

Summary of Changes

This publication contains the following new or updated information. This list includes substantive updates only and is not intended to reflect all changes.

Topic	Page
Updated the environmental specifications	2
Updated the certifications	3
Updated the isolation voltage specification	Throughout

Environmental and Physical Specifications

Attribute	1440-SDM02-01RA, 1440-TB-A	1440-SPD02-01RB, 1440-TB-B	1440-REX00-04RD, 1440-TB-D 1440-REX03-04RG, 1440-TB-G	1440-ACNR	1440-DYN02-01RJ, 1440-TBS-J
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)	-20 ≤ Ta ≤ +65 °C (-4 ≤ Ta ≤ +149 °F)			-20 ≤ Ta ≤ +70 °C (-4 ≤ Ta ≤ +158 °F)	
Temperature, surrounding air max	65 °C (149 °F)			70 °C (158 °F)	
Temperature, nonoperating 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)	-40...+85 °C (-40...+185 °F)				
Relative humidity IEC 60068-2-30 (Test Db, Unpackaged Damp Heat)	5...95% noncondensing				
Vibration IEC 60068-2-6 (Test Fc, Operating)	5 g @ 10...500 Hz	2 g @ 10...500 Hz		5 g @ 10...500 Hz	
Shock, operating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	15 g				
Shock, nonoperating IEC 60068-2-27 (Test Ea, Unpackaged Shock)	30 g	20 g			
Emissions CISPR 11 (IEC 61000-6-4)	Class A				
ESD immunity IEC 61000-4-2	6 kV contact discharges 8 kV air discharges		4 kV contact discharges 8 kV air discharges	6 kV contact discharges 8 kV air discharges	
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				
EFT/B immunity IEC 61000-4-4	±3 kV at 5 kHz on power ports ±3 kV at 5 kHz on signal ports ±3 kV at 5 kHz on DeviceNet® ports	±2 kV at 5 kHz on power ports ±1 kV at 5 kHz on relay and shielded signal ports ±1 kV at 5 kHz on XM bus port		±4 kV at 5 kHz on power port ±2 kV at 5 kHz on communication ports	±4 kV at 5 kHz on power port ±2 kV at 5 kHz on signal and XM bus ports
Surge transient immunity IEC 61000-4-5	±1 kV line-line (DM) and ±2 kV line-earth (CM) on power and relay ports ±2 kV line-earth (CM) on shielded signal ports ±2 kV line-earth (CM) on DeviceNet ports	±2 kV line-earth (CM) on relay and shielded signal ports ±2 kV line-earth (CM) on XM bus port	±1 kV line-earth (CM) on relay ports ±1 kV line-earth (CM) on signal ports ±1 kV line-earth (CM) on XM bus port	±1 kV line-earth (CM) on all ports	
Conducted RF immunity IEC 61000-4-6	10V rms with 1 kHz sine wave 80% AM from 150 kHz...80 MHz				
Conformal coating	-	All printed circuit boards are conformally coated in accordance with IPC-A-610C		-	
Temp code	T4				
Enclosure type rating	None (open-style)				

Environmental and Physical Specifications

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Wiring category ⁽¹⁾	2 - on signal ports 1 - on power and relay ports 2 - on DeviceNet ports 3 - on serial ports	2 - on relay and signal ports 3 - on serial and power ports 2 - on XM bus ports	2 - on relay, power, and signal ports 3 - on serial and power ports 2 - on XM bus ports	1 - on power ports 2 - on communication ports	2 - on signal ports 1 - on power ports 2 - on communication ports
Wire Type	-	Signal connections: shielded Power and relay connections: unshielded		Power connection: 22...14 AWG (0.34...2.1 mm ²) solid or stranded copper wire, rated at 75 °C (167 °F) or greater, with 1.2 mm (3/64 in.) insulation, max	
Pilot duty rating, relay port	-	Not rated		-	
Terminal screw torque	0.8 N•m (7 lb•in)				
Dimensions, approx (H x W x D)	97 x 94 x 94 mm (3.8 x 3.7 x 3.7 in.)				
Weight, approx	Module: 0.172 kg (0.38 lb) Terminal base: 0.172 kg (0.38 lb)				

(1) Use this Conductor Category information to plan the conductor routing. See Industrial Automation Wiring and Grounding Guidelines, publication [1770-4.1](#).

Certifications

Certification	1440-REX00-04RD, 1440-TB-D 1440-REX03-04RG, 1440-TB-G 1440-SDM02-01RA 1440-SPD02-01RB, 1440-TB-B	1440-TB-A	1440-DYN02-01RJ, 1440-TBS-J 1440-ACNR
c-UL-us	UL Listed for Class I, Division 2 Group A,B,C,D Hazardous Locations, which are certified for U.S. and Canada. See UL File E194810		
CE	European Union 2014/30/EU EMC Directive, compliant with: EN 61326-1; 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)		
RCM	Australian Radiocommunications Act, compliant with: AS/NZS CISPR 11; Industrial Emissions		
Ex	European Union 2014/34/EU ATEX Directive, compliant with: EN IEC 60079-0; Explosive Atmospheres, General Requirements EN IEC 60079-7; Explosive Atmospheres, Equipment protection by increased safety "e" EN IEC 60079-15; Explosive Atmospheres, Equipment protection by type of protection "n" (Zone 2, Protection "n, e")		European Union 2014/34/EU ATEX Directive, compliant with: EN IEC 60079-0; Explosive Atmospheres, General Requirements EN IEC 60079-7; Explosive Atmospheres, Equipment protection by increased safety "e"
	II 3 G Ex ec nC IIC T4 Gc DEMKO 17 ATEX 1915X	II 3 G Ex ec IIC T4 Gc DEMKO 17 ATEX 1915X	II 3 G Ex ec IIC T4 Gc DEMKO 14 ATEX 1361X
IECEx	-		IECEx System, compliant with: IEC 60079-0; General Requirements IEC 60079-7; Explosive Atmospheres, Protection "e" Ex ec IIC T4 Gc IECEx UL 14.0076X
KC	Korean Registration of Broadcasting and Communications Equipment, compliant with: Article 58-2 of the Radio Waves Act, Clause 3		
CCC	CNCA-C23-01:2019 强制性产品认证实施规则 防爆电气 CNCA-C23-01:2019 CCC Implementation Rule Explosion-Proof Electrical Products CCC: 2021122309114171, 2021122309114172		

See the Product Certification link at [rokauto/certifications](https://rockwellautomation.com/rokauto/certifications) for Declarations of Conformity, Certificates, and other certification details.

XM-441 Expansion Relay Module

The XM-441 expansion relay module adds four relays to any XM measurement module.

The XM-441 module communicates to a host module via the side connector of the terminal base. All XM measurement modules support only one expansion module, which must be to the right of and directly connected to the host module.

Technical Specifications - 1440-REX00-04RD

Attribute	1440-REX00-04RD
Status indicators	- Module power - green - Relay 1 - red - Relay 2 - red - Relay 3 - red - Relay 4 - red
Relays	Four relays, two sets of contacts each - DPDT (two Form C)
Fail-safe	- Normally energized (fail-safe) - Normally de-energized (non-failsafe)
Other features	The host XM module manages these features: - Latching - Time delay - Logic - Reset - Activation
Voltage and current ratings	Supply: 24V DC, 0.2 A max, Class 2/SELV Relay: 250V AC, 50/60 Hz, 3 A Res
Power dissipation	2.9 W (9.9 BTU/hr) max

For **Environmental and Physical Specifications**, see [page 2](#).

For **Certifications**, see [page 3](#).

XM-442 Voted EODS Relay Module

The XM-442 module combines with three XM-220 modules to provide an API-compliant, triple-redundant Electronic Overspeed Detection System (EODS).

The XM-442 module communicates to the speed modules connected to it only via the three digital inputs on the front of the terminal base. The module passes power and communication through the side connector of the terminal base but does not use them.

Technical Specifications - 1440-REX03-04RG

Attribute	1440-REX03-04RG
Status indicators	- Module power - red/green - Shutdown relay - red - Alarm relay - red
Relays	Four relays, two sets of contacts each - DPDT (2 Form C)
Fail-safe	Normally energized
Latching	The shutdown and alarm relays latch when the conditions that activate them are met
Logic	- Two-out-of-three - One-out-of-three
Activation	Low logic level (< 0.8V) on the overspeed/circuit fault inputs
Reset	- Local reset switch on top of module - Remote reset switch that is wired to the terminal base
Voltage and current ratings	Supply: 24V DC, 0.2 A max, Class 2/SELV Relay: 250V AC, 50/60 Hz, 3 A Res 150V DC, 1.6 A Res
Heat production	2.9 W (9.9 BTU/hr), max
Power dissipation	2.9 W max

For **Environmental and Physical Specifications**, see [page 2](#).

For **Certifications**, see [page 3](#).

ControlNet Adapter

The ControlNet adapter connects an XM bus network to a ControlNet network.

Technical Specifications - 1440-ACNR

Attribute	1440-ACNR
Maximum number of 1440-DYN02-01RJ modules	≤ 10
Communication, ControlNet	5 M, fixed rate
Communication, XM bus	500 Kbps, fixed rate
Status indicators	- Module - Backplane (XM bus) - ControlNet A - ControlNet B
Power consumption, max	2.4 W
Power dissipation, max	2.4 W
Thermal dissipation	8.194 BTU/hr
Input over voltage protection	Reverse-polarity protected
Voltage and current ratings	Supply: 24V DC, 120 mA max, Class 2/SELV XM bus: 24V DC, 3 A
Isolation voltage	50V (continuous), basic insulation type, between the system to ControlNet and ControlNet to power

For **Environmental and Physical Specifications**, see [page 2](#).

For **Certifications**, see [page 3](#).

Terminal Bases

The 1440 terminal bases support these XM modules.

Cat. No.	Supported XM Module
1440-TB-A	XM-124, 1440-SDM02-01RA
1440-TB-B	XM-220, 1440-SPD02-01RB
1440-TB-D	XM-441, 1440-REX00-04RD
1440-TB-G	XM-442, 1440-REX03-04RG
1440-TBS-J	XM DYN, 1440-DYN02-01RJ

Environmental and Physical Specifications - Terminal Bases

Attribute	1440-TB-A, 1440-TB-B, 1440-TB-D, 1440-TB-G, 1440-TBS-J
Temperature, operating	-20...+65 °C (-4...+149 °F)
Temperature, storage	-40...+85 °C (-40...+185 °F)
Relative humidity	95% noncondensing
Temp code	T4
Dimensions, approx (H x W x D)	97 x 94 x 94 mm (3.8 x 3.7 x 3.7 in.)
Weight, approx	0.172 kg (0.38 lb)
Side connector	The interconnection passes these items to adjacent modules: - power - 3 A, max - DeviceNet protocol and power - 300 mA, max - circuits that are necessary to support expansion modules
Terminal screw torque	0.8 N·m (7 lb·in)

For **Certifications**, see [page 3](#).