

Product data sheet

Specifications



Discrete output module, Modicon X80, 16 NO relay outputs, 24 to 240V AC / 24 to 48V DC, for severe environments

BMXDRA1605H

Main

Range of product	Modicon X80
Product or component type	Discrete output module
Product specific application	For severe environments
Discrete output number	16 conforming to EN/IEC 61131-2
Discrete output type	Relay
Discrete output voltage	24...48 V 19...60 V DC 24...240 V 19...264 V AC

Complementary

[I _{th}] conventional free air thermal current	2 A
Insulation resistance	> 10 MOhm 500 V DC
Power dissipation in W	3 W
Response time on output	< 8 ms activation < 10 ms deactivation
Typical current consumption	79 mA at 3.3 V DC
MTBF reliability	1357810 H
Output overload protection	Use 1 fast blow fuse per channel or group of channel
Output overvoltage protection	Use discharge diode on each output DC Use RC circuit on each output AC Use ZNO surge limiter on each output AC
Output short-circuit protection	Use 1 fast blow fuse per channel or group of channel
Minimum switching current	1 mA 5 V DC
Electrical durability	AC-15: 100000 cycles at 240 VA 200 V (load factor 0.7) AC-15: 100000 cycles at 120 VA 200 V (load factor 0.35) AC-12: 100000 cycles at 200 VA 100 V AC-12: 100000 cycles at 80 VA 48 V AC-12: 100000 cycles at 50 VA 24 V AC-15: 100000 cycles at 120 VA 100 V AC-15: 100000 cycles at 120 VA 24 V AC-15: 100000 cycles at 120 VA 48 V DC-12: 100000 cycles at 24 W 24 V DC-13: 100000 cycles at 10 W 24 V DC-13: 100000 cycles at 10 W 48 V AC-15: 300000 cycles at 72 VA 200 V (load factor 0.7) AC-15: 300000 cycles at 36 VA 200 V (load factor 0.35) AC-12: 300000 cycles at 200 VA 200 V AC-12: 300000 cycles at 80 VA 100 V AC-12: 300000 cycles at 50 VA 48 V AC-15: 300000 cycles at 36 VA 100 V AC-15: 300000 cycles at 72 VA 100 V AC-15: 300000 cycles at 36 VA 48 V

AC-15: 300000 cycles at 72 VA 48 V
 AC-15: 300000 cycles at 36 VA 24 V
 AC-15: 300000 cycles at 72 VA 24 V
 DC-13: 300000 cycles at 3 W 24 V
 DC-13: 300000 cycles at 3 W 48 V
 DC-13: 7000 cycles at 24 W 24 V
 DC-13: 7000 cycles at 24 W 48 V
 DC-12: 50000 cycles at 24 W 48 V

Status LED	1 LED (green) RUN 1 LED per channel (green) channel diagnostic 1 LED (red) ERR 1 LED (red) I/O
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Net weight	0.15 kg
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Environment

IP degree of protection	IP20
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Directives	2014/35/EU - low voltage directive 2014/30/EU - electromagnetic compatibility
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Environmental characteristic	Gas resistant class Gx Gas resistant class 3C4 Dust resistant class 3S4 Sand resistant class 3S4 Salt resistant level 2 Mold growth resistant class 3B2 Fungal spore resistant class 3B2
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Dielectric strength	2000 V AC at 50/60 Hz 1 min
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Vibration resistance	3 gn
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Shock resistance	30 gn
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Ambient air temperature for storage	-40...85 °C
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Ambient air temperature for operation	-25...70 °C
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Relative humidity	5...95 % at 55 °C without condensation
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Protective treatment	Conformal coating
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Operating altitude	0...2000 m 2000...5000 m with derating factor
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Packing Units

Unit Type of Package 1	PCE
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Number of Units in Package 1	1
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Package 1 Height	5.5 cm
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Package 1 Width	11.0 cm
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Package 1 Length	11.6 cm
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Package 1 Weight	190.0 g
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Unit Type of Package 2	S02
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Number of Units in Package 2	15
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Package 2 Height	15.0 cm
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Package 2 Width	30.0 cm
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Package 2 Length	40.0 cm
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Package 2 Weight	3.15 kg
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Offer Sustainability

Sustainable offer status	Green Premium product
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REACH Regulation	REACH Declaration
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REACH free of SVHC	Yes
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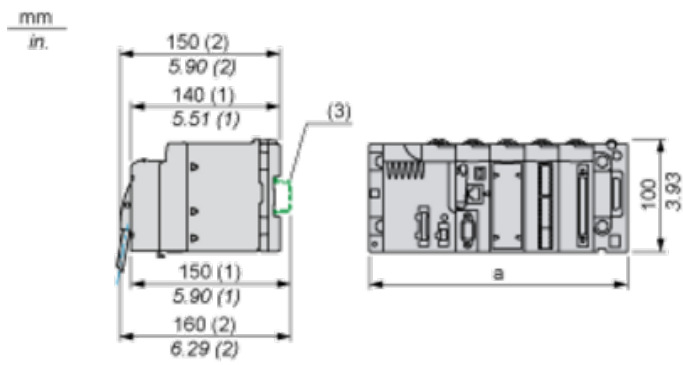
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	China RoHS declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Contractual warranty

Warranty	18 months
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Modules Mounted on Racks

Dimensions



(1) With removable terminal block (cage, screw or spring).

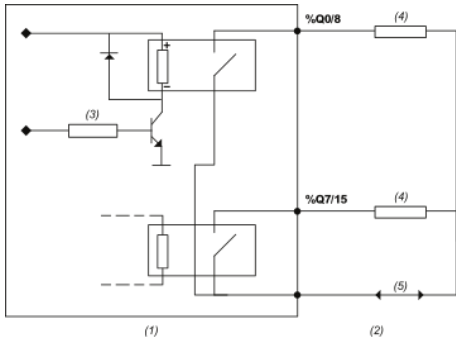
(2) With FCN connector.

(3) On AM1 ED rail: 35 mm wide, 15 mm deep. Only possible with BMXXBP0400/0400H/0600/0600H/0800/0800H rack.

Rack references	a in mm	a in in.
BMXXBP0400 and BMXXBP0400H	242.4	09.54
BMXXBP0600 and BMXXBP0600H	307.6	12.11
BMXXBP0800 and BMXXBP0800H	372.8	14.68
BMXXBP1200 and BMXXBP1200H	503.2	19.81

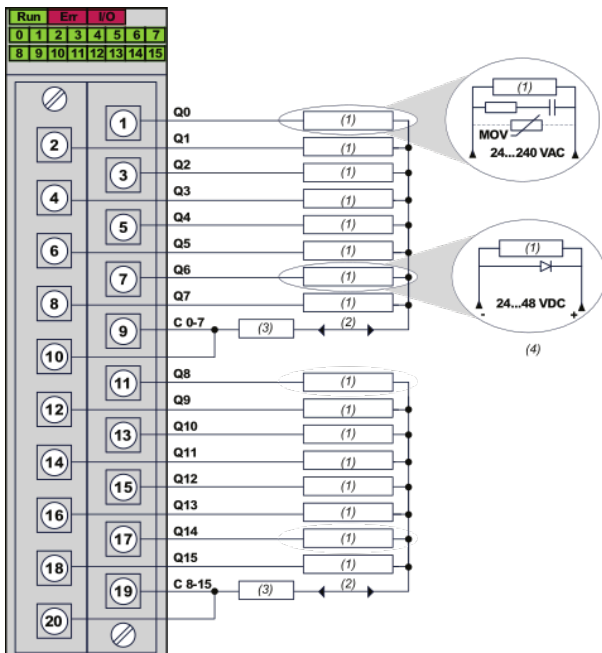
Connecting the Module

Output Circuit Diagram



- (1) Module
- (2) Output
- (3) Command
- (4) Pre-actuator
- (5) Power supply

Module Connection



- (1) Pre-actuator
- (2) Power supply : 24...48 VDC or 24...240 VAC
- (3) Fuse : 1 fast blow fuse of 12 A for each 8-channel group
- (4) We recommend installing this type of protection on the terminals of each pre-actuator

Recommended replacement(s)