

New Product Introduction

D-Series Serial Bus System Fieldbus Communication and I/O Modules



GENERAL:

Supported networks:
Ethernet - Modbus TCP, *DeviceNet™*

FEATURES:

- Easily connects to our ISO 15407-2 (W66 Series) & ISO 5599-2 (W65 Series) valve lines.
- No internal wiring simplifies assembly.
- Up to 352 digital and 16 analog output points plus 24 valve solenoids and 256 digital and 16 analog input points per communication node.
- Plug-together flexibility for modular building of manifold assemblies.
- Open and short circuit protection.
- Form "C" relay and sourcing outputs.
- Configurable sinking and sourcing inputs.
- NEMA 4/IP65 protect against water splash.
- Diagnostics available through an on board configuration tool as well as through the PLC.
- Configuration on SD card for fast change-outs/production programming.

APPLICATIONS:

- Welding • Clamping • Packaging • Forming
- General Industrial Motion Control



D-Series Serial Bus System - Fieldbus Communication and I/O Modules

STANDARD SPECIFICATIONS:

Electrical Data:

Node Power: 10 to 28 volts DC.

Valve & Discrete I/O: 10 to 28 volts DC.

Auxiliary Power Connector: Single key 3 pin, MINI.

LED's: I/O status, communications, watchdog.

Operating Data:

Temperature Range: -4° to 176°F (-20° to 80°C).

Humidity: 95% relative humidity, non-condensing.

Moisture: Designed to meet NEMA 4/IP65.

Configuration Data:

Communication Module: Contains all power, communication and valve driver circuitry for up to 24 valve solenoids.

Maximum Valve Solenoid Outputs: 24.

Maximum Discrete I/O Points: Various combinations of up to 352 Digital outputs, 256 Digital inputs and 16 Analog outputs, 16 Analog inputs.

Network Data:

Supported Band Rates: 10Mbit/100Mbit.

Connectors: M12 with "D Coding" as standard with RJ45 adaptor available.

Diagnostics: Open and short circuit protection.

Special Features: SD card storage unit configuration.

ELECTRICAL SPECIFICATIONS:

For MODBUS TCP Communication and *DeviceNet*[™] Communication Module.

Valve Outputs, 24 Total:

Solid State: Current sourcing; 10-28 Volts DC @ 0.5A Max.;

Short circuit protection; Fault Detection.

PROG/CONFIG:

Used for configuration and setup.

RS-232/RS-485:

MODBUS ASCII/RTU port.

RS485, RS232 – software selectable.

Baud Rate Selectable.

Ethernet port: *For model RRSCENXXA.*

Used for MODBUS TCP.

The device address is set by an 8 position DIP Switch Sets device address as follows:

For MODBUS TCP set last 8 bits of IP address:

ex: 168.192.1.XXX, IP address to be static (user configurable).

For other buses, sets address.

***DeviceNet*[™] Port:** *For model RRSSCDM12A.*

Used for *DeviceNet*[™] communications.

I/O Expansion Port:

Allows connection to Plug-in I/O modules: Max 256 Digital I/O points; Max 16 Analog I/O points; I2C Interface.

Power Requirements: 24 Volts DC for the I/O, Current Demand is Output Load dependent, 24 Volts DC for the Logic, 50mA Max.

ELECTRICAL SPECIFICATIONS:

For: Expansion Module, 8 Digital Inputs/8 Digital Outputs

Expansion Module, 8 Digital Inputs,

Expansion Module, 8 Digital Outputs and

Expansion Module, 16 Digital Inputs.

Inputs:

Input Voltage Range: 10-28 Volts DC.

Input Current: 9mA Nominal @24 Volts DC.

Input Resistance: 5.1KΩ Nominal.

"Sinking" or "Sourcing" Mode, switch selectable in pairs.

LED indicators, LED Load Current 5mA nominal @ 24Volts DC.

Logic Power Requirements:

3.3V @ 10mA Max from the Controller.

Outputs:

Solid-State, Sourcing.

10-28 Volts DC @3A Max.

Short circuit protection. Fault Detection.

LED indicators, LED Load Current 5mA nominal @ 24 Volts DC.

Logic Power Requirements:

3.3V @ 10mA Max from the Controller.

ELECTRICAL SPECIFICATIONS:

For Expansion Module, 4 Relay Outputs.

Relay Outputs:

Form C (SPDT)

115Volts AC @3A Max.

24 Volts DC @4A

24 Volts Power Requirements: 33mA per activated relay.

Logic Power Requirements:

3.3 Volts @ 15mA Max from the Controller.

ELECTRICAL SPECIFICATIONS:

For Expansion Module, 24 Digital OUT.

Outputs:

Solid-State, Sourcing.

10-28 Volts DC @ 0.5A Max.

Short circuit protection.

Fault Detection.

Logic Power Requirements:

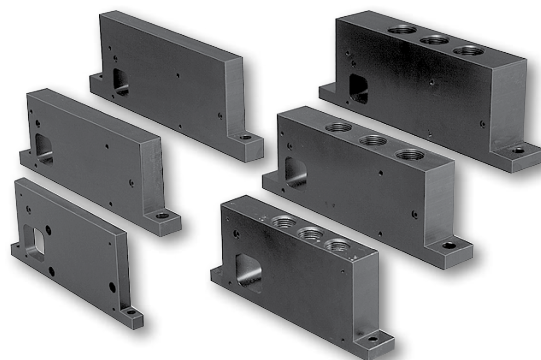
3.3 Volts @ 12mA Max from the Controller.

D-Series Serial Bus System - Fieldbus Communication and I/O Modules

Model Number	Description
RRSSCENXXA	Modbus TCP Communication Module M12
RRSSCDM12A	<i>DeviceNet™</i> Communication Module M12
RRSSN88M12A	I/O Module, 8 digital inputs/ 8 digital outputs sinking M12
RRSSP88M12A	I/O Module, 8 digital inputs/ 8 digital outputs sourcing M12
RRSSN8XM12A	I/O Module, 8 digital inputs sinking M12
RRSSN16M12A	I/O Module, 16 digital inputs sinking M12
RRSST8XM12A	I/O Module, 8 digital outputs M12 sourcing
RRSST24SUBA	I/O Module, 24 digital outputs 25 pin D-Sub sourcing
RRSSTR4M12A	I/O Module, 4 digital output, high watt relay, M12 sourcing
RRSSNAVM12A	I/O Module, 2 analog Inputs 0-10 volts DC
RRSSNACM12A	I/O Module, 2 analog Inputs 4-20 mA
RRSSTAVM12A	I/O Module, 2 analog outputs 0-10 volts DC
RRSSTACM12A	I/O Module, 2 analog outputs 4-20 mA
RRSSSE24A	Power Extender Module
RPS5620M50P	D-Series End Station Kit ISO 0 & 00 NPT
RPS5620M51P	D-Series End Station Kit ISO 0 & 00 BSPP
RPS4020M50CP	D-Series End Station Kit ISO 1, NPT
RPS4020M51CP	D-Series End Station Kit ISO 1, BSPP
RPS4120M50CP	D-Series End Station Kit ISO 2, NPT
RPS4120M51CP	D-Series End Station Kit ISO 2, BSPP
RPS4220M50CP	D-Series End Station Kit ISO 3, NPT
RPS4220M51CP	D-Series End Station Kit ISO 3, BSPP



Power Extender
Module RRSSSE24A



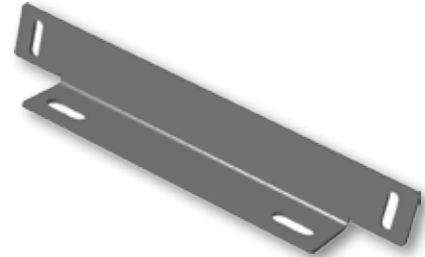
End Station Kit

ACCESSORIES

Model Number	Description
RPS5624P	24 Output Cable 18 & 26 mm
RPS5632P	25-32 Output Cable
RPS4024P	24 Output Cable Size 1, 2, 3
RR158H58	D-Series Configuration Cable
RR159H59	D-Series L-Bracket Kit



Configuration Cable



L-Bracket Kit

DeviceNet™ is a trademark used under license by ODVA.

Since 1921 ROSS CONTROLS® has been manufacturing the highest quality pneumatic valves. Founded by three families and still privately held, Ross has grown from a small Michigan valve company into a company with global subsidiaries and distribution throughout the world. It is this global presence that allows Ross to focus on specific industries and provide the global support required in our integrated world. Ross continues to lead in industries such as safety by providing products to meet the specific requirements of those industries as well as the global standards.

For over 60 years Ross has produced redundant monitored valves for safety applications. The DM2® Series C and Series E are our latest control-reliable valve series that are third party certified for category 3 and 4 applications. Our SV series is third party certified for category 2 and 3 applications. 2009 marked the 47th anniversary for our pneumatic energy isolation L-O-X® valve series. All of our safety products meet or exceed the global safety requirements for machine safeguarding and energy isolation. Our global safety team can assist with system and product selection and provide solutions that help customers standardize globally.



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WARRANTY and CAUTIONS

Standard ROSS warranty and cautions apply, available upon request or at www.rosscontrols.com

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