

proSense® XTD2 Temperature Transmitters - DIN Rail Mount



XTD2

Features - Non-programmable Models

Sensor Types:

- Models for thermocouple Types J, K, or T
- Models for RTD Type Pt100 3-wire
- Select from a variety of pre-configured measuring ranges

Specs:

- Internal cold junction compensation for thermocouple input models

- Transmitter is powered by 10-36 VDC and is reverse-polarity protected
- Output is linearized 2-wire, 4-20 mA current loop
- Up scale signal for sensor lead break or short circuit detection (NAMUR NE 43 fault response)
- Mounts on 35mm DIN rail in a control panel
- 1.5 kVAC isolation between input and output on thermocouple models



ProSense XTD2 DIN Rail Mount TC / RTD Temperature Transmitters

Part Number	Input Type	Range	Pcs/Pkg	Wt(lb)	Price
<u>XTD2-N40140F-PT1</u>	Pt100 RTD (to IEC 751) (a= 0.00385)	-40 to 140°F (-40 to 60°C)	1	0.22	\$139.00
<u>XTD2-0100F-PT1</u>		0 to 100°F (-17.8 to 37.8°C)	1	0.22	\$139.00
<u>XTD2-0200F-PT1</u>		0 to 200°F (-17.8 to 93.3°C)	1	0.22	\$139.00
<u>XTD2-0300F-PT1</u>		0 to 300°F (-17.8 to 148.9°C)	1	0.22	\$139.00
<u>XTD2-0500F-PT1</u>		0 to 500°F (-17.8 to 260°C)	1	0.22	\$139.00
<u>XTD2-0100F-J</u>	J thermocouple (to NIST Monograph 175, IEC584)	0 to 100°F (-17.8 to 37.8°C)	1	0.22	\$139.00
<u>XTD2-0200F-J</u>		0 to 200°F (-17.8 to 93.3°C)	1	0.22	\$139.00
<u>XTD2-0300F-J</u>		0 to 300°F (-17.8 to 148.9°C)	1	0.22	\$139.00
<u>XTD2-0500F-J</u>		0 to 500°F (-17.8 to 260°C)	1	0.22	\$139.00
<u>XTD2-0800F-J</u>		0 to 800°F (-17.8 to 426.7°C)	1	0.22	\$139.00
<u>XTD2-01000F-J</u>		0 to 1000°F (-17.8 to 537.8°C)	1	0.22	\$139.00
<u>XTD2-0200F-K</u>	K thermocouple (to NIST Monograph 175, IEC584)	0 to 200°F (-17.8 to 93.3°C)	1	0.22	\$139.00
<u>XTD2-0300F-K</u>		0 to 300°F (-17.8 to 148.9°C)	1	0.22	\$139.00
<u>XTD2-0500F-K</u>		0 to 500°F (-17.8 to 260°C)	1	0.22	\$139.00
<u>XTD2-0800F-K</u>		0 to 800°F (-17.8 to 426.7°C)	1	0.22	\$139.00
<u>XTD2-01000F-K</u>		0 to 1000°F (-17.8 to 537.8°C)	1	0.22	\$139.00
<u>XTD2-01500F-K</u>		0 to 1500°F (-17.8 to 815.5°C)	1	0.22	\$139.00
<u>XTD2-02000F-K</u>		0 to 2000°F (-17.8 to 1093.3°C)	1	0.22	\$139.00
<u>XTD2-N100100F-T</u>	T thermocouple (to NIST Monograph 175, IEC584)	-100 to 100°F (-73.3 to 37.8°C)	1	0.22	\$139.00
<u>XTD2-0200F-T</u>		0 to 200°F (-17.8 to 93.3°C)	1	0.22	\$139.00
<u>XTD2-N40140F-PT1</u>	Pt100 RTD (to IEC 751) (a= 0.00385)	-40 to 140°F (-40 to 60°C)	1	0.22	\$139.00
<u>XTD2-0100F-PT1</u>		0 to 100°F (-17.8 to 37.8°C)	1	0.22	\$139.00
<u>XTD2-0200F-PT1</u>		0 to 200°F (-17.8 to 93.3°C)	1	0.22	\$139.00
<u>XTD2-0300F-PT1</u>		0 to 300°F (-17.8 to 148.9°C)	1	0.22	\$139.00
<u>XTD2-0500F-PT1</u>		0 to 500°F (-17.8 to 260°C)	1	0.22	\$139.00



Click on the thumbnail or go to <https://www.automationdirect.com/VID-TE-0002> for a short video on DIN Rail Mounted Temperature Transmitters



Click on the thumbnail or go to <https://www.automationdirect.com/VID-TE-0006> for a short video on Remote Temperature Sensing



Scan the QR Code above or click to view the Fixed Range XTD2 Series product insert.



XTD2 Temperature Transmitters - DIN Rail Mount

ProSense XTD2 DIN Rail Mount Temperature Transmitters General Specifications					
		XTD2 (J Series)	XTD2 (K Series)	XTD2 (T Series)	XTD2 (PT1 Series)
Output	Output Signal	4-20 mA			
	Signal Transmission	Output linear to temperature			
	Fault Signal	Under ranging / Standard / 3.8 mA Over ranging / Standard / 20.5 mA Sensor break; sensor short circuit up scale / To NAMUR NE 43 / M21.0 mA			
	Max. Load Impedance	(Vpowersupply- 10V) / 0.023 A e.g., (24V-10V)/0.023 A=608.7 Ω			
	Galvanic Isolation	1.5 kV AC for 1 minute (input/output) on thermocouple models			
	Input Current Requirement	≤ 3.5 mA			
	Current Limit	≤ 22.5 mA			
	Switch on Delay	≤ 5 seconds (during power up output current = 3.8 mA)			
	Response Time	T/C 0.5 s, cold junction 2.0 s			0.5 s
	Power Supply	10 to 36 VDC, polarity protected			
	Allowable Ripple	≤ 5 V with power supply ≥ 13; Max. frequency = 1 kHz			
Accuracy	Reference Conditions	Calibration temperature 77°F ±5.4 °F (+25°C, ±3°C)			
	Maximum Measuring Error	Type J: 0.79 °F (0.44 °C) or 0.04%*	Type K: 0.90 °F (0.50 °C) or 0.05%*	Type T: 0.76 °F (0.43°C)	Type PT1: 0.27 °F(0.15 °C) or 0.07 % of span*
	Influence of Power Supply	≤ ± 0.01%/V deviation from 24V			
	Load Influence	≤ ± 0.02 %/100 Ω			
Installation	Orientation	No restrictions			
	Location	DIN rail mount as per EN 60715			
Environmental	Ambient	-40°F to 185°F (-40°C to 85°C)			
	Storage	-58°F to 212°F (-50°C to 100°C)			
	Climate Class	As per IEC 60654-1, class C			
	Ingress Protection	IP20 / IP66 installed in appropriate housing			
	Shock and Vibration	4g / 2 to 150 Hz as per IEC 60068-2-6			
	EMC Immunity	See Table 2			
	Moisture Condensation	Allowable			
Construction	Materials	Housing: Polycarbonate; Potting: SIL gel			
	Terminals	Cable up to max. 1.5 mm² (16 AWG), secure screws			
Approvals		CE, cCSAus, File#, 601711, RoHS			

* % of measuring span.

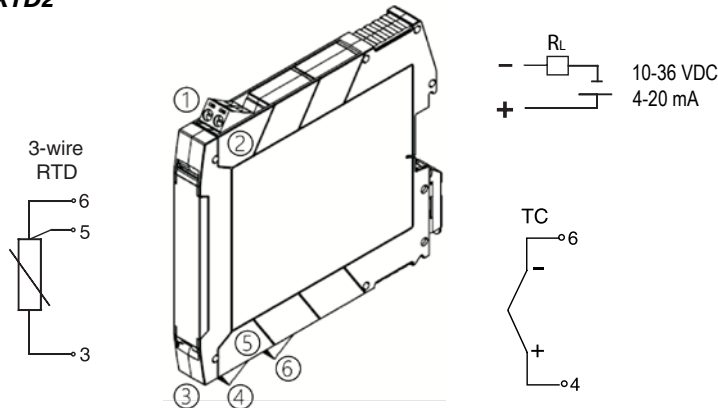
Long-term Drift			
	After 1 year	After 3 years	After 5 years
	Based on Measured Value		
RTDs	0.05 °C (0.09 °F) or 0.03 % of the measuring span	0.06 °C (0.11 °F) or 0.04 % of the measuring span	0.07 °C (0.13 °F) or 0.05 % of the measuring span
Type J	0.4 °C (0.72°F) or 0.050 % of the measuring span	0.53 °C (0.954 °F) or 0.055 % of the measuring span	0.57 °C (1.026 °F) or 0.065 % of the measuring span
Type K	0.48 °C (0.864 °F) or 0.045 % of the measuring span	0.55 °C (0.99 °F) or 0.070 % of the measuring span	0.61 °C (1.098 °F) or 0.070 % of the measuring span
Type T	0.41 °C (0.738 °F)	0.53 °C (0.954 °F)	0.58 °C (1.044 °F)



XTD2 Temperature Transmitters - DIN Rail Mount

Wiring

XTD2

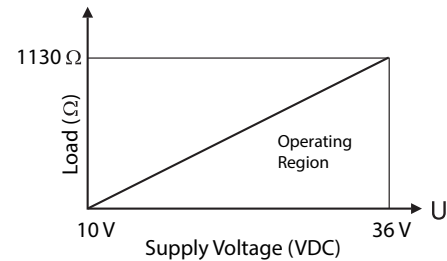


Transmitter is powered by 10-36 VDC and is reverse-polarity protected

* For convenient installation, wiring plugs are removable.

Note: In the event of a thermocouple (TC) measurement, a 2-wire Pt1000 RTD can be connected to measure the reference junction temperature. This is connected to terminals 5 and 6.

Load Impedance

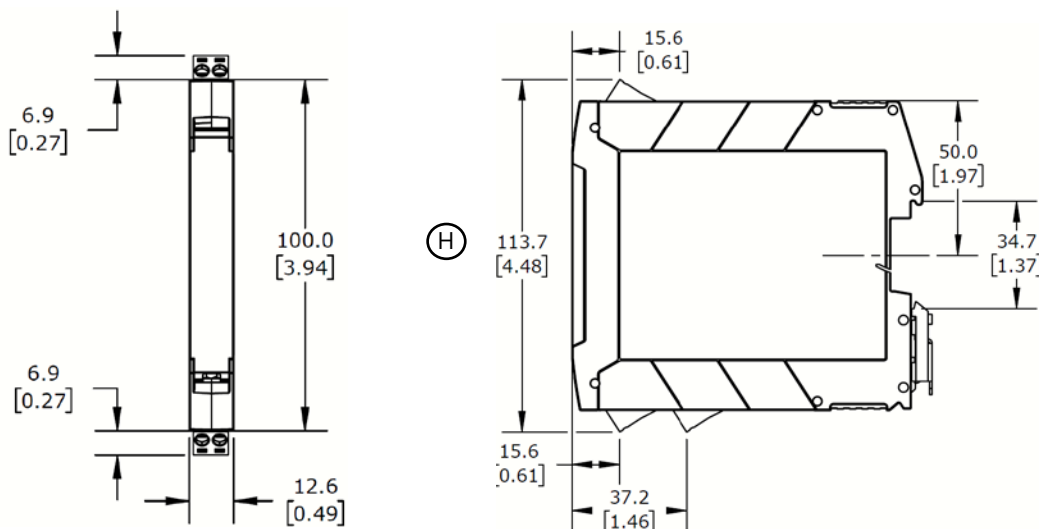


$$RL_{max} = (V_{power supply} - 10V) / 0.023A \text{ (current output)}$$

e.g. $(24V - 10V) / 0.023A = 608.7 \Omega$

Dimensions

mm [in]



The height of housing H varies depending on the terminal version: screw terminals = 114mm (4.49 in), push-in terminals = 111.5 mm (4.39 in)