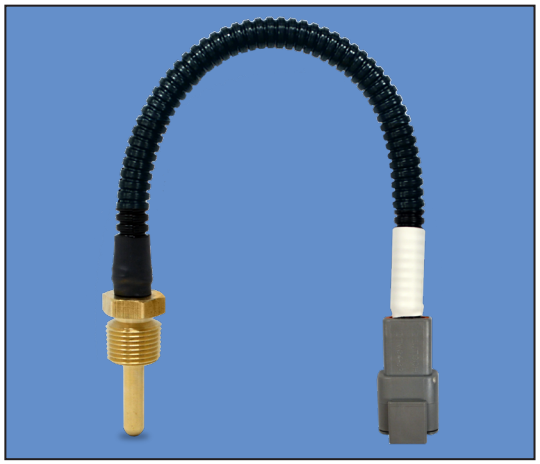
TTLM



DESCRIPTION

The TTLM series is an integrated-circuit based temperature transducer that outputs voltage proportional to the Centigrade temperature or Kelvin temperature. The TTLM is a very low power device which is why it has very low self heating of less than 0.1°C in still air. Its compact size and amplified output are ideal for mobile equipment or engine monitoring applications.

FEATURES

- Rated for -67°F to 302°F (-55°C to 150°C)
- Less than 100 µA Current Drain
- Low self-heating
- Sensing Element: Precision IC Temperature Sensor

APPLICATIONS

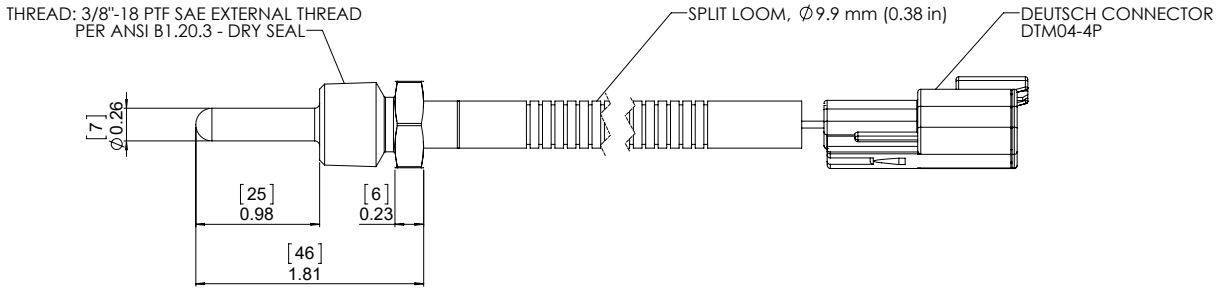
- Mobile equipment
- Hydraulic power units
- Lubrication system
- Engine Oil & Coolant Temp

Specifications

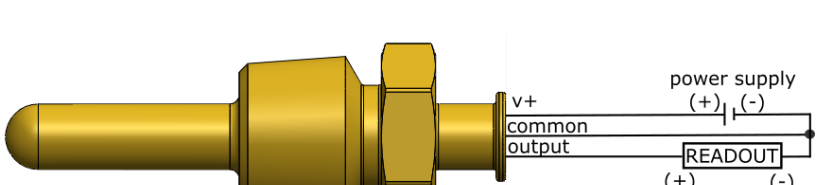
	TTLM1	TTLM2
Temperature Range	32°F to 212°F (0°C to 100°C)	-67°F to 302°F (-55°C to 150°C)
Accuracy	Max +/- 2.7°F at 77°F +/- 1.5°C at 25 °C	Max +/-5.4°F at 77°F +/- 3°C at 25°C
Ambient Temperature Range	-40°F to 257°F (-40°C to 125°C)	-67°F to 257°F (-55°C to 125°C)
Supply Voltage / Current	8 - 30 VDC	12 - 24 VDC* Current Limited. See equation (1)
Output Voltage Range	0.02 to 1V	2.18 to 4.23V
Output Sensitivity	10 mV/°C	10 mV/°K
Output Load Resistance	Min 10kΩ	Min 10kΩ
Electrical Connection	Deutsch DTM04-3P	Deutsch DTM04-3P
Wire Protection	Nylon Split Loom (0.38 in) / Ø 9.9mm)	Nylon Split Loom (0.38 in) / 9.9mm)
IP Rating	IP 65	IP 65
Housing Material	Brass	Brass
Pressure Rating	1800 psi (124 Bar)	1800 psi (124 Bar)
Probe Diameter	7 mm (0.28”)	7 mm (0.28”)

*Must be powered with a constant current source. The current source setting must consider the current in the sensor and the current in the load resistance.

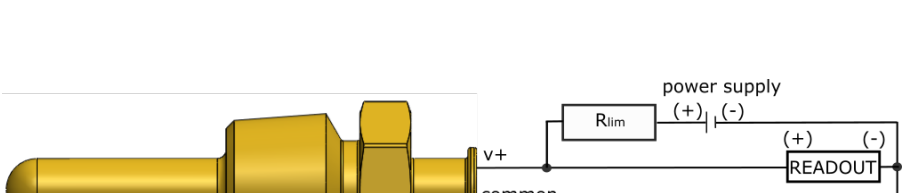
Dimensions



Wiring Code



TTLM1	
PIN 1	RED (V+)
PIN 2	WHITE (OUTPUT)
PIN 3	BLACK (COMMON)



TTLM2	
PIN 1	RED (V+)
PIN 2	NOT CONNECTED
PIN 3	BLACK (COMMON)

Choose resistor (R_{lim}) that is nearest to the calculated value. A 0.25W to 0.5W Power Rating is required for the limiting resistor, R_{lim}

Equation [1] $$R_{lim} = \frac{(V_{supply}) - 2.18\,V}{0.5\,mA}$$

Ordering Information

EXAMPLE TTLM1 - 6PTF12 - FLDT

1 - Model Selection:

TTLM1 - 32°F to 212°F (0°C to 100°C)
TTLM2 - -67°F to 302°F (-55°C to 150°C)

2 - Thread Options:

6PTF12 - 3/8"-18 PTF SAE External Thread (Per ANSI B1.20.3 - Dry Seal) with 1" (25 mm) probe length

3 - Electrical Connection

FLDT - Deutsch connector, DTM04-3P, 10" long leads

Note: Different configurations to this series is available. Please contact Anfield Sensors Inc. for custom options.