

IRR Series

S46P2020TR-1-5

Oil temperature sensor with transmitter

Ref : 2327

Rev : F



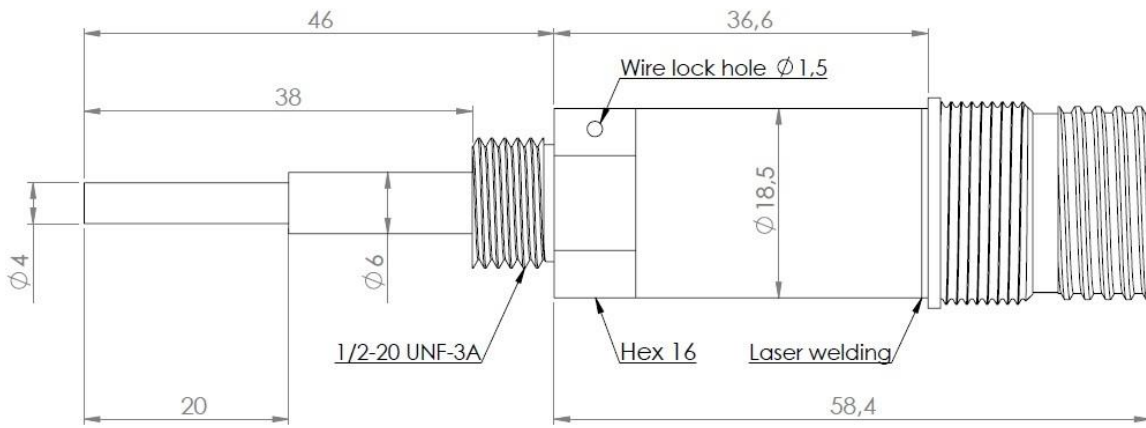
DESCRIPTION

This sensor is designed to measure engine oil temperature in the limits of the RTD sensor. This model is qualified to military standards (MIL-STD-810F) as well as for EMI/RFI, shocks, vibrations, and altitude. A very short and accurate response times enables quick and precise measurement. A transmitter with an output of 1/5V is integrated inside the sensor behind the connector. It is made of stainless steel 316L, hermetically sealed and well adapted to large variety of environments.

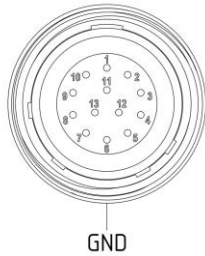
TECHNICAL CHARACTERISTICS

PARAMETERS	VALUES
Sensing element	1 PT100 (1/3 DIN Class, DIN43760)
Response time	(63.2% of step) 10 sec. (0.4 gpm fluid flow)
Storage temp. range	-60°C to +75°C
Operating temp. range	-60°C to +75°C
Oil temp. range	-60°C to +140°C
Output / linearity	1 to 5 V (1 V ⇔ -60°C / 5 V ⇔ +140°C)
Accuracy	± 1 % F.S.
Linearity	± 0.2 % F.S.
Power	28 Vdc According MIL-STD-704F, 30 mA max.
Output impedance	1 kΩ
Electrical connection	Connector MIL standard D38999 series III type 24KB35PN
Hydraulic connection	1/2-20-UNJF-3A
Weight	< 0,11 kg
Dielectric strength	According MIL-STD-202G method 301 at 500Vac
Insulation resistance	According MIL-STD-202G method 302 at 100V (>100 MΩ)
Electrical bonding	According to MIL-STD-464C § 5.11.3c (<2.5 mΩ)
Electrostatic discharge	According to MIL-STD-464C § 5.8.4
Altitude	0 to 50.000 ft
Vibrations	According MIL-STD-810F method 514.5 category 4 and 12
Shocks	According MIL-STD-810F method 516.5 procedure I, IV and VI
Acceleration	According MIL-STD-810F method 513.5 procedure I and II
Environmental conditions	According MIL-STD-810F temperature : method 520.2 III , humidity : 507.7, rain : 506.4 III, fungus : 508.5, contamination by fluid : 504, explosive atmosphere : 511.4 I, salt : 509.4 I, sand and dust : 510.4 I
EMI/RFI protection	According MIL-STD-461F : <ul style="list-style-type: none"> - CE 102: conducted emissions, power leads, 10 KHz to 10MHz - CS 101: conducted susceptibility, power leads, 30 Hz to 150 KHz - CS 114: conducted susceptibility, bulk cable injection, 10 KHz to 200 MHz, curve 5 - CS 115: conducted susceptibility, bulk cable injection, impulse excitation - RE 102: radiated emissions, electric field, 10 KHz to 18 GHz, fixed wing, external - RS 103: radiated susceptibility, electric field, 2MHz to 18 GHz, radiated field, 200 V/m for equipment installed in aircraft with non-metallic structure

SIZE

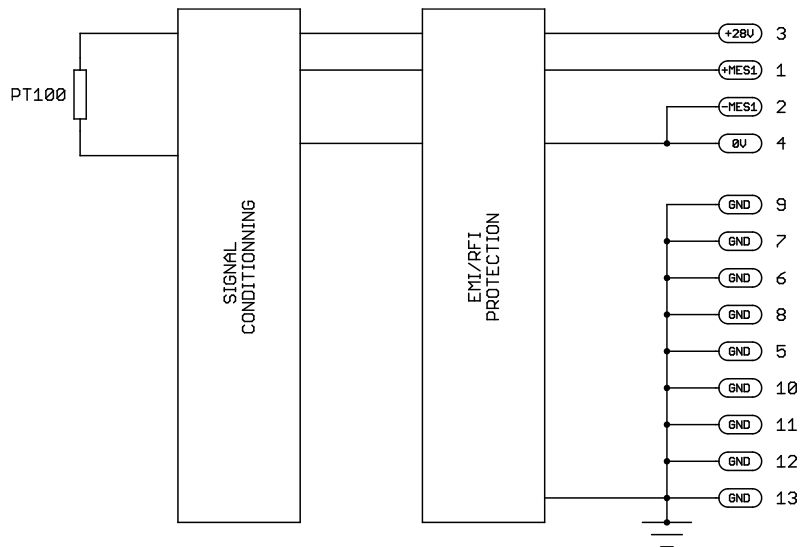


WIRING



PIN	SIGNAL	PIN	SIGNAL
1	-MEASURE	8	GND
2	+MEASURE	9	GND
3	+28V	10	GND
4	0V	11	GND
5	GND	12	GND
6	GND	13	GND
7	GND		

BLOCK DIAGRAM



CONTACT

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