

Model D711-A/B/C

Digital Floor-mount Tiltmeter



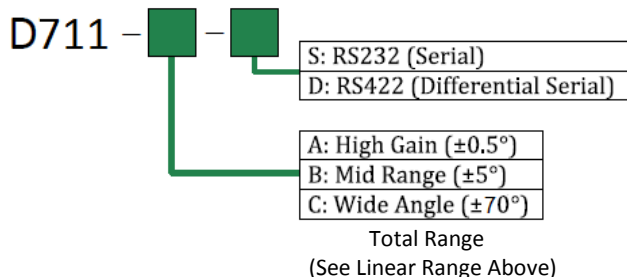
The model D711 Floor-mount Tiltmeter is a rugged, high-precision instrument with advanced digital firmware. Output is RS232 or RS422 (RS485 full duplex). The D711 bolts or clamps to any horizontal surface, and is well suited for areas of heavy traffic or vibration. Utilizing a high-precision electrolytic sensor element, units deliver up to 1 μ radian resolution with virtually zero long-term drift. Programmable firmware controls include sample averaging, auto-zero (tare), baud/output rate, temperature compensation and more. The D711 also includes on-board memory, with storage capacity up to 22,000 samples. Use the D711 for volcano monitoring, geotechnical engineering, structural monitoring, platform leveling, and more.



	D711-A (High-gain)	D711-B (Mid-range)	D711-C (Wide-angle)
Total Range	$\pm 0.5^\circ$	$\pm 5.0^\circ$	$\pm 70^\circ$
Calibrated Linear Range	$\pm 0.5^\circ$	$\pm 5.0^\circ$	$\pm 60^\circ$
Resolution	1 μ radian	10 μ radian	21 μ radians
Repeatability	4 μ radians (static)	15 μ radians (static)	350 μ radians
Non-Linearity	0.4%	0.1%	0.1%
Time Constant	0.15 sec		0.15 sec
Kz Temp Coefficient (bias/ $^\circ\text{C}$) ¹	$\pm 3.5 \mu\text{radians}/^\circ\text{C}$ (typical)		$\pm 0.004^\circ/\text{C}$ (typical)
Ks Temp Coefficient (%/ $^\circ\text{C}$) ¹	$\pm 0.02\%/^\circ\text{C}$ (typical)		$\pm 0.05\%/^\circ\text{C}$ (typical)
Output	RS232, RS422 (RS485 full duplex)		
Output Format	NMEA XDR, Trimble TCM, Ashtec compatible, Simple (default: X, Y, Temp., S/N)		
Baud Rate	9600 (default), 19200, 28800, 57600, 115200, 230400		
Channels	X-tilt, Y-tilt, Temperature, Serial No.		
Power	7-28 VDC @ 30mA, 250 mV ripple max, reverse polarity protected		
Environmental	-40 to +85 C operation and storage; IP65		
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. ¹For exact Kz & Ks coefficients, we can offer custom temperature characterization for multiple temperature points (additional changes will apply, please contact Jewell for details)*

Ordering Code



Accessories

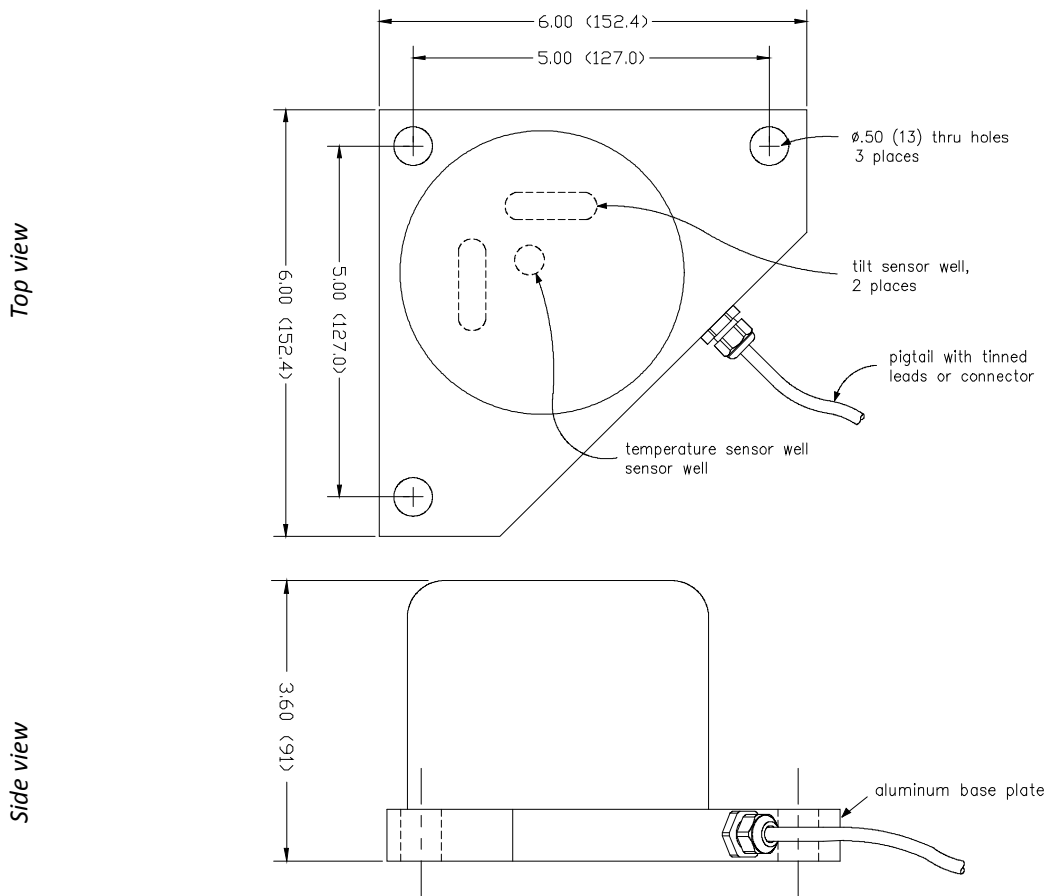
Part No.	Description
70304	Power/signal cable, 10-conductor (specify total length on order)
62401	Extra female panel receptacle (one included with tiltmeter)
719-AL	Vertical mounting bracket (L-bracket)
718-AL	Horizontal mounting plate

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Dimensions:



Dimensions in inches (mm)

Wiring/Pin-out:

Tiltmeter End			Mating Cable (Computer End)	
Wire Color	Function	Connector Pin	DB9 Pin (RS422)	DB9 Pin (RS232)
Red	Power	H	---	---
Black	Ground	A	1	5
Blue	TX (RS232)	E	---	2
Green	RX (RS232)	G	---	3
Orange	TX+ (RS485)	D	4	---
Gray	TX- (RS485)	J	5	---
Yellow	RX- (RS485)	C	9	---
Brown	RX+ (RS485)	B	8	---
Drain Wire	Cable Shield	F	---	---