

AccuSwitch™

Dual Axis Tilt Switch

Operating Instructions and Installation Information

**North American
Operations**

**SCHAEVITZ
SENSORS**



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Installation and Set-up Instructions

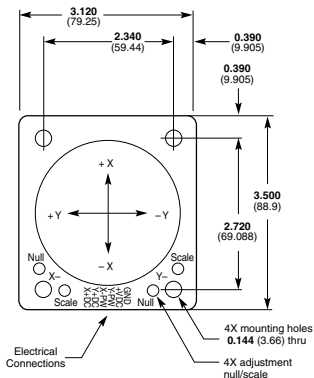
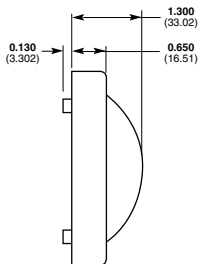
1. Prepare horizontal oriented mounting plane with holes for four #6 screws, spaced as shown.
2. Clean the mounting plane and the mounting surface of the clinometer.
3. Secure clinometer to the mounting plane snugly with four #6 screws.
4. Make electrical connections in accordance with diagram, and apply power.
5. If desired, the factory set 'switch points' may be adjusted as follows.
Caution – performing this operation voids the factory calibration!
 - a. Place sensor at the desired zero (or level) position. It is preferable that the null position be within ± 2 degrees of true level, but is not mandatory.
 - b. Electrically connect a miniature screwdriver or paper clip to power ground (a test lead with alligator clips on both ends is handy for this operation, but not required).
 - c. Sensor is in 'normal mode' when powered up. To put the sensor in 'calibration mode', insert the tip of the screw driver (or paper clip) through the holes in the case until it bottoms out on the circuit board, in the following sequence (X null, Y scale, X null, Y scale). For models without a case, simply tap the square pads on the circuit board, which are appropriately marked, in the sequence noted above. The X-DC and Y-DC (polarity) outputs will slowly oscillate between the V-Logic 1 (+7.25Vdc) and V-Logic 0 (+1.95Vdc) levels, indicating the X and Y zero points have been stored.
***At this point the new null position is set. By simply removing power, and then restoring it, your trip angle points will actuate relative to this new null setting.**
 - d. Now place the X axis at the desired positive (+) trip angle, between 2 and 20 degrees from true level. Let sit for 30 seconds minimum, and then tap the X null pad. The X-DC and Y-DC outputs will go to a V-Logic 0 (+1.95Vdc) level.
 - e. Now place the X axis at the desired negative (-) trip angle, between 2 and 20 degrees from true level. Let sit for 30 seconds minimum, and then tap the X scale pad. The X-DC output will remain at V-Logic 0 level, and the Y-DC output will go to the V-Logic 1 level.
 - f. Now place the Y axis at the desired positive (+) trip angle, between 2 and 20 degrees from true level. Let sit for 30 seconds minimum, and then tap the Y null pad. The X-DC output will go to a V-Logic 1 level, and the Y-DC will remain at the V-Logic 0 level.
 - g. Now place the Y axis at the desired negative (-) trip angle, between 2 and 20 degrees from true level. Let sit for 30 seconds minimum, and then tap the Y scale pad. Both the X-DC and Y-DC outputs will be at the V-Logic 1 level.
 - h. Remove power.
 - i. Reapply power, and the switch is ready for operation.

1-800-745-8008

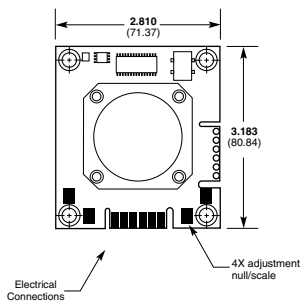
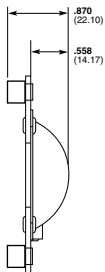
PHYSICAL DIMENSIONS

'WITH CASE' P/N 02118011-000

Dimensions in (mm)
(Nominal)



'WITH STANDOFFS' P/N 02118111-000



ELECTRICAL CONNECTIONS

- GND = Power Ground
- +VDC = +Power Input
- Y-PW = Y Axis Open Collector Input
- X-PW = X Axis Open Collector Input
- Y-DC = Y Axis Polarity Output
- X-DC = X Axis Polarity Output

Preliminary Specifications

General

Range	+/-2° to +/-20°
Reset	50% of set point
Threshold/Resolution	0.01°
Repeatability	0.1°
Frequency Response	0.50Hz (nominal)

Environmental

Temperature Range

Operating	-20° to +65°
Storage	-55° to +65°

Temperature Coefficient

Of Null	0.01°/°C
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Temperature Coefficient

Of Scale Factor	0.10%/°C
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Electrical

Voltage Supply (nominal)	+9Vdc
Voltage Supply Range	+5 to +15Vdc (regulated)
Current	10mA

Polarity Outputs (@+9Vdc input)

V-Logic 1 (+)	+7.25Vdc (typ)
V-Logic 0 (-)	+1.95Vdc (typ)

Open Collector Inputs

Continuous Collector Current	1A (max)
Collector – Ground Voltage	+25Vdc (max)

Note: All specifications are subject to change without notice!
