MEAS KPSI 351

- SDI-12 Small Bore Submersible Level Transducer
- ±0.01 ft H_2O, reading <= 10ft (3m) H_2O
- ±0.10% reading, > 10ft (3m) H_2O
- Optional Lifetime Lightning Protection
- Two year warranty

RoHS CE

The MEAS KPSI 351 submersible hydrostatic level transducer is specifically designed for small bore applications and to meet the rigorous environments encountered in ground water level measurements. Incorporating a highly stable media-isolated sensor, the MEAS KPSI 351 features SDI-12 serial-digital interface. SDI-12 is a standard for interfacing data recorders with microprocessor-based sensors, especially in the environmental monitoring field. The MEAS KPSI 351 is intended for applications with requirements that include battery-powered operation with minimal current drain, low system cost, and use of a single recorder with multiple sensors "daisy-chained" on one cable. It will accommodate cable lengths between sensors and recorder up to 200 feet. New removable cable option allows easy substitution of transducers and cables.

APPLICATIONS

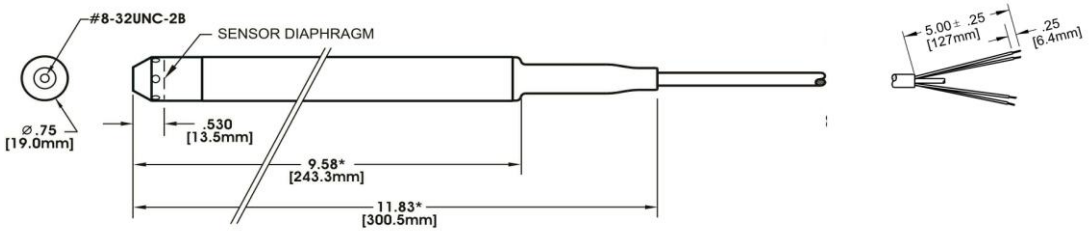
- Groundwater Monitoring
- Down Hole
- Surface Water Monitoring
- Tailrace and Forebay Monitoring
- Oceanographic Research

FEATURES

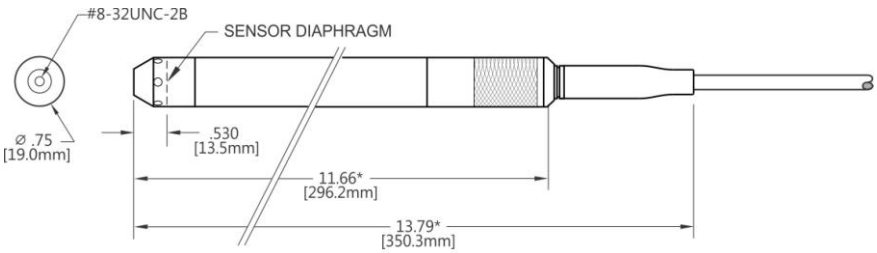
- Removable cable option
- Custom Polyurethane or ETFE Cable Lengths
- Welded 316SS or Titanium
- Custom Level Ranges up to 50 ft (15m) H_2O
- Shipped with Long-Life Vent Filter

MEAS KPSI 351

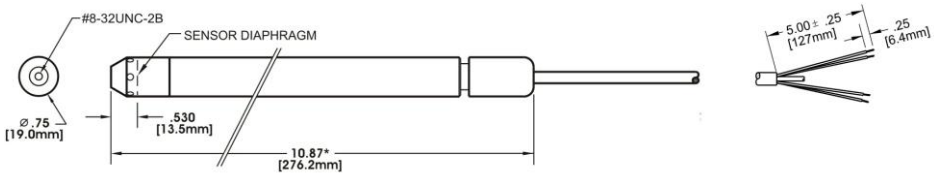
dimensions



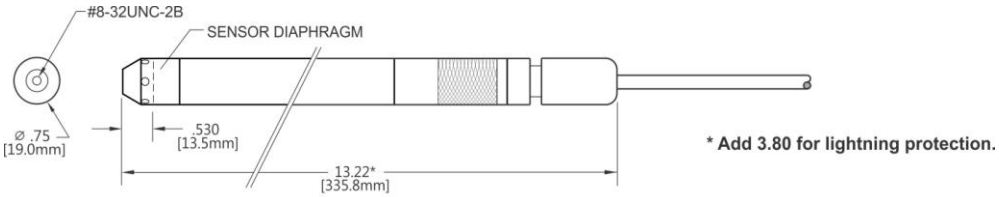
*** Add 3.80 for lightning protection.**



Molded Cable Seal Configuration for Polyurethane cable

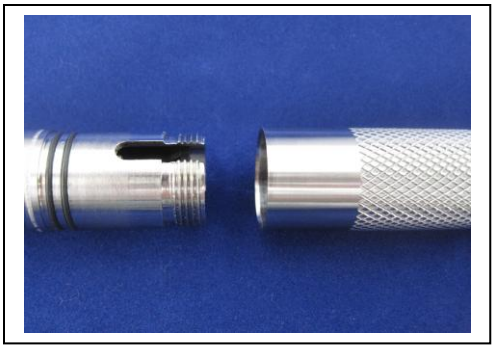


*** Add 3.80 for lightning protection.**



*** Add 3.80 for lightning protection.**

Gland Seal Configuration for ETFE cable



electrical termination and removable cable options

ELECTRICAL TERMINATION		
22AWG CONDUCTORS IN A SHIELDED CABLE WITH VENT TUBE		
SDI-12	RED	+ SUPPLY
	BLACK	- SUPPLY
	WHITE	SIGNAL
RS-485	RED	+ SUPPLY
	BLACK	- SUPPLY
	WHITE	RS485-A
	GREEN	RS485-B
ALL	DRAIN WIRE	SHIELD

MODEL	REMOVABLE CABLE
8 5 9	
↓	**MATERIAL**
	S Stainless Steel
	T Titanium
↓	**OUTPUT**
	C SDI-12
	D RS 485 w/SDI-12 protocol
↓	**ELECTRICAL CONNECTION**
	0 Molded cable seal
	A Gland cable seal
	R Removable cable
↓	**CABLE TYPE**
	1 Polyurethane
	2 ETFE
↓	**CABLE LENGTH**
	# # # (in feet)
8 5 9	

MEAS KPSI 351

performance specifications

Parameter		Comment
LEVEL RANGES		
Full Scale Level Ranges (intermediate level ranges are available)	10 thru 50 ft (3 thru 15 m) H_20	Vented Gage Reference
Proof Pressure	1.5 x FS	
Burst Pressure	2.0 x FS	
STATIC PERFORMANCE (Combined Errors Due to Nonlinearity, Hysteresis, Nonrepeatability, and Thermal Effects over the Compensated Temperature Range)		
Level	±0.01 ft H_20 ±0.10% reading	for reading <= 10 ft (3m) H_2O for reading > 10 ft (3m) H_2O
Temperature	+0.5ºC	
Excitation	±0.5 VDC	8 to 28 volts
Resolution	+0.0001% FS	
MEASUREMENT RESOLUTION		
Level	±0.0001%FS	
Temperature	±0.001ºC	
Excitation	±0.1 VDC	
ENVIRONMENTAL		
Wetted Materials	316 SS or Titanium; POM; polyurethane or FKM	
Compensated Temp Range	0 to 50ºC	
Operating Temp Range	-20 to 60 ºC	when attached to polyurethane cable
Protection Rating	IP 68, NEMA 6P	
ELECTRICAL		
Excitation	6-28V – VDC output	
Input Current	8 mA max 1.0 mA	average current during data acquisition quiescent
Interface	SDI-12, version 1.3 RS-485	SDI-12 protocol
CERTIFICATIONS		
	CE compliant	EN 61326-1:2001 and 61326-2-3:2006
PHYSICAL		
Approximate Weight	0.75 lbs (340 g) transducer 0.05 lbs/ft (79 g/m) cable	
Cable Jacket Material	Polyurethane (standard) ETFE (optional)	
Cable Pull Strength	200 lbs (90 kg)	
Cable Number of Conductors	4	
Cable Conductor Size	22 AWG	
Cable Seal	Molded Polyurethane FKM Gland	for polyurethane cable for ETFE cable
LIGHTNING PROTECTION (power supply needs to be limited to 150mA to avoid lock up of the gas tube after a suppression event)		
Life Expectancy	>1,000 Operations	
Peak Clamping Voltage	36 Volts	
Response Time	<10 nsecs	
Shunts	20,000 Amperes	

MEAS KPSI 351

ordering info

MODEL — **SUBMERSIBLE LEVEL TRANSDUCER**

3 5 1 — ±0.01 ft H_2O Accuracy

MATERIAL
- S Stainless Steel
- T Titanium

REFERENCE FORMAT
- 1 Vented gage

OUTPUT
- C SDI-12
- D RS 485 w/SDI-12 protocol

PRESSURE CONNECTION
- B Ported nose cap

ELECTRICAL CONNECTION
- 0 Molded cable seal
- A Gland cable seal
- R Removable cable

LIGHTNING PROTECTION
- A None
- B Full Lightning Protection

LEVEL RANGE (at MAX output)[1]
. # #

LEVEL RANGE (at MIN output)[1]
. # #

MOISTURE PROTECTION
- A None
- B Vent Filter

CABLE TYPE
- 0 None
- 1 Polyurethane
- 2 ETFE

CABLE LENGTH
(in feet)

LABEL[2]
- A psi
- B ft H_2O
- C m H_2O

3	5	1		1		B														B						

1 The part number requires two level range limits, corresponding to the maximum and minimum analog outputs of the transducer, to be specified in **pounds per square inch (psi)** to three decimal places. The lower level range is typically 000.000 unless otherwise required. For reverse output requirements, enter the lower level range for the maximum output signal and the upper range for the minimum output. Use the following conversion factors:

ft H_2O / 2.3073 = psi — Examples: 10 ft H_2O / 2.3073 = 4.334 psi (enter 004.334 in the part number)
m H_2O / 0.703265 = psi — 10 m H_2O / 0.703265 = 14.219 psi (enter 014.219 in the part number)

For sealed gage reference add local atmosphere when converting to psi. Contact MEAS for assistance.
Example: 10 ft H_2O / 2.3073 +14.7 = 19.034 psi (enter 019.034 in the part number)

2 Units of measure on standard MEAS label. Contact Measurement Specialties if private labeling is required.

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Measurement Specialties, Inc.
1000 Lucas Way
Hampton, VA 23666
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Tel: 1-757-766-1500
Fax: 1-757-766-4297
Toll Free: 1-800-745-8008
Sales: WL.sales@meas-spec.com

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26 Rue des Dames
78340 Les Clayes-sous-Bois, France
Tel: +33 (0) 130 79 33 00
Fax: +33 (0) 134 81 03 59
Sales: pfg.cs.emea@meas-spec.com

ASIA

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