



## 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	Solid state
Discrete output voltage	24 V 19...30 V DC at 60 °C 24 V 26.4 V DC at 70 °C
Discrete output current	0.5 A

## 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	21.1...29.0 V 70 °C 19...30 V 60 °C
Current state 1 guaranteed	$\geq 3$ mA
Current state 0 guaranteed	$\leq 1.5$ mA
Current per channel	0.55 A at 70 °C 0.625 A at 60 °C
Maximum current per module	5 A 60 °C 4.4 A 70 °C
Maximum leakage current	0.5 mA at state 0
Maximum voltage drop	$< 1.2$ V at state 1
Input impedance	6800 Ohm
Insulation resistance	$> 10$ MOhm 500 V DC
Power dissipation in W	3.7 W
DC typical response time	4 ms
DC maximum response time	7 ms
Response time on output	1.2 ms
Paralleling of outputs	Yes : 2 maximum
Typical current consumption	79 mA at 3.3 V DC 59 mA at 24 V DC
Current consumption	$\leq 111$ mA at 3.3 V DC $\leq 67$ mA at 24 V DC
MTBF reliability	450000 H
Protection type	1 external fuse per group of input channel 0.5 A fast blow Overvoltage protection on output Reverse polarity protection on input Reverse polarity protection on output
Output overload protection	With electronic circuit breaker $1.5 I_n < I_d < 2 I_n$ With current limiter
Output overvoltage protection	With transil diode
Output short-circuit protection	With 2 A external fuse
Reverse polarity protection	Reverse mounted diode

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 Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Voltage detection threshold	< 14 V DC preactuator fault < 14 V DC sensor fault > 18 V DC preactuator OK > 18 V DC sensor OK
Maximum tungsten load	6 W
Switching frequency	0.5/LI <sup>2</sup> Hz
Maximum overload time	15 ms
Load impedance ohmic	>= 48 Ohm
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	0.115 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, output/ground 1500 V AC at 50/60 Hz 1 minute, output/internal logic 1500 V AC at 50/60 Hz 1 minute, primary/secondary 500 V DC 1 minute, between group of inputs and outputs
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

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.500 cm
Package 1 Width	11.000 cm
Package 1 Length	12.000 cm
Package 1 Weight	151.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	15
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	2.542 kg

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	 <a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	 <a href="#">China RoHS Declaration</a>
RoHS exemption information	 Yes

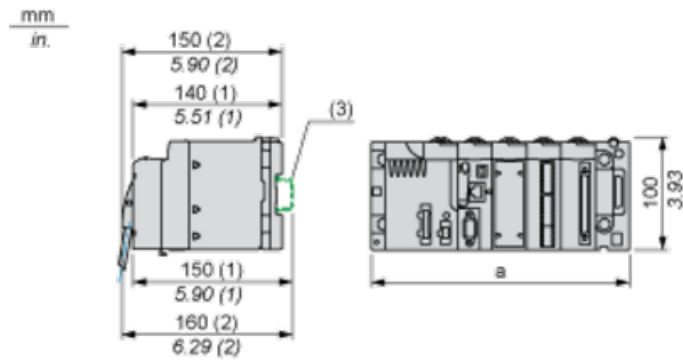
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End Of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
California proposition 65	WARNING: This product 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

### Contractual warranty

Warranty	18 months
----------	-----------

Modules Mounted on Racks

Dimensions



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

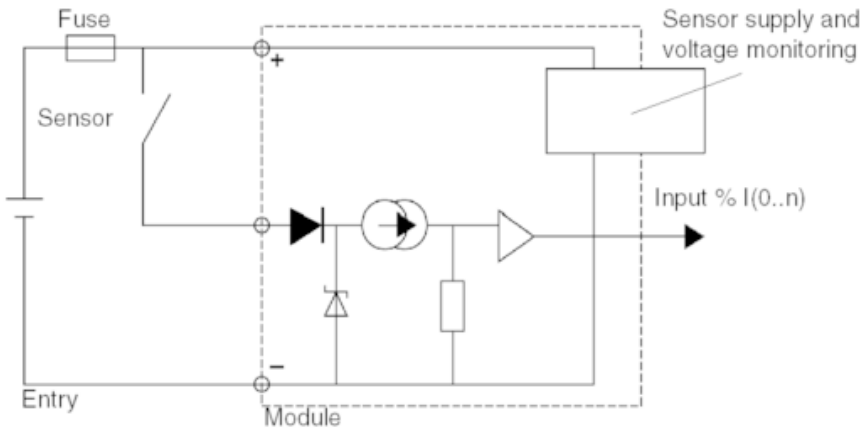
(2) With FCN connector.

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

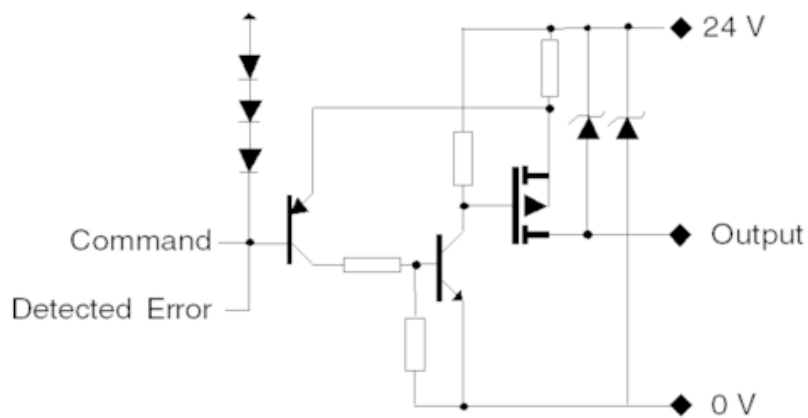
Rack references	a in mm	a in in.
BMXXBP0400 and BMXXBP0400H	242.4	09.54
BMXXBP0600 and BMXXBP0600H	307.6	12.11
BMXXBP0800 and BMXXBP0800H	372.8	14.68
BMXXBP1200 and BMXXBP1200H	503.2	19.81

Connecting the Module

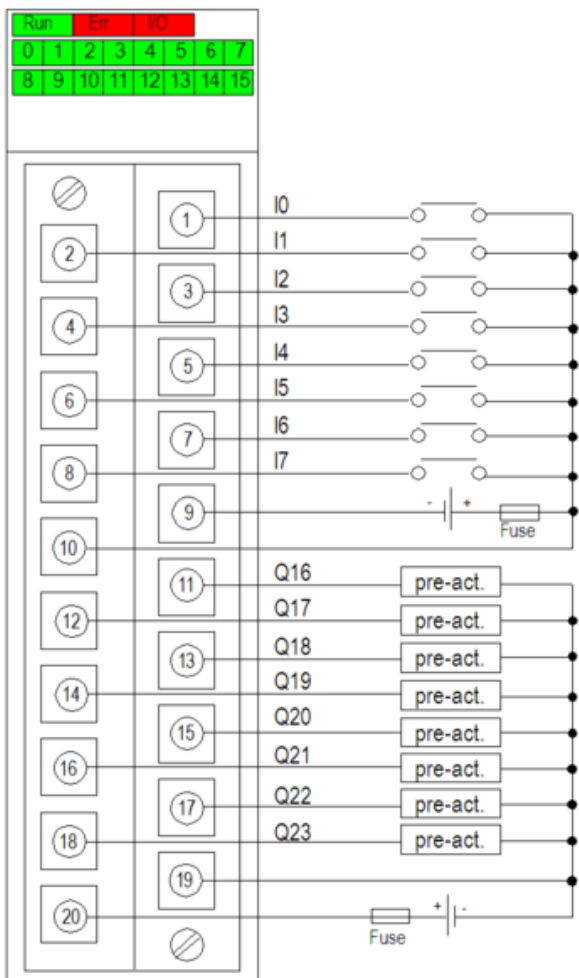
Input Circuit Diagram



Output Circuit Diagram



## Module Connection



power supply 24 VDC  
input fuse fast blow fuse of 0.5 A  
output fuse fast blow fuse of 6.3 A  
pre-act pre-actuator