



Installation Instructions

ProcessLogix and ControlLogix System Redundancy Module

Catalog Number 1757-SRM, series B

Topic	Page
About This Publication	1
Important User Information	2
Environment and Enclosure	4
Prevent Electrostatic Discharge	5
European Hazardous Location Approval	6
About the Module	7
Redundancy System Assembly	11
Using the 1757-SRM Module Relay Terminals	15
Designate the Primary Chassis and Qualify the System	19
Install or Remove the Module Under Power	22
1757-SRM Module Fault Codes and Display Messages	26
Specifications	30

About This Publication

Use this publication as a guide to install the 1757-SRM, Series B ProcessLogix and ControlLogix System Redundancy Module into the ProcessLogix or ControlLogix Redundant chassis pair.

Redundancy System Assembly

When you assemble the primary and secondary chassis for redundancy, you assemble them just as you would any ProcessLogix or ControlLogix chassis, with the exception that for redundancy you need to assemble two identical chassis.

ATTENTION



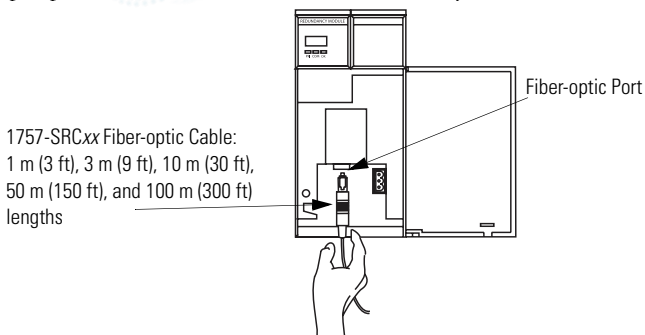
If you are adding redundancy to an already operational ProcessLogix or ControlLogix system, shut off your process to install the 1757-SRM module and designate the primary system.

You may also have to use RSNetworkx software to configure keeper information in the secondary ControlNet communication module if the master keeper for ControlNet communication is in the primary chassis.

You may also need to enable redundancy in your RSLogix 5000 software application and remove any I/O modules from the chassis.

Connect the Fiber-optic Cable

Prior to installing the 1757-SRM module into the rack, locate the module's fiber-optic port and connect one end of the redundancy module cable to it.

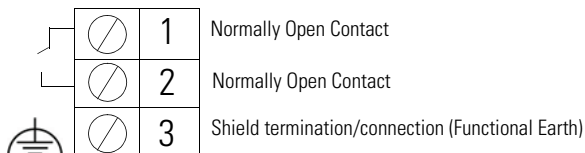


For additional information, see the Redundancy Module Cable Installation Instructions, publication [1757-IN014](#).

Using the 1757-SRM Module Relay Terminals

The user relay is available only on the 1757-SRM series B module. The relay will energize when the module determines that it is in a primary control chassis. The relay has these three terminals:

- Normally Open (NO)
- Normally Open Contact (NC)
- Chassis Ground Terminal (GND)



ATTENTION



The line voltage source for the external dc power source to the SRM Relay Terminals must be the same as that used to power the energizing SRM Chassis.

Normally Open

The Normally Open contact is located on terminals 1 and 2. The contact is closed when the relay is energized.

These are the user relay contact ratings:

- Maximum Switching Voltage = 30V dc
- Maximum Switching Current = 100 mA

Chassis Ground Terminal

Terminal 3 is connected to chassis ground. It is intended for use with a shielded two-conductor cable for field wiring of the Normally Open connection. Attach the shield to terminal 3. Leave the opposite end of the shield unconnected. Refer to Specifications on page 30 for a cable listing.

30 ProcessLogix and ControlLogix System Redundancy Module

If you encounter one of these error codes, write the Exxx code down and contact Rockwell Automation Product Support by using one of the methods described on the back cover.

Recovery Messages

For certain faults, the module status display will provide recovery instructions. Up to four, four-character words will be displayed.

Recovery Instruction Code	Description
RPLC MOD	Replace the module.
RSET MOD	Reset the module.
REMV MOD	Remove the module.
SEAT MOD	Reinsert the module into the chassis.

Specifications

System Redundancy Module, Series B - 1757-SRM

Attribute	Value
Backplane current	0.75 A @ 3.3V dc 1.0 A @ 5.1V dc 0.160 A @ 24V dc
Dimensions (HxWxD), approx.	Standard ControlLogix chassis 2 slots wide 14.5 x 7 x 14 cm (5.71 x 2.76 x 5.51 in.)
Weight, approx.	0.452 kg (14.53 oz)
Mounting	ControlLogix chassis
Enclosure type rating	None (open-style)
IEC temperature code	T4
North American temperature code	T4A

Attribute	Value
Power dissipation, max	11.28 W
Thermal dissipation, max	38.49 BTU/hr
Isolation voltage	30V continuous, Basic Insulation Type Type tested at 853V ac for 60 s, Relay Terminals to system

Redundancy Cable - 1757-SRCxxx

Attribute	Value
Connector	SC-type (fiber-optic)
Cable type	62.5/125 micron multi-mode fiber-optic cable
Channels	1 (transmit and receive fiber)
Wavelength	1300 nm

User Relay Terminal

Attribute	Value
Power requirements	11...30V dc; 270 mA @ 24V dc (typical) To comply with UL restrictions, the Relay Terminals must be powered from a source compliant with Class 2. To comply with the CE Low Voltage Directive (LVD), the Relay Terminals must be powered from a source compliant with the Safety Extra Low Voltage (SELV) or Protected Extra Low Voltage (PELV).
Pilot duty rating	Relay terminals: 30V dc Class 2/SELV, 100mA
Wiring category ⁽¹⁾	3 - on Relay terminal ports ¹
Relay terminals	0.3... 2.1 mm ² (22...14 AWG) solid or stranded shielded copper wire rated at 75 °C (167 °F) or greater 1.2 mm (3/64 in.) insulation max
Terminal block torque	0.6...0.8 Nm (5...7 lb-in)

⁽¹⁾ Use this Conductor Category information for planning conductor routing. Refer to Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1.

Environmental Specifications

Attribute	Value
Temperature, operating	0...60 °C (32...140 °F) 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)
Temperature, storage	−40...85 °C (−40...185 °F) IEC 60068-2-1 (Test Ab, Unpackaged Nonoperating Cold), IEC 60068-2-2 (Test Bb, Unpackaged Nonoperating Dry Heat), IEC 60068-2-14 (Test Na, Unpackaged Nonoperating Thermal Shock)
Relative humidity	5...95% noncondensing IEC 60068-2-30 (Test Db, Unpackaged Damp Heat)
Vibration	IEC 60068-2-6 (Test Fc, Operating): 2 g @ 10...500 Hz
Shock, nonoperating	IEC 60068-2-27 (Test Ea, Unpackaged Shock): 50 g
Shock, operating	IEC 60068-2-27 (Test Ea, Unpackaged Shock): 30 g
Emissions	CISPR 11: Group 1, Class A
ESD immunity	IEC 61000-4-2: 6 kV contact discharges 8 kV air discharges
EFT/B immunity	IEC 61000-4-4: ±4 kV at 5 kHz on signal ports
Radiated RF immunity	IEC 61000-4-3: 10V/m with 1 kHz sine-wave 80%AM from 80...2000 MHz 10V/m with 200 Hz 50% Pulse 100%AM at 900 MHz 10V/m with 200 Hz 50% Pulse 100%AM at 1890 MHz 3V/m with 1 kHz sine-wave 80%AM from 2000...2700 MHz
Conducted RF immunity	IEC 61000-4-6: 10V rms with 1 kHz sine-wave 80%AM from 150 kHz...80 MHz
Surge transient immunity	IEC 61000-4-5: ±2 kV line-earth (CM) on shielded ports

Certifications

Certification	Value
Certifications (when product is marked) ⁽¹⁾	UL UL Listed Industrial Control Equipment. See UL File E65584.
	CSA CSA Certified Process Control Equipment. See CSA File LR54689C. CSA Certified Process Control Equipment for Class I, Division 2 Group A,B,C,D Hazardous Locations. See CSA File LR69960C.
	FM FM Approved Equipment for use in Class I Division 2 Group A,B,C,D Hazardous Locations
	CE European Union 2004/108/EC EMC Directive, compliant with: EN 61326; Meas./Control/Lab., Industrial Requirements EN 61000-6-2; Industrial Immunity EN 61000-6-4; Industrial Emissions EN 61131-2; Programmable Controllers (Clause 8, Zone A & B)
	C-Tick Australian Radio Communication Act, compliant with: AS/NZS CISPR 11; Industrial Emissions
	EEx European Union 94/9/EC ATEX Directive, compliant with: EN 60079-15; Potentially Explosive Atmospheres, Protection "n" (Zone 2)
TÜV	Certified for Functional Safety: up to and including SIL 2 ⁽²⁾

⁽¹⁾ See the Product Certification link at <http://ab.com> for Declarations of Conformity, Certificates, and other certification details.

⁽²⁾ When used with specified firmware revisions.