



## Main

|                              |                                         |
|------------------------------|-----------------------------------------|
| Range of product             | Modicon X80                             |
| Product or component type    | Discrete input module                   |
| Product specific application | For severe environments                 |
| Discrete input number        | 32                                      |
| Discrete input type          | Isolated                                |
| Input type                   | Current sink (logic positive)           |
| Discrete input voltage       | 24 V DC, discrete input logic: positive |
| Discrete input current       | 2.5 mA                                  |

## Complementary

|                             |                                                                                                                                              |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Input compatibility         | With 2-wire/3-wire proximity sensors conforming to IEC 60947-5-2<br>With 2-wire/3-wire proximity sensors conforming to IEC 61131-2 Type 1    |
| Sensor power supply         | 19...30 V                                                                                                                                    |
| Current state 1 guaranteed  | $\geq 2$ mA                                                                                                                                  |
| Current state 0 guaranteed  | $\leq 0.5$ mA                                                                                                                                |
| Input impedance             | 9600 Ohm                                                                                                                                     |
| Insulation resistance       | $> 10$ MOhm 500 V DC                                                                                                                         |
| Power dissipation in W      | 3.9 W                                                                                                                                        |
| DC typical response time    | 4 ms                                                                                                                                         |
| DC maximum response time    | 7 ms                                                                                                                                         |
| Paralleling of inputs       | No                                                                                                                                           |
| Typical current consumption | 121 mA at 3.3 V DC                                                                                                                           |
| MTBF reliability            | 696320 H                                                                                                                                     |
| Protection type             | 1 external fuse per group of channel0.5 A fast blow<br>Reverse polarity protection                                                           |
| Voltage detection threshold | $< 14$ V DC sensor fault<br>$> 18$ V DC sensor OK                                                                                            |
| Status LED                  | 1 LED (green)module operating (RUN)<br>1 LED per channel (green)channel diagnostic<br>1 LED (red)module error (ERR)<br>1 LED (red)module I/O |
| Net weight                  | 0.112 kg                                                                                                                                     |

## Environment

|                              |                                                                                                                                                                                                            |
|------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP degree of protection      | IP20                                                                                                                                                                                                       |
| Directives                   | 2014/35/EU - low voltage directive<br>2014/30/EU - electromagnetic compatibility                                                                                                                           |
| 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          | 1500 V AC at 50/60 Hz 1 minute, primary/secondary<br>500 V DC 1 minute, between group of channels                                                                                                          |
| 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 -25...70 °C without condensation     |
| Protective treatment                  | Conformal coating                                |
| 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             | 150 g  |
| Package 1 Height             | 5.5 cm |
| Package 1 width              | 12 cm  |
| Package 1 Length             | 11 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 |
|----------|-----------|