ELECTRO·SENSORS

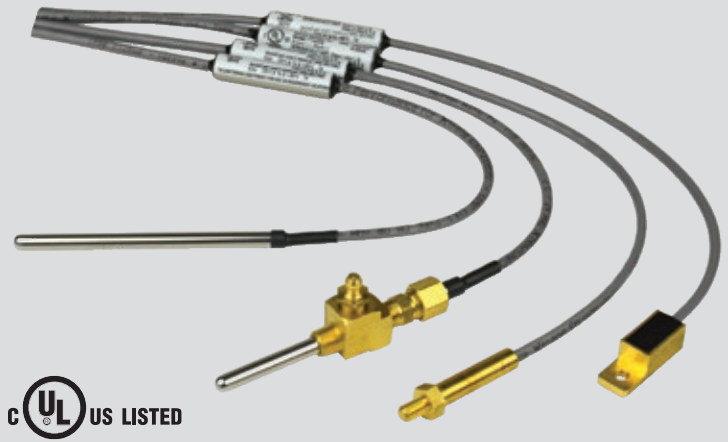**Reliable** Products
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Features

• 2-wire, loop-powered 4-20 mA analog output

• Attachment probe, sensor, 2-wire 4-20 mA signal conditioner, and cable in one

• Compatible with PLCs, meters, and data acquisition systems

• No user calibration: works right out of the box

• UL Listed, Intrinsically Safe (IS)

• Class I, Div I (C, D) Class II, Div I (E, F, G)

c (UL) US LISTED

Description

TT420 temperature sensors combine a sensor, signal conditioner and 2-wire loop-powered 4-20 mA transmitter into a rugged and compact package. All models are compatible with standard 2-wire 4-20 mA current loops and analog inputs and are identical with the exception of the measurement probes and fittings.

Applications

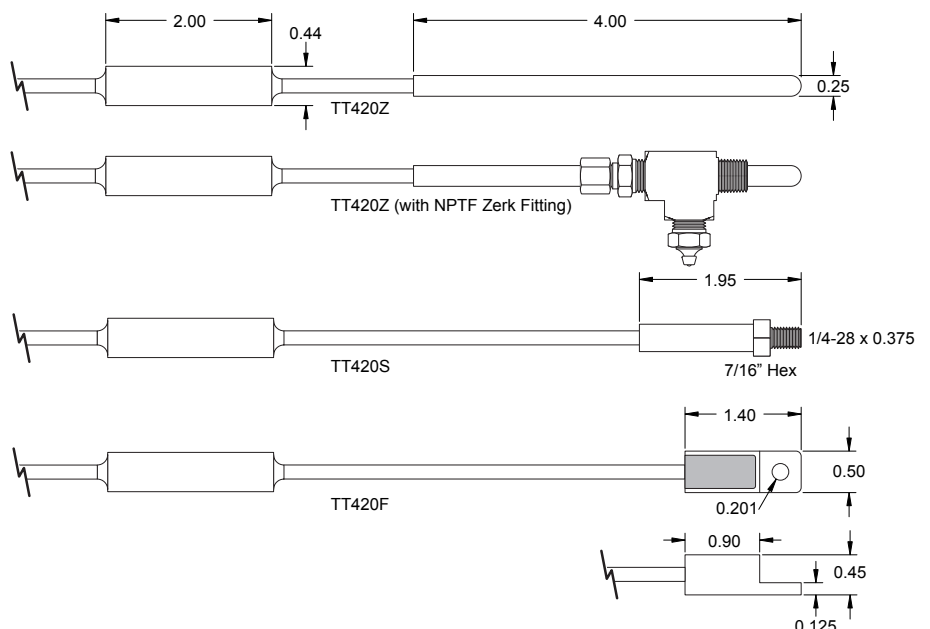|	
• Conveyors	• Pumps
• Bucket Elevators	• Turbines
• Motors	• Fans
• Gearboxes	• Hammermills
• Agitators	• Centrifuges
• Tanks	• Bearings

Models

• TT420Z* - 1/4 in stainless steel probe often used with thermowells and compression fitting mount (tanks, piping, bearing grease fittings)

  * *Available with or without compression fitting adapters*

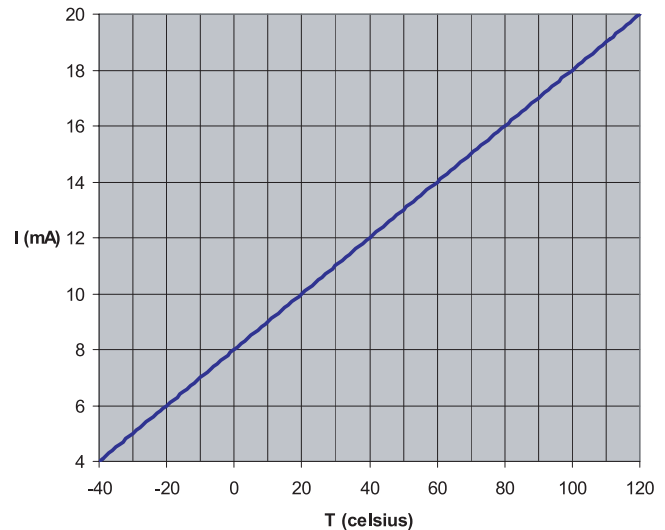• TT420S - Threaded stud mount with either 1/4-28 or 3/8-16 stud threads.

• TT420F - flat surface mount - mounts onto any flat surface with a #10 machine screw (included)

TT420 Dimensions
(4" Probe shown below)

2.00   0.44   4.00   0.25
TT420Z

TT420Z (with NPTF Zerk Fitting)

1.95   1/4-28 x 0.375
TT420S   7/16" Hex

1.40   0.50
TT420F   0.201

0.90   0.45   0.125

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TT420 Specifications

Product	
Vin (min → max)	8 → 30 VDC
Operating Temperature (Measurement Probe)	-40° C → +120° C (-40° F → +248° F)
Operating Temperature (Ambient)	-20° C → +80° C (-4° F → +176° F)
Accuracy	±1° C (at 25° C) ±3° C (at -40° C, 120° C)
Cable	
Color Code	Brown (V+), Black (V-)

Ordering

(standard cable length is 10' unless otherwise noted)

Model	Part Number
TT420S (1/4-28)	800-001520
TT420S (3/8-16)	800-001521
TT420F	800-001510
TT420F w/50' Cable	800-001511
TT420Z 2" Probe	800-001543
TT420Z 4" Probe	800-001503
TT420Z 4" Probe, w/50' Cable	800-001540
TT420Z 4" Probe, 1/4" NPTF Grease Fitting	800-001505
TT420Z 4" Probe, 1/8" NPTF Grease Fitting	800-001504
TT420Z 6" Probe	800-001500
TT420Z 6" Probe, 1/8" NPTF Grease Fitting	800-001501
TT420Z 6" Probe, 1/4" NPTF Grease Fitting	800-001502
TT420Z 8" Probe	800-001530
TT420Z 8" Probe, 1/8" NPTF Grease Fitting	800-001545
TT420Z 12" Probe	800-001519

Sensor certifications vary per sensor

Intrinsically Safe Barrier Option

Recommended	Mauf. Model	Part Number
I.S. Barrier Cooper Crouse-Hinds MTL Inc.	MTL7787+ (or equivalent)	597-000104

Accessories

Accessory	Part Number
1/8" - 1/4" NPT Adapter, Stainless Steel	300-004100
1/8" - 1/2" NPT Adapter, Stainless Steel	300-004101
1/4" Diameter Compression Fitting 1/8" NPTF male, Brass	300-003202
Brass Grease Fitting 1/8" NPTF	300-003203
Stainless Steel Conduit Fitting for TT420Z	725-000806

Customization

If one of standard products does not meet your specifications, please do not hesitate to call one of our applications specialists. Many of our products can be customized to fit specific needs.

Additional Information

See the TT420 Temperature Sensor Installation and Operating Manual for complete details and specifications.