



#### Main

|                           |                       |
|---------------------------|-----------------------|
| Range of product          | Modicon X80           |
| Product or component type | Discrete input module |
| Discrete input number     | 16                    |
| Discrete input type       | Isolated              |
| Input type                | Capacitive            |
| Discrete input voltage    | 200...240 V AC        |
| Discrete input current    | 3 mA                  |

#### Complementary

|                               |  |
|-------------------------------|--|
| Input compatibility           | 2-wire proximity sensor conforming to IEC 60947-5-2<br>2-wire proximity sensor conforming to IEC 61131-2 Type 1                                  |
| Network frequency             | 50/60 Hz   |
| Network frequency limits      | 47...63 Hz   |
| Sensor power supply           | 170...264 V  |
| Current state 1 guaranteed    | >= 3 mA  |
| Current state 0 guaranteed    | <= 2 mA  |
| Input impedance               | 28000 Ohm  |
| Insulation resistance         | > 10 MOhm 500 V DC   |
| Power dissipation in W        | 5 W  |
| AC activation response time   | 10 ms  |
| AC deactivation response time | 20 ms  |
| Typical current consumption   | 76 mA at 3.3 V DC  |
| MTBF reliability              | 3700000 H  |
| Protection type               | 1 external fuse per group of channel 0.25 A fast blow  |
| Voltage detection threshold   | < 80 V AC sensor fault<br>> 170 V AC 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                    | 0.157 kg   |

#### Environment

|                                       |  |
|---------------------------------------|--|
| IP degree of protection               | IP20   |
| Dielectric strength                   | 1780 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                     | 0...95 % at 0...60 °C without condensation       |
| Operating altitude                    | 0...2000 m<br>2000...5000 m with derating factor |

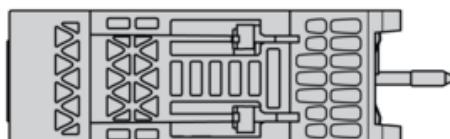
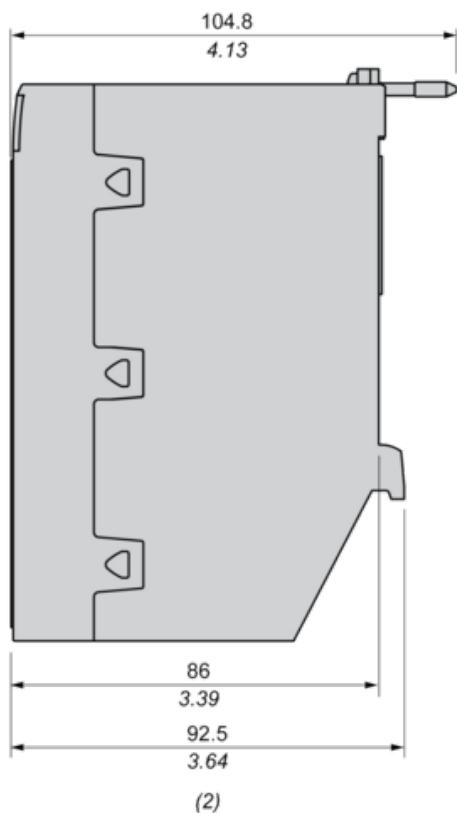
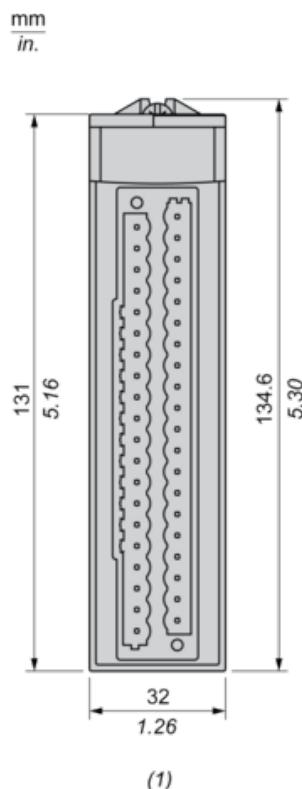
## Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 5.700 cm  |
| Package 1 Width              | 18.000 cm |
| Package 1 Length             | 26.000 cm |
| Package 1 Weight             | 311.000 g |
| Unit Type of Package 2       | S03       |
| Number of Units in Package 2 | 8         |
| Package 2 Height             | 30.000 cm |
| Package 2 Width              | 30.000 cm |
| Package 2 Length             | 40.000 cm |
| Package 2 Weight             | 2.980 kg  |

## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| 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 |  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     |

Dimensions



(3)

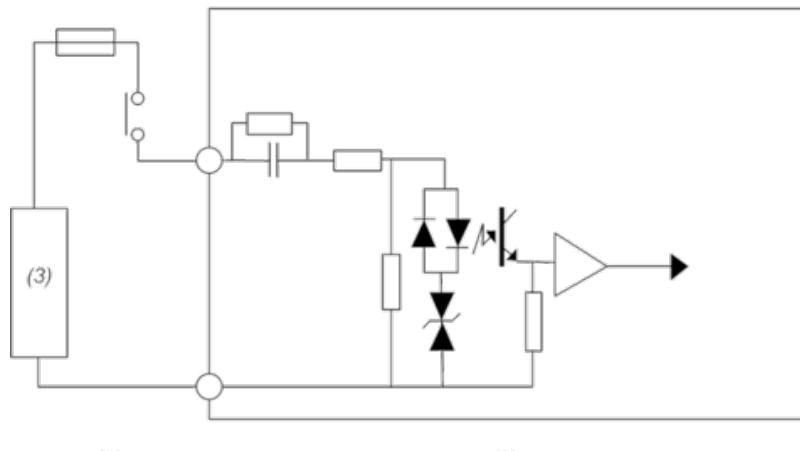
- (1) Front view
- (2) Right view
- (3) Top view

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## Connecting the Module

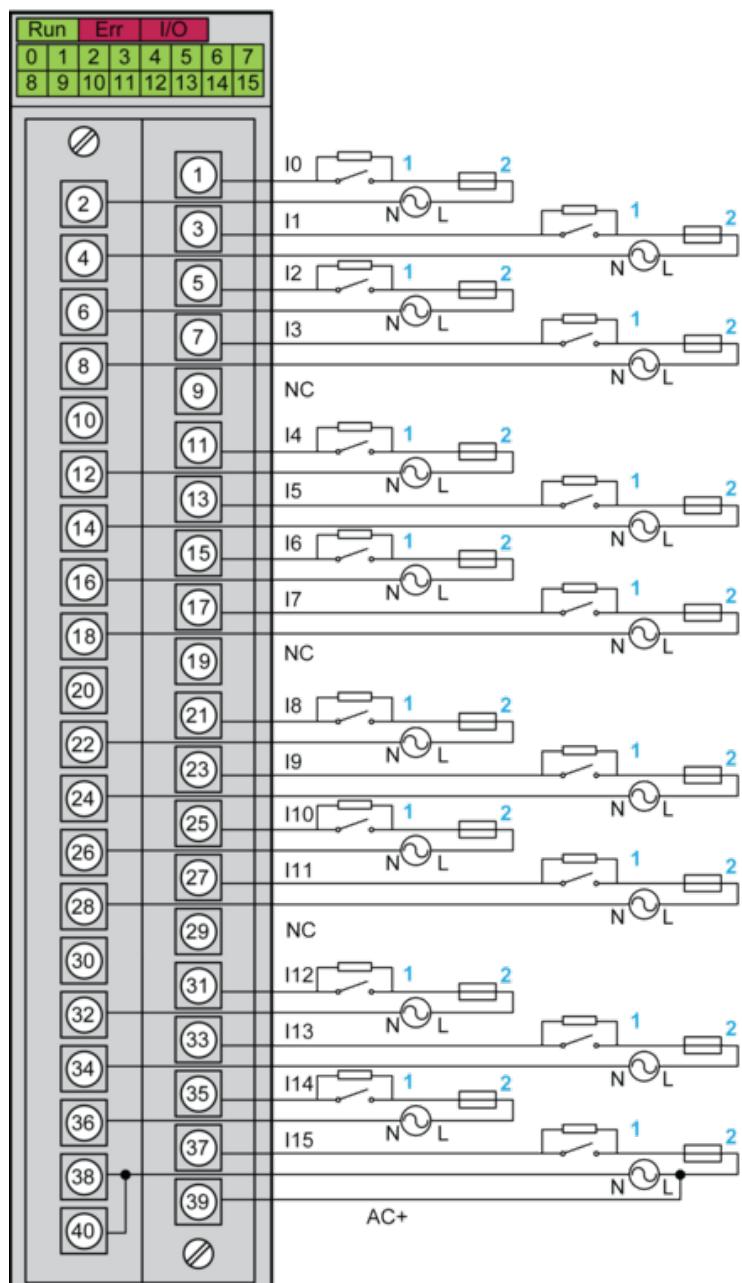
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### Input Circuit Diagram



(1) Process  
(2) Module  
(3) Power supply

## Module Connection



1 : External resistor for open wire detection function

2 : Fast blow fuse of 0.5A

AC+ : Input pin for IO supply monitoring function on channel 15

NC : Not connected

Power supply : 220...240 Vac

NOTE : The maximum input voltage is 264 Vrms@63 Hz. Any over voltage will damage the module.