

MAKING SENSE OUT OF MOTION

A750-200

Dual-Axis Tiltmeter

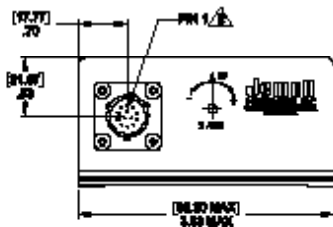
The Jewell A750-200 **Black Diamond** tiltmeter series is a 0-5Vdc output fluid-damped, dual-axis precision inclinometer. The design of the A750-200 Series was optimized to provide the high accuracy and superior repeatability of Jewell's rugged, fluid damped, flexure suspension, servo technology in a small and convenient package for applications requiring a compact dual-axis solution. With many options to choose from, including a flange base, metric threads, and temperature sensor, this product can be customized to suit your individual

FEATURES:

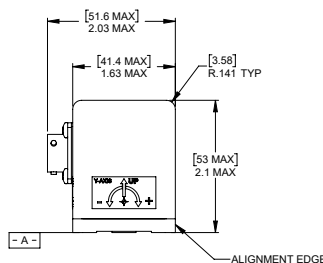
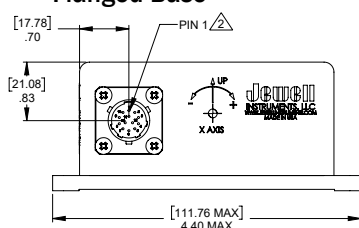
- $\pm 1^\circ$ to $\pm 90^\circ$ Input Full Range
- Micro Radian Resolution
- Available Internal Temp Sensor
- High Level 0-5Vdc Output
- Superior 0° Output Stability Over Temperature
- RoHS Compliant Option Available



Standard Base



Flanged Base



Dimensions: in [mm]

APPLICATIONS:

- Radar & Antenna Leveling
- Structural Monitoring
- Seismic Monitoring
- Platform Leveling
- Lab Testing & Research

PERFORMANCE SPECIFICATIONS A750-200

PERFORMANCE

INPUT RANGE (°)	±1	±3	±14.5	±30	±90
FULL RANGE OUTPUT (VDC)¹	0-5				
NONLINEARITY (% FRO)² max	0.05	0.05	0.02	0.02	0.02
SCALE FACTOR (V/g) nominal	143.2	47.8	10	5	2.5
SCALE FACTOR TEMP SENSITIVITY (PPM/°C max)	300	300	100	80	80
BANDWIDTH (-3dB) Hz, nominal	0.5	2	15	20	30
TRANSVERSE AXIS MISALIGNMENT, ° max	±0.2	±0.50	±0.50	±1.00	±1.00
OUTPUT AT 0° TILT (V) max	±0.1	±0.04	±0.02	±0.02	±0.02
0° OUTPUT TEMP. SENSITIVITY (Volts/°C) max	0.015	0.005	0.001	0.0005	0.0003
RESOLUTION & THRESHOLD (μradians) max	1				

NOTES:

1. Full range is defined as "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.
*Specifications subject to change without notice on account of continued product development

ELECTRICAL

NUMBER OF AXES	2
INPUT VOLTAGE RANGE (VDC)	±9 to ±18
INPUT CURRENT (mA, max)	80
OUTPUT IMPEDANCE (Ohms) nominal	100
NOISE (Vrms, max)	0.002

ENCLOSURE

WEIGHT	280 g
SEAL	MIL-STD 202, Method 112

ENVIRONMENTAL

OPERATING TEMP. RANGE	-40° to +80°C
STORAGE TEMP. RANGE	-60° to +90°C
VIBRATION	20 grms
SHOCK	1000g, 1 msec, ½ sine

OPTIONS

- Temperature Sensor
Type: AD590
Scale Factor: 1μA/K
Spec @ Room Ambient Temperature: 298.2 ±10.5 μA
- Flange Base
- Metric Mounting Threads

PIN OUTS

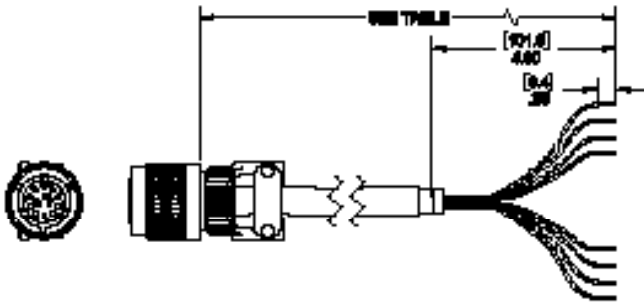
1	RED	+9 to +18 VDC
2	BLACK	N/C
3	WHITE	POWER COMMON
4	ORANGE	X-AXIS OUTPUT SIGNAL

5	GREEN	X-AXIS OUTPUT RETURN
6	RED/BLACK	Y-AXIS OUTPUT SIGNAL
7	BLUE	Y-AXIS OUTPUT RETURN
8-13	-	N/C

(Color codes correspond to cable assembly.)

ACCESSORIES

CONNECTOR CABLE



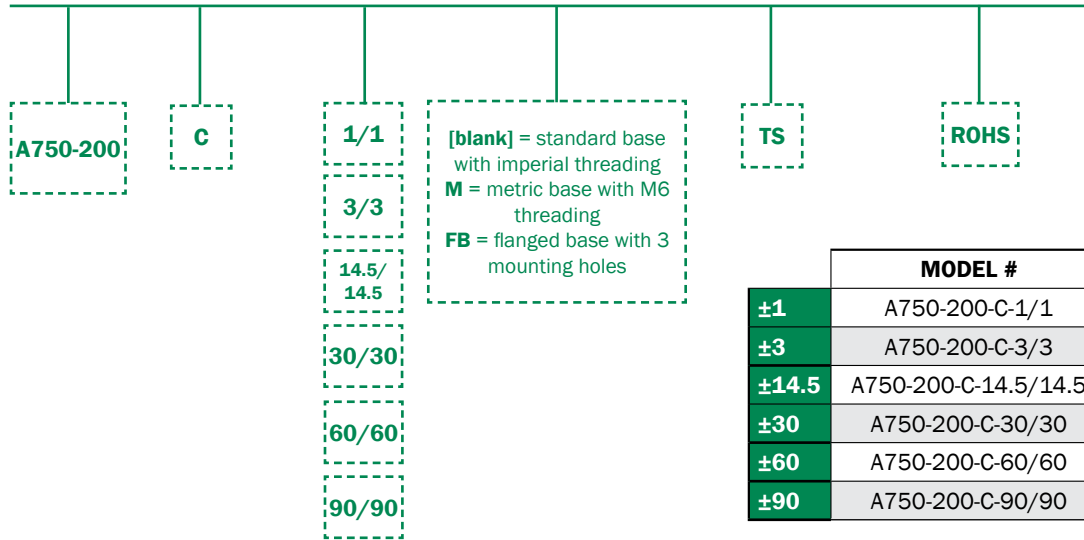
PART #	MODEL #	LENGTH m (ft)
62101011-001	6-Pin Mating Connector	-
879605-007	DSI-CBL-02M-1	2 (6.56)
879605-008	DSI-CBL-03M-1	3 (9.84)
879605-020	DSI-CBL-05M-1	5 (16.4)
Contact manufacturer for custom lengths		

ORDERING INFORMATION

HOW TO ORDER

Model Numbers are comprised of the series, the version, the termination option, the input range, and options*.

SERIES - CONNECTION - INPUT RANGE - BASE & THREADING* - TEMP SENSOR* - ROHS COMPLIANT*



	MODEL #	PART #
±1	A750-200-C-1/1	98750-60
±3	A750-200-C-3/3	98750-61
±14.5	A750-200-C-14.5/14.5	98750-62
±30	A750-200-C-30/30	98750-63
±60	A750-200-C-60/60	98750-64
±90	A750-200-C-90/90	98750-65