

# BMXDRA0815H

Discrete output module, Modicon X80, 8 NO relay outputs, 24 to 240V AC / 24 to 125V DC, for severe environments



## Main

|                              |                                                     |
|------------------------------|-----------------------------------------------------|
| Range of Product             | Modicon X80                                         |
| Product or Component Type    | Relay discrete output module                        |
| Product Specific Application | For severe environments                             |
| Discrete output number       | 8 EN/IEC 61131-2                                    |
| Discrete output logic        | Positive                                            |
| Discrete output voltage      | 24...240 V 19...264 V AC<br>24...125 V 5...150 V DC |

## Complementary

|                                                          |                                                                                                                                                                     |
|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Electrical connection                                    | 20 ways terminal block                                                                                                                                              |
| Network Frequency                                        | 50/60 Hz                                                                                                                                                            |
| Network frequency limits                                 | 47...63 Hz                                                                                                                                                          |
| Sensor power supply                                      | 5...150 V<br>19...264 V                                                                                                                                             |
| [I <sub>th</sub> ] conventional free air thermal current | 3 A                                                                                                                                                                 |
| Insulation resistance                                    | > 10 MOhm 500 V DC                                                                                                                                                  |
| Power dissipation in W                                   | 3.6 W                                                                                                                                                               |
| Response time on output                                  | <= 10 ms activation<br><= 13 ms deactivation                                                                                                                        |
| Typical current consumption                              | 40 mA 3.3 V DC<br>101 mA 24 V DC                                                                                                                                    |
| MTBF reliability                                         | 3200000 H                                                                                                                                                           |
| Protection type                                          | External short-circuit protection<br>External overload protection<br>External overvoltage protection, inductive AC<br>External overvoltage protection, inductive DC |
| Output overload protection                               | Use 1 fast blow fuse per channel or group of channel                                                                                                                |
| Output overvoltage protection                            | Use discharge diode on each output DC<br>Use RC circuit on each output AC<br>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                                                                                                                                                         |

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.

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| Electrical durability | AC-12 200000 cycles 48 VA 24 V -13...140 °F (-25...60 °C)<br>AC-12 200000 cycles 28.8 VA 24 V 158 °F (70 °C)<br>AC-12 300000 cycles 48 VA 48 V -13...140 °F (-25...60 °C)<br>AC-12 300000 cycles 28.8 VA 48 V 158 °F (70 °C)<br>AC-12 150000 cycles 96 VA 48 V -13...140 °F (-25...60 °C)<br>AC-12 150000 cycles 57.6 VA 48 V 158 °F (70 °C)<br>AC-12 300000 cycles 110 VA 100...120 V -13...140 °F (-25...60 °C)<br>AC-12 300000 cycles 66 VA 100...120 V 158 °F (70 °C)<br>AC-12 150000 cycles 220 VA 100...120 V -13...140 °F (-25...60 °C)<br>AC-12 150000 cycles 132 VA 100...120 V 158 °F (70 °C)<br>AC-12 300000 cycles 220 VA 200...250 V -13...140 °F (-25...60 °C)<br>AC-12 300000 cycles 132 VA 200...250 V 158 °F (70 °C)<br>AC-12 150000 cycles 500 VA 200...250 V -13...140 °F (-25...60 °C)<br>AC-12 150000 cycles 300 VA 200...250 V 158 °F (70 °C)<br>AC-15 700000 cycles 10 VA 24 V -13...140 °F (-25...60 °C) 0.4)<br>AC-15 700000 cycles 6 VA 24 V 158 °F (70 °C) 0.4)<br>AC-15 500000 cycles 24 VA 24 V -13...140 °F (-25...60 °C) 0.4)<br>AC-15 500000 cycles 14.4 VA 24 V 158 °F (70 °C) 0.4)<br>AC-15 200000 cycles 48 VA 24 V -13...140 °F (-25...60 °C) 0.4)<br>AC-15 200000 cycles 28.8 VA 24 V 158 °F (70 °C) 0.4)<br>AC-15 700000 cycles 10 VA 48 V -13...140 °F (-25...60 °C) 0.4)<br>AC-15 700000 cycles 6 VA 48 V 158 °F (70 °C) 0.4)<br>AC-15 500000 cycles 24 VA 48 V -13...140 °F (-25...60 °C) 0.4)<br>AC-15 500000 cycles 14.4 VA 48 V 158 °F (70 °C) 0.4)<br>AC-15 300000 cycles 48 VA 48 V -13...140 °F (-25...60 °C) 0.4)<br>AC-15 300000 cycles 28.8 VA 48 V 158 °F (70 °C) 0.4)<br>AC-15 100000 cycles 96 VA 48 V -13...140 °F (-25...60 °C) 0.4)<br>AC-15 100000 cycles 57.6 VA 48 V 158 °F (70 °C) 0.4)<br>AC-15 1000000 cycles 10 VA 100...120 V -13...140 °F (-25...60 °C) 0.4)<br>AC-15 1000000 cycles 6 VA 100...120 V 158 °F (70 °C) 0.4)<br>AC-15 300000 cycles 50 VA 100...120 V -13...140 °F (-25...60 °C) 0.4)<br>AC-15 300000 cycles 30 VA 100...120 V 158 °F (70 °C) 0.4)<br>AC-15 200000 cycles 110 VA 100...120 V -13...140 °F (-25...60 °C) 0.4)<br>AC-15 200000 cycles 66 VA 100...120 V 158 °F (70 °C) 0.4)<br>AC-15 70000 cycles 220 VA 100...120 V -13...140 °F (-25...60 °C) 0.4)<br>AC-15 70000 cycles 132 VA 100...120 V 158 °F (70 °C) 0.4)<br>AC-15 1000000 cycles 10 VA 200...250 V -13...140 °F (-25...60 °C) 0.4)<br>AC-15 1000000 cycles 6 VA 200...250 V 158 °F (70 °C) 0.4)<br>AC-15 500000 cycles 50 VA 200...250 V -13...140 °F (-25...60 °C) 0.4)<br>AC-15 500000 cycles 30 VA 200...250 V 158 °F (70 °C) 0.4)<br>AC-15 200000 cycles 110 VA 200...250 V -13...140 °F (-25...60 °C) 0.4)<br>AC-15 200000 cycles 66 VA 200...250 V 158 °F (70 °C) 0.4)<br>AC-15 150000 cycles 220 VA 200...250 V -13...140 °F (-25...60 °C) 0.4)<br>AC-15 150000 cycles 132 VA 200...250 V 158 °F (70 °C) 0.4)<br>DC-12 200000 cycles 24 W 24 V -13...140 °F (-25...60 °C)<br>DC-12 200000 cycles 14.4 W 24 V 158 °F (70 °C)<br>DC-12 150000 cycles 48 W 24 V -13...140 °F (-25...60 °C)<br>DC-12 150000 cycles 28.8 W 24 V 158 °F (70 °C)<br>DC-12 150000 cycles 40 W 48...60 V -13...140 °F (-25...60 °C)<br>DC-12 150000 cycles 24 W 48...60 V 158 °F (70 °C)<br>DC-12 100000 cycles 45 W 100...125 V -13...140 °F (-25...60 °C)<br>DC-12 60000 cycles 45 W 100...125 V 158 °F (70 °C)<br>DC-13 100000 cycles 10 W 24 V -13...140 °F (-25...60 °C)<br>DC-13 100000 cycles 6 W 24 V 158 °F (70 °C)<br>DC-13 60000 cycles 24 W 24 V -13...140 °F (-25...60 °C)<br>DC-13 60000 cycles 14.4 W 24 V 158 °F (70 °C)<br>DC-13 40000 cycles 48 W 24 V -13...140 °F (-25...60 °C)<br>DC-13 40000 cycles 28.8 W 24 V 158 °F (70 °C)<br>DC-13 40000 cycles 40 W 48...60 V -13...140 °F (-25...60 °C)<br>DC-13 40000 cycles 24 W 48...60 V 158 °F (70 °C)<br>DC-13 100000 cycles 15 W 100...125 V -13...140 °F (-25...60 °C)<br>DC-13 40000 cycles 15 W 100...125 V 158 °F (70 °C) |
| Status LED            | 1 LED (Green) RUN<br>1 LED per channel (Green) channel diagnostic<br>1 LED (Red) ERR<br>1 LED (Red) I/O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Net Weight            | 0.37 lb(US) (0.169 kg)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

## Environment

|                                       |                                                                                                                                                                                                            |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP Degree of Protection               | IP20                                                                                                                                                                                                       |
| Environmental characteristic          | Gas resistant class Gx<br>Gas resistant class 3C4<br>Dust resistant class 3S4<br>Sand resistant class 3S4<br>Salt resistant level 2<br>Mold growth resistant class 3B2<br>Fungal spore resistant class 3B2 |
| Dielectric strength                   | 1780 V AC 50/60 Hz 1 min                                                                                                                                                                                   |
| Vibration resistance                  | 3 gn                                                                                                                                                                                                       |
| Shock resistance                      | 30 gn                                                                                                                                                                                                      |
| Ambient Air Temperature for Storage   | -40...185 °F (-40...85 °C)                                                                                                                                                                                 |
| Ambient Air Temperature for Operation | -13...158 °F (-25...70 °C)                                                                                                                                                                                 |
| Relative humidity                     | 0...95 % 140 °F (60 °C) without condensation                                                                                                                                                               |
| Protective treatment                  | Conformal coating                                                                                                                                                                                          |
| Operating altitude                    | 0...6561.68 ft (0...2000 m)<br>2000...5000 m with derating factor                                                                                                                                          |

## Ordering and shipping details

|                   |                    |
|-------------------|--------------------|
| Category          | 18160-MODICON M340 |
| Discount Schedule | PC34               |
| GTIN              | 3606481275615      |
| Returnability     | No                 |
| Country of origin | FR                 |

## Packing Units

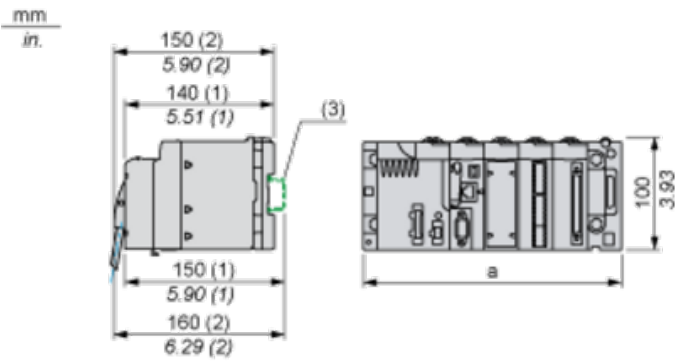
|                              |                        |
|------------------------------|------------------------|
| Unit Type of Package 1       | PCE                    |
| Number of Units in Package 1 | 1                      |
| Package 1 Height             | 2.17 in (5.500 cm)     |
| Package 1 Width              | 4.57 in (11.600 cm)    |
| Package 1 Length             | 4.84 in (12.300 cm)    |
| Package 1 Weight             | 7.30 oz (207.000 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             | 7.59 lb(US) (3.442 kg) |

## Offer Sustainability

|                            |                                                                                                                                                                                                                                                                                             |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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> |
| 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 |  <a href="#">Yes</a>                                                                                                                                                                                     |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.                                                                                                                                                                |

Modules Mounted on Racks

Dimensions

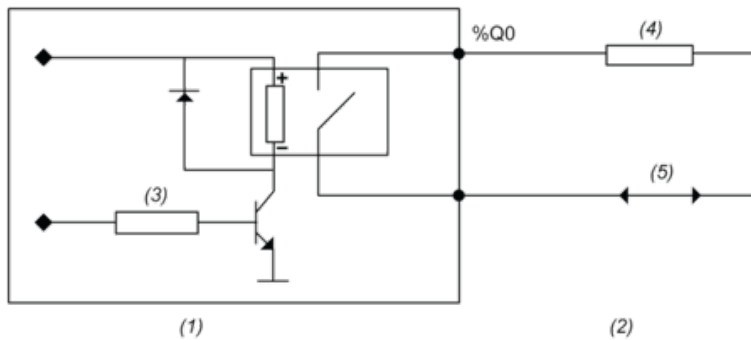


- (1) With removable terminal block (cage, screw or spring).
- (2) With FCN connector.
- (3) On AM1 ED rail: 35 mm wide, 15 mm deep. Only possible with BMXXBP0400/0400H/0600/0600H/0800/0800H rack.

| 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    |

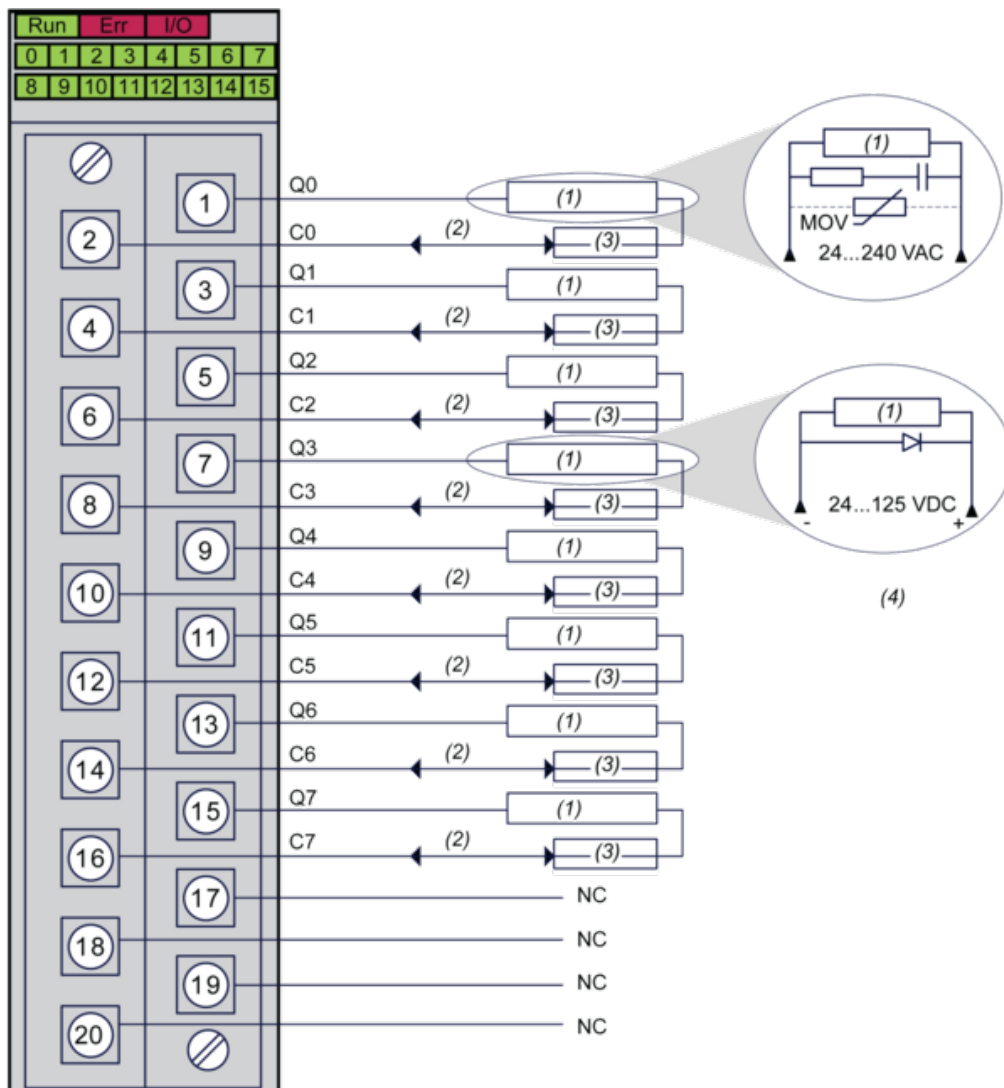
## Connecting the Module

### Output Circuit Diagram



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

### Module Connection



- (1) Pre-actuator
  - (2) Power supply : 24...125 Vdc or 24...240 Vac
  - (3) Fuse : Use appropriate fast-blow fuse for each relay
  - (4) We recommend installing this type of protection on the terminals of each pre-actuator
- N/C : Not connected