

MEAS KPSI 320



- Submersible Level Transducer
- Small Bore, 0.75" Diameter
- ±0.25% FSO Static Accuracy
- Two Year Warranty



DESCRIPTION

The MEAS KPSI 320 is a submersible hydrostatic level transducer specifically designed for small bore applications and to meet the rigorous environments encountered in ground water level measurements. These transducers provide repeatable, precision depth measurement under most adverse conditions.

All MEAS KPSI Transducers utilize a highly accurate pressure sensor assembly specifically designed for hostile fluids and gases. The assembly is integrated with supporting electronics in a durable waterproof housing constructed of 316 stainless steel or titanium. The attached electrical cable is custom manufactured and includes Kevlar® members to prevent errors due to cable elongation, and a unique water block feature that self-seals in the event of accidental cuts to the cable. Each transducer is shipped with our latest SuperDry™ Vent Filter that prevents moisture from entering the vent tube for at least one year without maintenance, even in the most humid environments.

FEATURES

- Custom Polyurethane or ETFE Cable Lengths
- Welded 316SS or Titanium
- Custom Level Ranges up to 700 ft (210m) H2O
- Multiple Analog Outputs
- Ported Nose Cap
- Optional Lifetime Lightning Protection
- Shipped with Long Life Vent Filter

APPLICATIONS

- Surface Water Monitoring
- Well Monitoring
- Groundwater Monitoring
- Pump Control
- Slug Tests
- Level Control
- Ballast Tank Control

SPECIFICATIONS

Parameter	Comment	
LEVEL RANGES		
Full Scale Level Ranges (intermediate level ranges are available)	5 thru 700 ft H2O (1.5 thru 210 m H2O)	Vented Gage Reference
	10 thru 700 ft H2O (3 thru 210 m H2O)	Sealed Gage Reference
	35 thru 700 ft H2O (10 thru 210 m H2O)	Absolute Gage Reference
Proof Pressure	1.5 x FS	
Burst Pressure	2.0 x FS	

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SPECIFICATIONS

STATIC PERFORMANCE

Static Accuracy (combined effects of non-linearity, hysteresis and repeatability, best fit straight line method)	±0.25% FSO	BFSL method
Resolution	+0.0001% FS	

ENVIRONMENTAL

Wetted Materials	316 SS or Titanium; POM; polyurethane or FKM	
Compensated Temp Range	0 to 50°C	
Thermal Error (maximum allowable deviation from the Best Fit Straight Line due to a change in temperature)	±0.05% FSO/°C ±0.1% FSO/°C	worst case over compensated temperature range for ranges < 12 ft (4 m) H ₂ O
Operating Temp Range	-20 to 60 °C	when attached to polyurethane cable
Protection Rating	IP 68, NEMA 6P	

ELECTRICAL

Excitation	9-28V – VDC output	0-5V, 0-2.5V, 0-4V
	9-28V – mA output	4-20
	15-28V – VDC output	0-10V
	10-28V – VDC output	1.5-7.5V
Input Current	20 mA max	for mA output
	3.5 mA max	for VDC output
Output	4-20mA, 0-5 VDC, 0-2.5VDC, 0-4VDC, 0-10VDC, 1.5-7.5VDC	for ranges < 5 ft (1.5m) H ₂ O, only 4-20mA output is available
Zero Offset	±0.25 mA for mA output < 0.25 VDC for VDC output	
Output Impedance	See loop diagram for mA output 20 ohm for VDC output	
Insulation Resistance	100 mega ohm at 50 VDC	
Circuit Protection	Polarity, surge/shorted output	

CERTIFICATIONS

CE compliant	EN 61326-1:2001 and 61326-2-3:2006
UL, CUL and FM	Class I, II, III, Div 1, Groups A,B,C,D,E,F&G
WEEE/RoHS	Waste from Electrical and Electronic Equipment (WEEE) and Restrictions on the use of Hazardous Substances (RoHS)

PHYSICAL

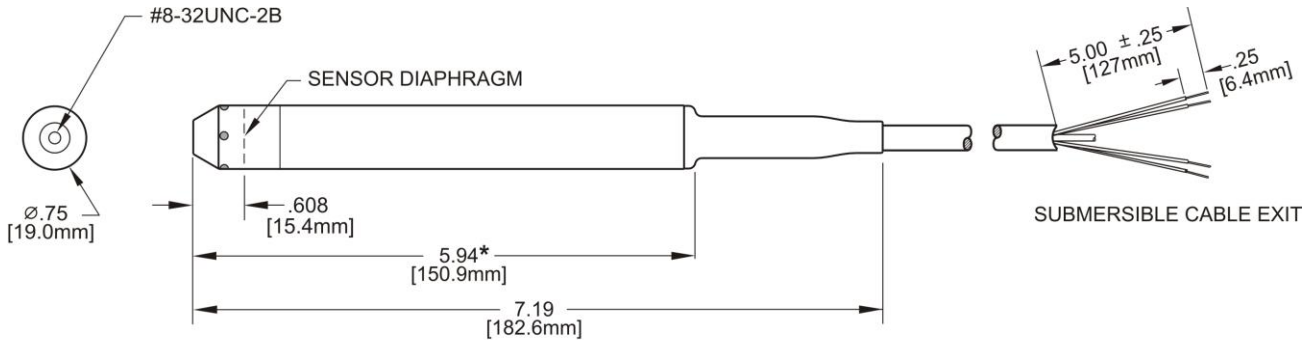
Approximate Weight	0.47 lbs (224 g) transducer	
	0.05 lbs/ft (79 g/m) cable	
Cable Jacket Material	Polyurethane (standard) ETFE (optional)	
Cable Pull Strength	200 lbs (90 kg)	
Cable Number of Conductors	4	
Cable Conductor Size	22 AWG	
Cable Seal	Molded Polyurethane	for polyurethane cable
	FKM Gland	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

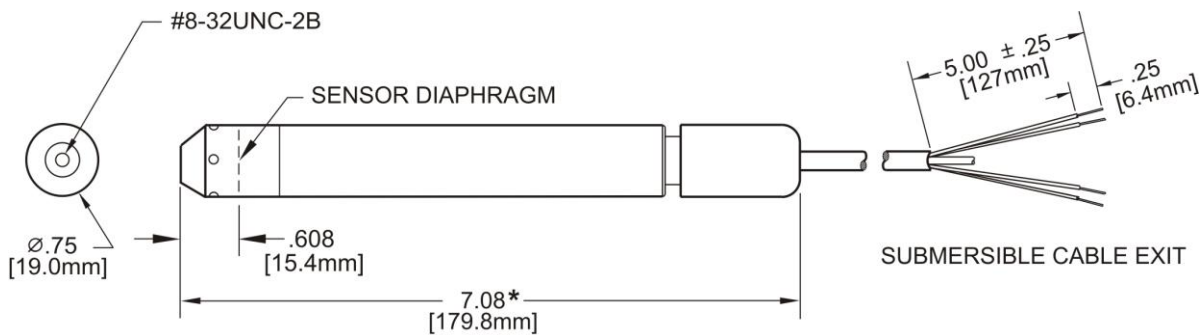
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DIMENSIONS



*ADD 5.00" FOR LIGHTNING PROTECTION OPTION

Molded Cable Seal Configuration for Polyurethane Cable



*ADD 5.00" FOR LIGHTNING PROTECTION OPTION

Gland Cable Seal Configuration for ETFE cable

ELECTRICAL TERMINATION / LOOP RESISTANCE / CERTIFICATIONS

ELECTRICAL TERMINATION		
22AWG CONDUCTORS IN A SHIELDED CABLE WITH VENT TUBE		
4-20 mA	RED	+ EXCITATION
	BLACK	- EXCITATION
0-5 VDC	RED	+ EXCITATION
	BLACK	- EXCITATION
	WHITE	+ SIGNAL
ALL	DRAIN WIRE	SHIELD

