# PM\_Instrumentation

## Model D701

Digital Platform Tiltmeter

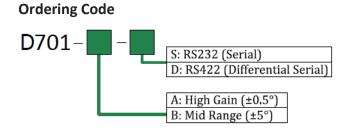


The model D701 Digital Platform Tiltmeter is a high-precision instrument with advanced firmware features. Output is RS232 or RS422 (RS485 full duplex). The D701 also includes invar leveling feet for easy installation on any horizontal surface. Using a high-precision electrolytic sensor element, units deliver up to 1 µradian resolution with virtually zero long-term drift. Programmable firmware controls include sample averaging, auto-zero (tare), baud/output rate, temperature compensation\* and more. The D701 also has 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.



	D701-A (High-gain)	D701-B (Mid-Range)		
Angular Range	±0.5°	±5.0°		
Resolution	1 μradian 10 μradian			
Repeatability	4 μradians (static) 10 μradians (static)			
Non-Linearity	0.4%	0.1%		
Time Constant	0.15 sec	2 sec		
Kz Temp Coefficient (bias/°C)	±3.5 μradians/°C (typical)			
Ks Temp Coefficient (%/°C)	±0.02%/°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	10 ft. (3m) multiconductor cable + overall shield, PVC jacket, connectors included			

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



## **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



## Model D701

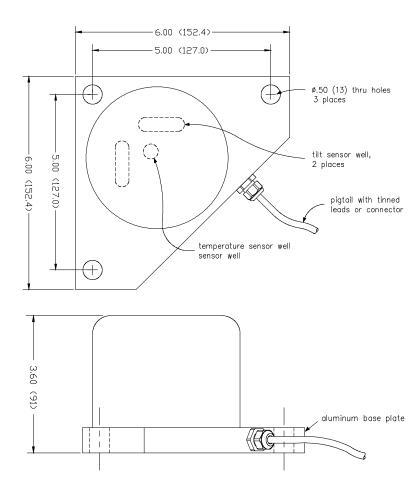
### Digital Platform Tiltmeter



#### **Dimensions:**

y view

le vien



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	Н		
Black	Ground	А	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)	С	9	
Brown	RX+ (RS485)	В	8	
Drain Wire	Cable Shield	F		