

Economic Industrial Transmitter



DS2703

Features:

- Compact: small and rugged construction
- Cost effective
- 1% total error band (-40-105°C)
- High immunity to EMC: 100V ratio-metric output
- 5V supply: 0.5-4.5V ratiometric output
- 8-30V supply 4-20mA or 1-5V output
- Packard, M12 or Mini DIN connectors



Description:

The Sensit EIT range provides an excellent price/performance satisfying the needs of many applications including mobile hydraulics, compressors, refrigeration, pumps, process control and OEM industrial machinery.

The EIT is a compact and robust transmitter, providing pressure measurement in the range of 1 to 200 bar. All ranges are available in gauge or absolute format to suit customer requirements. An all laser welded Stainless Steel construction ensures media isolation and the product is designed to meet the tough environmental conditions experienced by modern day machines. Internally a custom ASIC provides signal conditioning and temperature compensation over the whole operating temperature range. The transmitter output is available in either 4-20mA, 1-5V or 0.5-4.5V. A variety of pressure ports and electrical connections are available as standard and custom requirements can be accommodated upon request.



General Note

TT Electronics reserves the right to make changes in product specification without notice or liability. All information is subject to TT Electronics' own data and is considered accurate at time of going to print.

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Specifications

Pressure ranges: Available in ranges between 1 bar and 200 bar gauge or absolute.

Performance Specification

Output Type		0.5-4.5V	4.20 mA	1 - 5V
Non-Linearity, Hysteresis & Repeatability	5-200 bar <5 bar	<0.5% FS <1.00% FS		
Thermal Error	5-200 bar <5	<0.5% FS <1.00% FS		
Stability		<0.25% / Year		
Operating Temperature		- 40°C to + 105°C		
Proof Pressure		3 x FS		
Burst Pressure (absolute)		Lesser of 10 x FS or 1000 bar		
Burst Pressure (gauge)		5 x FS		

Performance Specification

Output Type		0.5-4.5V	4.20 mA	1 - 5V
Supply Voltage		5 +/- 0.5V	8-30V	8-30V
Supply Current		<5mA	N/A	<5mA
Output Current		0.45mA Max (Sink or Source)	N/A	0.45mA Max (Sink or Source)
Response Time		<1mS	1mS	1mS
Reverse Polarity Protection		N/A	Yes	Yes

Environmental Specification

Wetted Materials		304L & 316L Stainless Steel, Al ₂ O ₃
Pressure/Temperature Cycles		>1.8*10 ⁶ Cycles (0 to FS at 8Hz; -40-105°C)
Thermal Shock		250 Cycles (105°C to -40°C, 0.5hr soaks at temp)
Vibration		144 hours (10-050Hz, 0g sinusoidal, 3 axes)
EMC Compatibility		100 V/m (80MHz to 1 GHz)
Humidity		250 hours (85°C and 90 to 95% RH)
Weight		<100g

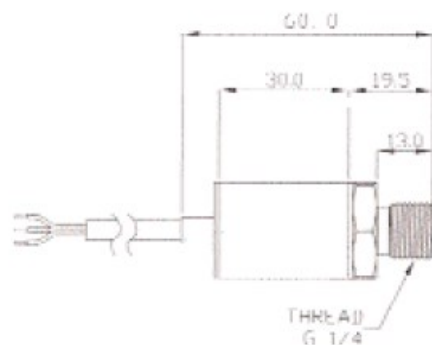
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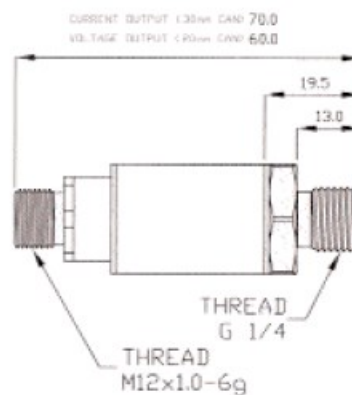
DOD and Electrical Connectors

Integral Harness



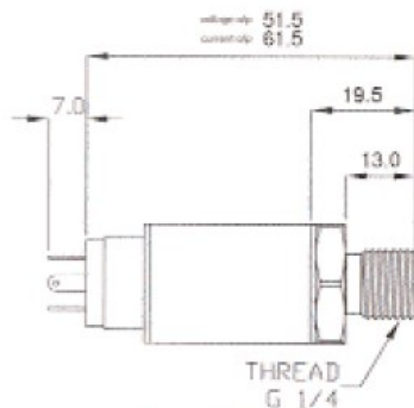
COLOUR	Output	
	1 TO 5 V _o	4 - 20mA
RED	POWER	RETURN
VIOLET	V _{OUT}	RETURN
BLACK	GROUND	NOT USED

M12



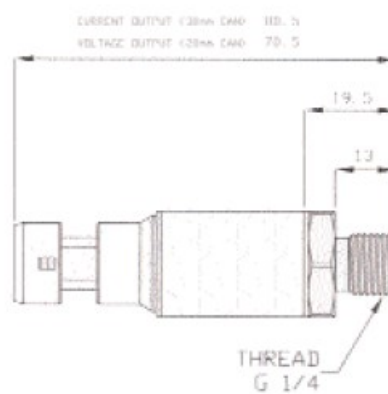
PIN	OUTPUT	
	1 TO 5 V _o	4 - 20mA
1	POWER	POWER
2	GROUND	RETURN
3	V _{OUT}	NOT USED
4	NOT USED	NOT USED

MD



PIN	OUTPUT	
	1 TO 5 V _o	4 - 20mA
1	POWER	RETURN
2	V _{OUT}	RETURN
3	GROUND	NOT USED
4	NOT USED	NOT USED

P



PIN	OUTPUT	
	1 TO 5 V _o	4 - 20mA
1	POWER	POWER
2	GROUND	RETURN
3	V _{OUT}	RETURN

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Pressure Product ———— P E I T ————

Manufacturing Family ————

Pressure Range ————

UNITS OF MEASUREMENT = BAR	
001 = 1	020 = 20
003 = 3	040 = 40
005 = 5	060 = 60
007 = 7	100 = 100
010 = 10	200 = 200

Units of Measurement ————

Blank = Bar (Default)
P = PSI

Pressure Datum ————

G = Gauge
A = Absolute
S = Sealed (ranges over 60 bar)

Pressure Connection ————

C = M12 X 1.5-6G 22 mm HEX
AB = G1/4 BSP 22mm HEX

Electrical Connection ————

P = Packard Metripak
MD = DIN40050
M12 = 4 pin
16 = 150mm Integral Harness
122 = 300mm Integral Harness
172 = 1800mm Integral Harness

Output Type ————

45 = 0.5-4.5V (5V Excitation)
5V = 1-5V (8 to 30V Excitation)
mA = 4-20mA (8 to 30V Excitation)

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