# **TT420** Temperature Sensors

#### **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)



## **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
- Bucket Elevators
- Motors
- Gearboxes
- Agitators
- Tanks

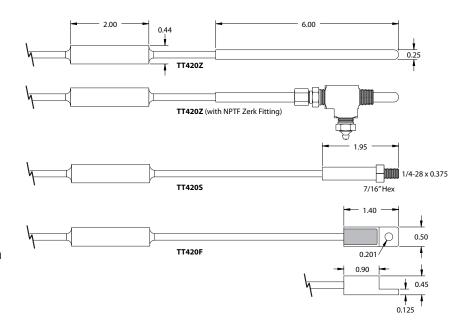
- Pumps
- Turbines
- Fans
- Hammermills
- Centrifuges
- Bearings

#### **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 1/4-28 threaded stud
  screws into any 1/4-28 tap
- TT420F flat surface mount mounts onto any flat surface with a #10 machine screw (included)

#### **TT420 Dimensions**

(6" Probe shown below)

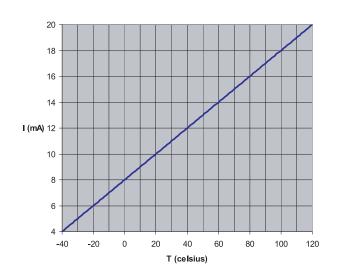




# **TT420** Temperature Sensors

# **TT420 Specifications**

Product	
$Vin (min \rightarrow max)$	8 → 30 VDC
Operating Temperature (Measurement Probe)	$-40^{\circ} \text{ C} \rightarrow +120^{\circ} \text{ C}$ $(-40^{\circ} \text{ F} \rightarrow +248^{\circ} \text{ F})$
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	800-001520
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

ES725 Rev E © 2013 Electro-Sensors, Inc. All rights reserved.

# **Intrinsically Safe Barrier Option**

Recommended	Mauf. Model	Part Number
I.S. Barrier Cooper	MTL7787+	597-000104
Crouse-Hinds MTL Inc.	(or equivalent)	397-000104

## **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.

