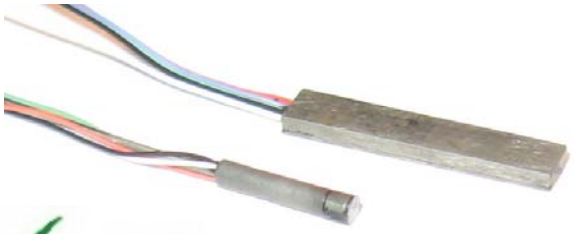
EPIH



- Extremely small size
- Flush diaphragm
- High frequency response
- Various housings available

DESCRIPTION

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.

FEATURES

- Various housings: cylindrical body from diam. 1.27 to 2.36 mm, low profile housing or threads M4x0.7, M5x0.8, 6-32UNC, 10-32UNF
- Available ranges 0-0.35 through 20 bar (0-5 to 300 psi)
- Useful frequency 0-25 KHz through 340 KHz
- CE approved

APPLICATIONS

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

STANDARD RANGES

Pressure ranges		Pressure Reference			Pressure Limit	Resonant Frequency[1] (nom.)	Output "FSO" (nom.)	CNL&H (%FSO)	Thermal Zero Shift "TZS" (/50°C)
(BAR)	(PSI)	gage (type1)	sealed (type2)	abs. (type3)					
0.35	5	•	•	•	5 x FS	500 KHz	12 mV	± 1%	± 1mV
0.7	10	•	•	•	5 x FS	500 KHz	24 mV	± 1%	± 1mV
1	15	•	•	•	3 x FS	500 KHz	36 mV	± 1%	± 1mV
1.5	25	•	•	•	2 x FS	500 KHz	60 mV	± 1%	± 2.5 % FSO
3.5	50	•	•	•	2 x FS	600 KHz	75 mV	± 1%	± 2.5 % FSO
5	75	•	•	•	2 x FS	700 KHz	75 mV	± 1%	± 2.5 % FSO
7	100	•	•	•	2 x FS	1.0 MHz	75 mV	± 1%	± 2.5 % FSO
14	200	•	•	•	2 x FS	1.4 MHz	75 mV	± 1%	± 2.5 % FSO
20	300	•	•	•	2 x FS	1.7 MHz	75 mV	± 1%	± 2.5 % FSO

Note 1: useful frequency is 20% of Resonant Frequency

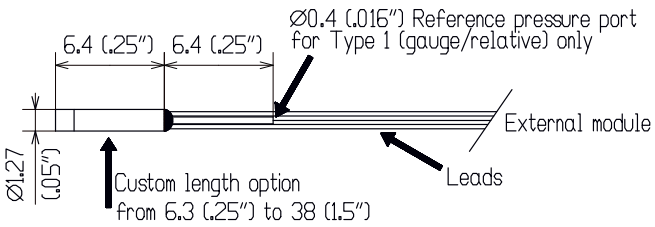
EPIH

PERFORMANCE SPECIFICATIONS

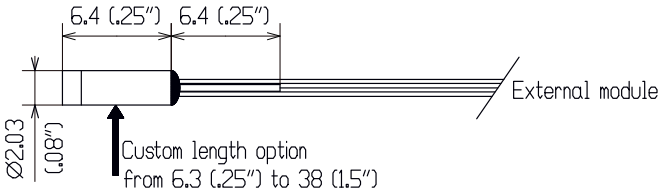
PARAMETERS	VALUES	NOTES
Supply Voltage	5VDC	See option table for other Voltage
Input Resistance	1500Ωnom.	
Output Resistance	1500Ωnom.	
Non-Repeatability	± 0 . 2 5 % FSO	
Thermal Sensitivity Shift "TSS"	- 2% to - 8% /50°C	
Operating Temperature	-40°C to 120°C	
Compensated temperature	20°C to 80°C	See option table for other Temperature
Zero Offset at 23°C	± 10 mV	
CE conformance according to	EN 61010-1, EN 50081-1, EN 50082-1	

DIMENSIONS

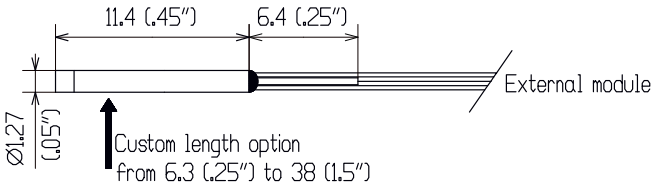
EPIH-11 No screen



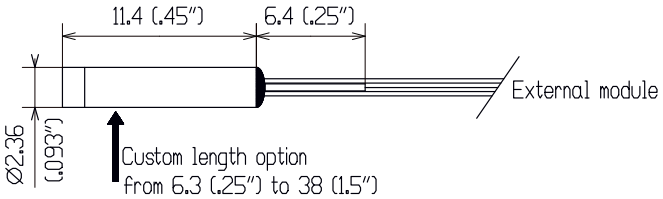
EPIH-41 No screen



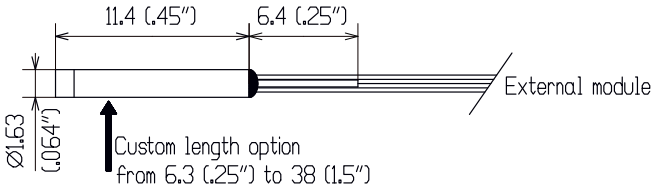
EPIH-17 No screen



EPIH-57 B screen

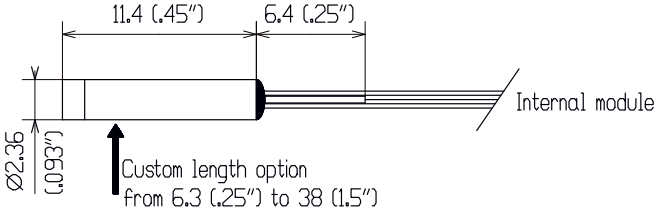


EPIH-37 B screen



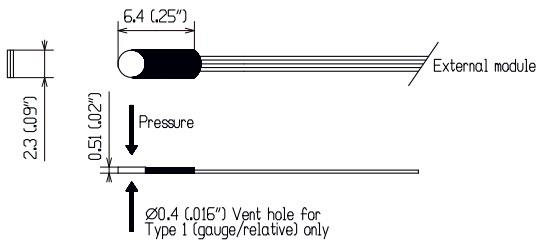
EPIH-58
B screen

EPIH-59
No screen

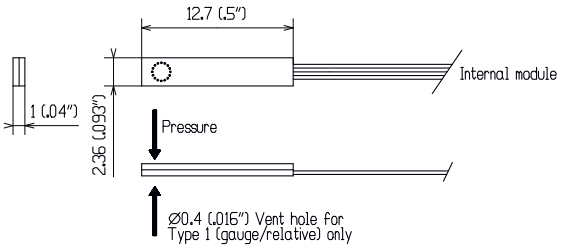


EPIH

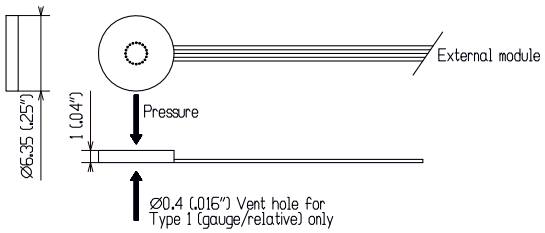
EPIH-BO No screen



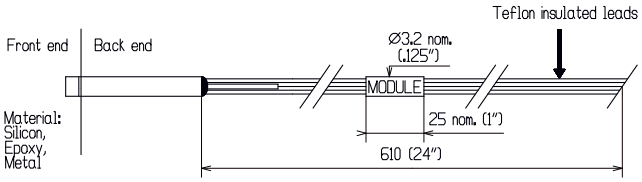
EPIH-C1 B screen



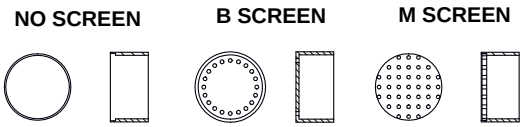
EPIH-E0 B screen



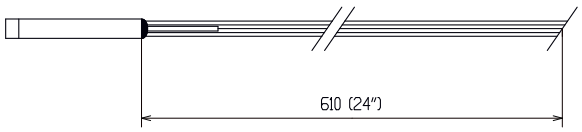
WIRING – EXTERNAL MODULE



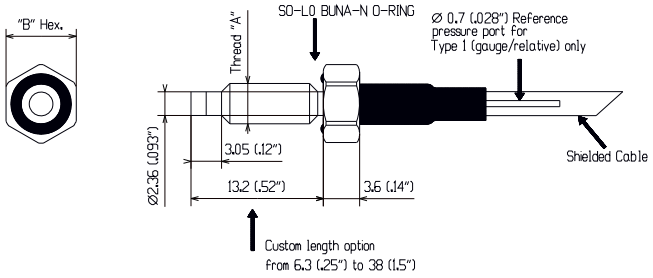
PRESSURE SENSING END STYLES



WIRING – INTERNAL MODULE

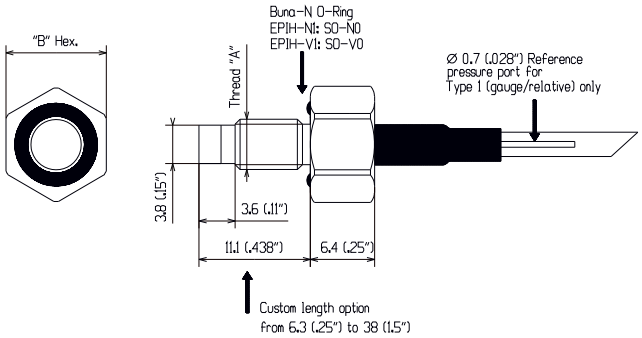


EPIH-L1, -L2, -T1, -T2



Model	Thread "A"	"B" Hex.	Screen
EPIH-L1	M4x0.7-6g	7 (.28")	No screen
EPIH-L2	M4x0.7-6g	7 (.28")	B screen
EPIH-T1	6-32 UNC-2A	6.4 (.25")	No screen
EPIH-T2	6-32 UNC-2A	6.4 (.25")	B screen

EPIH-N1, -N2, -V1, -V2



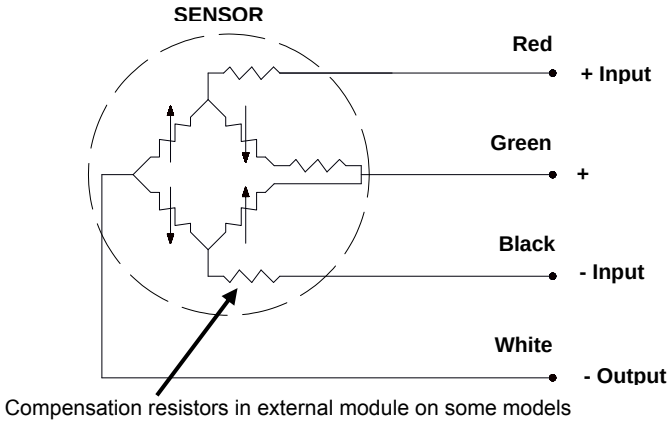
Model	Thread "A"	"B" Hex.	Screen
EPIH-N1	M5x0.8-6g	10 (.39")	No screen
EPIH-N2	M5x0.8-6g	10 (.39")	B screen
EPIH-V1	10-32 UNF-2A	8 (.312")	No screen
EPIH-V2	10-32 UNF-2A	8 (.312")	B screen

Dim : mm (inches)

INSTALLATION

Recommended installation torque :
1.2 Nm (10 In.Lbs) for all threaded models

CONNECTIONS



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, contact MEAS
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.
	V*	Non-standard Excitation with standard FSO and non-standard TSS, contact MEAS
Special Cable Length	L00F	Replace “00” with total length in feet
	L00M	Replace “00” with total length in meters
Special Module Location for models: 11, 17, 37, 41, 57, B0 & E0	M00F	Replace “00” with distance between sensor and module in feet
	M00M	Replace “00” with distance between sensor and module in meters
Custom Length Hex to Tip	0000I	Replace “0000” with thread length in inches between 0.25” to 1.5”
	0000M	Replace “0000” with thread length in millimeters between 6.3 to 38mm
Protective Coatings on Diaphragm	PAR	Parylene
	RTV	RTV silicone rubber
	RTVB	Black RTV silicone rubber (protection against light sensitivity)
Replacement of “B” Type Screen with “M” Screen on models: 37, 57, 58, L2, N2, T2 & V2	M	“M” screen
Waterproofing Cable Exit on models: L1, L2, N1, N2, T1, T2, V1 & V2 Sealed or Absolute only	X	Short Term Waterproofing
Connector Wired to Leads or Cable	C	Microtech type male or equivalent (w/o mate)
	RS	RJ Telephone type male (w/o mate)

EPIH

ORDERING INFORMATION

Model	-	Body	Pres. Ref.	-	Range & Unit[1]		-	/Options
EPIH	-	11, 17, 37, 41, 57, 58, 59 B0, C1, E0 L1, L2, N1, N2 T1, T2, V1, V2	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 thru V5, V10 or V* /L00F or L00M /M00F or M00M /0000I or 0000M /PAR or RTV /M /X /C,R,RS

Note 1: select ranges in BAR with body L & N and ranges in PSI with body T & V.
Examples of model construction: EPIH-112-7B-/Z1/V4/L3M/38M or EPIH-T21-15P-/Z0/L6F/1.5I/C

NORTH AMERICA

Measurement Specialties
45738 Northport Loop West
Fremont, CA 94538
Tel: 1-800-767-1888
Fax: 1-510-498-1578
Sales: pfg.cs.amer@meas-spec.com

EUROPE

Measurement Specialties
(Europe), Ltd.
26 Rue des Dames
78340 Les Clayes-sous-Bois, France
Tel: +33 (0) 130 79 33 00
Fax: +33 (0) 134 81 03 59
Sales: pfg.cs.emea@meas-spec.com

ASIA

Measurement Specialties
(China), Ltd.
No. 26 Langshan Road
Shenzhen High-Tech Park (North)
Nanshan District, Shenzhen 518057
China
Tel: +86 755 3330 5088
Fax: +86 755 3330 5099
Sales: pfg.cs.asia@meas-spec.com