

# prosense® Temperature Transmitters - DIN Rail Mounted



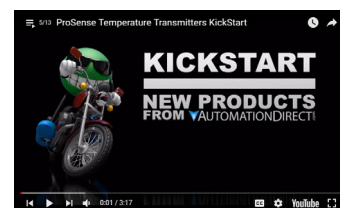
XTD

## Features - Non-programmable Models

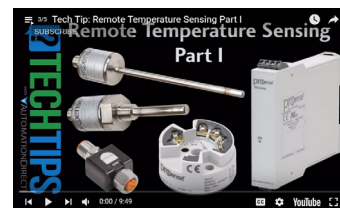
- Sensor Types:
- Models for thermocouple Types J, K, or T
- Models for RTD Type Pt100 3-wire
- Select from a variety of pre-configured measuring ranges
- Internal cold junction compensation for thermocouple input models
- Transmitter is powered by 12-35 VDC and is reverse-polarity protected
- Output 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
<a href="#">XTD-N40140F-PT1</a>	Pt100 RTD (to IEC 751) (a= 0.00385)	-40 to 140°F (-40 to 60°C)	1	0.2	\$;00d[y:
<a href="#">XTD-0100F-PT1</a>		0 to 100°F (-17.8 to 37.8°C)	1	0.2	\$;:00d[t:
<a href="#">XTD-0200F-PT1</a>		0 to 200°F (-17.8 to 93.3°C)	1	0.2	\$;00d[u:
<a href="#">XTD-0300F-PT1</a>		0 to 300°F (-17.8 to 148.9°C)	1	0.2	\$;00d[v:
<a href="#">XTD-0500F-PT1</a>		0 to 500°F (-17.8 to 260°C)	1	0.2	\$;00d[x:
<a href="#">XTD-0100F-J</a>	J thermocouple (to NIST Monograph 175, IEC584)	0 to 100°F (-17.8 to 37.8°C)	1	0.2	\$00d_v:
<a href="#">XTD-0200F-J</a>		0 to 200°F (-17.8 to 93.3°C)	1	0.2	\$;00d_]:
<a href="#">XTD-0300F-J</a>		0 to 300°F (-17.8 to 148.9°C)	1	0.2	\$00d_#:
<a href="#">XTD-0500F-J</a>		0 to 500°F (-17.8 to 260°C)	1	0.2	\$00d_?:
<a href="#">XTD-0800F-J</a>		0 to 800°F (-17.8 to 426.7°C)	1	0.2	\$00d#0:
<a href="#">XTD-01000F-J</a>		0 to 1000°F (-17.8 to 537.8°C)	1	0.2	\$;00d_t:
<a href="#">XTD-0100F-K</a>	K thermocouple (to NIST Monograph 175, IEC584)	0 to 100°F (-17.8 to 37.8°C)	1	0.2	\$00d_x:
<a href="#">XTD-0200F-K</a>		0 to 200°F (-17.8 to 93.3°C)	1	0.2	\$;00d_]:
<a href="#">XTD-0300F-K</a>		0 to 300°F (-17.8 to 148.9°C)	1	0.2	\$;00d_!:
<a href="#">XTD-0500F-K</a>		0 to 500°F (-17.8 to 260°C)	1	0.2	\$;00d_::
<a href="#">XTD-0800F-K</a>		0 to 800°F (-17.8 to 426.7°C)	1	0.2	\$00d#1:
<a href="#">XTD-01000F-K</a>		0 to 1000°F (-17.8 to 537.8°C)	1	0.2	\$00d_u:
<a href="#">XTD-01500F-K</a>		0 to 1500°F (-17.8 to 815.5°C)	1	0.2	\$00d_y:
<a href="#">XTD-02000F-K</a>		0 to 2000°F (-17.8 to 1093.3°C)	1	0.2	\$00d_z:
<a href="#">XTD-N2000F-T</a>	T thermocouple (to NIST Monograph 175, IEC584)	-200 to 0°F (-128.9 to -17.8°C)	1	0.2	\$00d#3:
<a href="#">XTD-N100100F-T</a>		-100 to 100°F (-73.3 to 37.8°C)	1	0.2	\$00d#2:
<a href="#">XTD-0200F-T</a>		0 to 200°F (-17.8 to 93.3°C)	1	0.2	\$00d_::



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

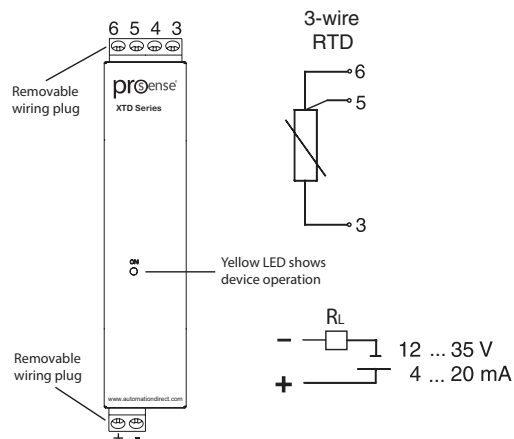


Scan the QR Code above or click to view the Fixed Range XTD Series product insert.

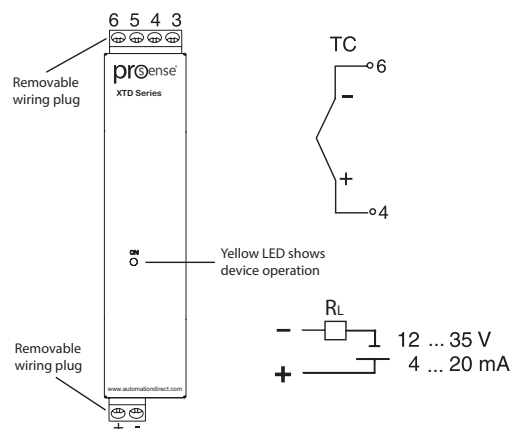
# proense® Temperature Transmitters - DIN Rail Mounted

## Wiring

### XTD PT1

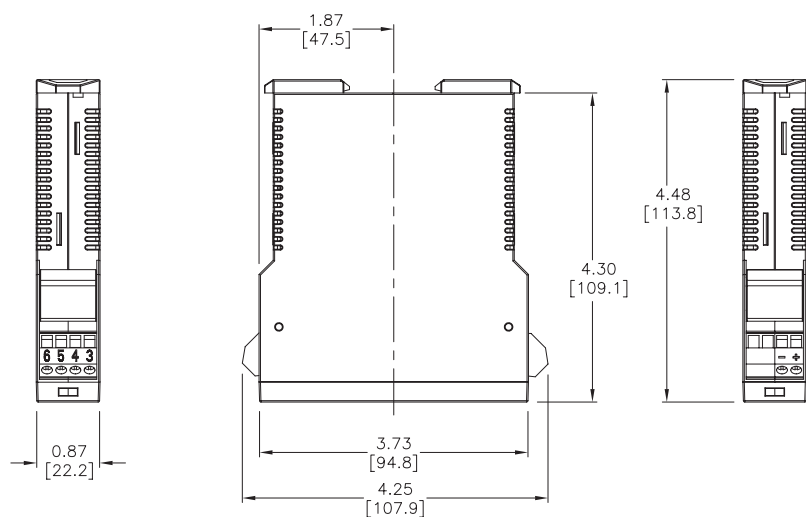


### XTD J, K, & T



## 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](http://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 ( $\leq 3.6$  mA or  $\geq 21.0$  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  $302^{\circ}\text{F}$  ( $-49.5$  to  $150^{\circ}\text{C}$ ) in increments of  $0.18^{\circ}\text{F}$  ( $0.1^{\circ}\text{C}$ )
  - Switch-back point value:  $-58$  to  $300^{\circ}\text{F}$  ( $-50$  to  $149^{\circ}\text{C}$ ) in increments of  $0.18^{\circ}\text{F}$  ( $0.1^{\circ}\text{C}$ )
  - 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  $266^{\circ}\text{F}$  ( $-50$  to  $130^{\circ}\text{C}$ ) Lower range value in increments of  $0.18^{\circ}\text{F}$  ( $0.1^{\circ}\text{C}$ )
    - Value for 20mA:  $-22$  to  $302^{\circ}\text{F}$  ( $-30$  to  $150^{\circ}\text{C}$ ) Upper range value in increments of  $0.18^{\circ}\text{F}$  ( $0.1^{\circ}\text{C}$ )
  - Error current - Current value in event of error:
    - Minimum =  $\leq 3.6$  mA
    - Maximum =  $\geq 21.0$  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-SOFT



XT-USB



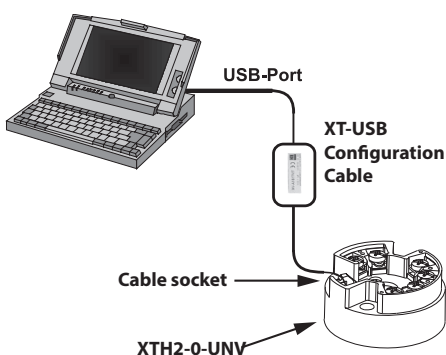
XT-M12

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
<b>Field Device Configurator</b>	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	\$;004[c:
<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	\$;1g[q:

## Connection Examples

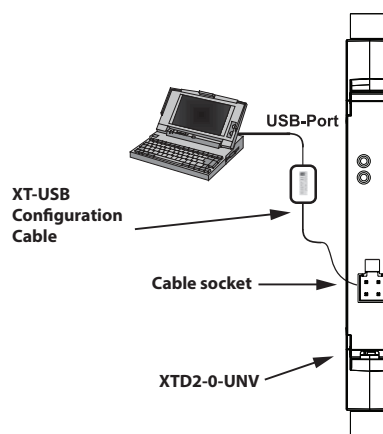
### XTH2-0-UNV Connection

(Requires Field Device Configurator)

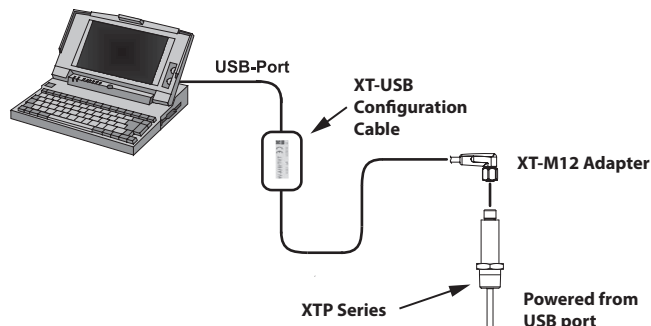


### XTD2-0-UNV Connection

(Requires Field Device Configurator)

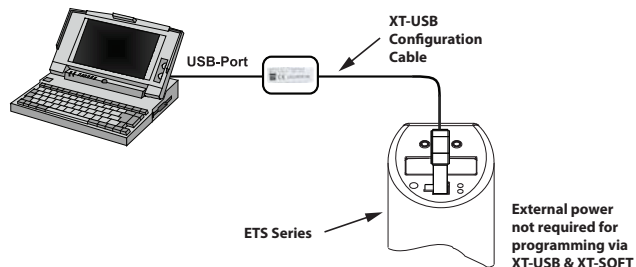


### XTP Series Connection (Requires XT-SOFT)



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.