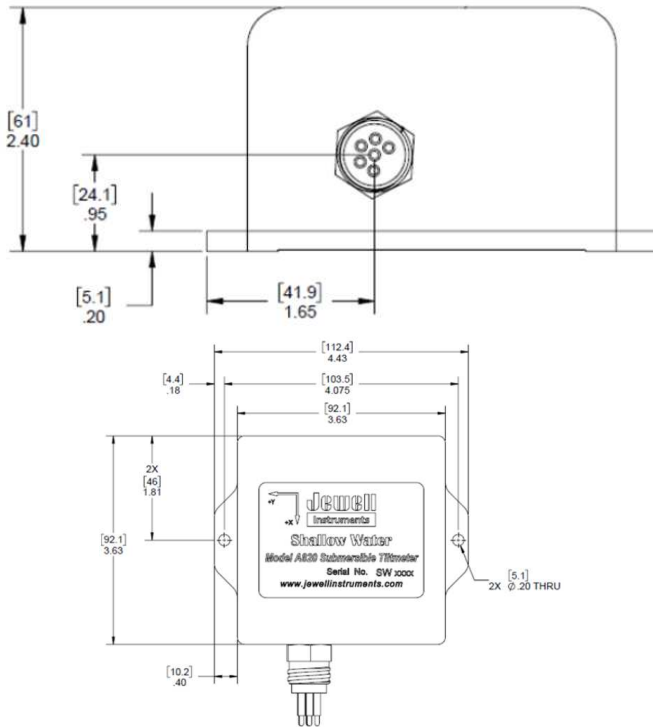
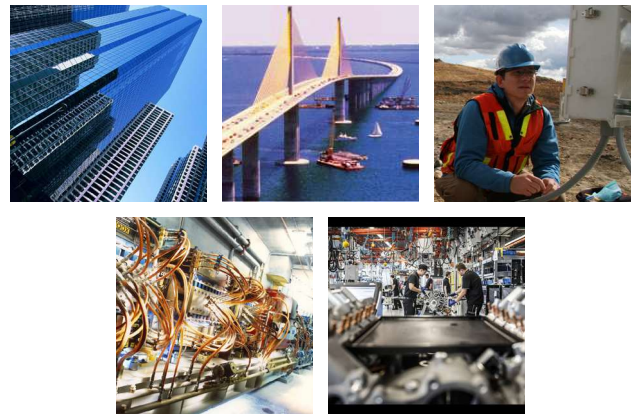


Model D820 Shallow Water Digital Tiltmeter

The model D820 Shallow Water is a high-precision submersible tiltmeter for use in fresh and salt water applications with RS232 or RS422 digital output. Using an absolute gravity referenced electrolytic sensor, the D820 delivers superior measurement accuracy with nearly no long-term drift. High-gain units are sensitive to <math><0.0017\text{ mm/m}</math> or better. All units are rated to 200 meters (656.2 ft) waterproof for advanced protection from the elements. Use the D820 "Shallow Water" for structural monitoring, angle measurement and control, platform leveling and more.

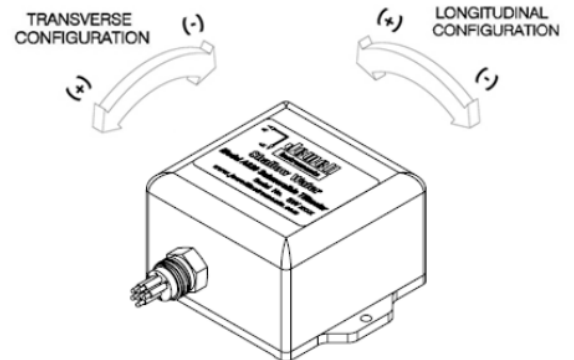


Dimensions: in [mm]



APPLICATIONS:

- Structural Monitoring
- Platform Leveling
- Industrial Measurement & Control



PERFORMANCE SPECIFICATIONS

PERFORMANCE

ANGULAR RANGE (°) ¹	±0.5°	±3°	±50°
RESOLUTION	<0.0001°	0.002°	0.02°
NONREPEATABILITY (° max)	0.0003°	0.0003°	0.004°
NONLINEARITY (%FRO) ² max	0.1		
TIME CONSTANT	0.15 sec		
Kz TEMP COEFFICIENT (°/C)	±0.0002 °/°C (typical)		±0.002 °/°C (typical)
OUTPUT	RS232, RS422		
OUTPUT FORMAT	NMEA XDR, Trimble TCM, Ashtec compatible, Simple (default: X, Y, Temp., S/N)		
BAUD RATE	9600 (default), 19200, 28800, 57600, 115200, 130400		
CHANNELS	X-tilt, Y-tilt, Temperature		

ELECTRICAL & ENVIRONMENTAL

NUMBER OF AXES	1 or 2
POWER	7-28 VDC @ 30mA, 250 mV ripple max, reverse polarity protected
OPERATING TEMPERATURE RANGE	-4° to +60°C
STORAGE TEMPERATURE RANGE	-30° to +100°C
WEIGHT	5 kg (11 lb)
MATERIALS	316 stainless steel
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:

RS232 Wiring

WIRE COLOR	FUNCTION
BLACK	PWR GND
WHITE	-
RED	PWR
GREEN	RxD
YELLOW	-
BLUE	TxD

RS422 Wiring

WIRE COLOR	FUNCTION
BLACK	PWR GND
RED	TX-
YELLOW	PWR
BLUE	TX+
GREEN	RX-
WHITE	RX+

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

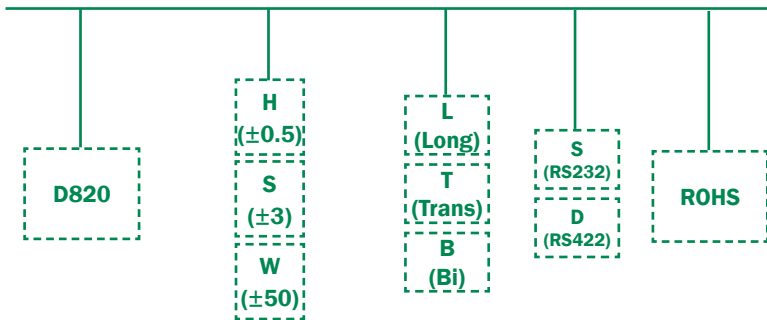


ORDERING INFORMATION

HOW TO ORDER

Model Numbers are comprised of the series, angular range, axis configuration, output signal and RoHS compliance

SERIES - ANGULAR RANGE - AXIS - OUTPUT - RoHS



Accessories:

PART #	DESCRIPTION
70369	6-conductor cable (specify total length on order)
00254-02	Extra power transformer (100-240VAC to 12VDC)
81439	Mounting bracket for vertical surfaces
84051	Mounting plate for horizontal surfaces

	MODEL #	PART #
±0.5	D820-HL-S-ROHS	98821-07-ROHS
	D820-HL-D-ROHS	98822-07-ROHS
	D820-HT-S-ROHS	98821-04-ROHS
	D820-HT-D-ROHS	98822-04-ROHS
	D820-HB-S-ROHS	98821-01-ROHS
	D820-HB-D-ROHS	98822-01-ROHS
±3	D820-SL-S-ROHS	98821-08-ROHS
	D820-SL-D-ROHS	98822-08-ROHS
	D820-ST-S-ROHS	98821-05-ROHS
	D820-ST-D-ROHS	98822-05-ROHS
	D820-SB-S-ROHS	98821-02-ROHS
	D820-SB-D-ROHS	98822-02-ROHS
±50	D820-WL-S-ROHS	98821-09-ROHS
	D820-WL-D-ROHS	98822-09-ROHS
	D820-WT-S-ROHS	98821-06-ROHS
	D820-WT-D-ROHS	98822-06-ROHS
	D820-WB-S-ROHS	98821-03-ROHS
	D820-WB-D-ROHS	98822-03-ROHS