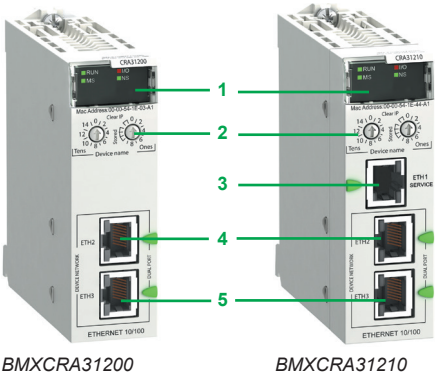




BMXCRA31200

BMXCRA31210



DIA6ED2151012EN

Modicon X80 Remote I/O drop adapters (1)(2)

Presentation

A Quantum EIO architecture with Modicon X80 EIO drops requires the use of a dedicated X80 Remote I/O drop adapter in each Modicon X80 drop:

- “Standard” drop adapter **BMXCRA31200** (capacity, see below)
- “Performance” drop adapter **BMXCRA31210** (capacity, see below)

These drop adapters are connected by Ethernet cordsets equipped with RJ45 connectors. The dual Ethernet network connection port on each drop adapter allows daisy chain loop connections using the RSTP protocol (Rapid Spanning Tree Protocol).

Each module uses one slot in the Modicon X80 rack.

The **BMXCRA31210** adapter is also available in a conformal coating version for harsh environments.

Capacity of Quantum EIO architectures with Modicon X80 EIO

- 1 Quantum CPU drop that can have one primary rack and one secondary rack (3), equipped with a **140CPU6...** advanced CPU
- With **140CPU651...** standard CPUs and the **140CPU67160** HSBY CPU:
 - Up to 16 Modicon X80 EIO drops, limited to a maximum of 31 EIO drops (Quantum + Modicon X80)
- With the **140CPU65260** standard CPU and **140CPU6726...** HSBY CPUs:
 - Up to 31 Modicon X80 EIO drops, limited to a maximum of 31 EIO drops (Ethernet Quantum and Modicon X80)
- Each Modicon X80 EIO drop can comprise one primary rack and one secondary rack (3)
- Distance:
 - 100 m/328 ft between stations (copper medium)
 - 2 km/1.25 mi between Modicon X80 drops, with **BMXNRP0200** multimode fiber optic repeaters
 - 16 km/9.94 mi between Modicon X80 drops, with **BMXNRP0201** single-mode fiber optic repeaters

Description

- 1 Display block indicating the module status
- 2 Rotary switches for addressing EIO drops (00...159)
- 3 On **BMXCRA31210** module: dedicated RJ45 SERVICE port for remote service tools such as a PC, an HMI terminal, or Ethernet DIO devices (identical to the SERVICE port on Quantum CRP/CRA modules, see [page 2/6](#))
- 4 RJ45 DEVICE NETWORK port for connection to the Ethernet network
- 5 RJ45 DEVICE NETWORK port for connection to the Ethernet network

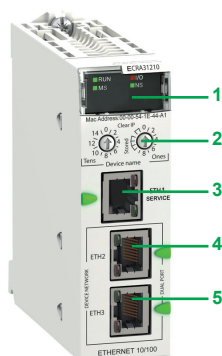
(1) For additional characteristics, see our website www.se.com.
(2) Requires Unity Pro Extra Large software ≥ V7.0 or EcoStruxure Control Expert.
(3) Requires two **BMXXBE1000** rack expansion modules (one in the primary rack and one in the secondary rack) and a **BMXXBC...** extension cable (0.8, 2, or 28 m/2.62, 6.56, or 92 ft) for connecting these two modules (see [page 2/8](#)).



BMECRA31210



DIA6ED2151012EN



BMECRA31210

Modicon X80 Performance Remote I/O drop adapter

Presentation

An M580 Ethernet RIO (EIO) architecture with Modicon X80 I/O drops requires the use of a dedicated adapter in each Modicon X80 drop.

The **BMECRA31210** adapter supports Ethernet and X-bus communications across the remote backplane.

This EIO adapter module supports several expert modules such as counter and weighing modules and CCOTF («change configuration on the fly»).

For Modicon X80 RIO drops on an Ethernet backplane, time-stamping can be managed with a resolution of 10 ms when using a **BMECRA31210** Performance adapter.

Only one **BMECRA31210** module can be installed per Modicon X80 RIO drop.

This module can also support a BMXXBP000 expansion rack.

The **BMECRA31210** module is designed to be installed on an Ethernet backplane in the main remote rack. The adapter supports the Modicon X80 I/O and partner modules with both Ethernet and X-bus connections (1).

The keying pin on the rear side of the module means the **BMECRA31210** module cannot be installed on unsupported backplanes.

These adapters are connected by Ethernet cordsets equipped with RJ45 connectors. The dual Ethernet connection port on each adapter allows daisy chain loop connections using the RSTP protocol (Rapid Spanning Tree Protocol).

The **BMECRA31210** adapter is also available in a conformal coating version for harsh environments.

Capacity of Modicon X80 Remote I/O drop adapters

Type of module	BMXCRA31200 "Standard"	BMXCRA31210 "High performance"	BMECRA31210 "High performance"
Maximum number of racks per drop	Up to 2	Up to 2	Up to 2
SERVICE port	–	1	1
Discrete I/O modules	Up to 128	Up to 1024	Up to 1024
Analog I/O module	Up to 16	Up to 256	Up to 256
Expert modules supported:	- Serial link – BMXNOM0200 BMXNOM0200 - Time- and date-stamping at 1 ms – BMXERT1604T/H BMXERT1604T/H - Counter – BMXEHC0200/ BMXEHC0800 BMXEHC0200/ BMXEHC0800 - Weighing – – PMESWT0100 - Frequency input – BMXETM0200H BMXETM0200H - HART integrated analog I/O modules – – BMEAHI0812/ BMEAHO0412		
CCOTF function	–	Yes	Yes
Time- and date-stamping	–	10 ms	10 ms

Description

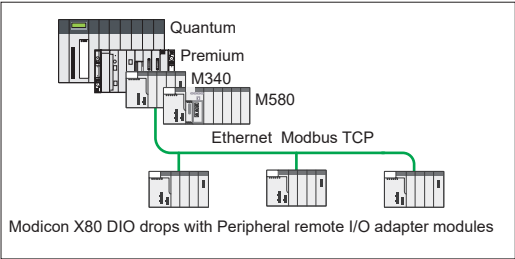
- 1 LED display block indicating the module status
- 2 Rotary switches for setting the address of an EIO drop (00...159)
- 3 Dedicated RJ45 service port (ETH 1) for remote service tools such as a PC, HMI terminal module, or Ethernet DIO devices
- 4 RJ45 device network port (ETH 2) for connection to the Ethernet network
- 5 RJ45 device network port (ETH 3) for connection to the Ethernet network

References

X80 Remote I/O drop adapters

Description	SERVICE port	Reference	Weight kg/lb
Standard module	1	BMXCRA31200	–
High performance module	1	BMXCRA31210 BMECRA31200	–

(1) This module is also compatible with X-bus backplanes. In this case it has the same functionality as a **BMXCRA31210** Performance Ethernet drop adapter. For more details, see our website www.se.com.



Modicon X80 DIO drops in a Quantum/Premium/M340/M580 I/O architecture using Ethernet Modbus TCP

Presentation

The **BMXPRA0100** Peripheral remote I/O adapter is dedicated to Modicon X80 DIO drops in a Quantum/Premium/M340/M580 I/O architecture using Ethernet Modbus TCP.

The BMXPRA0100 module manages a remote X80 I/O rack on Ethernet Modbus TCP which includes:

- discrete I/O modules
- analog I/O modules

It communicates by I/O scanning with the master PAC (Quantum/ Premium/M340/ M580).

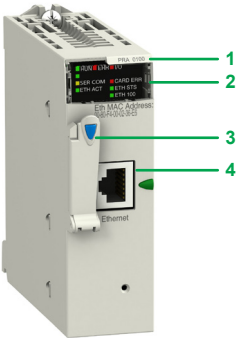
In case of a redundant Ethernet link, the use of a BMXNOE0100 Ethernet module is required.

Principal characteristics

Primary racks per drop
Up to 4
Discrete I/O modules
Up to 1,024
Analog I/O modules
Up to 256
Internal memory
Up to 448 Kbits
Memory card capacity
Up to 96 Kbits
Average consumption
95 mA
Dissipated power
2.3 W
Real time clock with battery backup
Yes

Description

- 1 Module reference
- 2 Display block indicating the module status
- 3 Memory card port with protective cover
- 4 RJ45 Ethernet port



BMXPRA0100



BMXPRA0100

Reference (1)		
Description	Reference	Weight kg/lb
X80 Peripheral remote I/O adapter Provides 1 module per Ethernet Modbus TCP DIO drop	BMXPRA0100	—

(1) Requires Unity Pro software ≥ V4.1 or EcoStruxure Control Expert.