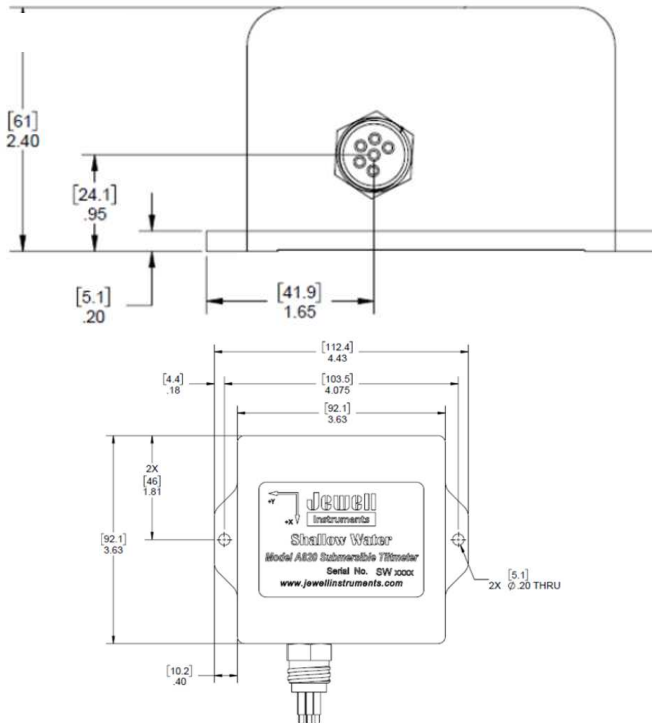
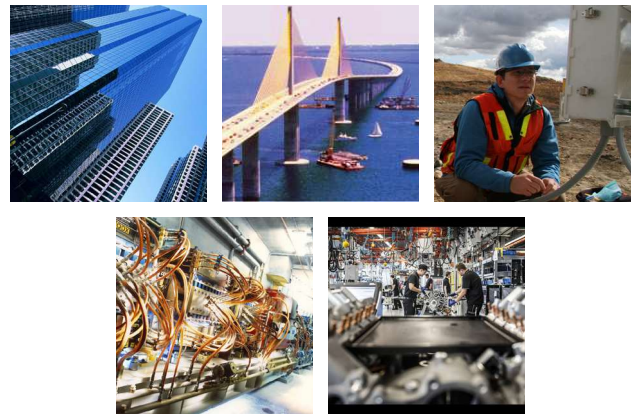


Model A820 Shallow Water Analog Tiltmeter

The model A820 Shallow Water is a high-precision submersible tiltmeter for use in fresh and salt water applications. Using an absolute gravity referenced electrolytic sensor, the A820 delivers superior measurement accuracy with nearly no long-term drift. High-gain units are sensitive to <0.0017 mm/m or better. Output is a stable ± 5 DC voltage, which can be read with any VDC input data recorder. All units are rated to 200 meters (656.2 ft) waterproof for advanced protection from the elements. Use the A820 "Shallow Water" for structural monitoring, angle measurement and control, platform leveling and more.

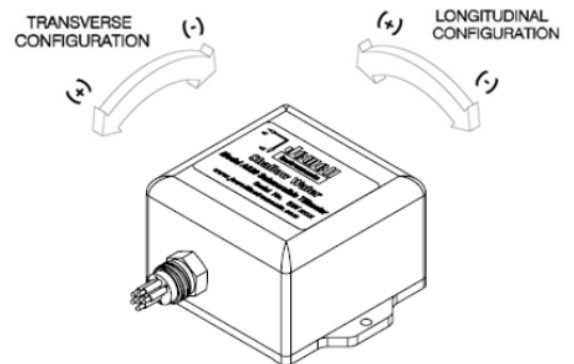


Dimensions: in [mm]



APPLICATIONS:

- Structural Monitoring
- Platform Leveling
- Industrial Measurement & Control



PERFORMANCE SPECIFICATIONS

PERFORMANCE

ANGULAR RANGE (°) ¹	±0.5°	±3°	±50°
RESOLUTION	<0.0001°	0.0006°	0.01°
NONREPEATABILITY (° max)	<0.0002°	0.001°	0.02°
NONLINEARITY (%FRO) ² max	1	2	2
SCALE FACTOR	0.1°/V	0.6°/V	10°/V
TIME CONSTANT	1.75 sec (2-pole Butterworth low-pass filter)		0.15 sec
Kz TEMP COEFFICIENT (°/°C)	±0.0002 °/°C (typical)		±0.002 °/°C (typical)
Ks TEMP COEFFICIENT (%/°C)	0.04%/°C (typical)		
OUTPUT	±5VDC (single ended)		
CHANNELS	Tilt, Temperature		

ELECTRICAL & ENVIRONMENTAL

NUMBER OF AXES	1 or 2
OUTPUT IMPEDANCE (Ohms, nominal)	270
TEMPERATURE OUTPUT	0.1 °C/mV typical (single ended; 0 °C = 0mV)
POWER	8-18 VDC @ 8mA, 250 mV ripple max, reverse polarity protected
OPERATING TEMPERATURE RANGE	-4° to +60°C
STORAGE TEMPERATURE RANGE	-30° to +100°C
WEIGHT	1.6 kg
MATERIALS	316 SS
SEAL	Submersible to 200 meters (656.2 ft)
CABLE	6-conductor unshielded, 20AWG female receptacle with locking sleeve, neoprene jacket. Charged separately. Specify cable length per unit on order

PIN OUT:

CONNECTOR	FUNCTION
BLACK	PWR GND
WHITE	SIG GND
RED	PWR
GREEN	X - TILT
ORANGE	TEMP
BLUE	Y - TILT

NOTES:

1. Custom ranges available on request
2. Nonlinearity is specified as variation around the best straight line from null to full-range output.

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



ACCESSORIES

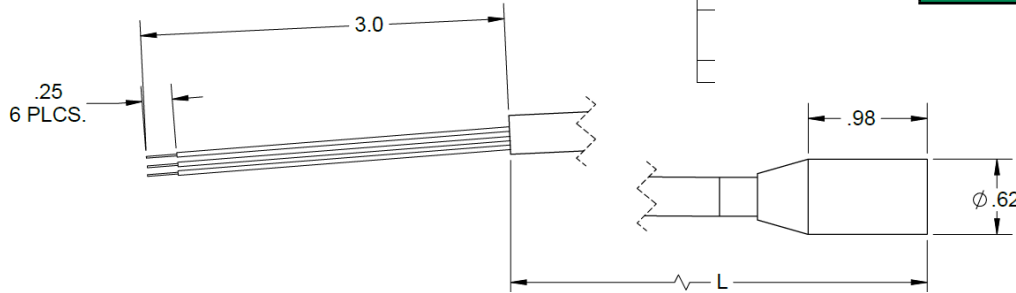
PART #	DESCRIPTION
00359	Delrin Locking Sleeve (locks 00358 in-line connector to Male bulkhead)
00358-15M	15m 6-socket Female in-line connector, Neoprene, (bare wire leads). PN 00359 included.
00358-20M	20m 6-socket Female in-line connector, Neoprene, (bare wire leads). PN 00359 included.
00358-25M	25m 6-socket Female in-line connector, Neoprene, (bare wire leads). PN 00359 included.



FEMALE FACE VIEW

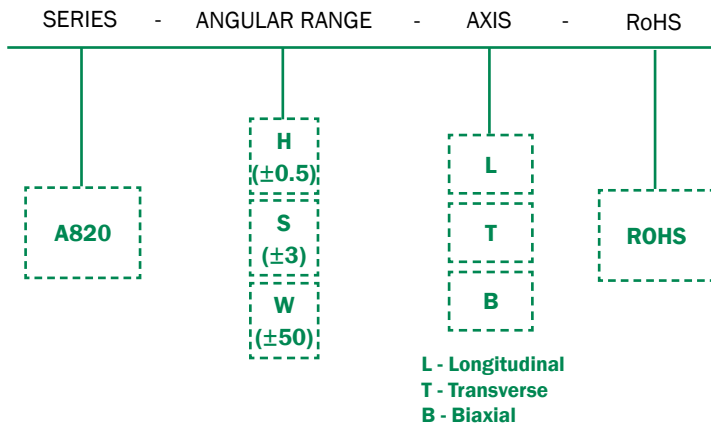
IN-LINE CABLE COLOR CODE

WIRE COLOR	
BLACK	1
WHITE	2
RED	3
GREEN	4
ORANGE	5
BLUE	6



ORDERING INFORMATION

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



	MODEL #	PART #
±0.5	A820-HL-ROHS	98823-07-ROHS
	A820-HT-ROHS	98823-04-ROHS
	A820-HB-ROHS	98823-01-ROHS
±3	A820-SL-ROHS	98823-08-ROHS
	A820-ST-ROHS	98823-05-ROHS
	A820-SB-ROHS	98823-02-ROHS
±50	A820-WL-ROHS	98823-09-ROHS
	A820-WT-ROHS	98823-06-ROHS
	A820-WB-ROHS	98823-03-ROHS

850 Perimeter Road Manchester, NH 03103 USA

SENSORS: 800.227.5955

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