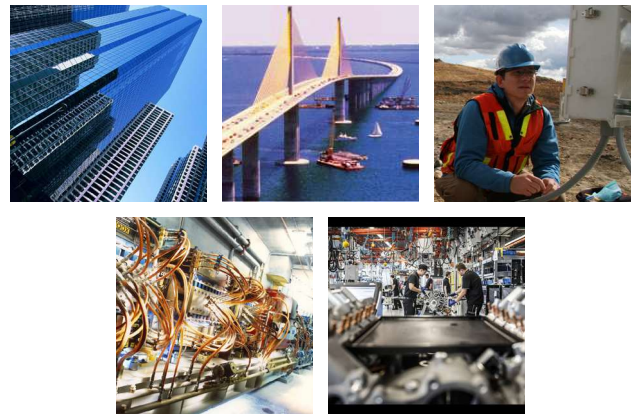
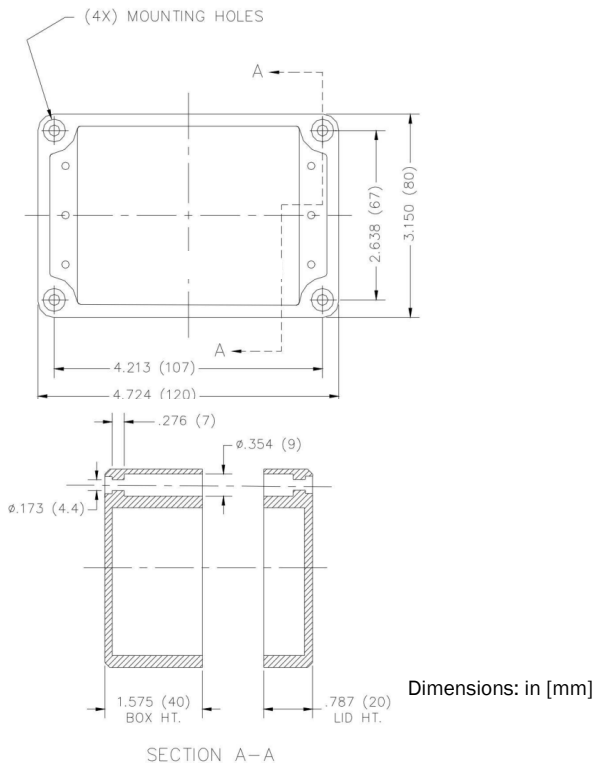


## Model D801

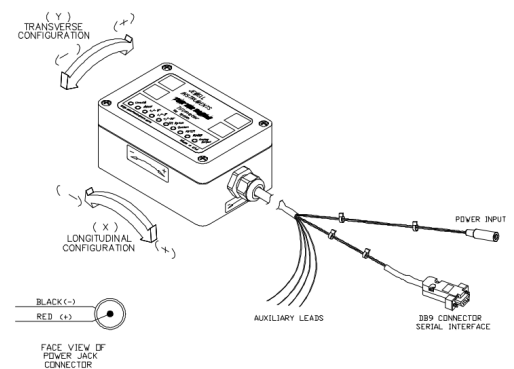
### “Tuff Tilt” Analog Tiltmeter

The model D801 “Tuff Tilt Digital” is a high performance, digital tiltmeter with advanced firmware features. Units use a gravity referenced electrolytic tilt sensor with superior measurement accuracy and virtually no long-term drift. Output is RS232 or RS422 (RS485 full duplex). Utilizing a 16-bit A/D, the D801 is sensitive to  $<0.0001^\circ$  (.0017 mm/m).\* User programmable firmware controls include sample averaging, auto-zero (tare), baud/output rate, and more. The D801 also includes on-board memory, with storage capacity up to 22,000 samples. All units are rated IP65 waterproof for advanced protection from the elements.



### APPLICATIONS:

- Structural Monitoring
- Platform Leveling
- Industrial Measurement & Control



# PERFORMANCE SPECIFICATIONS

## PERFORMANCE

ANGULAR RANGE (°) <sup>1</sup>	±0.5°	±3°	±50°
RESOLUTION	<0.0001°	0.0001°	0.002°
NONREPEATABILITY (° max)	0.0003°	0.0003°	0.004°
NONLINEARITY (%FRO) <sup>2</sup> max	0.1		
SCALE FACTOR	0.0625°/mA	0.375°/mA	6.25°/mA
TIME CONSTANT	0.15 sec		
Kz TEMP COEFFICIENT (°/°C)	±0.0002 °/°C (typical)		±0.002 °/°C (typical)
OUTPUT	RS232, RS422 (RS485 full duplex)		
OUTPUT FORMAT	NMEA XDR, Trimble TCM, Ashtec compatible, Simple (default: X, Y, Temp., S/N)		
BAUD RATE	9600 (default), 19200, 28800, 57600, 115200, 230400		
CHANNELS	X-tilt, Y-tilt, Temperature, Serial No.		

## ELECTRICAL & ENVIRONMENTAL

NUMBER OF AXES	1 or 2
OUTPUT IMPEDANCE (Ohms, nominal)	270
TEMPERATURE OUTPUT	Temperature is measured with a 2500 Ohm thermistor, -50° to 150°C range
POWER	7-28 VDC @ 30mA, 250 mV ripple max, reverse polarity protected
OPERATING TEMPERATURE RANGE	-40° to +85° C
STORAGE TEMPERATURE RANGE	-40° to +85° C
WEIGHT	0.6 kg (1.5 lb.)
MATERIALS	Diecast painted aluminum
SEAL	IP65
CABLE	3m (10 ft.), 6 conductors + one overall shield, PVC jacket. DB9 connector for digital I/O.

## PIN OUT:

### RS232 Wiring

WIRE COLOR	FUNCTION	DB9 PIN-OUT
BLACK	GND	5
RED	V+	-
GREEN	ANALOG X OUT	-
YELLOW	RxD (RS232)	3
WHITE	TxD (RS232)	2
BLUE	ANALOG Y OUT	-

### RS422 Wiring

WIRE COLOR	FUNCTION	DB9 PIN-OUT
BLACK	GND	1
RED	V+	-
YELLOW	Rx- (RS422)	9
BLUE	Rx+ (RS422)	8
GREEN	Tx+ (RS422)	4
WHITE	Tx- (RS422)	5

#### NOTES:

1. Custom ranges available on request
2. Nonlinearity is specified as deviation of output referenced to theoretical sine function value, independent of misalignment

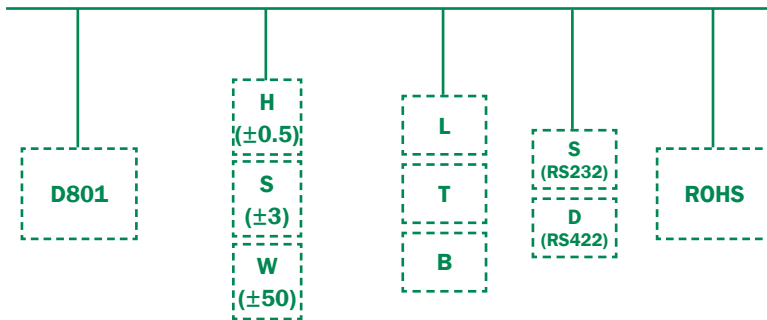
Specifications are subject to change without notice due to continued product development



# ORDERING INFORMATION

**HOW TO ORDER** Model Numbers are comprised of the series, the number of axes, and the angular range.

SERIES - ANGULAR RANGE - AXIS - OUTPUT - RoHS



## Accessories:

PART #	DESCRIPTION
00389	Extra 8-socket Female in-line connector, Neoprene, on 24-inch (60 cm) Cable Whip (bare wire leads)
00359	Extra Delrin Locking Sleeve (locks 00358 and 00389 in-line connector to Male bulkhead)
00358-xxx	Extra 6-socket Female in-line connector, Neoprene, (bare wire leads) price per foot

	MODEL #	PART #
±0.5	D801-HLS	98943-01-ROHS
	D801-HLD	98943-02-ROHS
	D801-HTS	98943-03-ROHS
	D801-HTD	98943-04-ROHS
	D801-HBS	98943-05-ROHS
	D801-HBD	98943-06-ROHS
±3	D801-SLS	98943-07-ROHS
	D801-SLD	98943-08-ROHS
	D801-ST-S	98943-09-ROHS
	D801-ST-D	98943-10-ROHS
	D801-SB-S	98943-11-ROHS
	D801-SB-D	98943-12-ROHS
±50	D801-WLS	98943-13-ROHS
	D801-WLD	98943-14-ROHS
	D801-WT-S	98943-15-ROHS
	D801-WT-D	98943-16-ROHS
	D801-WB-S	98943-17-ROHS
	D801-WB-D	98943-18-ROHS