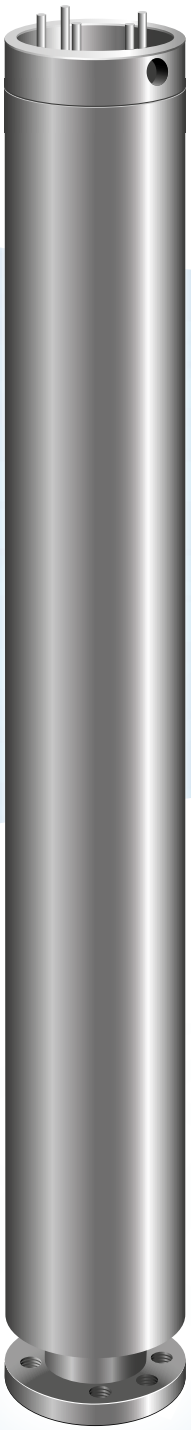
RODAR LIMITED

PRODUCT DATA SHEET

DHBX/Y 30 Biaxial

Gravity Referenced, Servo Inclinometer



A Dual Axis Inclinometer available as Standard with an Output of +/-0.5V over a Tilt Range of +/-30°

FEATURES

- Single Unregulated Power Supply Requirement of +5.5V to +35V
- Exceptionally low Current Consumption of just 5mA
- High Shock Capacity of 1000g due to low Seismic Mass required by the Design of the Torque Motor
- Very low Zero and Scale Factor Shift with Temperature
- Negligible Cross Axis effects
- Individually Calibrated and Certified

The following types are also available:

DHBY/X 05/1 with Outputs of +/-0.5V at +/-5°

DHBY/X 15/2 with Outputs of +/-0.5V at +/-15°

DHBY/X 15/1 with Outputs of +/-1V at +/-15°

Other Outputs/Tilt Ranges can be produced to customer requirements.

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T: +44 (0)1384 594 439 • **E**: sales@rodar.co.uk • **W**: www.rodar.co.uk

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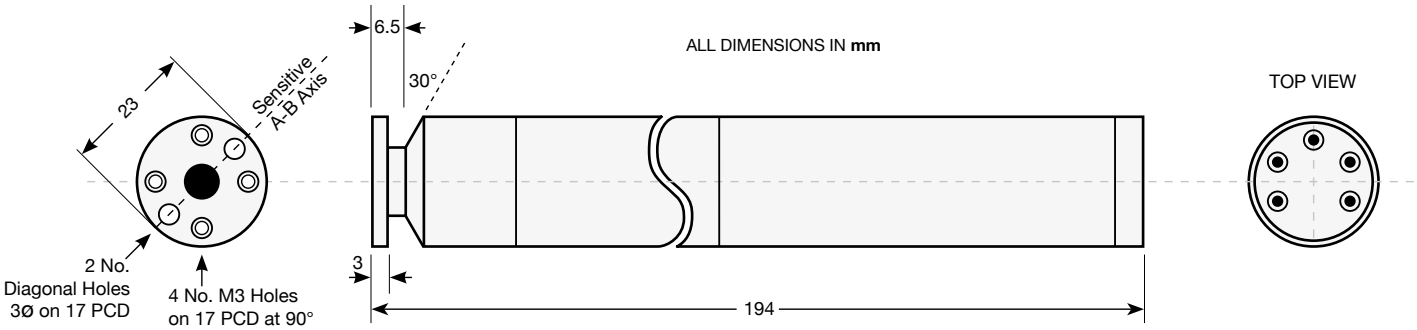
SPECIFICATIONS

PARAMETER	VALUE	UNIT
Full Scale Range	±30	Deg Tilt
Mechanical Off-Set @ Zero Deg Tilt	0.3	Deg Tilt (Max)
Error in Conformance to SINE Law	0.01	% FSO (Max)
Output Impedance	1	Kilo Ohm
Electrical Offset	0.001	Volts (Max)
Cross Axis Sensitivity @ Full Range	0.04	Deg (Max)
Resolution	1	arc seconds
Shock Survival	1000	g 0.01sec's ½ Sine
Supply Voltage	+5 to +35	Volts
Supply Current	5	mA
Output Voltage	±0.5 V. ± 0.0005V	D.C. Full Range
Scale Thermal Sensitivity	0.002	% FSO/Deg C (Max)
Zero Tilt Thermal Sensitivity	0.002	% FSO/Deg C (Max)
Operating Temperature Range	-20 to +50	Deg Centigrade
Survival and Storage Temperature Range	-40 to +70	Deg Centigrade



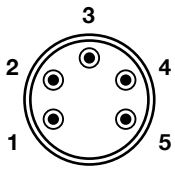
DHBX & DHBY

The Output consists of two Voltages proportional to the SINE of the Angle of Tilt in two Orthogonal Directions, from two Sensors mounted at 90° in a single Housing Chamber.

DHBX is used when the Mounting Base is **facing away from Gravity**.

DHBY is used when the Mounting Base is **facing towards Gravity**.

The DHBY and DHBX are identical, except the DHBY has the CD Sensor (Y Axis) rotated through 180° relative to the DHBX, thus reversing the Polarity of its CD Sensor.



PIN CONNECTIONS

1	+Ve Supply +5.5 to 35V at 5mA
2	Supply 0V
3	Output X Axis
4	Output Common
5	Output Y Axis

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