Elexant 4010i Heat Trace Controller

nVent RAYCHEM Elexant 4010i Series is a range of compact, full-featured, touch screen based, single-point heat-tracing controllers, with ground fault protection. It provides control and monitoring for both freeze protection and process temperature maintenance. Available with either an electromechanical relay (EMR) for use in non hazardous areas, or solid-state relay (SSR) for use in non hazardous and Class I Div. 2 / Zone 2 hazardous locations. Capable of controlling up to 32A at 277 Vac.

FEATURES

- Global approvals for CID2/Zone 2, ATEX Zone 2, IEC Ex Zone 2
- Ready to install: no need for custom panel design or field assembly
- Flexible control options: up to three directly- connected temperature sensors; also supports 4-20 mA inputs, allowing the use of external temperature sensor converters with thermocouples or other sensor types; also line sensing, ambient sensing, proportional ambient sensing control (PASC) and power limiting modes.
- Flexible monitoring options: ground fault, temperature, current and voltage to ensure system integrity
- Multiple communication ports: RS485 and Ethernet, readily connected to a distributed control system (DCS); support both the Modbus RTU and Modbus/TCP protocols; can network to a host PC running Windows®-based nVent RAYCHEM Supervisor software for central programming, status review, and alarm annunciation
- Reliable during long life: 10 year product warranty available
- Soft-Start, ground fault trip and high/low temperature limit features for equipment protection
- Multiple communication ports: RS485 and Ethernet, readily connected to a distributed control system (DCS)
- Support both the Modbus RTU and Modbus/TCP protocols
- Automatic network configuration with DHCP, or static IP configuration
- Firmware updates using USB thumb drive
- Multi-language interface: English, French, German, Spanish, Russian
- Two multi-purpose digital inputs for connection to external dry (voltage free) contact or DC voltage

SPECIFICATIONS

Current Alarm:	0.1 – 100 A
Autocycle:	1 – 750 h
NEMA Rating:	4X
Ground Fault Alarm:	10 – 500 mA

Ethernet:	10/100 Base-T
Max Power Supply Input Wire Size:	16.8 mm²
Max Heating Cable Output Wire Size:	16.8 mm²
Control Max Current:	32A @ 40°C, De-Rated to 24A @ 50°C and Further De-Rated to 16A @ 60°C
Max Ground Terminal Wire Size:	33 mm²
Voltage Alarm:	80 – 300 V
Control Max Voltage:	277 VAC Nominal, 50/60Hz
Relative Humidity:	0% to 90%, Noncondensating
Communication:	RS-485; Ethernet
Communication Protocol:	Modbus/TCP; Modbus RTU
RS-485 Cable Type:	One 2-Wire, Shielded Twisted Pair
Temperature Control Range:	−200 to 700 °C
Temperature Alarm:	−200 to 700 °C
Operating Temperature:	−40 to 60 °C

Table 1/2

Catalog Number	Item Name	Material	IP Rating	Control Relay Type	Control Algorithms	Height
10380-009	4010i-EMR-IS-FW	Fiber-Reinforced Plastic	IP64	Double-Pole, Mechanical	On/Off, PASC, Always On, Always Off	305 mm
10380-010	4010i-SSR-IS-FW	Fiber-Reinforced Plastic	IP64	Double-Pole, Solid-State	On/Off, Proportional, PASC, Always On, Always Off	308 mm
10380-011	4010i-EMR-IS-SW	Stainless Steel, 304	IP66	Double-Pole, Mechanical	On/Off, PASC, Always On, Always Off	300 mm
10380-012	4010i-SSR-IS-SW	Stainless Steel, 304	IP66	Double-Pole, Solid-State	On/Off, Proportional, PASC, Always On, Always Off	308 mm

Table 2/2

Catalog Number	Item Name	Width	Depth	Intrinsically Safe Barriers on RTD Inputs
10380-009	4010i-EMR-IS-FW	226 mm	156 mm	Yes
10380-010	4010i-SSR-IS-FW	226 mm	184 mm	Yes
10380-011	4010i-EMR-IS-SW	231 mm	160 mm	Yes

Catalog Number	Item Name	Width	Depth	Intrinsically Safe Barriers on RTDInputs
10380-012	4010i-SSR-IS-SW	231 mm	191 mm	Yes

WARNING

nVent products shall be installed and used only as indicated in nVent's product instruction sheets and training materials. Instruction sheets are available at www.nvent.com and from your nVent customer service representative. Improper installation, misuse, misapplication or other failure to completely follow nVent's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death and/or void your warranty.

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