

Product datasheet

Specifications



Modicon X80 RIO Harsh Environment Drop redundant communication adapter PRP

BMECRA31310H

Main

Range of product	Modicon X80
Range compatibility	Modicon M580
Product or component type	Ethernet I/O head module
Device application	X80 Ethernet RIO drop adaptor
Product specific application	For remote I/O modules

Complementary

Bus type	Bus X across the remote backplane Ethernet across the remote backplane
Number of port	3
Integrated connection type	1 port for service or distributed equipment 1 port for Ethernet Redundant RIO Network (PRP Lan A) 1 port for Ethernet Redundant RIO Network (PRP Lan B)
Communication network type	IPv4 (internet protocol)
Communication port protocol	EtherNet/IP over PRP
Communication service	Ethernet/IP adapter Ethernet Redundant RIO network Quality of Service (QoS) CIP Explicit messaging (server) Modbus TCP server for module diagnostics DHCP client TFTP client FTP client FDR client NTP v4 client SNMP v3 agent
Cybersecurity	Enable/disable communication ports Syslog protocol support Firmware signature Secure firmware upgrade through HTTPS
Connector type	3 RJ45
Exchange mode	Half duplex, full duplex, autonegotiation, auto MDIX
Transmission rate	10/100 Mbit/s
Port Ethernet	10/100BASE-TX
Function available	CCOTF (configuration change on the fly) Input data is collected and published to the remote I/O head adaptor Output modules are updated with the data received from remote I/O head adaptor Diagnostics for remote I/O devices (Device DDT) Port mirroring System time stamping Module redundancy Hot swap Use module in simplex or redundant mode I/O extension rack

Excluding VAT, FCA Jabal Ali & amp; are subject to change – check with your local distributor.

Data recording	10 ms time stamps
Topology	Tree-structure Star Ring
Local signalling	1 LED (green) for module active (RUN) 1 LED (red) for module error (ERR) 1 LED (green/red) for module status (Mod Status) 1 LED (green/red) for network communication status (Net Status) 1 LED (green) for Ethernet link diagnostics (STS) 1 LED (green) for module redundancy role Master (MASTER) 1 LED (green) for module redundancy role Not Master (NOMASTER)
Current consumption	155 mA
Input voltage	24 V DC
Product compatibility	0...1024 discrete channel 0...256 analog channel counter module time-stamping module SSI encoder interface module frequency input module AS-Interface module serial link module fiber converter modules HART module weighing module CANopen master module (standalone CPU only) PROFIBUS module (standalone CPU only)
Net weight	0.396 kg
Maximum altitude transport	3000 m
Relative humidity	95 % without condensation
fixing mode	By screws
Mounting mode	Rack-mounted
Width	32 mm
Height	131 mm
Depth	86.05 mm

Environment

Protective treatment	Conformal coating
Directives	2014/35/EU - low voltage directive 2014/30/EU - electromagnetic compatibility 2014/34/EU - ATEX directive
Product certifications	CE UL CSA RCM EAC UKCA Merchant Navy ATEX zone 2/22 IECEx zone 2/22 Hazardous location class 1, division 2
Standards	IEC 61131-2 IEC 61010-2-201 UL 61010-2-201 CSA C22.2 No 61010-2-201 IACS E10 IEC 61000-6-5, interface type 1 and type 2 IEC 61850-3, location G IEC 60079-0 UL 121201 CSA C22.2 No 213

Environmental characteristic	Gas resistant class Gx conforming to ISA S71.04 Gas resistant class 3C4 conforming to IEC 60721-3-3 Dust resistant class 3S4 conforming to IEC 60721-3-3 Sand resistant class 3S4 conforming to IEC 60721-3-3 Salt resistant level 2 conforming to IEC 68252 Mold growth resistant class 3B2 conforming to IEC 60721-3-3 Fungal spore resistant class 3B2 conforming to IEC 60721-3-3
IP degree of protection	IP20
Ambient air temperature for operation	-25...70 °C
Ambient air temperature for storage	-40...85 °C
Operating altitude	<= 2000 m 2000 m...5000 m with derating factor

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.800 cm
Package 1 Width	18.000 cm
Package 1 Length	26.000 cm
Package 1 Weight	570.000 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	5.061 kg

Contractual warranty

Warranty (in months)	18
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)



Environmental footprint

Total lifecycle Carbon footprint	207 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	43 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.2 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	163 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.6 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile

Use Better



Materials and Substances

Packaging made with recycled cardboard	Yes
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Use Longer



Lifetime extension

Repair	No
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Use Again



Repack and remanufacture

Recyclability potential, in %	32
End of life manual availability	End of Life Information
Take-back	No

Dimensions Drawings

Dimensions

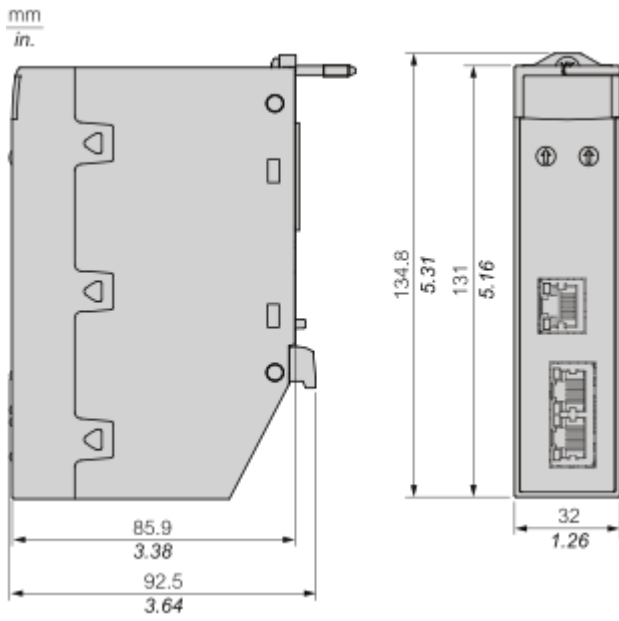


Image of product / Alternate images

Alternative





