

Schneider Electric 140CRA21220

DIO drop interface with redundant Modbus Plus ports

Schneider Electric 140CRA21220 is a Modicon Quantum distributed-I/O drop interface that supplies the local rack and exchanges I/O over two redundant Modbus Plus links.

Function	DIO drop interface
Network ports	2 redundant Modbus Plus
Supply	24 V DC
Supply limits	20 to 30 V DC
Maximum supply current	1.6 A
Inrush current	30 A

EXACT MODEL

140CRA21220 is the controlled service identity. Do not shorten or normalize the suffix.

SYSTEM BOUNDARY

Preserve both Modbus Plus paths, the external 24 V DC protection and the original rack position before commissioning.

ACCEPTANCE RECORD

Record the installed position, wiring or network identity, configuration and final functional test.

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Function	DIO drop interface
Network ports	2 redundant Modbus Plus
Supply	24 V DC
Supply limits	20 to 30 V DC
Maximum supply current	1.6 A
Inrush current	30 A

External fuse	2.5 A
Rack output	5.1 V DC, 3 A nominal
I/O capacity	30 input words / 32 output words
Power dissipation	11 W
Terminal	7-pole connector
Operating temperature	0 to 60 degrees C

ENGINEERING CHECK

Compare every applicable field value with the installed nameplate, electrical drawings and controller configuration before release.

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DISTRIBUTED QUANTUM DROPS
Interfaces a remote Quantum rack with the documented Modbus Plus DIO network.

REDUNDANT NETWORK PATHS
Uses the two network ports where the installed DIO architecture requires link redundancy.

RACK POWER DELIVERY
Supplies the documented 5.1 V rack output within the 3 A nominal boundary.

EXACT INTERFACE RENEWAL
Replaces the same 140CRA21220 identity without borrowing values from another CRA option.

Identity	140CRA21220
Series	Modicon Quantum
Role	DIO drop interface with redundant Modbus Plus ports
Release boundary	Preserve both Modbus Plus paths, the external 24 V DC protection and the original rack position before commissioning.

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DIO drop interface with redundant Modbus Plus ports

What role does Schneider Electric 140CRA21220 perform?

It is the Quantum DIO drop interface and power interface for a distributed rack.

Why are two Modbus Plus ports provided?

They support the documented redundant network arrangement; both paths must follow the installed topology.

What incoming supply is required?

Use 24 V DC within the published 20 to 30 V DC range and the specified external protection.

How much Quantum I/O data can it exchange?

The published capacity is 30 input words and 32 output words.

What should be checked before replacement?

Confirm the exact model, rack position, network addresses, two cable paths and 7-pole power wiring.

Can another CRA model be configured as equivalent?

No equivalence is asserted; retain the complete 140CRA21220 identity and installed-system record.

DECISION RULE

When the installed marking or project record conflicts with a catalog assumption, stop and verify the exact Schneider Electric documentation before service.

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01 / Confirm the complete 140CRA21220 marking, rack or drive position and controlled maintenance record.

02 / Place the connected machine and control system in the approved safe maintenance state.

03 / Isolate every documented power and field circuit, then prove the absence of hazardous energy.

04 / Record the function and published value DIO drop interface; do not replace it with a nearby family value.

05 / Preserve the network ports and published value 2 redundant Modbus Plus, terminal labels, cable identities, shield and grounding arrangement.

06 / Protect connectors and electronics with grounded ESD controls and clean handling practices.

07 / Restore wiring and power only after a point-by-point inspection against the service record.

08 / Preserve both Modbus Plus paths, the external 24 V DC protection and the original rack position before commissioning.

RETURN-TO-SERVICE

Release only after the documented signal, network or motion response is proven and the final acceptance record is retained.

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SOURCE LEDGER

Schneider Electric 140CRA21220 Product Data Sheet

The exact manufacturer product data sheet is retained unchanged in Manuals 2.

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SELECTED APTER POWER CATALOG LINKS

Browsing references only. No compatibility, replacement or interchangeability claim is implied.

[View Schneider Electric 140CPU43412](#)

[View Schneider Electric 171CCC76010](#)

[View Schneider Electric 170PNT11020](#)

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