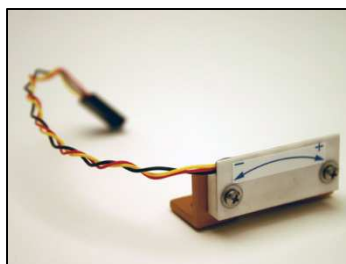


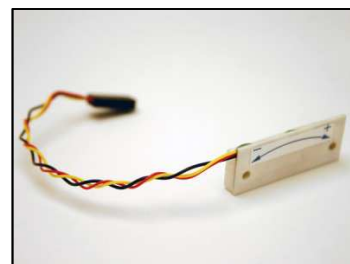
# Model 84053, 59577

## Mid-range Ceramic Tilt Sensor

The Model 84053 Mid-range Ceramic Tilt Sensor is a compact and robust electrolytic tilt sensor with up to 1.75  $\mu$ radian resolution. Units come complete with Aluminum mounting bracket for easy installation. Order without mounting bracket as the model 59577 (performance is the same). Total range is  $\pm 6^\circ$ , linear range is  $\pm 3^\circ$ . All 84053 and 59577 Ceramic Tilt Sensors include calibration over  $\pm 3^\circ$  when ordered with Jewell electronics (or specify special/custom calibrated ranges on order). Use the 84053 and 59577 sensor for precision OEM applications where small size and peak performance are key.



Model 84053 Mid-range  
(with mounting bracket)



Model 59577 Mid-range  
(without mounting bracket)

	Model 84053 and 59577 Mid-range Ceramic Sensors
Total Range (max) <sup>1</sup>	$\pm 6^\circ$
Linear Range	$\pm 3^\circ$
Resolution	$<0.0001^\circ$ ( $<1.75 \mu$ radian)
Repeatability	$0.0002^\circ$ ( $3.5 \mu$ radian static)
Non-Linearity (half span, typical) <sup>2</sup>	2%
Non-Linearity (full span, typical) <sup>2</sup>	8%
Natural Frequency	3 Hz
Time Constant	0.15 sec
Kz Temp Coefficient (bias/ $^\circ$ C)	$\pm 3.5 \mu$ radians/ $^\circ$ C (typical)
Ks Temp Coefficient (%/ $^\circ$ C) <sup>3</sup>	0.04%/ $^\circ$ C (typical)
Operating Temperature	$-50^\circ$ C to $+125^\circ$ C
Storage Temperature	$-75^\circ$ C to $+150^\circ$ C
Weight	84053 24g ; 59577 = 9.5g
Materials	Ceramic sensor, gold anodized Al, Teflon lead wire
Sensor Excitation	Use with any Jewell Instruments signal conditioner

Specifications subject to change without notice on account of continued product development; <sup>1</sup>Specify calibrated range on order; <sup>2</sup>Max non-linearity from BFSI drawn through calibration curve, to 0.05% linearity with 5<sup>th</sup> order polynomial; <sup>3</sup>Ks = % change in scale factor per  $^\circ$ C typical

### Ordering Code:

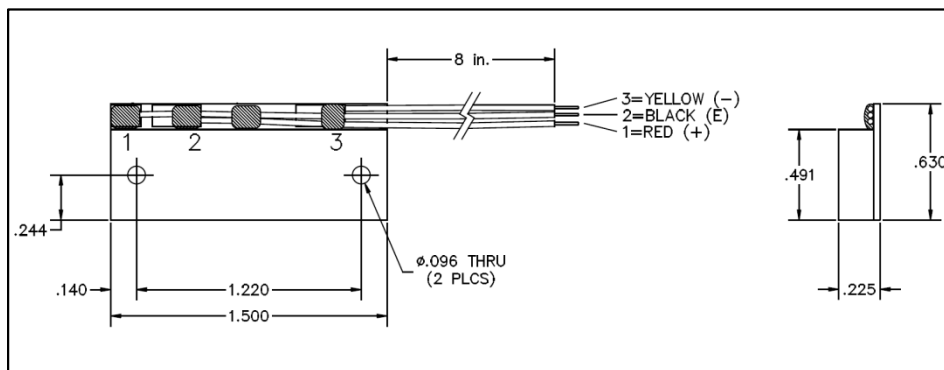
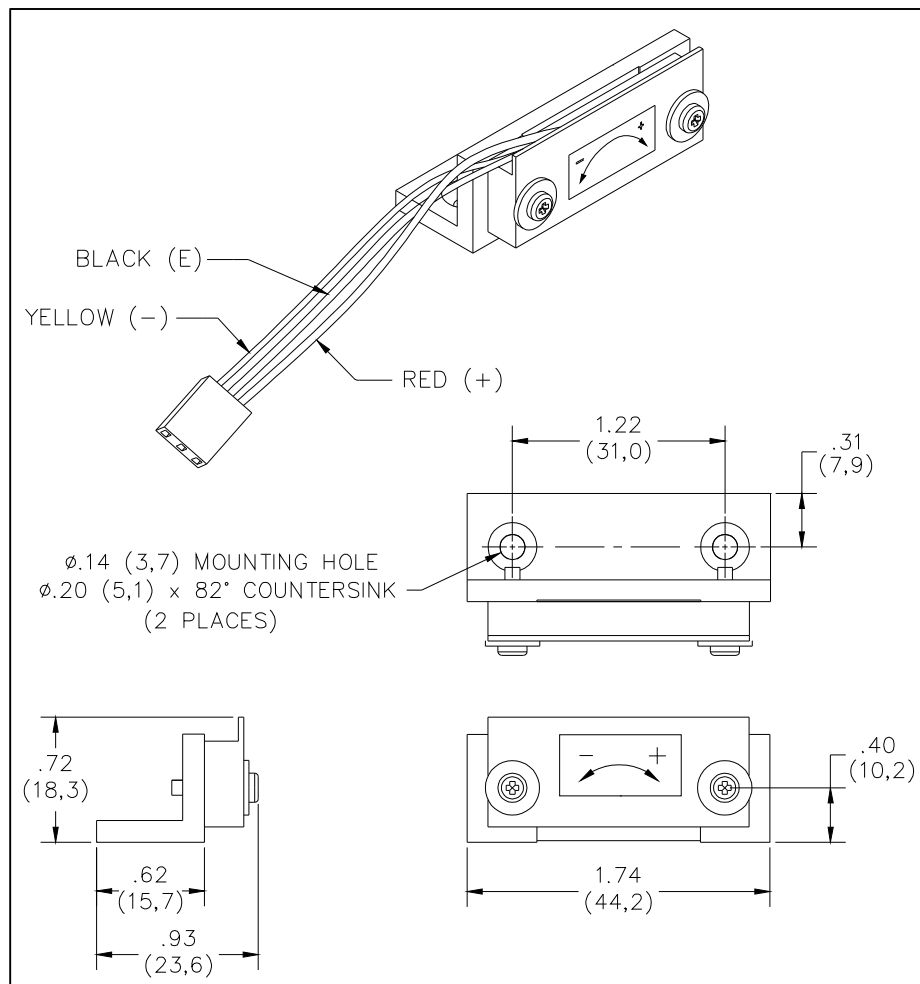
Model No.	Description
84053	Mid-Range Ceramic Tilt Sensor Assembly, $\pm 6^\circ$ total range ( $\pm 3^\circ$ linear), with Mounting Bracket
59577	Mid-Range Ceramic Tilt Sensor (bare), $\pm 6^\circ$ total range ( $\pm 3^\circ$ linear), no Mounting Bracket

# Model 84053, 59577

## Mid-range Ceramic Tilt Sensor



### Dimensions:



Dimensions in inches (mm)