M580 BME...*	3.3 / 24 V _{DC}

MARKING

Marking has to be readable and indelible; it has to include the following indications:

- SCHNEIDER ELECTRIC
- 06516 CARROS
- FRANCE
- M340 BMX...* or M580 BME... (* see table of equipment description below)
- IECEX INE 14.0070X
- (Serial number)
- Ex ec nC IIC T4 Gc
- WARNING: DO NOT DISCONNECT WHEN CIRCUIT IS LIVE UNLESS AREA IS KNOWN TO BE NON-HAZARDOUS.

Marking may be carried out in the language of the country of use.

The protective system or equipment has also to carry the marking normally stipulated by its construction standards.

BKP		
Product	Description	Temperature range
BMXXBP1200H	12 slots backplane	-25°C...+70°C
BMXXBP0800H	8 slots backplane	-25°C...+70°C
BMXXBP0600H	6 slots backplane	-25°C...+70°C
BMXXBP0400H	4 slots backplane	-25°C...+70°C
BMEXPB1200H	12 slots backplane	-25°C...+70°C
BMEXPB0800H	8 slots backplane	-25°C...+70°C
BMEXPB0400H	4 slots backplane	-25°C...+70°C
BMEXPB1002H	10 slots backplane, dual power supply	-25°C...+70°C
BMEXPB0602H	6 slots backplane, dual power supply	-25°C...+70°C

CPS		
Product	Description	Temperature range
BMXCPS3020H	Power supply 24-48 Vdc	-25°C...+70°C
BMXCPS4022H	Power supply 24-48 Vdc	-25°C...+70°C
BMXCPS4022S	Power supply Safety 24-48 Vdc	-25°C...+60°C



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CPU		
Product	Description	Temperature range
BMXP342020H	Control processor unit	-25°C...+70°C
BMXP341000H	Control processor unit	-25°C...+70°C
BMXP3420302H	Control processor unit	-25°C...+70°C
BMEP581020H	Control processor unit	-25°C...+70°C
BMEP582020H	Control processor unit	-25°C...+70°C
BMEP582040H	Control processor unit	-25°C...+70°C
BMEP585040C	Control processor unit	-25°C...+60°C
BMEP586040C	Control processor unit	-25°C...+60°C
BMED581020C	Control processor unit	-25°C...+60°C
BMER581020C	Control processor unit	-25°C...+60°C
BMEH582040C	Control processor unit	-25°C...+60°C
BMEH584040C	Control processor unit	-25°C...+60°C
BMEH586040C	Control processor unit	-25°C...+60°C
BMEP582040S	Control processor unit Safety	-25°C...+60°C
BMEP584040S	Control processor unit Safety	-25°C...+60°C
BMEP586040S	Control processor unit Safety	-25°C...+60°C
BMEH582040S	Control processor unit Safety HSBY	-25°C...+60°C
BMEH584040S	Control processor unit Safety HSBY	-25°C...+60°C
BMEH586040S	Control processor unit Safety HSBY	-25°C...+60°C
BMEP58CPROS3	Co-processor Safety	-25°C...+60°C

I/O		
Product	Description	Temperature range
BMXDDI1602H	16 * 24 Vdc input channels	-25°C...+70°C
BMXDDI3202KH	32 * 24 Vdc input channels	-25°C...+70°C
BMXDDI6402KH	64 * 24 Vdc input channels	-25°C...+70°C
BMXDDI3203H	32 * 48 Vdc input channels	-25°C...+70°C
BMXDDI3232H	32 * 24 Vdc input channels	-25°C...+70°C
BMXDAI1602H	16 * 24 Vac/Vdc input channels	-25°C...+70°C
BMXDDO1602H	16 * 24 Vdc output channels	-25°C...+70°C
BMXDDO1612H	16 * 24 Vdc output channels	-25°C...+70°C
BMXDDO3202KC	32 * 24 Vdc output channels	0°C...+60°C
BMXDDO3202H	32 * 24 Vdc output channels	0°C...+70°C
BMXDDO6402KC	64 * 24 Vdc output channels	0°C...+60°C
BMXDRA0805H	8 * 24 Vdc relay output channels	-25°C...+70°C
BMXDRA0815H	8 * 24 Vdc relay output channels	-25°C...+70°C
BMXDRA1605H	16 * 24 Vdc relay output channels	-25°C...+70°C



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BMXDRC0805H	8 * 24 Vdc relay output channels	-25°C...+70°C
BMXDDM16022H	8 * 24 Vdc input channels 8 * 24 Vdc output channels	-25°C...+70°C
BMXDDM16025H	16 * 24 Vdc input channels 8 * 24 Vdc relay output channels	-25°C...+70°C
BMXAMI0410H	4 * voltage/current analog input channels	-25°C...+70°C
BMXAMI0810H	8 * voltage/current analog input channels	-25°C...+70°C
BMXAMO0210H	2 * voltage/current analog output channels	-25°C...+70°C
BMXAMO0410H	4 * voltage/current analog output channels	-25°C...+70°C
BMXAMO0802H	8 * current analog output channels	-25°C...+70°C
BMXAMM0600H	4 * voltage/current analog input 2 * voltage/current analog output channels	-25°C...+70°C -25°C...+70°C
BMXART0414H	4 * thermocouple input channels	-25°C...+70°C
BMXART0814H	8 * thermocouple input channels	-25°C...+70°C
BMEAHI0812H	8 * current analog input channels (HART)	-25°C...+70°C
BMEAHO0412C	8 * current analog output channels (HART)	-25°C...+60°C
BMXEHC0800H	Counting module, high speed 8 channels	-25°C...+70°C
BMXETM0200H	Frequency module, 2 channels	-25°C...+70°C
BMXEAE0300H	SSI encoder module	-25°C...+70°C
BMXMSP0200	PTO Motion module	0°C...+60°C
BMXSAI0410	Analog input module	-25°C...+60°C
BMXSDI1602	Digital input module	-25°C...+60°C
BMXSDO0802	Digital output module	-25°C...+60°C
BMXSRA0405	Digital relay output module	-25°C...+60°C

COM		
Product	Description	Temperature range
BMXNOM0200H	Communication module RS485/232	-25°C...+70°C
BMXNOE0110H	Communication module Ethernet	-25°C...+70°C
BMXNOE0100H	Communication module Ethernet	-25°C...+70°C
BMXNOR0200H	RTU Communication module	-25°C...+70°C
BMXXBE1000H	Backplane extender module	-25°C...+70°C
BMXXBE2005	Backplane extender kit with BMXXBE1000H	-25°C...+70°C
BMXNOC0401	Communication module Ethernet	0°C...+60°C
BMENOC0301C	Communication module Ethernet	0°C...+60°C
BMENOC0311C	Communication module Ethernet	0°C...+60°C
BMENOC0321C	Communication module Ethernet	0°C...+60°C
BMENOS0300C	Communication module Ethernet	0°C...+60°C
BMENOP0300C	Communication module Ethernet	0°C...+60°C
BMENUA0100H	Communication module Ethernet	-25°C...+70°C



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COM		
Product	Description	Temperature range
BMENOR2200H	Communication module Ethernet	-25°C...+70°C
BMXCRA31210C	Communication module remote IO adapter	0°C...+60°C
BMECRA31210C	Communication module remote IO adapter	0°C...+60°C
BMECRA31310H	Communication module remote IO adapter	0°C...+60°C
BMECRD0100C	Communication module remote IO adapter	0°C...+60°C
BMXNRP0200C	Communication module optical	0°C...+60°C
BMXNRP0201C	Communication module optical	0°C...+60°C
BMXEIA0100	Communication module AS-I	0°C...+60°C
BMXPRA0100	Peripheral Remote IO Adaptor	0°C...+60°C

Accessories		
Product	Description	Temperature range
BMXRMSxxx	Memory card	-25°C...+70°C
BMXRWSxxx	Memory card	-25°C...+70°C
BMXFTBxxx	Field wiring terminal block with screws (20-way, 28-way and 40-way)	-25°C...+70°C
BMXFCAXxx	Connecting cable with screws (20-way, 28-way and 40-way)	-25°C...+70°C
BMXFCWxxx	Connecting cable with screws (20-way, 28-way and 40-way)	-25°C...+70°C
BMXBCxxx	Connecting cable, wiring connector (9 pins) with screws.	-25°C...+70°C
ABE7CPAxxx	Wiring block with screws	0°C...+60°C
490NACxxx	Ethernet transceiver	0°C...+60°C

Accessories are part of the present certification, but they don't carry out the marking due to their small size.

Cables, connectors, splitters, taps and trunk terminators are also covered with related M340-M580 modules in a system configuration.

ROUTINE EXAMINATIONS AND TESTS

- For all the products M340 BMXCPS3020H, M340 BMXCPS4022H and M340 BMXCPS4022S: Test of dielectric strength in accordance with Clause 7.1 of IEC 60079-7, 1.2 x 500V during at least 100 ms.
- For all the other products M340 and M580, no routine test.