

Inclinometers

SI-701WPBI, SI-701WPBIHP

The Columbia Models SI-701WPBI and SI-701WPBIHP are waterproof versions of Columbia's popular Model SI-701BI and SI-701BIHP. These waterproof sensors are designed with an output circuit configuration made for use with 4-20 mA data transmission systems used extensively in industrial installations in order to transmit data over long distances in rough environments.

The general purpose Model SI-701BI and high performance Model SI-701BIHP Inclinometers and optional waterproof cable assemblies allow remote tilt sensing in a variety of applications such as dam gate control, drawbridge control and platform stabilization. *Consult the factory for customized versions of these sensors.*

Specifications

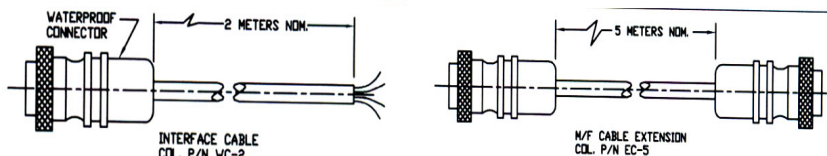
	SI-701WPBI	SI-701WPBIHP
Operational		
Ranges Available	±15°, ±30°, ±45°, ±90°	±5°, ±15°, ±30°, ±45°, ±90°
Output Current	4-20 mA	
Output Function	$I_0 = 12 + K \sin \theta$ (mA) ±0.5% of Normal Into a Maximum Load of 600 Ohms	
Excitation	+15 ±1 VDC <50 mA	
Output Impedance	50 Megohm Typical	
Non-Linearity	±0.2% F.R.	±0.1% F.R.
Non-Repeatability	±0.1% F.R.	
Scale Factor	±1% F.R.	
Scale Factor Temp Coefficient	±0.02% / Deg C	
Zero Bias	12 ±0.02 mA	
Zero Bias Temp. Coefficient	±0.002% F.R. / Deg C	
Resolution	0.01% F.R.	0.001% F.R.
Bandwidth	0 To 3 Hz (-18 dB / Octave Rolloff)	
Orthogonal Sensitivity	<1%	
Case Alignment	±0.5 Deg	±0.25 Deg

Environmental

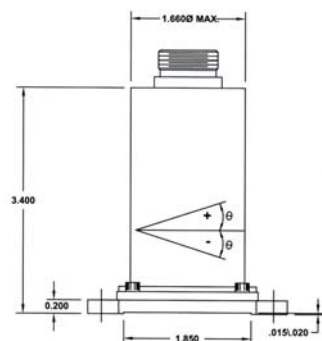
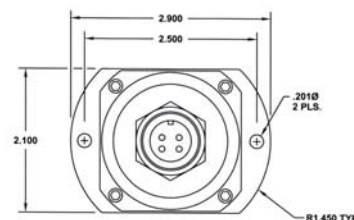
Temperature, Operating	-40 To +85 Deg C	
Temperature, Storage	-40 To +85 Deg C	
Random Vibration (2 To 2,000 Hz)	5 G RMS, 0.25" Disp. D.A.	15 G RMS, 0.25" Disp. D.A.
Shock Survival	125 G, 5 mSec	1000 G, 1 mSec
Waterproof Depth	150 Ft. Max.	

Physical

Weight	18 Oz (510.3 Gm)
Size	2.90 In L x 2.10 In W x 3.95 In H (73.7 cm L x 53.4 cm W x 100.4 cm H)
Case Material	316L Stainless Steel
Sealing	TIG Welded & O-Ring Static Seals
Electrical Interface	Waterproof Connector #RSF-40-693
Optional Cable Assemblies	#WC-(x) & EC-(x) --See Ordering Info IP68 & NEMA 6P Ratings



- * **Waterproof Tilt Sensor**
- * **4-20 mA Output**
- * **Low Cost and High Performance**



I/O Connector Pin Functions:

Models SI-701WPBI and SI-701WPBIHP			
Pin	Function	Pin	Function
A	Power Ground	C	Current Output
B	+15 VDC	D	Current Return

Ordering Information:

SI-701WPBI (+/- X Deg)
SI-701WPBIHP (+/- X Deg)

Standard Inclinometer
Range +/- X Deg (Required)

Optional Cable Assemblies:
(Separate Purchase)

Interface Cable, P/N WC - (X)
X = Cable Length in Meters; Maximum 20 Meters
Extension Cable, P/N EC - (X)
X = Cable Length in Meters; Maximum 10 Meters



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