

FEATURES

- Various housings: cylindrical from diam. 1.27 to 2.36 mm, low profile housing or threads M4x0.7, M5x0.8, 6-32UNC, 10-32UNF
- Frequency 0-25 KHz through 340 KHz
- CE approved

APPLICATIONS

- Space flight and test
- Automotive tests
- Wind tunnels measurement
- Racing testing

EPIH

Sub-Miniature Pressure sensor

SPECIFICATIONS

- Ranges 0.35 to 20 bar (5 to 300 psi)
- Extremely small size
- Flush diaphragm
- High frequency response
- Various housings available

The **EPIH** is a subminiature pressure sensor, specifically designed for dynamic and high frequency measurements with resonant frequency up to 1.7 MHz

Available with many various housings, **EPIH** is one of the smallest pressure sensors in the world. The **EPIH** is offered in pressure ranges from 0-5 to 300 psi (0-0.35 through 20 bar). Various compensated temperature ranges are available from -40°C up to 80°C.

Suitable for dry gas and some fluids with Parylene or RTV protection (options). Non-standard excitation, compensated temperatures are available as options.

On request, Instruction documents can be provided to ease the selection and use of our sensors and provide helpful tips.

STANDARD RANGES

Pressure ranges		Pressure Reference			Pressure Limit	Resonant Frequency ⁽¹⁾ (nom.)	Sensitivity "FSO" (nom.)	CNL&H (%FS)	Thermal Zero Shift "TZS" (/50°C)
bar	psi	gage (type1)	sealed (type2)	abs. (type3)					
0.35	5	•	•	•	5 x FS	500 KHz	2.4 mV/V	± 1%	± 0.1 mV/V
0.7	10	•	•	•	5 x FS	500 KHz	4.8 mV/V	± 1%	± 0.1 mV/V
1	15	•	•	•	3 x FS	500 KHz	7.2 mV/V	± 1%	± 0.1 mV/V
1.5	25	•	•	•	2 x FS	500 KHz	12 mV/V	± 1%	± 2.5 % FSO
3.5	50	•	•	•	2 x FS	600 KHz	15 mV/V	± 1%	± 2.5 % FSO
5	75	•	•	•	2 x FS	700 KHz	15 mV/V	± 1%	± 2.5 % FSO
7	100	•	•	•	2 x FS	1.0 MHz	15 mV/V	± 1%	± 2.5 % FSO
14	200	•	•	•	2 x FS	1.4 MHz	20 mV/V	± 1%	± 2.5 % FSO
20	300	•	•	•	2 x FS	1.7 MHz	20 mV/V	± 1%	± 2.5 % FSO

Note 1: useful frequency is 20% of Resonant Frequency

PERFORMANCE SPECIFICATIONS (typical values at temperature 23±3°C)

PARAMETERS	VALUES	NOTES
Supply Voltage	5Vdc	See option table for other Voltage
Input Resistance	1500Ω nom.	
Output Resistance	1500Ω nom.	
Non-Repeatability	± 0.25 % FS	Recommended warm-up time > 15 min
Thermal Sensitivity Shift "TSS" in CTR	- 2% to - 8% /50°C	
Operating Temperature Range (OTR)	-40°C to 120°C	
Compensated Temperature Range (CTR)	20°C to 80°C	See option table for other Temperature
Zero Offset	± 2 mV/V	
CE conformance according to	EN 61010-1, EN 50081-1, EN 50082-1	

INSTALLATION

Recommended installation torque:
1.2 Nm (10 in.lbf) for all threaded models

PRESSURE SENSING END TYPE

No screen



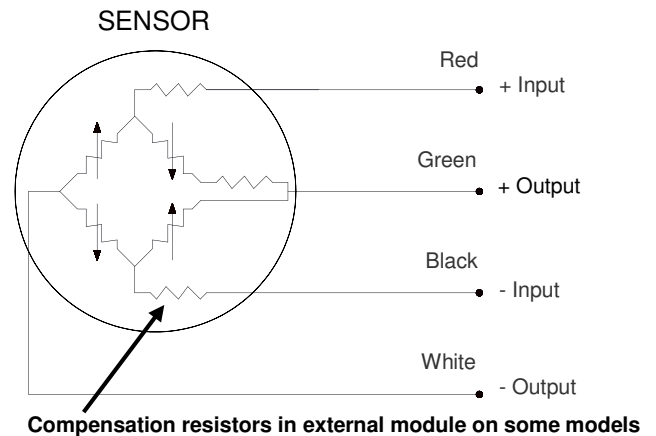
B screen



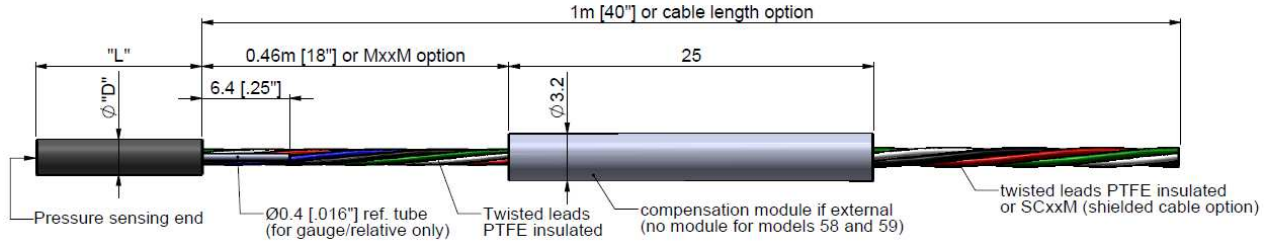
M screen



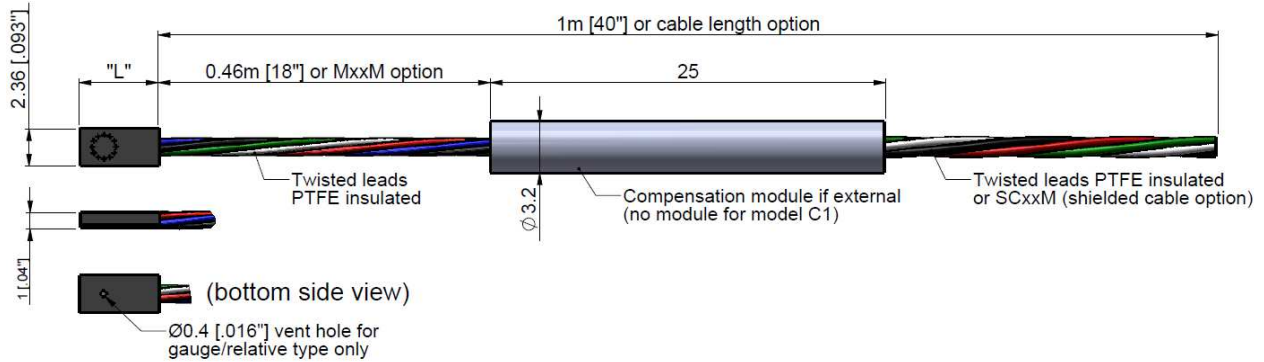
CONNECTIONS



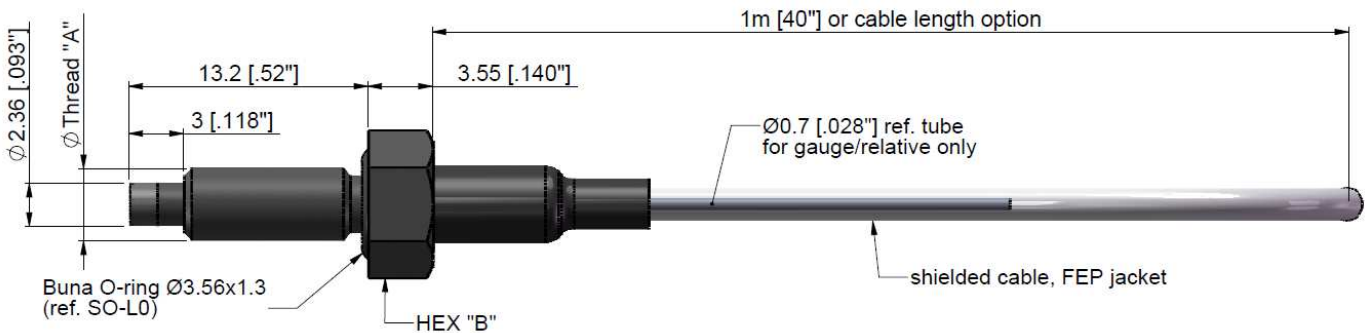
DIMENSIONS in metric (in inches)



EPIH model	Sensing end style	Body ϕ "D"	Body length "L"	Custom body length (option)	Compensation
EPIH-11	No screen	1.27 [.05"]	6.4 [.25"]	From 6.4 to 38mm	External module
EPIH-17	No screen	1.27 [.05"]	11.4 [.45"]	No (see model 11)	External module
EPIH-37	B screen	1.63 [.064"]	11.4 [.45"]	From 6.4 to 38mm	External module
EPIH-41	No screen	2.03 [.08"]	6.4 [.25"]	From 6.4 to 38mm	External module
EPIH-58	M screen	2.36 [.093"]	11.4 [.45"]	From 11.4 to 38mm	Internal
EPIH-59	No screen	2.36 [.093"]	11.4 [.45"]	From 11.4 to 38mm	Internal



EPIH model	Sensing style	Body width "W"	Body length "L"	Compensation
EPIH-C1	B screen	2.36 [.093"]	12.7 [.50"]	Internal
EPIH-C3	B screen	2.36 [.093"]	5.0 [.20"]	External module



EPIH model	Sensing end style	Thread "A"	HEX "B"	Custom body length (option)	Compensation
EPIH-L1	No screen	M4x0.7-6g	7 [.28"]	From 6.4 to 38mm	Internal
EPIH-L2	M screen	M4x0.7-6g	7 [.28"]	From 6.4 to 38mm	Internal
EPIH-T1	No screen	6-32 UNC-2A	6.4 [.25"]	From 6.4 to 38mm	Internal
EPIH-T2	M screen	6-32 UNC-2A	6.4 [.25"]	From 6.4 to 38mm	Internal

OPTIONS AND ACCESSORIES

OPTIONS	CODES	DESCRIPTIONS
Compensated Temperature Ranges	Z0 Z1 Z2 Z*	-40°C to 20°C -20°C to 40°C 0°C to 60°C Non-standard
Supply Voltage	V00 V10 V*	Replace "00" with Voltage between 1 and 5. If less than 5, Sensitivity FSO will decrease accordingly 10V Excitation, Input impedance = 3000Ω, TSS = -4% /50°C nom. (not available for model 58 and 89) Non-standard Excitation with standard FSO and non-standard TSS
Cable Length Option	L00M SC00M	Replace "00" with total length in meter (regular cable) Replace "00" with total length in meter (shielded cable instd of leads)
Special Module Location : (only for models 11, 17, 37, 41, C3)	M00M	Replace "00" with distance between sensor and module in meter
Custom Length Hex to Tip	0000M	Replace "0000" with thread length between 6.4mm and 38mm
Protective Coatings on Diaphragm (only for model without screen)	PAR RTV RTVB	Parylene RTV silicone rubber Black RTV silicone rubber (protection against light sensitivity)

ORDERING INFORMATION

EPIH	-	11	2	-	7B	-	/Z1/L2M
Model	-	Body	Pres. Ref.	-	Range & Unit	-	/Options
EPIH	-	11, 17, 37, 41, 58, 59 C1, C3 L1, L2, T1, T2	1 = Gauge 2 = Sealed 3 = Absolute	-	0.35B 0.7B 1B 1.5B 3.5B 5B 7B 14B 20B 5P 10P 15P 25P 50P 75P 100P 200P 300P	-	/Z0, Z1, Z2, Z* /V1, V5, V10 or V* /L00M /M00M /0000M /PAR, RTV, RTVB

Note: select ranges in BAR with body L and ranges in PSI with body T

TE.com/sensorsolutions

Measurement Specialties, Inc., a TE Connectivity company.

Measurement Specialties, TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2015 TE Connectivity Ltd. family of companies All Rights Reserved.