



## Main

|                           |                                          |
|---------------------------|------------------------------------------|
| Range of product          | Modicon X80                              |
| Product or component type | Discrete output module                   |
| Discrete output number    | 16 conforming to EN/IEC 61131-2          |
| Discrete output type      | Relay                                    |
| Discrete output voltage   | 24 V 19...30 V DC<br>240 V 19...264 V AC |

## Complementary

|                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [I <sub>th</sub> ] conventional free air thermal current | 2 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Insulation resistance                                    | > 10 MOhm 500 V DC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Power dissipation in W                                   | 3 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Response time on output                                  | < 8 ms activation<br>< 10 ms deactivation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Typical current consumption                              | 79 mA at 3.3 V DC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| MTBF reliability                                         | 1357810 H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Electrical durability                                    | AC-15: 100000 cycles at 240 VA 200 V (load factor 0.7)<br>AC-15: 100000 cycles at 120 VA 200 V (load factor 0.35)<br>AC-12: 100000 cycles at 200 VA 100 V<br>AC-12: 100000 cycles at 80 VA 48 V<br>AC-12: 100000 cycles at 50 VA 24 V<br>AC-15: 100000 cycles at 120 VA 100 V<br>AC-15: 100000 cycles at 120 VA 24 V<br>AC-15: 100000 cycles at 120 VA 48 V<br>DC-12: 100000 cycles at 24 W 24 V<br>DC-13: 100000 cycles at 10 W 24 V<br>DC-13: 100000 cycles at 10 W 48 V<br>AC-15: 300000 cycles at 72 VA 200 V (load factor 0.7)<br>AC-15: 300000 cycles at 36 VA 200 V (load factor 0.35)<br>AC-12: 300000 cycles at 200 VA 200 V<br>AC-12: 300000 cycles at 80 VA 100 V<br>AC-12: 300000 cycles at 50 VA 48 V<br>AC-15: 300000 cycles at 36 VA 100 V<br>AC-15: 300000 cycles at 72 VA 100 V<br>AC-15: 300000 cycles at 36 VA 48 V<br>AC-15: 300000 cycles at 72 VA 48 V<br>AC-15: 300000 cycles at 36 VA 24 V<br>AC-15: 300000 cycles at 72 VA 24 V<br>DC-13: 300000 cycles at 3 W 24 V<br>DC-13: 300000 cycles at 3 W 48 V<br>DC-13: 7000 cycles at 24 W 24 V<br>DC-13: 7000 cycles at 24 W 48 V<br>DC-12: 50000 cycles at 24 W 48 V |

|            |                                                                                                     |
|------------|-----------------------------------------------------------------------------------------------------|
| 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 | 0.15 kg                                                                                             |

## Environment

|                                       |                                                  |
|---------------------------------------|--------------------------------------------------|
| IP degree of protection               | IP20                                             |
| Dielectric strength                   | 2000 V AC at 50/60 Hz 1 min                      |
| Vibration resistance                  | 3 gn                                             |
| Shock resistance                      | 30 gn                                            |
| Ambient air temperature for storage   | -40...85 °C                                      |
| Ambient air temperature for operation | 0...60 °C                                        |
| Relative humidity                     | 5...95 % at 55 °C without condensation           |
| Operating altitude                    | 0...2000 m<br>2000...5000 m with derating factor |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Weight             | 187 g    |
| Package 1 Height             | 5.5 cm   |
| Package 1 width              | 11 cm    |
| Package 1 Length             | 11.5 cm  |
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 15       |
| Package 2 Weight             | 3.144 kg |
| Package 2 Height             | 15 cm    |
| Package 2 width              | 30 cm    |
| Package 2 Length             | 40 cm    |

## Offer Sustainability

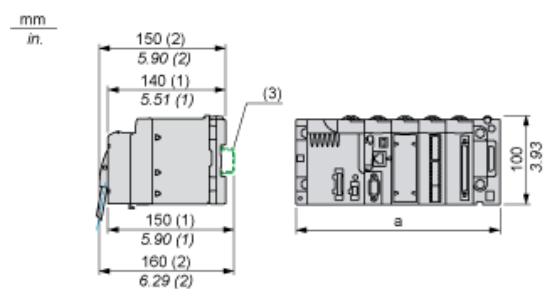
|                            |                                                                                                                                                                                      |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                                                                                                                                                                                  |
| RoHS exemption information |  <a href="#">Yes</a>                                                                              |
| China RoHS Regulation      |  <a href="#">China RoHS Declaration</a>                                                           |
| 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                                                          |

## Contractual warranty

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

## Modules Mounted on Racks

### Dimensions

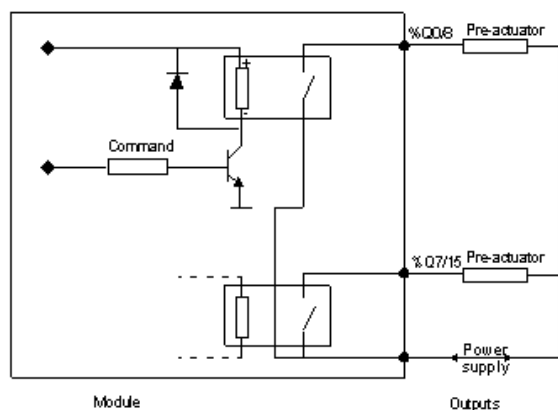


- (1) With removable terminal block (cage, screw or spring).  
 (2) With FCN connector.  
 (3) On AM1 ED rail: 35 mm wide, 15 mm deep. Only possible with BMXXBP0400/0400H/0600/0600H/0800/0800H rack.

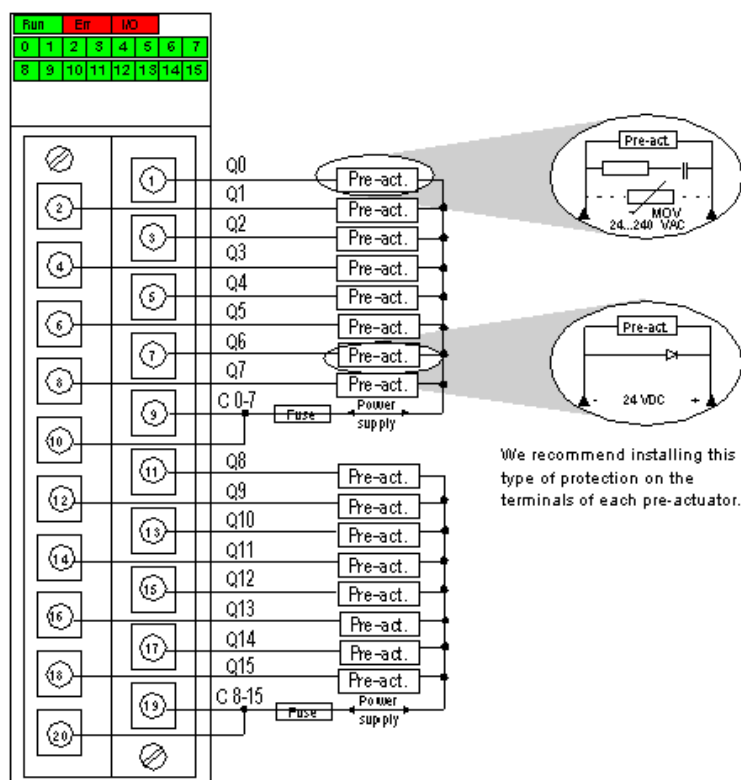
| Rack references            | a in mm | a in in. |
|----------------------------|---------|----------|
| BMXXBP0400 and BMXXBP0400H | 242.4   | 09.54    |
| BMXXBP0600 and BMXXBP0600H | 307.6   | 12.11    |
| BMXXBP0800 and BMXXBP0800H | 372.8   | 14.68    |
| BMXXBP1200 and BMXXBP1200H | 503.2   |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

## Connecting the Module

### Output Circuit Diagram



### Module Connection



power 24 VDC or 24...240 VAC

supply

fuse 1 fast blow fuse of 12 A for each 8-channel group