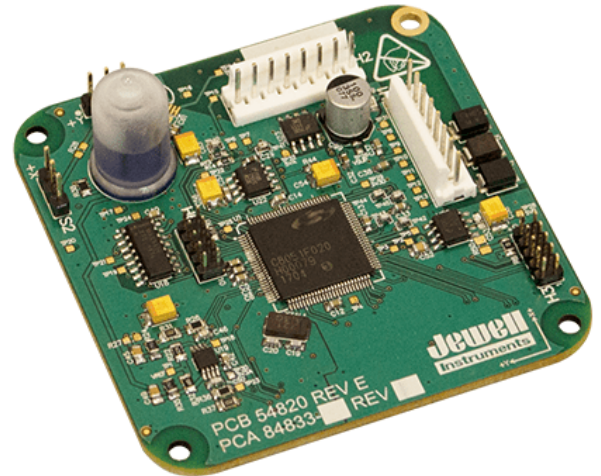
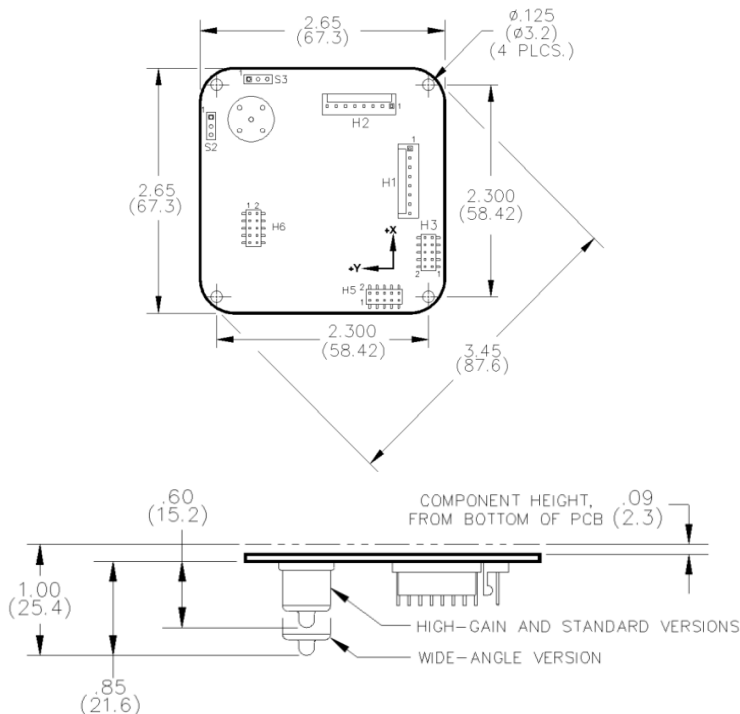


Model MD908 "IRIS"

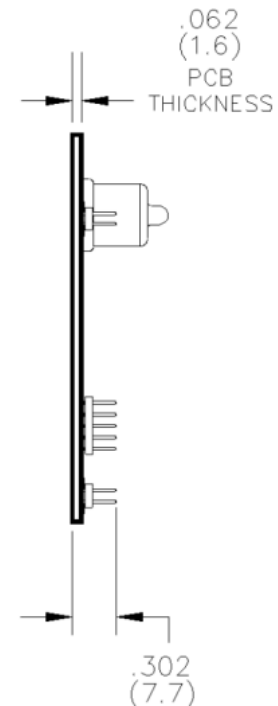
Tilt Switch

The IRIS Tilt Switch and Controller powerful tilt control device with advanced firmware features. The on-board electrolytic tilt sensor is sensitive to $<0.002^\circ$. User programmable settings include AUTOzero (tare), sample averaging, hysteresis control, and more. Units support RS232 and RS422 (RS485 full duplex) output. The IRIS also supports a variety of output protocols including Trimble TCM, NMEA XDR, BAE, and Ashtech Compatible. Units ship standard with 24-in. hook-up cable. Use the IRIS for industrial pitch and roll measurement, platform leveling, specialized OEM assemblies, scientific instrument packages and more.



APPLICATIONS:

- Industrial pitch and roll measurement
- Specialized OEM assemblies
- Platform leveling
- Scientific instrument packages



PERFORMANCE SPECIFICATIONS

PERFORMANCE

VERSION	High-Gain	Standard	Wide-Angle
ANGULAR RANGE (°) ¹	±10°	±25°	±50°
NONLINEARITY (%FRO) ² max	1%		
NONREPEATABILITY	0.01°	0.01°	0.02°
RESOLUTION	0.002°	0.004°	0.01°
TIME CONSTANT	0.15 sec		
Kz TEMP COEFFICIENT (°/C)	10 arcsec/°C (typical)		
Ks TEMP COEFFICIENT (%/°C)	0.03%/C (typical)		
OUTPUT	RS232, RS422 (RS485 full duplex)		
OUTPUT FORMAT	NMEA XDR, Trimble TCM, BAE, 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.		
TILT SWITCH CONTROLS	8 TTL-compatible CMOS control outputs (0-5 VDC); 20mA source Power per channel (not to exceed 100mA across all 8 channels)		

ELECTRICAL & ENVIRONMENTAL

NUMBER OF AXES	2
OUTPUT IMPEDANCE (Ohms, nominal)	270, short circuit protected
NATURAL FREQUENCY	7 Hz
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	31g (1.1 oz)
MATERIALS	Glass electrolytic sensor, fiberglass PCB

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

PIN OUT:

H3 PIN	FUNCTION
1	-X TILT THRESHOLD
2	+X TILT THRESHOLD
3	Y TILT THRESHOLD
4	+Y TILT THRESHOLD
5	OPTIONAL THRESHOLD*
6	OPTIONAL THRESHOLD*
7	OPTIONAL THRESHOLD*
8	THRESHOLD IN ANY DIRECTION
9	GROUND
10	3.3 VDC OUTPUT

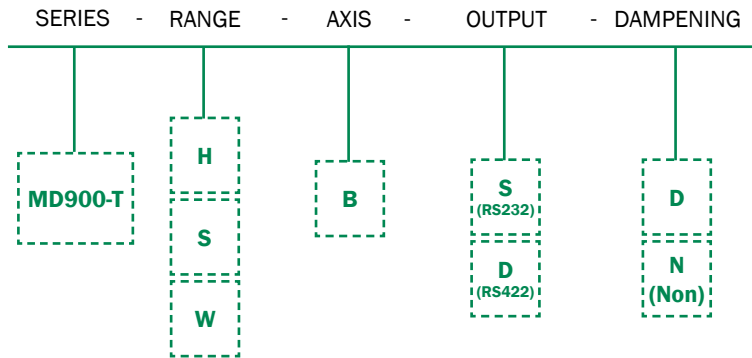
H2 PIN	FUNCTION
1	V+
2	GND
3	GND
4	-
5	-
6	-
7	ANALOG X OUT
8	ANALOG Y OUT

H1 PIN	FUNCTION
1	V+
2	GND
3	TX (RS232)
4	RX (RS232)
5	TX+ (RS422)
6	TX- (RS422)
7	RX- (RS422)
8	RX+ (RS422)



ORDERING INFORMATION

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



MODEL #	PART #
MD908-HT-BS-D	98021-06
MD908-HT-BS-N	98021-03
MD908-HT-BD-D	98021-12
MD908-HT-BD-N	98021-09
MD908-ST-BS-D	98021-04
MD908-ST-BS-N	98021-01
MD908-ST-BD-D	98021-10
MD908-ST-BD-N	98021-07
MD908-WT-BS-D	98021-05
MD908-WT-BS-N	98021-02
MD908-WT-BD-D	98021-11
MD908-WT-BD-N	98021-08

Accessories:

PART #	DESCRIPTION
70369	6-conductor cable (specify required length on order)
84033	Extra 6-ft Cable Assembly, RS232 Output, w/ DB9-sub Connector
84080-01	Extra 6-ft Cable Assembly, RS422 Output, w/ DB9-sub Connector
00254-02	Transformer, 100-240VAC to 12VDC
81439	Mounting bracket for vertical surfaces
84051	Mounting plate for horizontal surfaces