

A750-100 Precision Fluid Damped Tiltmeter

0-5V DC Output



Making Sense out of Motion...

The **750-100 Series** Tiltmeter is a rugged, high performance, single-axis tilt sensor designed for peak performance in extreme conditions. The fluid damped mechanism delivers superior noise rejection in high shock and vibration environments as well as excellent output stability. Units are available with a 6-pin connector or pin-terminals. Available outputs include 0-5V and 4-20mA. Custom input ranges, filters and temperature compensation are also available on request.

Features

- **Resolution of 1 μ rad**
- **Temperature Compensation Available**
- **0-5V Output**
- **+9 to +18 Volts DC Power Input**
- **RoHS Compliant**

Applications

- **High-precision Geotech**
- **Oil and Gas, Riser Tilt Monitoring**
- **Railroad MOW Equipment**
- **Pavement Profiling Rigs**
- **Vehicle Wheel Alignment**
- **Robotics**



Connector Version

PIN	FUNCTION
	SINGLE SUPPLY
A	+ VDC
B	PWR / SIG COM
C	N/C
D	SIG OUT
E	N/C
F	N/C

Pin Terminal Version

PIN	FUNCTION
	SINGLE SUPPLY
A	+ VDC
B	N/C
C	PWR / SIG COM
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STATIC/DYNAMIC

Input Range (deg.)	±1	±3	±14.5	±30	±60	±90
Full Range Output (VDC) ¹	0-5	0-5	0-5	0-5	0-5	0-5
Non-linearity (% FRO) ²	0.05	0.02	0.02	0.02	0.02	0.05
Scale Factor (V/g nom.)	143.2	47.8	10.0	5.0	2.9	2.5
Scale Factor Sensitivity (PPM/°C max)	350	300	100	60	60	60
Bandwidth, Hz (-3 dB)	0.5	2	15	20	30	30
Transverse Axis Misalignment (° max)	±0.25	±0.25	±0.5	±0.5	±0.5	±0.5
0° Output nominal (mA)	±0.10	±0.04	±0.02	±0.02	±0.02	±0.02
0° Output Temp. Sensitivity (V/°C max)	0.015	0.005	0.001	0.0005	0.0004	0.0003
Resolution & Threshold (μradians) ³	1	1	1	1	1	1

¹Full Range is defined "from negative full input angle to positive full input angle." ²Nonlinearity is specified as deviation of output referenced to theoretical sine function value, independent of misalignment. ³Full Resolution is achieved with noise reduction techniques.

ELECTRICAL

Number of Axes:	1
Input Voltage Range, (VDC):	+9 to +18
Input Current, mA, max:	40
Noise, μArms, maximum:	0.002
Output Impedance (ohms)	1
Mass (grams)	230

ENVIRONMENTAL

Operating Temp Range:	-40°C to +80°C
Storage Temp Range:	-60°C to +90°C
Shock:	1500g, 0.5 msec, ½ sine

ENCLOSURE

Seal:	IP65
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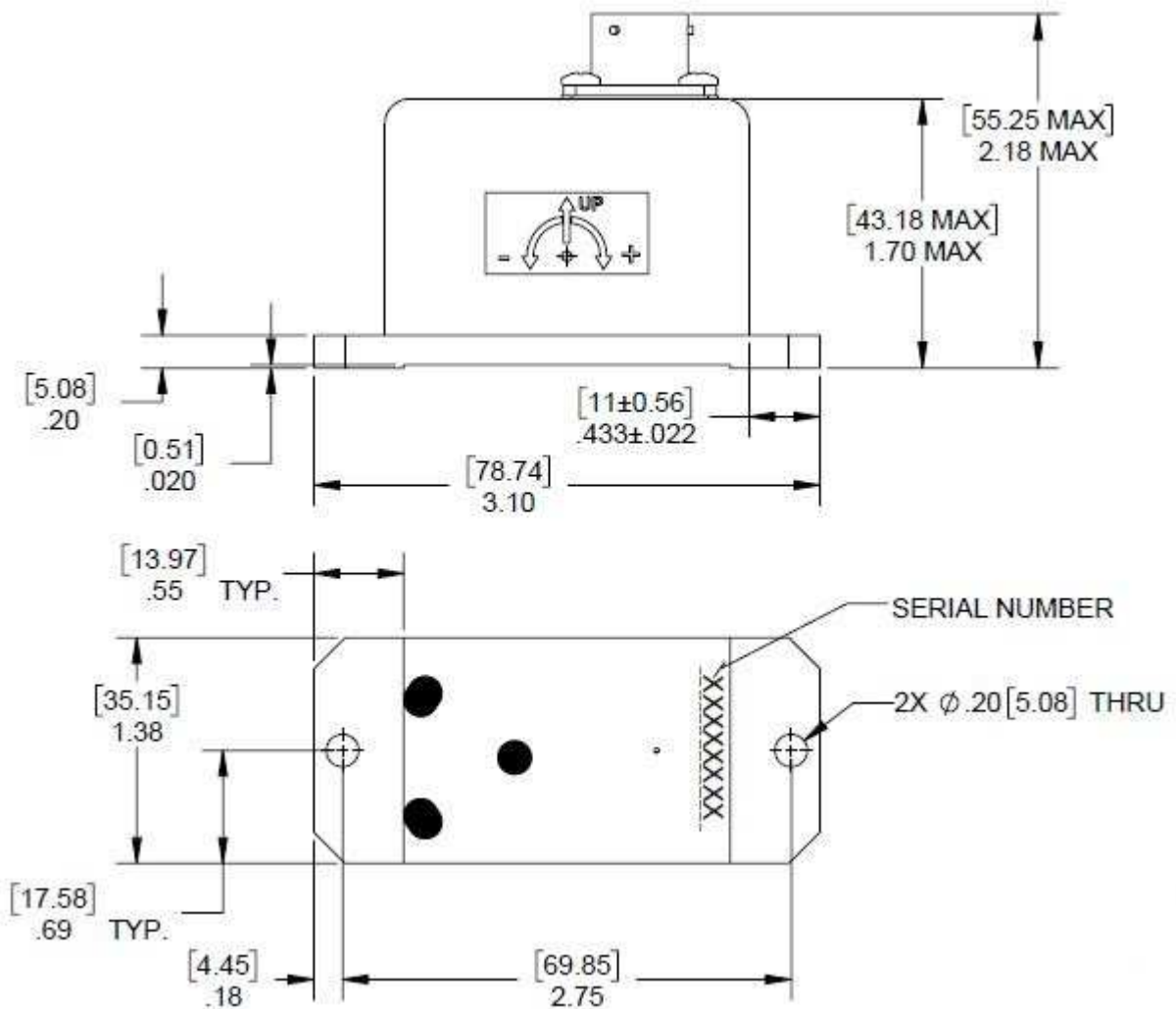
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Outline Drawing: Connector Version



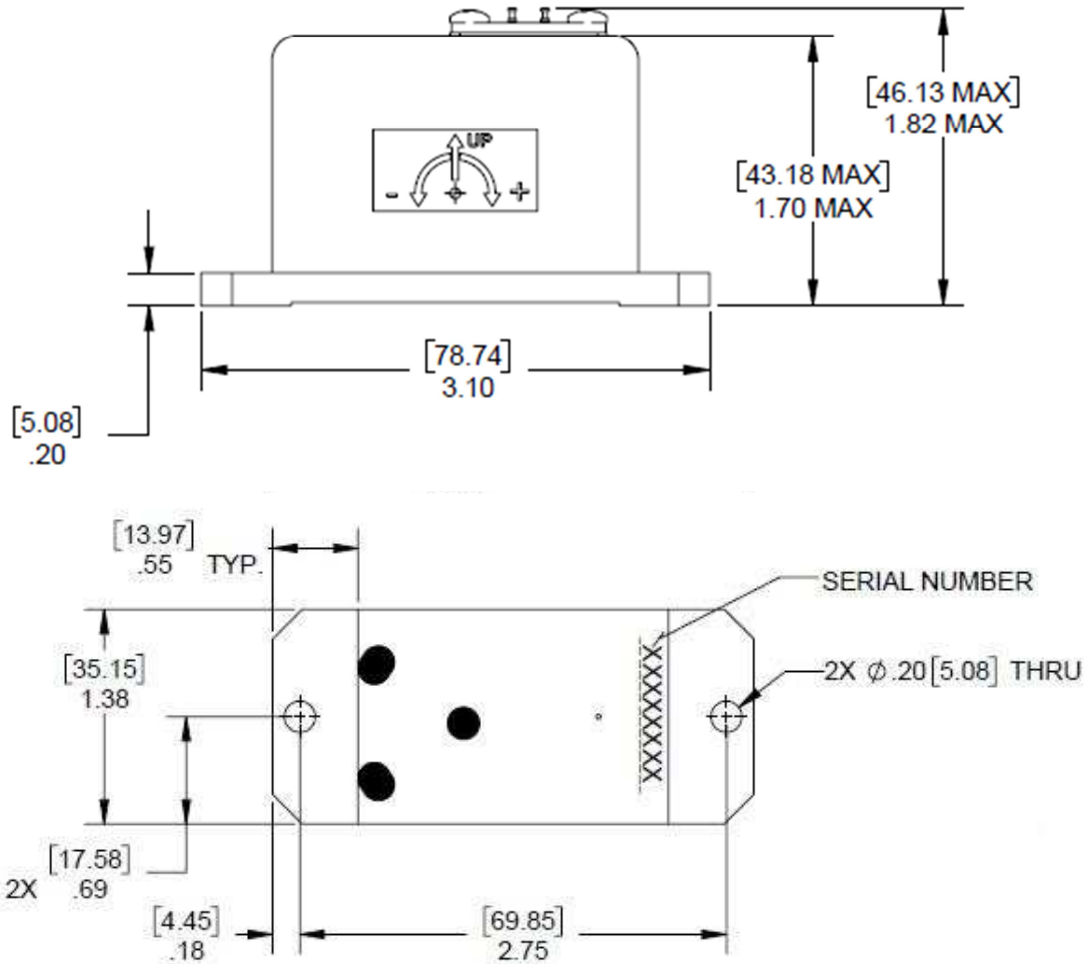
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Outline Drawing: Pin Terminal Version

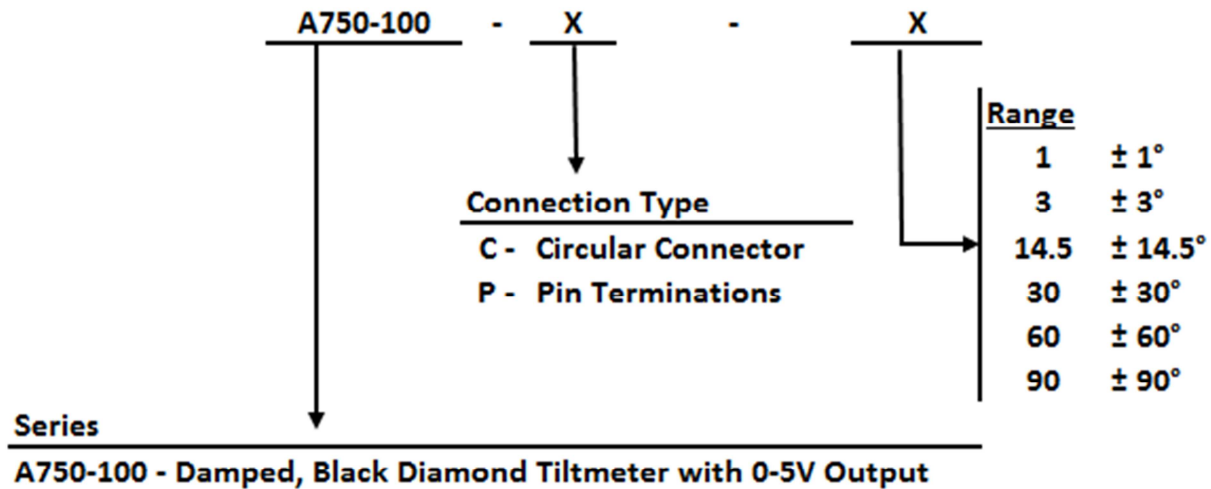


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How to Order



Example:

A750-100-C-1

0-5V output, damped, circular connector & ±1° range

Accessories

Mating Connector	
Description	Part Number
Standard 6-pin connector	62101011-001

Cable Assemblies*	
Description	Part Number
6 Ft Cable	879605-001
10 Ft Cable	879605-002
2 M Cable	879605-007
3 M Cable	879605-008

*All cable assemblies come with mating connector