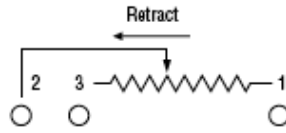
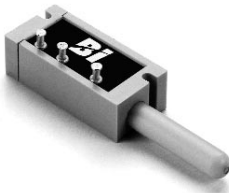


Basic Displacement Sensor

<p>General Description</p> <p>The Model 404 sensor is a low cost sensor typically used for measuring large building materials where a resolution of 0.1mm is required. The LVDT sensor is recommended for applications that required a greater degree of accuracy.</p> <p>Model 404 BI Technologies</p> <p>Spring return linear actuation conductive plastic position sensor.</p> <p>Typical Applications</p> <ul style="list-style-type: none"> • Structural beam travel • Construction material shrinkage and movement 	<p>Features</p> <p>Model 404 Resistance Based Sensor</p> <ul style="list-style-type: none"> • 0.5 inch travel, linear motion with spring • Accurate position feedback • Low cost • Compact design for small spaces • Conductive plastic technology • Long life – 5 million actuations • Compatible with SMT A2/A3 and WiDAQ dataloggers. 8 sensors can be used in an A3 and Industrial WiDAQ. • Other resistive sensors such as temperature and moisture content sensors can share the other inputs.
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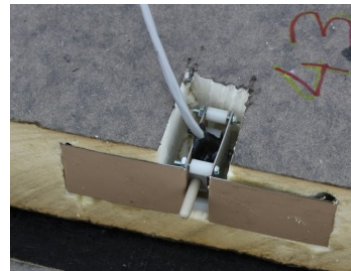
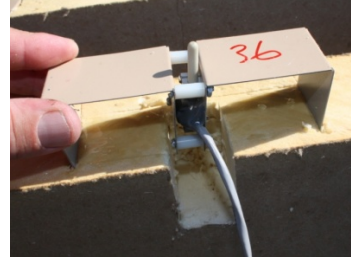
Ordering Information	
Model 404 Low Resolution	DS-404

Model 404 Resistance



Mounting

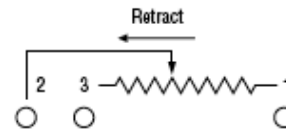
Flange mounts for insertion into insulation panels. Custom mounts can be made to fit specific applications.



Model 404 Electrical Characteristics

Resistance Range	1KΩ to 150KΩ
Standard Resistance Tolerance	±10%
Minimum Practical Resistance Tolerance	±5%
Independent Linearity	±1%
Minimum Practical Independent Linearity	±0.5%
Input Voltage, Maximum	400VDC
Power Rating	0.25W at 70°C
Dielectric Strength	1000V rms
Insulation Resistance, Minimum	1000MΩ
Actual Electrical Travel, Nominal	0.50" ± 0.15 (12.7mm ±0.38mm)
Resolution (with WiDAQ)	0.003" (0.085mm)
Temperature Coefficient	-800 ppm/°C

A3 and WiDAQ Connectivity



Model 404 Sensor Pin-out

Environmental (MIL-R-39023)

Operating Temperature	Static -55° to 125°C Dynamic -40° to 125°C
Load Life	1 million full 5 million dither cycles.

Industrial WiDAQ

(8 Resistance Channels)

Wire resistance pairs to channels 17 to 24. Example pin-out for channel 17:

WiDAQ Inputs	Sensor Pin	Function
17-1	1	Displacement
17-2	2	Displacement

Mechanical

Total Mechanical Travel	0.56" ± 0.015" (14.2mm ±0.38mm)
Actuating Force, Maximum	14 oz
Backlash, Maximum	0.03"
Static Stop Strength	20 lb
Body Style	Rectangular
Termination Style	Turret Terminals

A2 and Mobile WiDAQ.



Plug audio jack into either MC/T port.