

Technical Specifications

Attribute	1786-RPA/B	1786-RPCD	1786-RPFS	1786-RPFM	1786-RPFRL/B, 1786-RPFRXL/B
Temperature, operating IEC 60068-2-1 (Test Ad, Operating Cold) IEC 60068-2-2 (Test Bd, Operating Dry Heat) IEC 60068-2-14 (Test Nb, Operating Thermal Shock)	0...60 °C (32...140 °F)				
Temperature, surrounding air, max	60 °C (140 °F)				
Voltage and current ratings, max	Input: 700 mA @ 24V DC max, SELV ⁽¹⁾ Output: 1.6 A @ 5V DC	Backplane: 400 mA @ 5V DC max	Backplane: 300 mA @ 5V DC max	Backplane: 400 mA @ 5V DC max	Input: 570 mA @ 5V DC max Relay: 900 mA @ 30V DC, Class 2, resistive only
Power consumption, max	16.8 W	2 W	1.5 W	2 W	2.8 W
Power dissipation, max	8.8 W	2 W	1.5 W	2 W	2.8 W
Isolation voltage	N/A (SELV), functional insulation type, ControlNet to system	N/A (SELV), functional insulation type, ControlNet to system and between ControlNet channels	—	—	50V (continuous), basic insulation type, relay contacts to system
Wire size	0.21...3.3 mm ² (24...12 AWG) solid or stranded copper wire that is rated at 105 °C (221 °F) or greater, 1.2 mm (3/64 in.) insulation max for power connections	NA	—	—	0.25...2.5 mm ² (22...14 AWG) solid or stranded copper wire that is rated at 105 °C (221 °F) or greater, 1.2 mm (3/64 in.) insulation max for power connections
Wiring category	2 - on power ports 2 - on ControlNet ports ⁽²⁾	2 - on ControlNet ports ⁽²⁾	—	—	2 - on relay ports ⁽²⁾
Enclosure type rating	None (open-style)				
North American temp code	T5	T5	T5	T5	T4A
ATEX temp code	T5	T5	T5	T5	—
IECE x temp code	T5	T5	T5	T5	—

(1) For applications within the U.S., use a power supply that is appropriately certified as Class 2 per the definition in the National Electrical Code, ANSI/NFPA 70, Article 725. For applications outside the U.S., use a power supply with safety extra low voltage (SELV) or protected extra low voltage (PELV) output. A power supply with SELV or PELV output is built with appropriate isolation to withstand single fault conditions. The output cannot exceed 30V rms, 42.4V peak, or 60V DC under fault conditions.

(2) Use this Conductor Category information for planning conductor routing. See Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).

Additional Resources

These documents contain additional information concerning related products from Rockwell Automation.

Resource	Description
ControlNet Accessory Specifications Technical Data, publication 1786-TD008A	Provides ControlNet Repeaters design consideration information and specifications.
ControlNet Fiber Media Planning and Installation Guide, publication CNET-IN001	Information about installing a ControlNet fiber media system.
ControlNet Coax Media Planning and Installation Guide, publication CNET-IN002	Information about installing a ControlNet coaxial media system.
Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1	General guidelines for installing a Rockwell Automation® industrial system.
Product Certifications website, http://www.rockwellautomation.com/products/certification	Declarations of conformity, certificates, and other certification details.

You can view or download publications at <http://www.rockwellautomation.com/literature/>. To order paper copies of technical documentation, contact your local Allen-Bradley distributor or Rockwell Automation sales representative.

Rockwell Automation maintains current product environmental information on its website at <http://www.rockwellautomation.com/rockwellautomation/about-us/sustainability-ethics/product-environmental-compliance.page>.

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Rockwell Otomasyon Ticaret A.Ş., Kar Plaza İş Merkezi E Blok Kat:6 34752 İçerenköy, İstanbul, Tel: +90 (216) 5698400

www.rockwellautomation.com

Power, Control and Information Solutions Headquarters

Americas: Rockwell Automation, 1201 South Second Street, Milwaukee, WI 53204-2496 USA, Tel: (1) 414.382.2000, Fax: (1) 414.382.4444
Europe/Middle East/Africa: Rockwell Automation NV, Pegasus Park, De Kleetlaan 12a, 1831 Diegem, Belgium, Tel: (32) 2 663 0600, Fax: (32) 2 663 0640
Asia Pacific: Rockwell Automation, Level 14, Core F, Cyberport 3, 100 Cyberport Road, Hong Kong, Tel: (852) 2887 4788, Fax: (852) 2508 1846

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