

Model A711-2A/B/C(4X)

IP65 Weatherproof Floor-mount Tiltmeter



The model A711-2(4X) Weatherproof Floor-mount Tiltmeter offers the same performance as the model A701-2(4X), but in a floor-mount package. Units are rated IP65 waterproof for use in wet, humid, and corrosive environments. The A711-2(4X) bolts or clamps to any horizontal surface, and is well suited for areas of heavy traffic or vibration. Units deliver <math><1 \mu\text{radian}</math> resolution or better. Output is a stable ± 8 VDC voltage (± 16 VDC differential), and the powerful internal electronics will drive cables over 1000m. Use this precision tiltmeter for volcano monitoring, geotechnical engineering, structural monitoring, platform leveling, and any application where advanced protection from weather is required.



	A711-2A(4X) (High-gain)	A711-2B(4X) (Mid-range)	711-2C(4X) (Wide-angle)
Angular Range	$\pm 8000 \mu\text{radians} (\pm 0.46^\circ)$	$\pm 4.0^\circ$	$\pm 70^\circ$ *
Scale Factor	1 $\mu\text{radian}/\text{mV}$	0.5 $^\circ/\text{V}$	10 $^\circ/\text{V}$
Resolution	<math><1 \mu\text{radian}</math>	1 μradian	10 $\mu\text{radians}$
Repeatability	2 $\mu\text{radians}$ (static)	2 $\mu\text{radians}$ (static)	20 μradian
Non-Linearity	1%	5% full (2% up to $\pm 3^\circ$)	4% full (1% half span)
Time Constant	0.15 sec		0.2 sec
Kz Temp Coefficient (bias/ $^\circ\text{C}$)	$\pm 4 \mu\text{radians}/^\circ\text{C}$ (typical)		$\pm 0.004^\circ/\text{C}$ (typical)
Ks Temp Coefficient (%/ $^\circ\text{C}$)	$\pm 0.04\%/^\circ\text{C}$ (typical)		$\pm 0.13\%/^\circ\text{C}$ (typical)
Output	$\pm 8\text{VDC}$ (single ended); $\pm 16\text{VDC}$ (differential)		
Channels	X-tilt, Y-tilt, Temperature		
Output Impedance	270 ohms		
Temperature Output	0.1 $^\circ\text{C}/\text{mV}$ typical (single ended; $0^\circ\text{C} = 0\text{mV}$)		
Power	± 11 to ± 15 VDC @ +11 and -6mA, 250 mV ripple max, reverse polarity protected		
Environmental	-25 to $+70^\circ\text{C}$ operation; -30 to $+100^\circ\text{C}$ storage, IP65 (NEMA 4X)		
Dimensions	6 x 6 x 4 inches (15 x 15 x 10 cm), 3 lb (1.4 kg)		
Materials	Anodized and painted aluminum		
Cable	3m (10 ft) multiconductor cable + overall shield, PVC Jacket, connectors included		

Specifications subject to change without notice on account of continued product development

Ordering Code

A711-2 (4X)

A: High Gain ($\pm 0.46^\circ$)
B: Mid Range ($\pm 4^\circ$)
C: Wide Angle ($\pm 70^\circ$)

Accessories

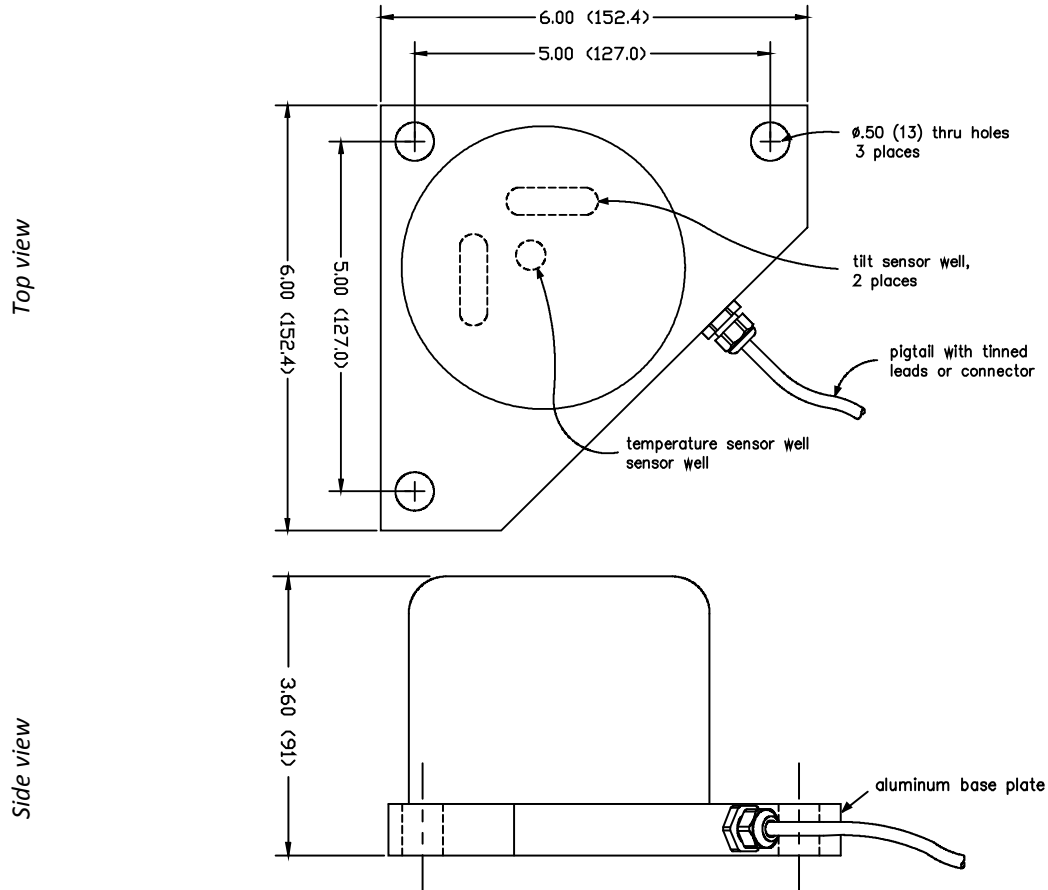
Part No.	Description
70304	Power/signal cable, 10-conductor (specify total length on order)
62301	Female panel receptacle (mates to 62302 connector included with tiltmeter)
62304	Extra female in-line receptacle (one included with tiltmeter)
719-AL	Vertical mounting bracket (L-bracket)
718-AL	Horizontal mounting plate

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Dimensions:



Dimensions in inches (mm)

Wiring/Pin-out:

Wire Color	Function	Bendix Connector
Red	+12 to +15V Power	H
Black	Power Ground	A
Violet	-12 to -15V Power	B
Blue	+Y-tilt out	G
Brown	-Y-tilt out	K
Gray	-X-tilt out	J
Green	+X-tilt out	C
White	Signal ground	E
Yellow	Temperature out	D