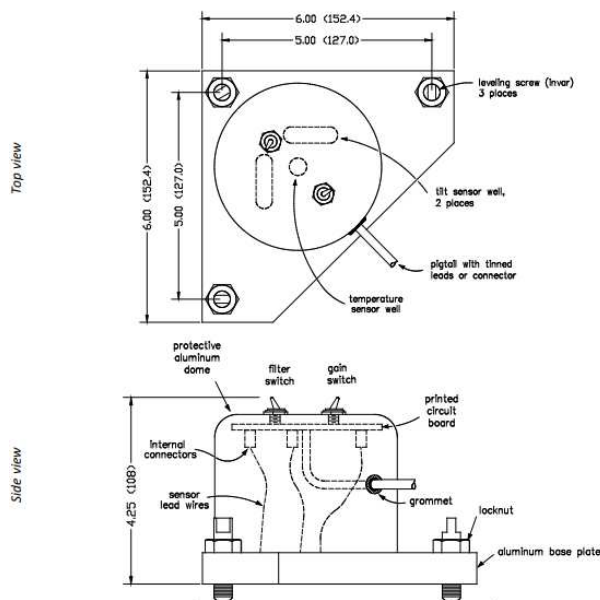


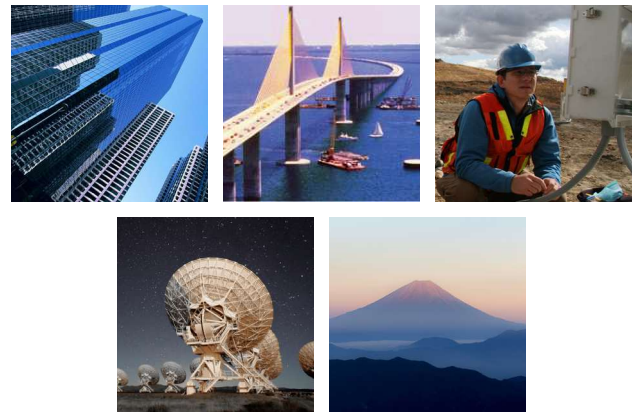
A701-2A/2B

High-Precision Platform Inclinometer

The model A701-2 Platform mount tiltmeter is our most popular design for high precision tilt measurements. Units come with built in invar leveling legs, for easy installation on any horizontal surface. The A701-2 also includes two switchable gains and two low-pass filter settings. Using an absolute gravity referenced electrolytic sensor, the A701 delivers ultra-high sensitivity to $<0.1 \mu\text{rad}$ with virtually zero long-term drift. Output is a stable ± 8 DC voltage (± 16 VDC differential). Rugged, reliable, and extremely accurate, the A701-2 is the preferred choice for volcano monitoring, high-precision geotechnical engineering, bridge deflection monitoring, precision metrology, radar platform leveling, and high-accuracy tilt monitoring applications worldwide.



Dimensions: in [mm]



APPLICATIONS:

- Volcano monitoring
- Geotechnical engineering
- Bridge deflection monitoring
- Precision metrology
- Radar platform leveling

PERFORMANCE SPECIFICATIONS

PERFORMANCE

VERSION	A701-2A (High-Gain)	A701-2B (Mid-Range)
LINEAR RANGE (°)¹	HIGH-GAIN: ±0.046° LOW-GAIN: ±0.46°	±0.8° ±8.0°
SCALE FACTOR	HIGH-GAIN: 0.1 μradian/mV LOW-GAIN: 1 μradian/mV	0.1°/V 1°/V
NONLINEARITY (%FRO)² max	HIGH-GAIN: 0.2% LOW-GAIN: 2%	0.2% 1.5%
NONREPEATABILITY	1 μradians (static)	2 μradians (static)
RESOLUTION	0.1 μradians	1.0 μradians
TIME CONSTANT	Filter on: 7.5 sec; Filter off 0.5 sec	Filter on: 7.5 sec; Filter off 0.4 sec
K_Z TEMP COEFFICIENT (°/°C)	±3 μradians/°C (typical)	±0.001°/°C (typical)
K_S TEMP COEFFICIENT (%/°C)	0.05%/°C (typical)	
OUTPUT CHANNELS	±8VDC (single ended); ±16VDC (differential) X-tilt, Y-tilt, Temperature	

ELECTRICAL & ENVIRONMENTAL

NUMBER OF AXES	2
OUTPUT IMPEDANCE (Ohms, nominal)	270
TEMPERATURE OUTPUT	0.1 °C/mV typical (single ended; 0 °C = 0mV)
POWER	±11 to ±15 VDC @ +11 and -6mA, 250 mV ripple max, reverse polarity protected
OPERATING TEMPERATURE RANGE	-25° to +70° C
STORAGE TEMPERATURE RANGE	-30° to +100° C
WEIGHT	3 lb (1.4 kg)
MATERIALS	Anodized and painted aluminum
CABLE	3m (10 ft) multiconductor cable + overall shield, PVC jacket, connectors included

PIN OUT:

CONNECTOR	FUNCTION
RED	+12 TO +15V PWR
BLACK	PWR GND
VIOLET	-12 TO -15V POWER
BLUE	+Y-TILT OUT
BROWN	-Y-TILT OUT
GRAY	-X-TILT OUT
GREEN	+X-TILT OUT
WHITE	SIG GND
YELLOW	TEMP OUT

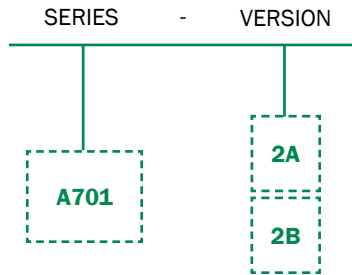
NOTES:

1. Custom ranges available on request
2. Nonlinearity is specified as variation around the best straight line from null to full-range output.

Specifications are subject to change without notice due to continued product development

ORDERING INFORMATION

HOW TO ORDER Model Numbers are comprised of the series, the number of axes, and the angular range.



MODEL #	PART #
A701-2A	98024-01-R0-IS
A701-2B	98024-02-ROHS

Accessories:

PART #	DESCRIPTION
01456	Compact Mounting Plate for Model 711 Type Tiltmeters, 6.0 x 7.5 x 0.375 inches
01224-01	Horizontal Mounting Plate for Model 711 Type Tiltmeters, 8.5 x 9.0 x 0.5 inches
01157-01	Vertical Mounting Bracket for Model 711 Type Tiltmeters, L-bracket style
70304	Power/Signal Cable, 10-conductor, 24 AWG, Polypropylene Jacket: 500, 700 & 800 Series Dual Axis Tiltmeters, price per ft.
89062	Extra RS422 Test Cable, 6-ft (1.8 m) for use with D701 and D711 Digital Tiltmeters
89063	Extra RS232 Test Cable, 6-ft (1.8 m) for use with D701 and D711 Digital Tiltmeters
00254-02	Transformer, 100-240 VAC to 12VDC, Single-ended, for Analog and Digital Tiltmeters

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