

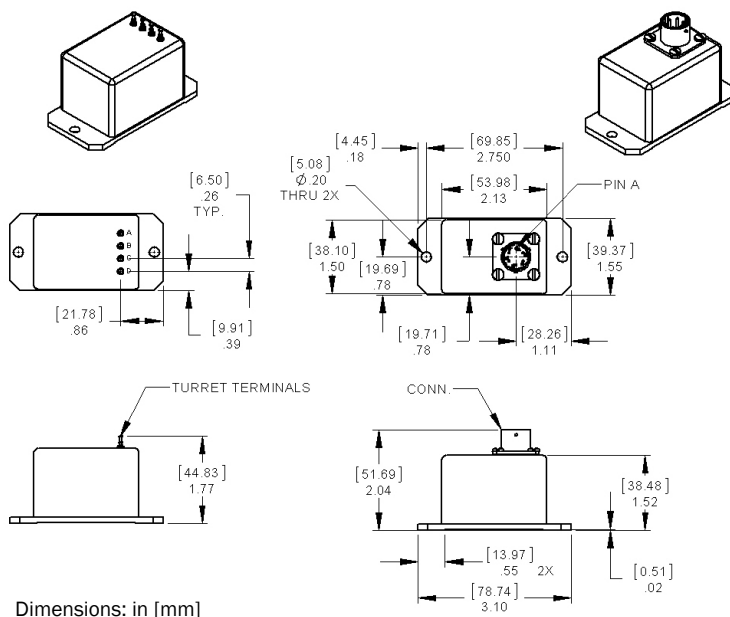
A750-50

Single-Axis Analog Inclinometer

The 750-050 geotechnical tiltmeter series is a low-cost, high precision tilt sensor designed with higher accuracy than most comparable MEMS devices. It is meant for geotechnical applications such as bridge sag and sway deflection measurement, platform leveling, and structural analysis. All 750-050 tiltmeters are RoHS compliant.

FEATURES:

- Extremely Rugged
- Lower Cost than traditional Force-Balanced Inclinometers
- High Accuracy
- Greater Precision than MEMS Technologies
- 0-5V DC Output
- Single-Ended Power Input
- RoHS Compliant



APPLICATIONS:

- Bridge Sag & Sway
- Deflection Monitoring
- Platform Leveling
- Structural Analysis
- Geotechnical Monitoring



Performance Specifications

STATIC/DYNAMIC

INPUT RANGE (°)	±3	±14.5	±30	±45	±60	±90
FULL RANGE OUTPUT (VDC, FRO ±0.5%)¹	0-5					
NONLINEARITY (% FRO)² max	0.05	0.02	0.02	0.02	0.04	0.05
SCALE FACTOR (Volts/g) nominal	47.8	10.0	5.0	3.5	2.9	2.5
SCALE FACTOR TEMP. SENSITIVITY (SFTS) PPM/°C max	100					
BANDWIDTH (-3dB) Hz, nominal	5.0					
OUTPUT AXIS MISALIGNMENT, ° max	0.25	0.50	0.50	0.50	0.50	0.50
PENDULOUS AXIS MISALIGNMENT, ° max	0.25	0.50	0.50	0.50	0.50	0.50
0° OUTPUT (Volts Range)	+2.45 to +2.55					
0° OUTPUT TEMP. SENSITIVITY (Volts/°C) max	0.0036	0.0010	0.0007	0.0005	0.0005	0.0005
RESOLUTION & THRESHOLD (µrad)³	3.5					

PIN OUTS

PIN OPTION

A	POSITIVE INPUT POWER
B	POWER/SIGNAL COMMON
C	N/C
D	SIGNAL

CONNECTOR OPTION

A	RED	POSITIVE INPUT POWER
B	WHITE	POWER/SIGNAL COMMON
C	BLACK	N/C
D	ORANGE	SIGNAL
E	N/C	N/C
F	BLUE	N/C

NOTES:

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

ELECTRICAL

NUMBER OF AXES	1
INPUT VOLTAGE RANGE (VDC)	+15 to +30
INPUT CURRENT (mA, max)	40
OUTPUT IMPEDANCE (Ohms, nom)	10
NOISE (Vrms, max)	0.002

ENVIRONMENTAL

OPERATING TEMP. RANGE	-55° to +85°C
STORAGE TEMP. RANGE	-60° to +90°C
SHOCK	500g, 1 msec, ½ sine

ENCLOSURE

SEAL	IP65
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CUSTOM CAPABILITIES

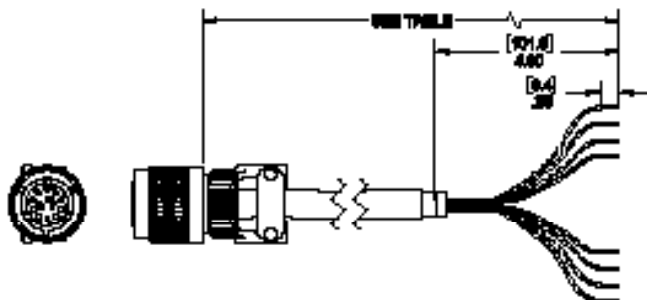
S-SERIES

- Pigtail & Connector alternative options available
- Custom ranges available



ACCESSORIES

CONNECTOR CABLE



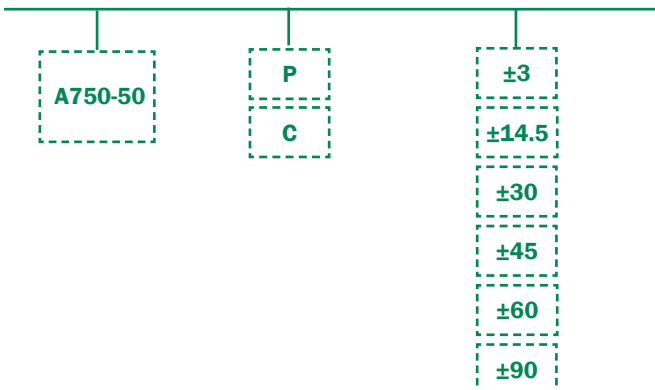
PART #	MODEL #	LENGTH m (ft)
62101011-001	6-Pin Mating Connector	-
879605-007	DSI-CBL-02M-1	2 (6.56)
879605-008	DSI-CBL-03M-1	3 (9.84)
879605-020	DSI-CBL-05M-1	5 (16.4)
Contact manufacturer for custom lengths		

A750-50 ORDERING INFORMATION

HOW TO ORDER

Model numbers are comprised of the series and connectivity, the series version, and the input range.

SERIES - TERMINATION - INPUT RANGE



	TERMINATION	MODEL #	PART #
±3	PIN	A750-050-P-3	98750-07
	CONNECTOR	A750-050-C-3	98750-01
±14.5	PIN	A750-050-P-14.5	98750-08
	CONNECTOR	A750-050-C-14.5	98750-02
±30	PIN	A750-050-P-30	98750-09
	CONNECTOR	A750-050-C-30	98750-03
±45	PIN	A750-050-P-45	98750-10
	CONNECTOR	A750-050-C-45	98750-04
±60	PIN	A750-050-P-60	98750-11
	CONNECTOR	A750-050-C-60	98750-05
±90	PIN	A750-050-P-90	98750-12
	CONNECTOR	A750-050-C-90	98750-06