



Main

Range of product	Modicon X80
Product or component type	Discrete I/O module
Discrete input number	8
Input type	Current sink (logic positive)
Discrete input voltage	24 V DC, discrete input logic: positive
Discrete input current	3.5 mA
Input compatibility	With 2-wire/3-wire proximity sensors conforming to IEC 60947-5-2
Discrete output number	8
Discrete output type	Solid state
Discrete output voltage	24 V 19...30 V DC
Discrete output current	0.5 A

Complementary

Sensor power supply	19...30 V
Voltage state 1 guaranteed	≥ 11 V
Current state 1 guaranteed	≥ 3 mA
Voltage state 0 guaranteed	≤ 5 V
Current state 0 guaranteed	≤ 1.5 mA
Current per channel	0.625 A
Maximum current per module	5 A
Maximum leakage current	0.5 mA at state 0
[Ures] residual voltage	1.2 V at state 1
Input impedance	6800 Ohm
Insulation resistance	> 10 MOhm 500 V DC
Maximum power dissipation in W	3.7 W
DC typical filtering time	4 ms
DC maximum filtering time	7 ms

Response time on output	1.2 ms
Paralleling of outputs	Yes : 2 maximum
Typical current consumption	100 mA at 3.3 V DC 30 mA at 24 V DC
Current consumption	<= 111 mA at 3.3 V DC <= 67 mA at 24 V DC
MTBF reliability	447581 H
Protection type	1 external fuse per group of input channel 0.5 A fast blow overvoltage protection on output reverse polarity protection on input reverse polarity protection on output
Output overload protection	With current limiter With electronic circuit breaker $1.5 I_n < I_d < 2 I_n$
Output overvoltage protection	With transil diode
Output short-circuit protection	With 2 A external fuse
Reverse polarity protection	Reverse mounted diode
Voltage detection threshold	< 14 V DC preactuator fault < 14 V DC sensor fault > 18 V DC preactuator OK > 18 V DC sensor OK
Maximum tungsten load	6 W
Switching frequency	0.5/LI ² Hz
Maximum overload time	15 ms
Load impedance ohmic	<= 48 Ohm
Status LED	Module operating (RUN): 1 LED (green) Channel diagnostic: 1 LED per channel (green) Module error (ERR): 1 LED (red) Module I/O: 1 LED (red)
Net weight	0.115 kg

Environment

IP degree of protection	IP20
Directives	2014/35/EU - low voltage directive 2014/30/EU - electromagnetic compatibility 2012/19/EU - WEEE directive
Product certifications	UL Merchant Navy CSA EAC RCM CE
Standards	EN 61131-2 EN 61000-6-4 EN 61000-6-2 EN 61010-2-201
Dielectric strength	1500 V AC at 50/60 Hz 1 minute, output/ground 1500 V AC at 50/60 Hz 1 minute, output/internal logic 1500 V AC at 50/60 Hz 1 minute, primary/secondary 500 V DC 1 minute, between group of inputs and outputs
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
Protective treatment	TC
Operating altitude	0...2000 m 2000...5000 m with derating factor

Offer Sustainability

Sustainable offer status	Green Premium product
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REACH Regulation	 REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)  EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	 Yes
China RoHS Regulation	 Download RoHS China Declaration
Environmental Disclosure	 Product Environmental Profile
Circularity Profile	 End of Life Information
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
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