



Main

Range of product	Modicon X80
Product or component type	Discrete I/O module
Product specific application	For severe environments
Discrete input number	8
Input type	Current sink (logic positive)
Discrete input voltage	24 V DC, discrete input logic: positive
Discrete input current	3.5 mA
Discrete output number	8
Discrete output type	Relay
Discrete output voltage	24 V 19...30 V DC 24...240 V 19...264 V AC
Discrete output current	2000 mA

Complementary

Input compatibility	With 2-wire/3-wire proximity sensors conforming to IEC 60947-5-2 With 2-wire/3-wire proximity sensors conforming to IEC 61131-2 type 3
Sensor power supply	19...30 V 60 °C 21.1...29.0 V 70 °C
Current state 1 guaranteed	>= 2 mA
Current state 0 guaranteed	<= 1.5 mA
Input impedance	6800 Ohm
Insulation resistance	> 10 MOhm 500 V DC
Power dissipation in W	3.1 W
DC typical response time	4 ms
DC maximum response time	7 ms
Response time on output	<= 8 ms deactivation <= 10 ms activation
Paralleling of inputs	No
Typical current consumption	79 mA at 3.3 V DC
MTBF reliability	835303 H
Protection type	1 external fuse per group of input channel 0.5 A fast blow Reverse polarity protection on input 1 external fuse per output channel or group of output channel fast blow
Voltage detection threshold	< 14 V DC sensor fault > 18 V DC sensor OK
Minimum switching current	1 mA 5 V DC
Maximum switching voltage	125 V DC 264 V AC
Mechanical durability	20000000 cycles

Electrical durability	AC-14: 100000 cycles at 120 VA 240 V at 70 °C (load factor 0.7) AC-14: 100000 cycles at 150 VA 200 V at 70 °C (load factor 0.7) AC-14: 100000 cycles at 240 VA 240 V at -25...60 °C (load factor 0.7) AC-14: 100000 cycles at 300 VA 200 V at -25...60 °C (load factor 0.7) AC-15: 100000 cycles at 100 VA 200 V at 70 °C (load factor 0.35) AC-15: 100000 cycles at 120 VA 240 V at -25...60 °C (load factor 0.35) AC-15: 100000 cycles at 200 VA 200 V at -25...60 °C (load factor 0.35) AC-15: 100000 cycles at 60 VA 240 V at 70 °C (load factor 0.35) DC-13: 100000 cycles at 12 W 24 V at 70 °C DC-13: 100000 cycles at 24 W 24 V at -25...60 °C AC-14: 300000 cycles at 36 VA 240 V at 70 °C (load factor 0.7) AC-14: 300000 cycles at 40 VA 200 V at 70 °C (load factor 0.7) AC-14: 300000 cycles at 72 VA 240 V at -25...60 °C (load factor 0.7) AC-14: 300000 cycles at 80 VA 200 V at -25...60 °C (load factor 0.7) AC-15: 300000 cycles at 18 VA 240 V at 70 °C (load factor 0.35) AC-15: 300000 cycles at 30 VA 200 V at 70 °C (load factor 0.35) AC-15: 300000 cycles at 36 VA 240 V at -25...60 °C (load factor 0.35) AC-15: 300000 cycles at 60 VA 200 V at -25...60 °C (load factor 0.35) DC-13: 300000 cycles at 3.6 W 24 V at 70 °C DC-13: 300000 cycles at 7.2 W 24 V at -25...60 °C
Switching frequency	1 Hz
Status LED	1 LED (green)module operating (RUN) 1 LED per channel (green)channel diagnostic 1 LED (red)module error (ERR) 1 LED (red)module I/O
Net weight	0.135 kg


Environment

IP degree of protection	IP20
Directives	2014/35/EU - low voltage directive 2014/30/EU - electromagnetic compatibility
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
Dielectric strength	1500 V AC at 50/60 Hz 1 minute, primary/secondary 2830 V AC at 50/60 Hz 1 minute, output relay 500 V DC 1 minute, between group of I/O
Vibration resistance	3 gn
Shock resistance	30 gn
Ambient air temperature for storage	-40...85 °C
Ambient air temperature for operation	-25...70 °C
Relative humidity	5...95 % at 55 °C without condensation
Protective treatment	Conformal coating
Operating altitude	0...2000 m 2000...5000 m with derating factor

Packing Units

Package 1 Weight	0.175 kg
Package 1 Height	55.000 mm
Package 1 width	110.000 mm
Package 1 Length	120.000 mm

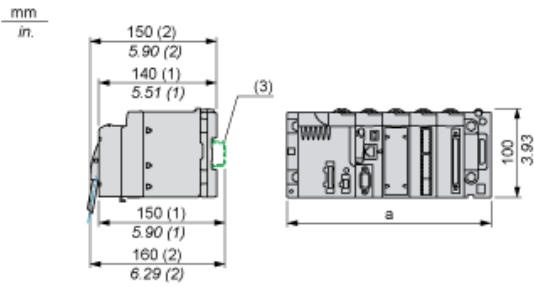
Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	 REACH Declaration
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)  EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	 Yes

China RoHS Regulation	China RoHS Declaration
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
Contractual warranty	
Warranty	18 months

Modules Mounted on Racks

Dimensions

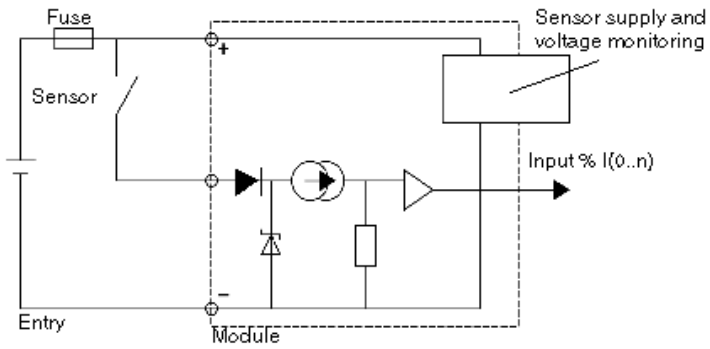


- (1) With removable terminal block (cage, screw or spring).
- (2) With FCN connector.
- (3) On AM1 ED rail: 35 mm wide, 15 mm deep. Only possible with BMXXBP0400/0400H/0600/0600H/0800/0800H rack.

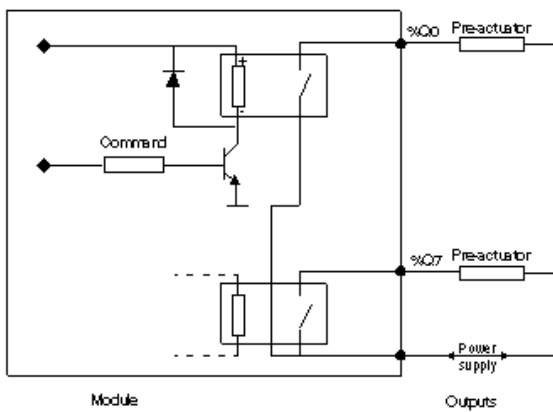
Rack references	a in mm	a in in.
BMXXBP0400 and BMXXBP0400H	242.4	09.54
BMXXBP0600 and BMXXBP0600H	307.6	12.11
BMXXBP0800 and BMXXBP0800H	372.8	14.68
BMXXBP1200 and BMXXBP1200H	503.2	19.81

Connecting the Module

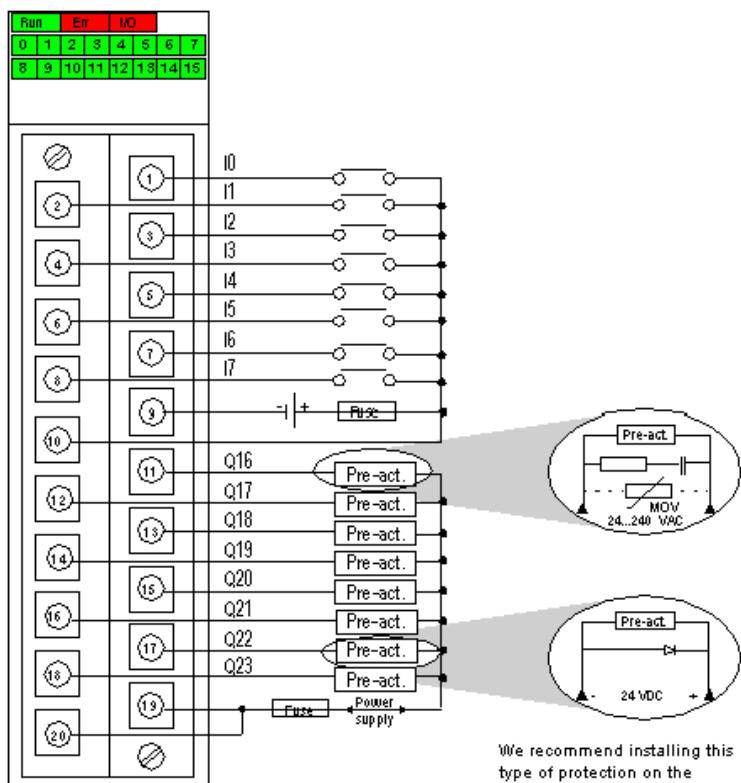
Input Circuit Diagram



Output Circuit Diagram



Module Connection



We recommend installing this type of protection on the terminals of each pre-actuator.

- input 24 VDC
- power supply
- output 24 VDC or 24...240 VAC
- power supply
- input 1 fast blow fuse of 0.5 A
- fuse
- output 1 fast blow fuse of 12 A
- fuse
- pre- pre-actuator
- act