

# Model A711-2, A716-2

## Floor-mount & Wall-mount Tiltmeter



The model A711-2 (floor-mount), and A716-2 (wall-mount) bolt or clamp to any surface, and are well suited for areas with heavy traffic or vibration. Electronic performance is identical to the model A701-2. Units include two switchable gains and two low-pass filter settings, and are sensitive to <0.1 urad. Output is a stable  $\pm 8$  DC voltage ( $\pm 16$  VDC differential). Applications include volcano monitoring, high-precision geotechnical engineering, bridge deflection monitoring, precision metrology, radar platform leveling, and high-accuracy tilt monitoring applications where bolt-on installations are required.



		Type-A version (High-gain)	Type-B version (Mid-Range)
Linear Range	High-Gain:	$\pm 0.046^\circ$	$\pm 0.8^\circ$
	Low-Gain:	$\pm 0.25^\circ$	$\pm 5.0^\circ$
Scale Factor	High-Gain:	0.1 $\mu$ radian/mV	0.1 $^\circ$ /V
	Low-Gain:	1 $\mu$ radian/mV	1 $^\circ$ /V
Non-Linearity	High-Gain:	0.2%	0.2%
	Low-Gain:	2%	1.5%
Resolution		0.1 $\mu$ radians	1.0 $\mu$ radians
Repeatability		1 $\mu$ radians (static)	2 $\mu$ radians (static)
Time Constant		Filter on: 7.5 sec; Filter off 0.5 sec	Filter on: 7.5 sec; Filter off 0.4 sec
Kz Temp Coefficient (deg/C)		$\pm 3$ $\mu$ radians/ $^\circ$ C (typical)	$\pm 0.001^\circ$ /C (typical)
Ks Temp Coefficient (%/ $^\circ$ C)		0.05%/C (typical)	
Output		$\pm 8$ VDC (single ended); $\pm 16$ VDC (differential)	
Channels		X-tilt, Y-tilt, Temperature	
Output Impedance		270 ohms	
Temperature Output		0.1 $^\circ$ C/mV typical (single ended; 0 $^\circ$ C = 0mV)	
Power		$\pm 11$ to $\pm 15$ VDC @ +11 and -6mA, 250 mV ripple max, reverse polarity protected	
Environmental		-25 to +70 $^\circ$ C operation; -30 to +100 $^\circ$ C storage	
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) multi-conductor cable + overall shield, PVC jacket, connectors included	

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

### Order Code:

Floor-mount Version

A711 – 2

A: High Gain ( $\pm 0.25^\circ$ ) 2 Gains, 2 Filters  
B: Mid Range ( $\pm 5^\circ$ ) 2 Gains, 2 Filters

Wall-mount Version

A716 – 2

A: High Gain ( $\pm 0.25^\circ$ ) 2 Gains, 2 Filters  
B: Mid Range ( $\pm 5^\circ$ ) 2 Gains, 2 Filters

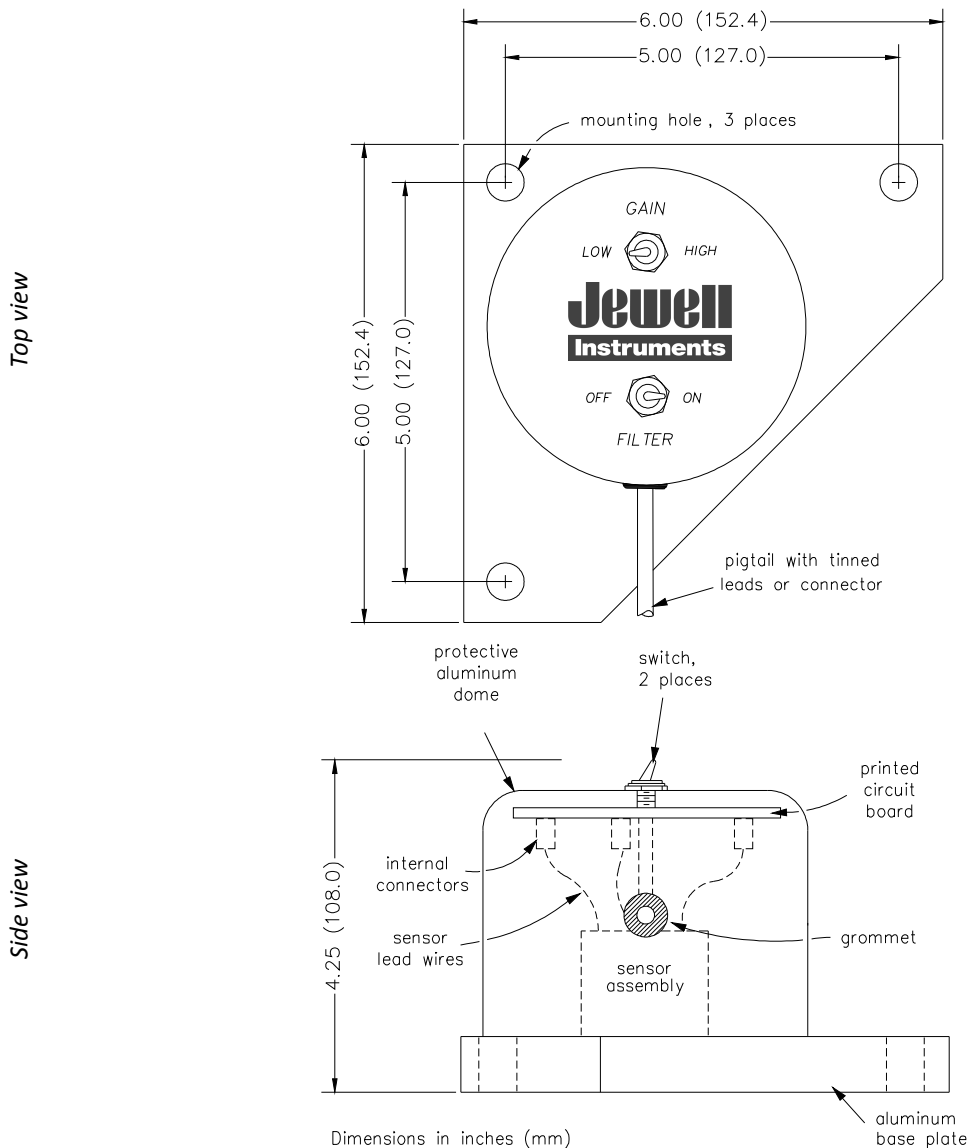
### Accessories:

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

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Dimensions:



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