TELEKTRON INDIA

An Attitude in Engineering

PRODUCT OVERVIEW

TK – U Series are premium MIL grade Aerospace Pressure Transducer. The main criteria of an aerospace sensor is lite weight, rugged and very high degree of stability, that can be achieved by using a one piece pressure head, high resistance to shock & vibration and shunt calibration for long term environmental stability. They provide highly precise measurement of absolute, vented gauge, or sealed gauge pressures over wide temperature ranges. Standard versions of this transducer use a Inconel steel diaphragm to sense pressure.

SPECIFICATIONS

PRESSURE RANGES	
High (bar)	0-8, 7, 10, 15, 25, 35, 50, 70, 100, 150, 200, 250, 350, 500, 700
Medium bar	0-0.7, 1.0, 1.5, 1.7, 2.5
PRESSURE REFERENCES	
Pressure ranges	Vented gauge: 0-50 Bar Sealed gauge & Absolute: 0-5 to 0-700 Bar
Supply Voltage	± 15 VDC (10 – 32 VDC)
Current Consumption	< 10 mA
Output	0 - 5 VDC
Output Load	> 10 K ohm @ 10 – 32 VDC
Isolated Resistance	> 20 M ohm @ 100 VDC
Zero Offset	offset exceeding 0.04 FS (recoverable within a few hours)
Span Tolerance	< ± 0.5% FS
Proof Pressure	5X Full range pressure (700 bar max.), whichever is less. (Will not cause a zero-shift.)
Burst Pressure	20 x full range pressure (1050 bar max.), whichever is less
Pressure Media	Liquids or gases compatible with 17-4 PH, stainless steel, Inconel 625 or Hastelloy C
Shunt Calibration	80% ±5% full range pressure
Accuracy	±0.1% F.R.O. (BSL)
Repeatability	±0.2% F.R.O. (BSL)
Operable Temperature	-54°C to 125°C
Storage Temperature	-54°C to 120°C
Compensated Temperature	-54°C to 125°C
Humidity	95% Relative Humidity
Cable Version	IP67
Vibration	20g MIL STD 810
Shock	1000g for 5 m sec
EMC	TK-U is CE marked, comply with the IEC Directive for EMC/EMI
Technology	I - Glaz

TK-U SERIES

- Rugged construction
- High Accuracy
- High overpressure capability
- High stability for demanding environments
- No Fluid Fill
- Excellent media compatibility
- Shock and vibration MIL 810

FEATURES

- High Overload capability
- Operation in High Temperatures
- Shock and Vibration STD MIL 810
- Product Standard - EN 50121-3-2-2016+A1: 2019
- Radiated Emission – EN 55011 : 2016
- Immunity to Electric fast transient / burst as per IEC 61000-4-4: 2012
- Surge Immunity test as per IEC 6100-4-5:2014+A1: 2017
- Immunity to disturbances as per IEC 61000-4-6: 2013
- Electromagnetic Field - IEC 61000-4-3:2006+A1:2007+A2: 2010

BENEFITS

ASIC Compensation
Temperature Performance
Real Time Thermal Colmpensation
Real Time Linearity Correction

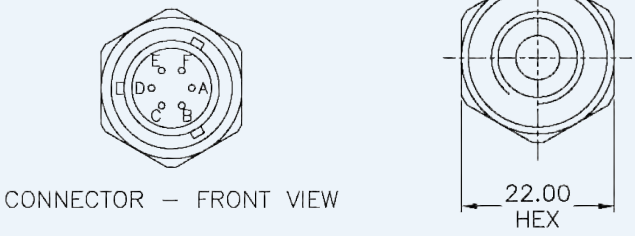
APPLICATIONS

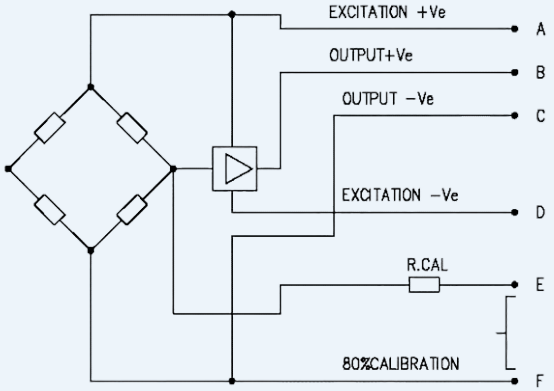
Aviation and Aerospace
Torpedo Depth Sensing
Military and Commercial Aircraft
Analytical Instruments
Military and Launch Vehicles
Test Stands

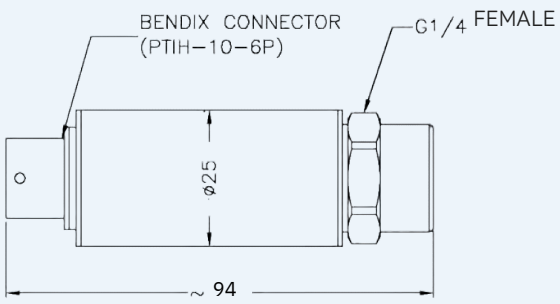
SHUNT CALIBRATION

The shunt calibration feature simulates a pressure signal and has some inherent inaccuracies. Typical Inaccuracy is related to the sensor's inaccuracy, typically +/-0.15% FSO. However, application factors such as frequency and amplitude, environmental exposure, media type etc. can affect the sensors characteristics, which may cause inaccuracies

ELECTRICAL TERMINATION:







ORDERING INFORMATION:

For example:

TK-U5	010	BAR	SG	B	P	0	B	R
1	2	3	4	5	6	7	8	9

		Code	Description
1	Series	TK-U5	
2	Pressure Range	Example	10
			35
			70
			100
3	Pressure Unit	B	Bar
		C	Kg/cm
		P	PSI
4	Pressure Type	AG	Absolute Gauge
		VG	Vented Gauge
		SG	Sealed Gauge
5	Header Thread	A	¼ " BSP Male
		B	¼ " BSP Female
		3	7/16-20 UNF Male
		4	7/16-20 UNF Female
6	Wetted Material	C	Inconel
		L	Stainless Steel
		P	Hastelloy
7	Output	0	0-5V
		1	1-5V
		2	0-10V
		4	4-20mA
8	Electrical Connection	C	Din 43650A Connector (12 mm)
		L	Bendix Connector (6 Pin)
		P	Din 43650C Connector (8.0mm)
9	Cable Length	R	0
		S	600 mm
		T	1 meter
		U	3 meters

MAKE IN INDIA

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