

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: Useful frequency is 20% of Resonant Frequency
Sensors are Calibrated with 10 V_{DC} power supply as standard

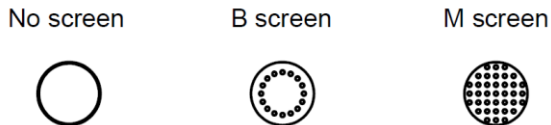
PERFORMANCE SPECIFICATIONS (typical values at temperature 23±3°C)

PARAMETERS	VALUES	NOTES
Supply Voltage	5V _{DC}	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		± 20 mV/V
CE conformance according to	EN 61010-1, EN 50081-1, EN 50082-1	

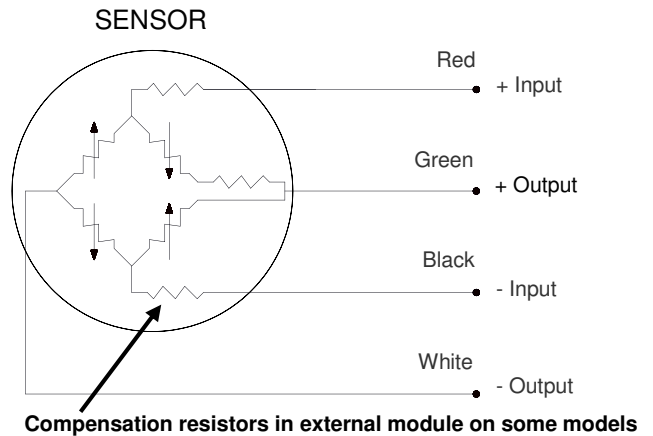
INSTALLATION

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

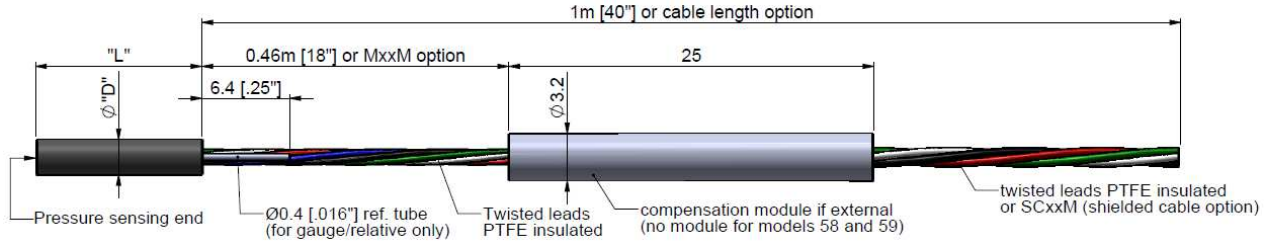
PRESSURE SENSING END TYPE



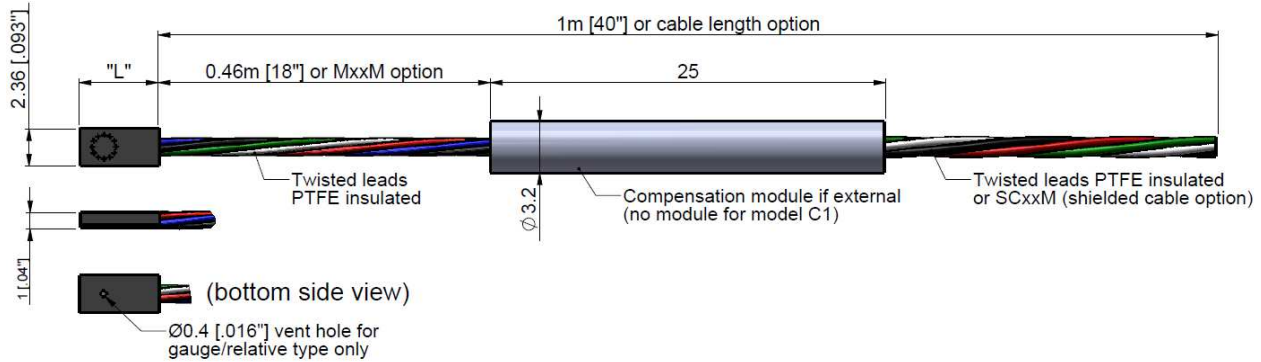
CONNECTIONS



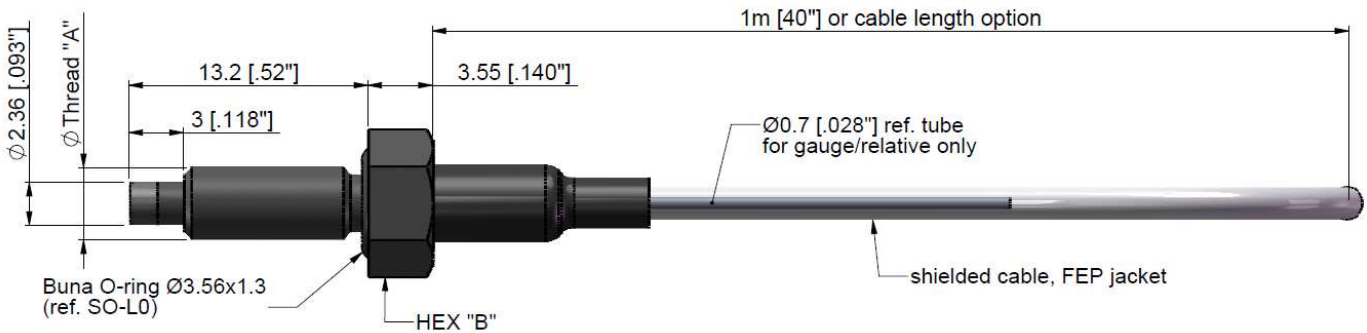
DIMENSIONS in metric [in inches]



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	-40°C to 20°C
	Z1	-20°C to 40°C
	Z2	0°C to 60°C
	Z*	Non-standard
Supply Voltage	V00	Replace "00" with Voltage between 1 and 5. If less than 5, Sensitivity FSO will decrease accordingly
	V10	10V Excitation, Input impedance = 3000Ω, TSS = -4% /50°C nom. (not available for model 58 and 89)
	V*	Non-standard Excitation with standard FSO and non-standard TSS
Cable Length Option	L00M	Replace "00" with total length in meter (regular cable)
	SC00M	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	Parylene
	RTV	RTV silicone rubber
	RTVB	Black RTV silicone rubber (protection against light sensitivity)

ORDERING INFORMATION

EPIH – 11 2 – 7B – /Z1/L2M

Body	
11	
17	
37	
41	
58	
59	
C1	
C3	
L1	
L2	
T1	
T2	

Pressure Reference	
1	Gage
3	Absolute
2	Sealed

Note: Select range is bar with body L and ranges in psi with body T

/Options	
/Z0, Z1, Z2, Z*	
/V1, V5, V10 or V*	
/L00M	
/M00M	
/0000M	
/PAR, RTV, RTVB	

Pressure Range & Unit	
0.35B	5P
0.7B	10P
1B	15P
1.5B	25P
3.5B	50P
5B	75P
7B	100P
14B	200P
20B	300P

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