

proSense® Temperature Transmitters - DIN Rail Mounted



XTD

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
- Internal cold junction compensation for thermocouple input models
- Transmitter is powered by 12-35 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 on 35mm DIN rail in a control panel
- 2 kVAC isolation between input and output



| ProSense DIN Rail Mounted Temperature Transmitter Series | | | | | |
|--|---|---------------------------------|---------|--------|----------|
| Part Number | Input Type | Range | Pcs/Pkg | Wt(lb) | Price |
| XTD-N40140F-PT1 | Pt100 RTD (to IEC 751) (a= 0.00385) | -40 to 140°F (-40 to 60°C) | 1 | 0.2 | \$112.00 |
| XTD-0100F-PT1 | | 0 to 100°F (-17.8 to 37.8°C) | 1 | 0.2 | \$112.00 |
| XTD-0200F-PT1 | | 0 to 200°F (-17.8 to 93.3°C) | 1 | 0.2 | \$112.00 |
| XTD-0300F-PT1 | | 0 to 300°F (-17.8 to 148.9°C) | 1 | 0.2 | \$112.00 |
| XTD-0500F-PT1 | | 0 to 500°F (-17.8 to 260°C) | 1 | 0.2 | \$112.00 |
| XTD-0100F-J | J thermocouple (to NIST Monograph 175, IEC584) | 0 to 100°F (-17.8 to 37.8°C) | 1 | 0.2 | \$112.00 |
| XTD-0200F-J | | 0 to 200°F (-17.8 to 93.3°C) | 1 | 0.2 | \$112.00 |
| XTD-0300F-J | | 0 to 300°F (-17.8 to 148.9°C) | 1 | 0.2 | \$112.00 |
| XTD-0500F-J | | 0 to 500°F (-17.8 to 260°C) | 1 | 0.2 | \$112.00 |
| XTD-0800F-J | | 0 to 800°F (-17.8 to 426.7°C) | 1 | 0.2 | \$112.00 |
| XTD-01000F-J | K thermocouple (to NIST Monograph 175, IEC584) | 0 to 1000°F (-17.8 to 537.8°C) | 1 | 0.2 | \$112.00 |
| XTD-0100F-K | | 0 to 100°F (-17.8 to 37.8°C) | 1 | 0.2 | \$112.00 |
| XTD-0200F-K | | 0 to 200°F (-17.8 to 93.3°C) | 1 | 0.2 | \$112.00 |
| XTD-0300F-K | | 0 to 300°F (-17.8 to 148.9°C) | 1 | 0.2 | \$112.00 |
| XTD-0500F-K | | 0 to 500°F (-17.8 to 260°C) | 1 | 0.2 | \$112.00 |
| XTD-0800F-K | T thermocouple (to NIST Monograph 175, IEC584) | 0 to 800°F (-17.8 to 426.7°C) | 1 | 0.2 | \$112.00 |
| XTD-01000F-K | | 0 to 1000°F (-17.8 to 537.8°C) | 1 | 0.2 | \$112.00 |
| XTD-01500F-K | | 0 to 1500°F (-17.8 to 815.5°C) | 1 | 0.2 | \$112.00 |
| XTD-02000F-K | | 0 to 2000°F (-17.8 to 1093.3°C) | 1 | 0.2 | \$112.00 |
| XTD-N2000F-T | | -200 to 0°F (-128.9 to -17.8°C) | 1 | 0.2 | \$112.00 |
| XTD-N100100F-T | T thermocouple (to NIST Monograph 175, IEC584) | -100 to 100°F (-73.3 to 37.8°C) | 1 | 0.2 | \$112.00 |
| XTD-0200F-T | | 0 to 200°F (-17.8 to 93.3°C) | 1 | 0.2 | \$112.00 |



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

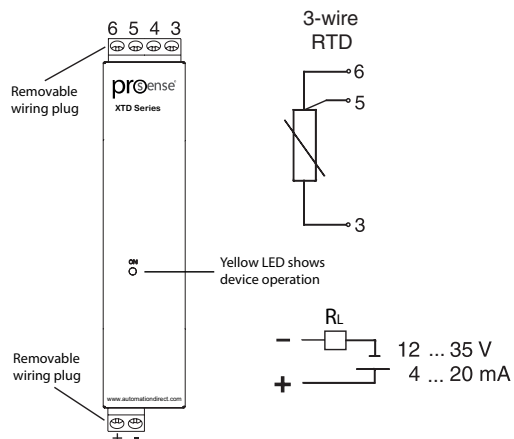


Scan the QR Code above or click to view the Fixed Range XTD Series product insert.

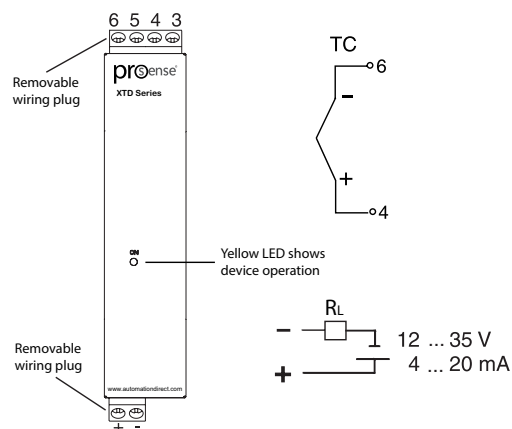
proense® Temperature Transmitters - DIN Rail Mounted

Wiring

XTD PT1

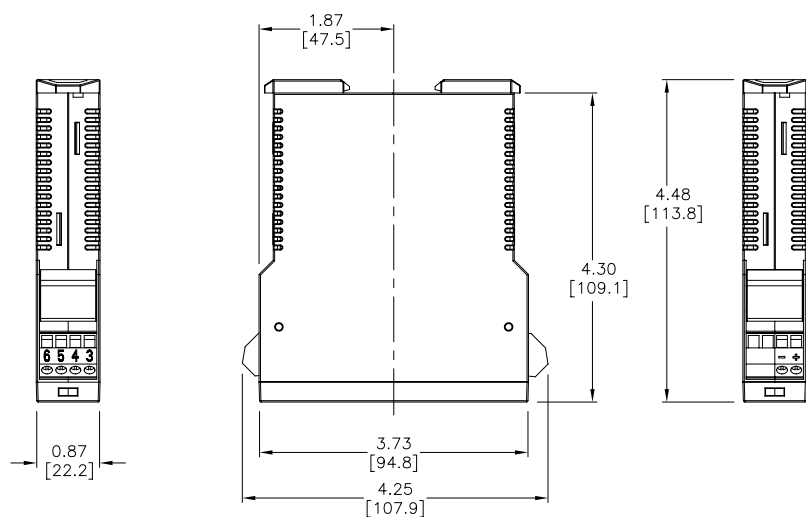


XTD J, K, & T



Dimensions

inches [mm]



prosense® Temperature Transmitter Configuration Software

Quick and easy configuration with Free XT-SOFT and ProSense Field Device Configurator Software – NO decade box, meters, or signal generators needed!

Overview

XT-SOFT PC software is a utility program that allows users to easily configure ProSense XTD-0-UNV, and XTP series temperature transmitters and ETS series digital temperature sensors.

ProSense Field Device Configurator is a utility program that allows users to easily configure, monitor, and retrieve diagnostic information from the ProSense XTH2 and XTD2 series temperature transmitters.

Download your free copy of XT-SOFT and ProSense Field Device Configurator at www.AutomationDirect.com and connect your transmitter to the PC through an XT-USB configuration cable (purchased separately). An XT-M12 adapter is also required when connecting to an XTP series transmitter.

XT-SOFT System Requirements:

- Windows 10, 11
- 1 USB 2.0 Port
- 128 MB hard disk space



ProSense Field Device Configurator System Requirements:

- Windows 10, 11
- 1 USB 2.0 Port
- 25 MB hard disk space
- Microsoft .Net Framework ≥4.8
- PDF Reader

XTP Series Configuration Parameters (Requires XT-SOFT):

- Measuring unit (°C/°F)
- Measuring range limits -50 to 150°C (-58 to 302°F)
- Fault condition reaction (≤ 3.6 mA or ≥ 21.0 mA)
- Output (4-20 mA or 20-4 mA)
- Filter (0 to 8s)
- Offset (-9.9 to +9.9 K)
- Measurement point identification/TAG
- Output simulation drives output to a fixed value



XTP Series

XTH & XTD Configuration Parameters: (Requires XT-SOFT)

- Sensor Type:
 - Thermocouple Types J, K, T, E, N, R, S, U, B, C, D, L
 - RTD Types Pt100, Pt500, Pt1000, Pt50, Ni100, Ni120, Ni500, Ni1000
- Linear Resistance 10 to 400 Ohms, 10 to 2000 Ohms
- Millivolts -10 to 100 mV
- Wiring connection 2, 3, or 4-wire (RTD or Linear Resistance only)
- Measuring range start and end points
- Selectable units of °F or °C
- Choose from internal or external cold junction compensation (TC only)
- Wire resistance compensation (2-wire RTD or Linear Resistance only)
- Output action of 4-20 mA or 20-4 mA
- Selectable up scale or down scale signal for sensor lead break or short circuit detection (NAMUR NE43 fault response)
- Adjustable digital filter time constant to compensate for undesirable input fluctuations
- Zero point correction offset factor in °F or °C



XTH Series



XTD Series

prosense® Temperature Transmitter Configuration Software

XTH2 & XTD2 Configuration Parameters (Requires Field Device Configurator):

- Sensor Type:
 - Thermocouple Types J, K, T, E, N, R, S, U, B, C, D, L
 - RTD Types Pt100, Pt500, Pt1000, Pt50, Ni100, Ni120, Ni500, Ni1000
 - Linear Resistance 10 to 400 Ohms, 10 to 2000 Ohms
- Millivolts -20 to 100 mV
- Wiring connection 2, 3, or 4-wire (RTD or Linear Resistance only)
- Measuring range start and end points
- Selectable units of °F, °C, K, Ohm and mV
- Choose from internal or external cold junction compensation (TC only)
- Wire resistance compensation (2-wire RTD or Linear Resistance only)
- Output action of 4-20 mA or 20-4 mA
- Selectable up scale or down scale signal for sensor lead break or short circuit detection (NAMUR NE43 fault response)
- Adjustable digital filter time constant to compensate for undesirable input fluctuations
- Zero point correction offset factor in °F or °C



XTH2 Series



XTD2 Series

ETS Series Configuration Parameters (Requires XT-SOFT):

- Basic Settings:
 - Measuring unit (°C/°F/K)
 - Offset: Configure zero point: $\pm 18^{\circ}\text{F}$ ($\pm 10^{\circ}\text{C/K}$)
 - Display - Measured value display
 - Measured value display rotated 180°
 - Set switch point display
 - Set switch point display rotated 180°
 - Display off rotated 180°
- Damping: display value, output signal: 0 (no damping) to 40s (in increments of 1 second)
- DESINA® - PIN assignment of the M12 connector is in accordance with the guidelines of DESINA
- Settings for Switch Output:
 - Switching characteristic - Window/NC contact
 - Hysteresis/NC contact
 - Window/NO contact
 - Hysteresis/NO contact
 - Analog output (if applicable)
- Switch point value: -57.1 to 302°F (-49.5 to 150°C) in increments of 0.18°F (0.1°C)
- Switch-back point value: -58 to 300°F (-50 to 149°C) in increments of 0.18°F (0.1°C)
- Switch point delay: 0 to 99s in increments of 0.1s
- Switch-back point delay: 0 to 99s in increments of 0.1s
- Settings for Analog Output (if applicable):
 - Value for 4mA: -58 to 266°F (-50 to 130°C) Lower range value in increments of 0.18°F (0.1°C)
 - Value for 20mA: -22 to 302°F (-30 to 150°C) Upper range value in increments of 0.18°F (0.1°C)
- Error current - Current value in event of error:
 - Minimum = ≤ 3.6 mA
 - Maximum = ≥ 21.0 mA
 - HOLD = last value
- Settings for Service Functions:
 - Locking code - Enter the locking code for enabling the device.
 - Change locking code - Freely selectable code 1 to 9999. 0 = no locking
 - Simulation output 1 or 2 - OFF: No simulation
 - OPEN: Switch output open
 - CLOSE: Switch output closed
 - Simulation values for analog output in mA (3.5 / 4.0 / 8.0 / 12.0 / 16.0 / 20.0 / 21.7)



ETS Series

prosense® Temperature Transmitter Configuration Software

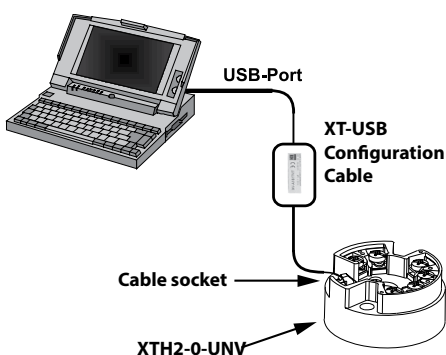
prosense®
XT-SOFT

XT-SOFTXT-USBXT-M12

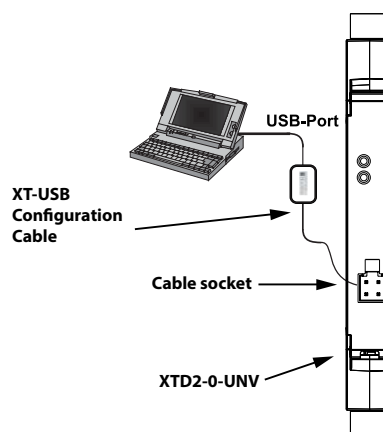
| Part No. | Description | Pcs/Pkg | Wt(lb) | Price |
|----------------------------------|--|---------|--------|---------------|
| <u>XT-SOFT</u> | ProSense configuration software, free download. For use with ProSense temperature transmitter XTP series, digital temperature sensor ETS series and models XTH-0-UNV, XTD-0-UNV. | 1 | N/A | Free Download |
| Field Device Configurator | ProSense configuration software, free download. For use with ProSense temperature transmitter series XTH2-0-UNV and XTD2-0-UNV. | 1 | N/A | Free Download |
| <u>XT-USB</u> | ProSense configuration cable, USB to keyed 4-pin male, 7.9 ft/2.4 m cable length. For use with XT-SOFT and Field Device Configurator software, ProSense temperature transmitter XTP series, digital temperature sensor ETS series and models XTH-0-UNV, XTD-0-UNV, XTH2-0-UNV, and XTD2-0-UNV. | 1 | 0.4 | \$113.00 |
| <u>XT-M12</u> | ProSense adapter, keyed 4-pin female to 4-pin M12. For use with ProSense temperature transmitter XTP series and XT-USB cable. | 1 | 0.1 | \$19.00 |

Connection Examples

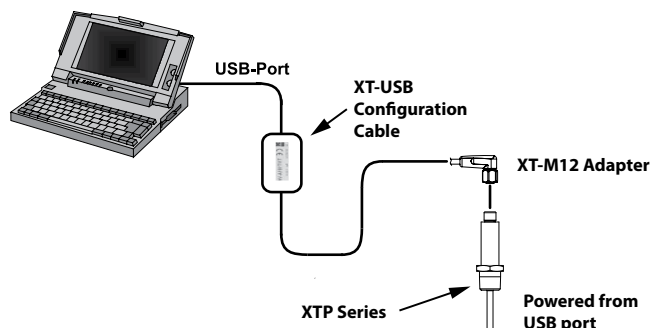
XTH2-0-UNV Connection (Requires Field Device Configurator)



XTD2-0-UNV Connection (Requires Field Device Configurator)

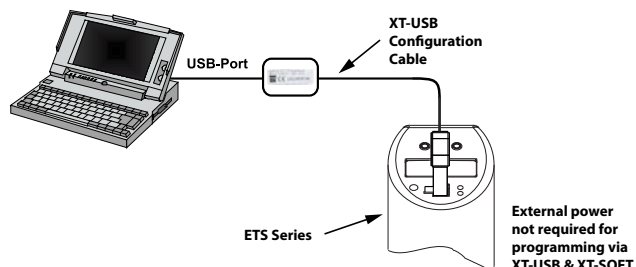


XTP Series Connection (Requires XT-SOFT)



Note: XT-SOFT version 1.27.13.0 or later required for use with the XTP series transmitters

ETS Series Connection (Requires XT-SOFT)



Note: XT-SOFT version 1.27.15.0 or later required for use with the ETS Series.



Scan the QR Code or click to view the help file for the XT-SOFT software.



Scan the QR Code or click to view the help file for the ProSense Field Device Configurator software.