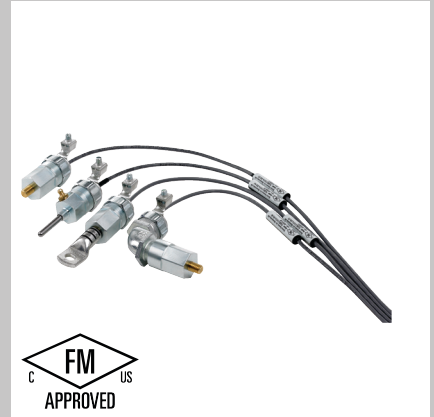- 2-wire, loop-powered 4-20 mA analog output
- Attachment probe, sensor, 2-wire 4-20 mA signal conditioner, cable, and liquid-tight conduit adapter in one
- Compatible with PLCs, meters, data acquisition, and Class II hazard monitoring systems
- Integral 1/2" flexible liquid-tight conduit fittings
- FM approved, dust Ignition-proof
- Class II and III, Div I (E, F, G); NEMA 4

FM APPROVED
C US

Description

TT420-LT temperature sensors combine a sensor, signal conditioner, 2-wire loop-powered 4-20 mA transmitter, cable and flexible liquid-tight conduit fitting 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. TT420-LT (Liquid-Tight) temperature sensors and fittings are optimized for grain handling facility shaft bearing (TT420Z-LT) and belt rub-block (TT420S-LT) temperature measurement. The TT420Z-LT screws into a 1/8" NPT grease-fitting (grease) tap. The TT420S-LT models screw into a brass rub-block with a 3/8-16 tap. TT420Z-LT and TT420S-LT models come with an integrated (1/2") flexible liquid-tight conduit fitting and are FM approved Dust Ignition-proof for use in Class II and III, Div. 1 and 2, Group E, F, G when installed using Class II rated (1/2") flexible liquid-tight conduit. The TT420S-LT is available with the option of a lug mount adapter. All models come ready to use right out of the box, requiring no field-calibration.

Application

- Conveyors
- Bucket Elevators
- Motors
- Gearboxes
- Agitators
- Bearings

- Pumps
- Turbines
- Fans
- Hammermills
- Centrifuges

TT420Z-LT
1/4" stainless steel probe with 1/8" NPT adapter (e.g. grease fitting for bearing temperature)

TT420S-LT Straight
3/8-16 threaded stud probe (e.g. belt alignment rub block temperature)

TT420S-LT Right Angle
3/8-16 threaded stud probe (e.g. belt alignment rub block temperature)

Magnetic Mount Adapter Option
- Accepts 3/8-16 UNC sensor thread (TT420S-LT only)
- Used when permanent mounting is not practical or not possible
- Solid brass for rapid temperature conduction

Product Specifications

TT420-LT Specifications	
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 (24 AWG)	
Color Code	Brown (V+), Black (V-)

Specifications subject to change without notice.

Ordering

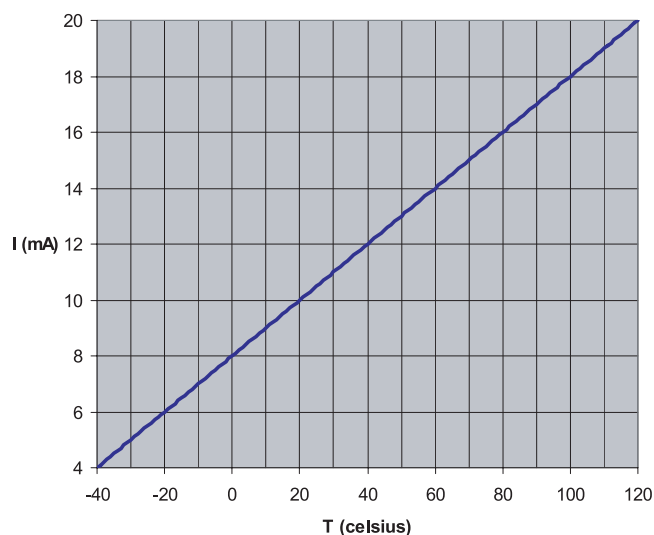**(standard cable length is 10' unless otherwise noted)**

Model	Part Number
TT420S-LT Straight Probe, 1/2" Conduit	800-001524
TT420S-LT Right Angle, 1/2" Conduit	800-001527
TT420Z-LT 4" Probe, 1/2" Conduit	800-001514
TT420Z-LT 4" Probe, 1/2" Conduit, w/50' Cable	800-001526
TT420Z-LT 6" Probe, 1/2" Conduit	800-001516
TT420Z-LT 8" Probe, 1/2" Conduit	800-001570
TT420Z-LT 10" Probe, 1/2" Conduit	800-001571
TT420Z-LT 12" Probe, 1/2" Conduit	800-001528

TT420Z-LT Assembly Kits

Option	Part Number
Assembly Kit, TT420Z-LT 1/2 in. (includes Housing, Grease Fitting and T&B Connector)	725-000803
Assembly Kit, TT420Z-LT 1/2 in. (includes Housing and Grease Fitting)	725-000804
Assembly Kit, TT420Z-LT 1/2 in. (includes Grease Fitting)	725-000805

Accessories

Option	Part Number
1/8" - 1/4" NPT Adapter	300-004100
1/8" - 1/2" NPT Adapter	300-004101
Lug Mount Adapter	776-001300
Brass Grease Fitting 1/8" NPTF	300-003203
Magnet Mount for TT420S-LT 3/8 - 16 UNC sensor thread (pictured on front page)	776-001400
Stainless Steel Parts	Part Number
Stud TT420S-LT 1/2" NPT SST	300-003721
Housing TT420S-LT 1/2" T&B SST	300-003722
Housing TT420Z-LT 1/2" T&B 316SST	300-003720

Customization

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

Additional Information

For more information about product, please refer to the TT420-LT Temperature Sensor Installation and Operating Manual.
Email: sales@electro-sensors.com
Tel: (800)328-6170
Fax: (952)930-0130
We also have more information online at: www.electro-sensors.com