

# Product data sheet

Specifications



## Discrete mixed I/O module, Modicon X80, 8 inputs, 24V DC, 8 relay outputs, 24 to 240V AC positive

BMXDDM16025

### Main

Range of product	Modicon X80
Product or component type	Discrete I/O module
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
Current state 1 guaranteed	$\geq 2$ mA
Current state 0 guaranteed	$\leq 1.5$ 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	$\leq 8$ ms deactivation $\leq 10$ ms activation
Paralleling of inputs	No
Typical current consumption	79 mA at 3.3 V DC
MTBF reliability	940000 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

<b>Minimum switching current</b>	1 mA 5 V DC
<b>Maximum switching voltage</b>	125 V DC 264 V AC
<b>Mechanical durability</b>	20000000 cycles
<b>Electrical durability</b>	AC-14: 100000 cycles at 240 VA 240 V (load factor 0.7) AC-14: 100000 cycles at 300 VA 200 V (load factor 0.7) AC-15: 100000 cycles at 120 VA 240 V (load factor 0.35) AC-15: 100000 cycles at 200 VA 200 V (load factor 0.35) DC-13: 100000 cycles at 24 W 24 V AC-14: 300000 cycles at 72 VA 240 V (load factor 0.7) AC-14: 300000 cycles at 80 VA 200 V (load factor 0.7) AC-15: 300000 cycles at 36 VA 240 V (load factor 0.35) AC-15: 300000 cycles at 60 VA 200 V (load factor 0.35) DC-13: 300000 cycles at 7.2 W 24 V
<b>Switching frequency</b>	1 Hz
<b>Status LED</b>	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
<b>Net weight</b>	0.135 kg

## Environment

<b>IP degree of protection</b>	IP20
<b>Directives</b>	2014/35/EU - low voltage directive 2014/30/EU - electromagnetic compatibility
<b>Dielectric strength</b>	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
<b>Vibration resistance</b>	3 gn
<b>Shock resistance</b>	30 gn
<b>Ambient air temperature for storage</b>	-40...85 °C
<b>Ambient air temperature for operation</b>	0...60 °C
<b>Relative humidity</b>	5...95 % at 55 °C without condensation
<b>Operating altitude</b>	0...2000 m 2000...5000 m with derating factor

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	5.100 cm
<b>Package 1 Width</b>	11.600 cm
<b>Package 1 Length</b>	11.800 cm
<b>Package 1 Weight</b>	161.000 g
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	15
<b>Package 2 Height</b>	15.000 cm
<b>Package 2 Width</b>	30.000 cm
<b>Package 2 Length</b>	40.000 cm
<b>Package 2 Weight</b>	2.781 kg

## Offer Sustainability

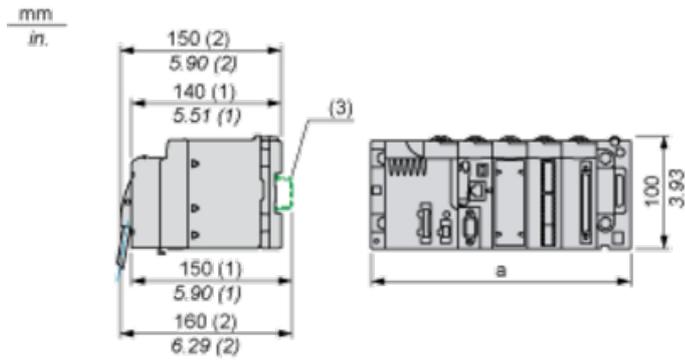
Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</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
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**Modules Mounted on Racks**

**Dimensions**



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

(2) With FCN connector.

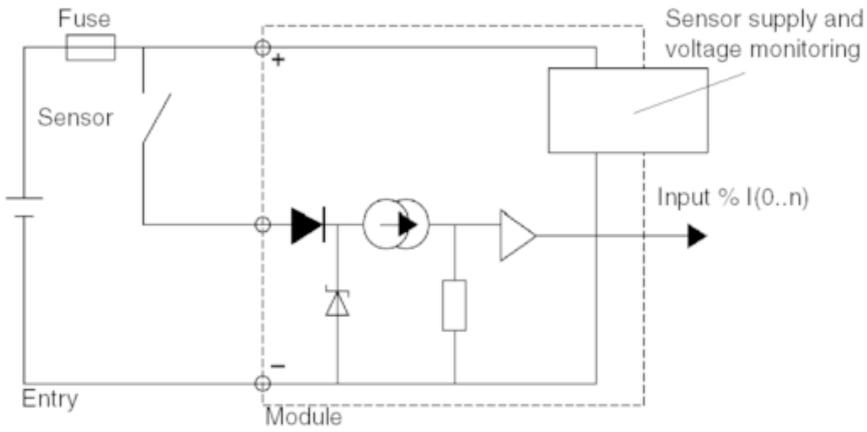
(3) On AM1 ED rail: 35 mm wide, 15 mm deep. Only possible with BMXXBP0400/0400H/0600/0600H/0800/0800H rack.

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

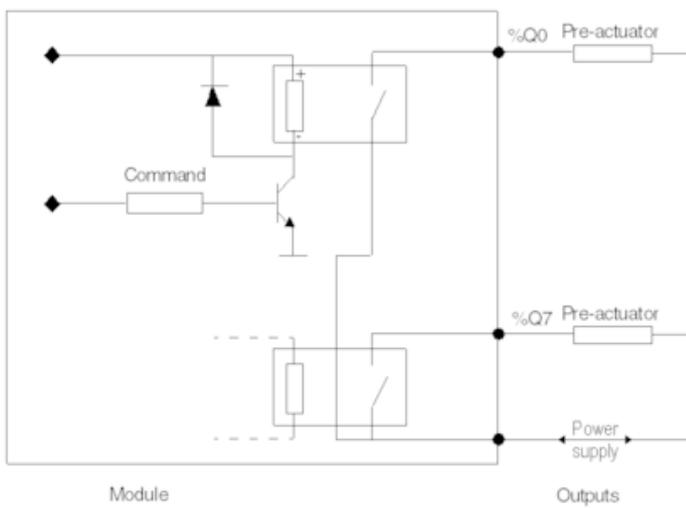
## Connecting the Module

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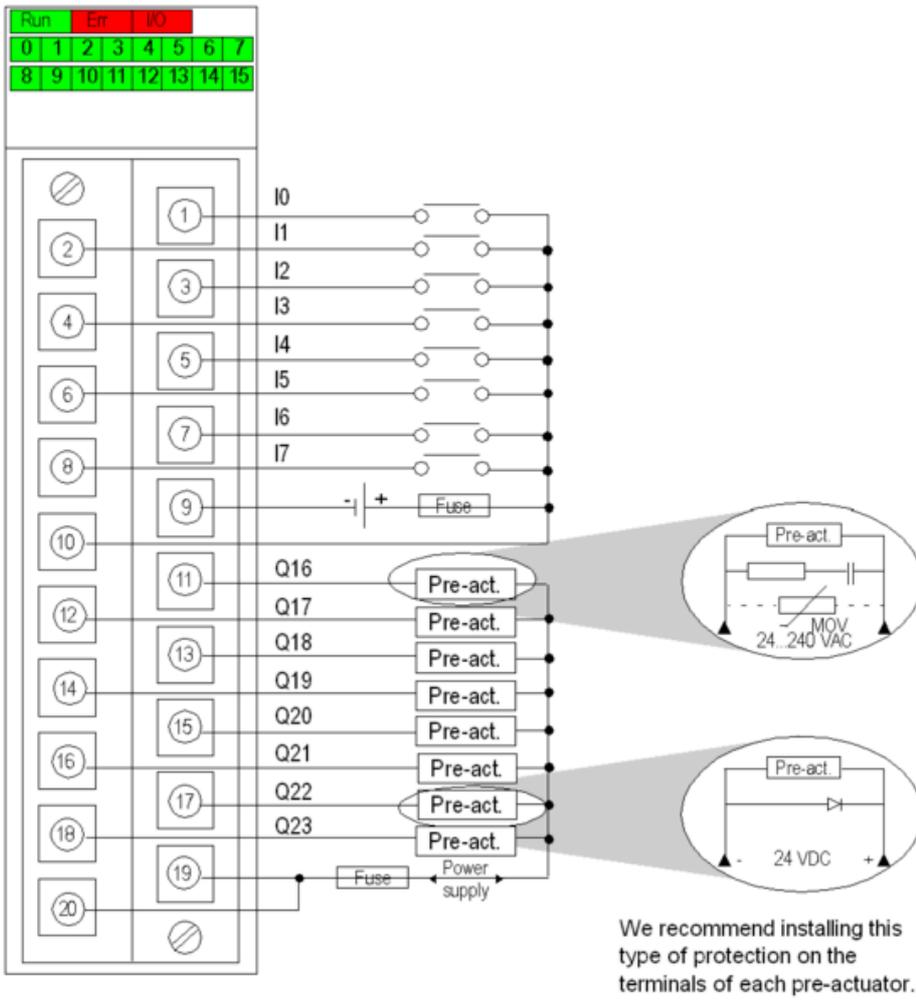
### Input Circuit Diagram



### Output Circuit Diagram



## Module Connection



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

**input power supply** 24 VDC

**output power supply** 24 VDC or 24...240 VAC

**input fuse** 1 fast blow fuse of 0.5 A

**output fuse** 1 fast blow fuse of 12 A

**pre-act** pre-actuator

## Recommended replacement(s)