ProSense® Temperature Transmitters - Head Mounted

Features - Non-programmable Models

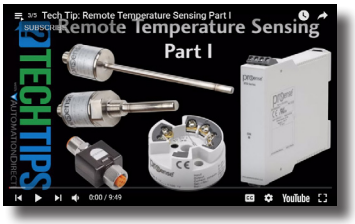
XTH2

- Sensor Types:
  - Models for RTD Type Pt100 3-wire
- Select from a variety of pre-configured non-programmable (fixed) measuring ranges
- Transmitter is powered by 10-36 VDC and is reverse-polarity protected
- Output is linearized 2-wire 4-20mA current loop
- Up scale signal for sensor lead break or short circuit detection (NAMUR NE 43 fault response)
- Mounts in ProSense connection head or any DIN Form B sensor head

ProSense Head Mounted Temperature Transmitters

Part Number	Input Type	Non-programmable (Fixed) Measuring Range	Pcs/Pkg	Wt(lb)	Price	Drawing Link
XTH2-N40140F-PT1	Pt100 RTD (to IEC 751) (a= 0.00385)	-40 to 140°F (-40 to 60°C)	1	0.15	$86.00	PDF
XTH2-0100F-PT1		0 to 100°F (-17.8 to 37.8°C)	1	0.15	$86.00	PDF
XTH2-0200F-PT1		0 to 200°F (-17.8 to 93.3°C)	1	0.15	$86.00	PDF
XTH2-0300F-PT1		0 to 300°F (-17.8 to 148.9°C)	1	0.15	$86.00	PDF
XTH2-0500F-PT1		0 to 500°F (-17.8 to 260°C)	1	0.15	$86.00	PDF

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 XTH2 Series product insert.

ProSense® Temperature Transmitters - Head Mounted

ProSense Head Mounted Temperature Transmitters General Specifications		
		XTH2 (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 upscale / To NAMUR NE 43 / ≤22.5 mA
	Max. Load Impedance	(Vpowersupply-10V) / 0.0225A (current output) e.g. (24V - 10V) / 0.0225A = 622.2 Ω
	Input Current Requirement	≤ 3.5 mA
	Current Limit	≤ 22.5 mA
	Switch on Delay	≤ 5 seconds (during powerup output current = 3.8 mA)
	Response Time	≤ 0.5 second
	Digital Filter	N/A
	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 (+25ºC, ±3ºC)
	Maximum Measuring Error	0.15 K or 0.07 % of span*
	Influence of Power Supply	≤ ± 0.01%/V deviation from 24 V
	Load Influence	≤ ± 0.02% / 100Ω
	Long Term Stability	0.05 K or 0.03% / Year
Installation	***Orientation***	No restrictions
	Location	Connection head according to DIN 43 729 Form B
Environmental	***Ambient***	-40 to 185°F (-40 to 85°C)
	Storage	-58 to 212°F (-50 to 100°C)
	Climate Class	As per IEC 60 654-1, class C1
	Ingress Protection	IP00 / IP66 installed in appropriate housing
	Shock and Vibration	DIN EN 60068-2-27 : 30g, 18ms
	EMC Immunity	See Table
	Moisture Condensation	Allowable
Construction	***Materials***	Housing: Polycarbonate; Potting: SIL gel; Screw terminals: nickel-plated brass
	Terminals	Cable up to max. 1.5 mm² (16AWG), secure screws
Approvals		CE, cCSAus, File#: 601711, RoHS

** Whichever is higher*

IEC Immunity			
Discharge of Static Electricity	IEC 61000-4-2	4kV cont., 8kV air	N/A
Electromagnetic Fields	IEC 61000-4-3	80MHz - 1GHz with 10V/m 1GHz - 6GHz with 3V/m	10V/m
Burst (Signal)	IEC 61000-4-4	1kV	N/A
Transient Voltage	IEC 61000-4-5	1kV unsym.	N/A
HF Coupling	IEC 61000-4-6	0.15 to 80MHz	3V

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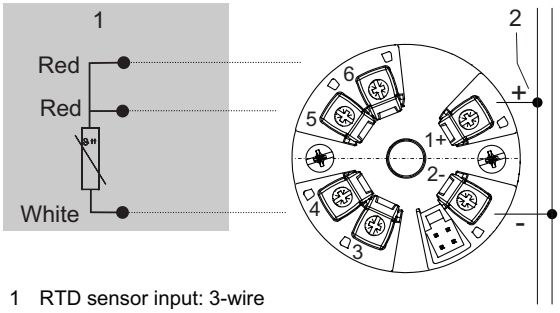
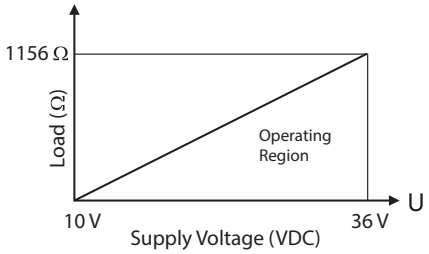
Wiring

XTH2 PT1 - Pt100 3-wire RTD Input



1 RTD sensor input: 3-wire
2 Power supply (10 to 36 VDC)

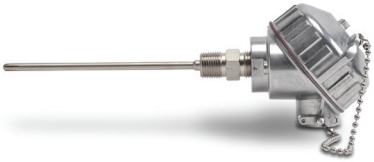
Load Impedance



RLmax = (Vpowersupply-10V) / 0.0225A (current output)
e.g. (24V - 10V) / 0.0225A = 622.2 Ω

Application

ProSense head mounted transmitters can be easily added in the field to a ProSense connection head probe. Just order a pre-assembled ProSense connection head probe and replace the internal terminal block with an XTH2 series transmitter and included mounting hardware.



Pre-Assembled ProSense Connection Head Temperature Probe

XTH2 Series Transmitter