Product data sheet

Specifications

PTO module, Modicon X80, 2 channels, 4 I, 24V DC, 4.3mA, 2 connectors, 28 pins

BMXMSP0200

Main

Range Of Product	Modicon X80
Product Or Component Type	PTO module
Number Of Channels	2
Number Of Inputs	4
Discrete Input Type	Current sink yes origin input IEC 61131-2 type 3 Current sink yes proximity input and limit switch input IEC 61131-2 type 3 Current sink or source counter in position input IEC 61131-2 type 3 Current sink or source drive ready, emergency input IEC 61131-2 type 3
Input Compatibility	2-wire/3-wire proximity sensor 19.2…30 V IEC 947-5-2
Output Compatibility	Signal converter (USIC) RS422, 7 mA input Source input, 5 V to 24 V
Output Frequency	200 kHz <1.64 ft (0.5 m) with USIC and VW3M8210R05 100 kHz <16.40 ft (5 m) with the normal source input circuit 200 kHz <32.81 ft (10 m) with the RS422 compatible circuits

Complementary

Operating Threshold	> 12 V no error supply voltage > 8 V error supply voltage
Input Voltage	24 V DC
Input Current	4.3 mA
Voltage State 1 Guaranteed	>= 11 V
Current Consumption	35 mA 24 V DC preactuator 150 mA 3.3 V DC typical 200 mA 3.3 V DC maximum
Current State 1 Guaranteed	>= 2 mA
Voltage State 0 Guaranteed	5 V
Current State 0 Guaranteed	<= 1.5 mA
Response Time	< 200 µs for position completed input and drive ready input < 60 µs for origin input and proximity input
Number Of Outputs	1 pulse output 2 auxiliary output
Preactuator Voltage Detection Threshold	< 8 V error preactuator voltage auxiliary output < 8 V no error preactuator voltage auxiliary output > 14 V error preactuator voltage pulse output > 14 V no error preactuator voltage pulse output
Output Voltage	24 V DC
Output Voltage Limits	19...30 V
Discrete Output Current	50 mA

Current Per Channel	0.4 A
Maximum Leakage Current	0.05 mA at state 0
[Ures] Residual Voltage	0.15 V at state 1
Response Time On Output	1.2...1.5 ms on appearance 1.2...1.5 ms on disappearance
Load Impedance Ohmic	15000 Ohm
Output Overload Protection	By current limiter and electronic circuit breaker
Output Short-Circuit Protection	By current limiter and electronic circuit breaker
Reverse Polarity Protection	By reverse mounting diode on output Integrated on input
Insulation Between Channels	No insulated
Insul Btwn Prim And Second	1500 Vrms
Insulation Resistance	> 10 MOhm
Local Signalling	Module operating (RUN) 1 LED green) External fault (I/O) 1 LED red) Internal fault, module failure (ERR) 1 LED red) Download (DL) 1 LED green) Channel status (CH00) 8 LEDs green) Channel status (CH01) 8 LEDs green)
Electrical Connection	2 connectors 28 pins
Module Format	Standard
Product Certifications	CE UL CSA RCM EAC Merchant Navy ATEX zone 2/22 IECEx zone 2/22

Environment

Ambient Air Temperature For Operation	-13…158 °F (-25…70 °C)
Derating Factor	Without
Directives	2014/35/EU - low voltage directive 2014/30/EU - electromagnetic compatibility 2014/34/EU - ATEX directive
Standards	EN/IEC 61131-2 EN/IEC 61010-2-201 UL 61010-2-201 CSA C22.2 No 61010-2-201 IACS E10 EN/IEC 61000-6-5, interface type 1 and type 2 EN/IEC 61850-3, location G EN/IEC 60079-0
Environmental Characteristic	Hazardous location class I division 2

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	2.13 in (5.400 cm)
Package 1 Width	4.53 in (11.500 cm)
Package 1 Length	4.61 in (11.700 cm)

Package 1 Weight	5.19 oz (147.000 g)
Unit Type Of Package 2	S02
Number Of Units In Package 2	15
Package 2 Height	5.91 in (15.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	5.57 lb(US) (2.527 kg)

Contractual warranty

Warranty	18 months

Sustainability

Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO_2 products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

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Guide to assess a product's sustainability >

Well-being performance

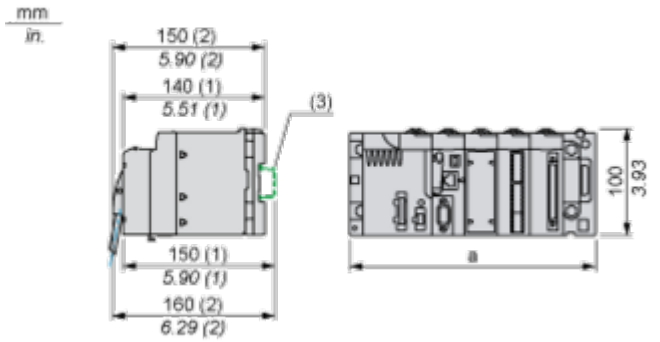
Mercury Free	
Rohs Exemption Information	Yes

Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Dimensions Drawings

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

Connections and Schema

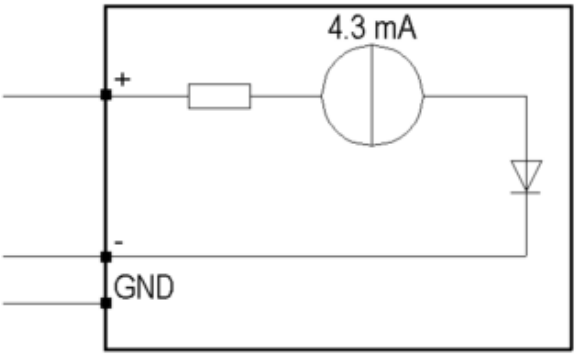
PTO Module Wiring

Auxiliary Inputs for Each PTO Channel

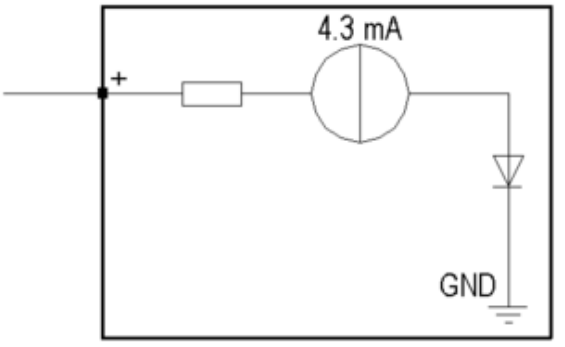
- Auxiliary Input 0: Drive_Ready&Emergency
- Auxiliary Input 1: Counter_in_Position
- Auxiliary Input 2: Origin (Signal used only for homing mode)
- Auxiliary Input 3: Proximity&LimitSwitch

Inputs Circuit Diagrams

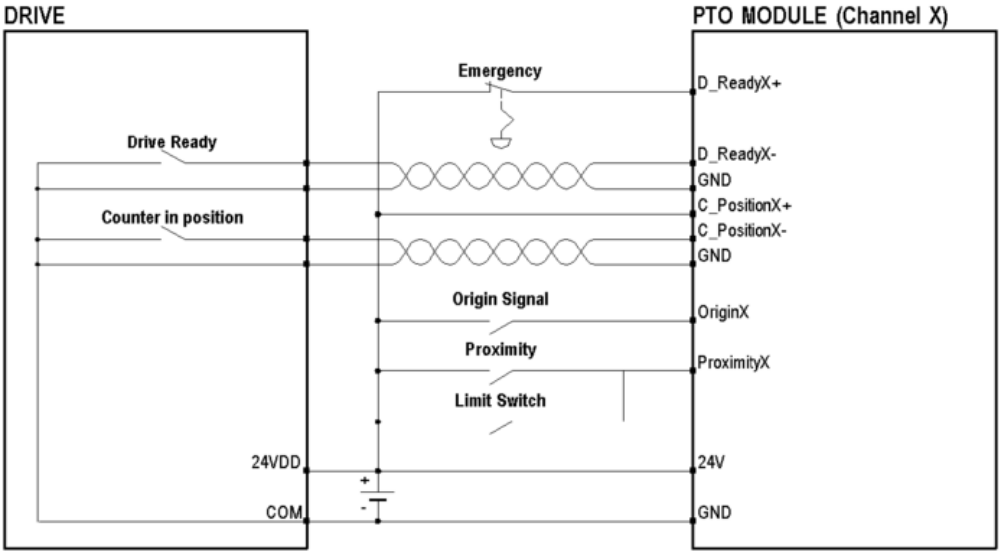
Drive_Ready&Emergency inputs or Counter_in_Position (SINK/SOURCE input type):



Origin or Proximity&LimitSwitch inputs (SINK input type):

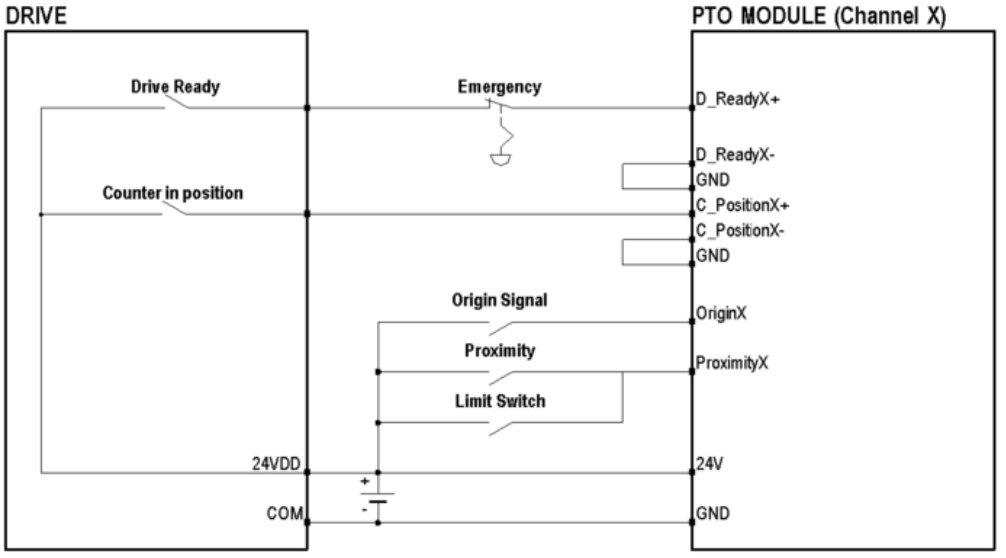


Module Connection for Drive_Ready&Emergency and Counter_in_Position of SINK type



A twisted pair cable is necessary to connect the module to the drive.

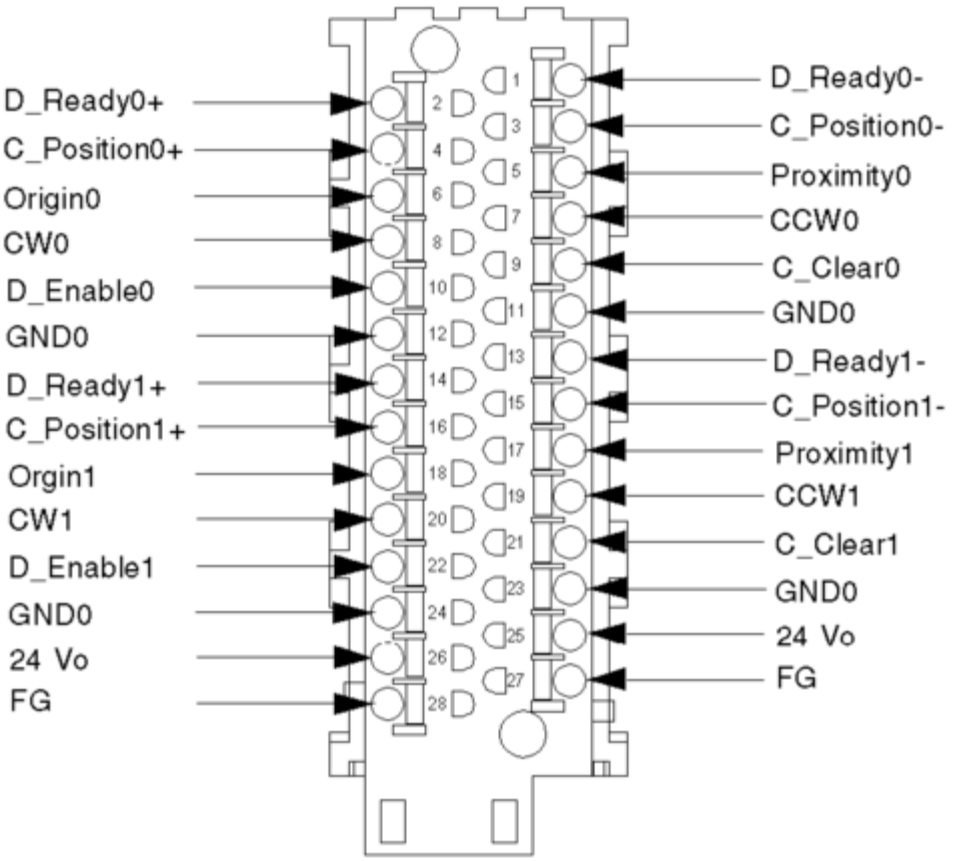
Module Connection for Drive_Ready&Emergency and Counter_in_Position of SOURCE type



NOTE: In order to stop the PTO module when the PLC is set to STOP, connect the D_ReadyX+ input to the PTO module via a BMXDRA0805 or a BMXDRA1605. This will make all outputs stop when the D_Ready&Emergency input is set to 0.

28 Pin Terminal Block Arrangements

The terminal block is arranged as followed


D_Ready0+
C_Position0+
Origin0
CW0
D_Enable0
GND0
D_Ready1+
C_Position1+
Orgin1
CW1
D_Enable1
GND0
24 Vo
FG
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
D_Ready0-
C_Position0-
Proximity0
CCW0
C_Clear0
GND0
D_Ready1-
C_Position1-
Proximity1
CCW1
C_Clear1
GND0
24 Vo
FG