

T435-L Series

4-20 mA, DC-Operated,
Gravity-Referenced Inclinometer



Features

- Available in ranges from $\pm 3^\circ$ to $\pm 90^\circ$
- Fully self-contained, able connect to a DC power source and a readout or control device a complete operating system
- High level 4-20mA output signal proportional to sine of the angle of tilt
- Extremely rugged, withstands 1500g shock

Benefits

- Industry leading 2 year warranty
- High reliability
- -18 to 70°C temperature range
- High accuracy

Applications

Ballast transfer systems

Pipeline levelling

Level control and calibration systems

Large machinery installation

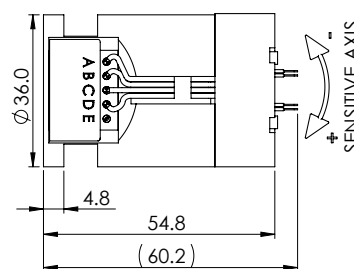
Bore holes

Geophysical, seismic & civil engineering studies

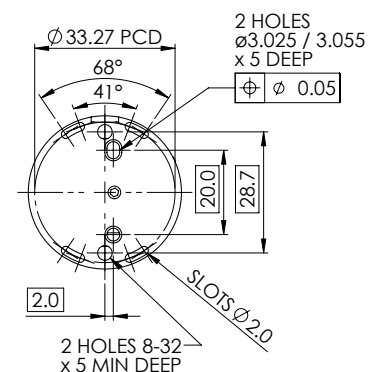
Electrical Connections

Pin A	Supply 24 VDC
Pin B	Supply Ground
Pin C	Signal Ground
Pin D	Signal Output

SIDE VIEW



PLAN VIEW



Specifications

Specifications by Range @ 20°C		±3°	±14.5°	±30°	±90°
Output Load Resistance	Ω (max)			400	
Output Standardisation	% FRO			±2	
Output Noise (DC to 10kHz)	mA (max)			0.020	
Non-linearity (see note 2)	% FRO (max)	0.08	0.05	0.05	0.08
Non-repeatability	% FRO (max)	0.02	0.004	0.004	0.004
Resolution	arc seconds	0.2	1.0	2.0	4.0
-3 dB Frequency	Hz (nom)	15	30	40	55
Sensitive Axis-to-Case Misalignment	deg (max)	±0.15	±0.25	±0.5	±1.0
Cross-axis Sensitivity (see note 3)	% FRO (max)			0.2	
Output at Zero Angle (see note 4)	mA (nom)			12	
Zero Angle Output Tolerance	mA (max)	±0.10	±0.07	±0.07	±0.07
Thermal Zero Shift	%FRO/°C (max)	±0.05	±0.02	±0.01	±0.01
Thermal Sensitivity	%Reading/°C (max)	±0.05	±0.02	±0.01	±0.01

Electrical

Full Range Output (FRO) (see note 1)	mA (nom)	16
Excitation Voltage	Volts dc	24 ±10%
Current Consumption	mA (nom)	35

Environmental Characteristics

Operating Temperature Range	°C	-18 to 70
Survival Temperature Range	°C	-40 to 70
Constant Acceleration Overload	g	50
Shock Survival		1500g, 0.5 ms, ½ sine
Vibration Endurance		35g RMS, 20 Hz to 2000 Hz sinusoidal
Environmental Sealing		IP65

Notes

1. Full Range Output is defined as the full angular excursion from positive to negative, i.e. ±90° = 180°.
2. Non-linearity is determined by the method of least squares.
3. Cross axis sensitivity is the output of the unit when tilted to full range angle in cross axis.
4. Zero offset is specified under static conditions with no vibration inputs.

Model Designation & Ordering Code

T 4 3 5 - 0 0 0 1 - L

3 ±3°
 14.5 ±14.5°
 30 ±30°
 90 ±90°

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