prⓈense®

XTH Series Head Mounted Universal Temperature Transmitters - Programmable
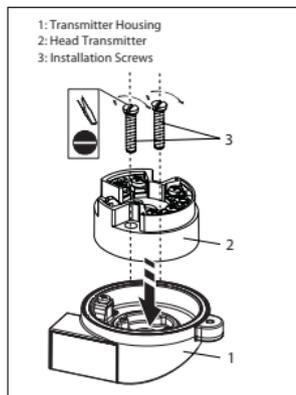

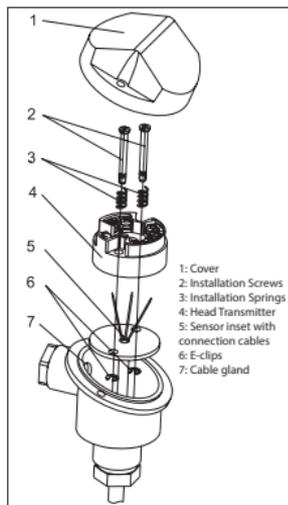
XTH Series - Programmable

Installation

- Transmitter comes with installation screw kit for both North American and European installations

- Ambient Temperature: -40 to 185°F (-40 to 85°C)

- Installation area: Field housing; connection head Form B according to DIN 43729
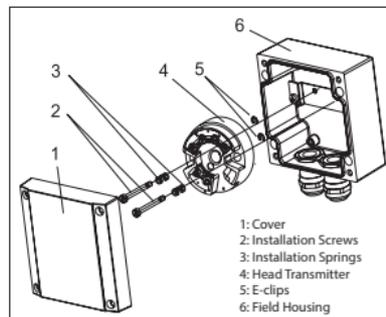
- Installation angle: No limit
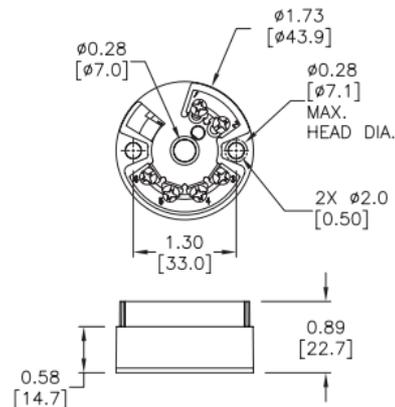
Note: Max. torque 3/4 pound-feet (1 Nm)

1: Transmitter Housing
2: Head Transmitter
3: Installation Screws

North American installation

XTH-UNV product insert Rev. 2

1: Cover
2: Installation Screws
3: Installation Springs
4: Head Transmitter
5: Sensor inset with connection cables
6: E-clips
7: Cable gland

European installation

1: Cover
2: Installation Screws
3: Installation Springs
4: Head Transmitter
5: E-clips
6: Field Housing

Remote Installation of head transmitter into field housing

Dimensions
inches [mm]

ⵁ1.73 [ⵁ43.9]

ⵁ0.28 [ⵁ7.0]

ⵁ0.28 [ⵁ7.1] MAX. HEAD DIA.

2X ⵁ2.0 [ⵁ0.50]

1.30 [33.0]

0.89 [22.7]

0.58 [14.7]

Wiring

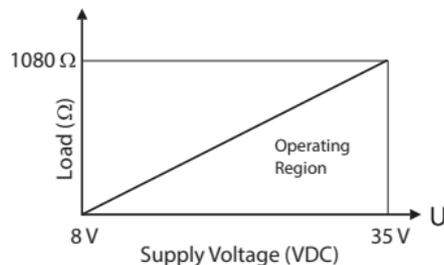Configuration cable socket
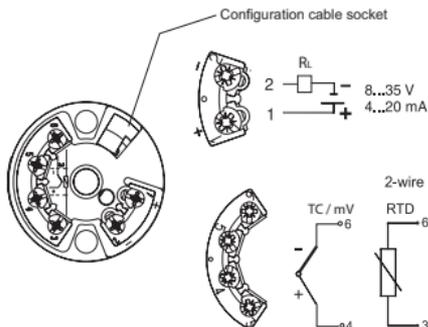
- To comply with UL61010-1 unit must be supplied by class 2 power supply.
- Disconnect power before making connections

Load Impedance

$RLmax = (V_{powersupply}-8V) / 0.025A$ (current output)

e.g. $(24V - 8V) / 0.025A = 640\,\Omega$

Shielding

Please take note when installing the head transmitter remotely from the sensor in a field housing: The shield on the 4-20 mA signal output must have the same potential as the shield at the sensor connections. When using grounded thermocouples, shielding of the output 4 to 20 mA cable is recommended. In plants with strong electromagnetic fields, shielding of all cables with a low ohm connection to the transmitter housing is recommended.

Due to the danger of lightning strikes it is recommended that shielded cable be used in installations outside of buildings.

Programming

Transmitter set-up is done using the XT-SOFT programming software, available as a free download at www.automationdirect.com, and XT-USB configuration cable (purchased separately). The XT-USB configuration cable should be assigned to a windows communication port from COM1 to COM20 to communicate with the universal temperature transmitter.

Note:

Transmitter must be powered during programming. When the XT-USB configuration cable is connected the unit is not operational. For this reason, disconnect the XT-USB configuration cable from the transmitter during operation.

The following tables show the structure of the XT-SOFT programming software configuration parameters:

Standard Configuration Parameters
Sensor type (TC or RTD)
Connection mode (2-, 3-, or 4-wire connection/RTD only)
Units (°C / °F)
Measurement range start (depends on sensor type)
Measurement range end (depends on sensor type)

Expanded Configuration Parameters
Cold junction (internal/external - TC only)
Cable resistance (ohms - 2-wire RTD / Resistance only)
Fault condition (≤ 3.6 mA, ≥ 21 mA)
Output (4-20 mA, 20-4 mA)
Filter (0 sec - 8 sec)
Offset (°F/°C)

Please visit www.automationdirect.com for specifications and additional information.