



## KPSI 500

- ◆ SDI-12 Submersible Level Transducer
- ◆  $\pm 0.05\%$  FS Total Error Band
- ◆ Optional Lifetime Lightning Protection
- ◆ Two year warranty
- ◆ 1" Diameter

The KPSI 500 submersible hydrostatic level transducer represents the leading edge of level sensing technology available today. Incorporating a highly stable media-isolated sensor, the KPSI 500 features SDI-12 and RS-485 serial-digital interface standards. SDI-12 is a commonly used standard for interfacing data recorders with microprocessor-based sensors, in the environmental monitoring field. The KPSI 500 is an excellent solution for applications with requirements that require minimal current drain. It will accommodate cable lengths between sensor and recorder up to 1000 feet.

### Applications

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

### Features

- ◆ Custom Polyurethane or ETFE Cable Lengths
- ◆ Welded 316SS or Titanium
- ◆ Custom Level Ranges up to 230 ft. (70m) H<sub>2</sub>O
- ◆ Shipped with Long-Life Vent Filter
- ◆ Removable Cable Options including PVC jacketed steel armored cable

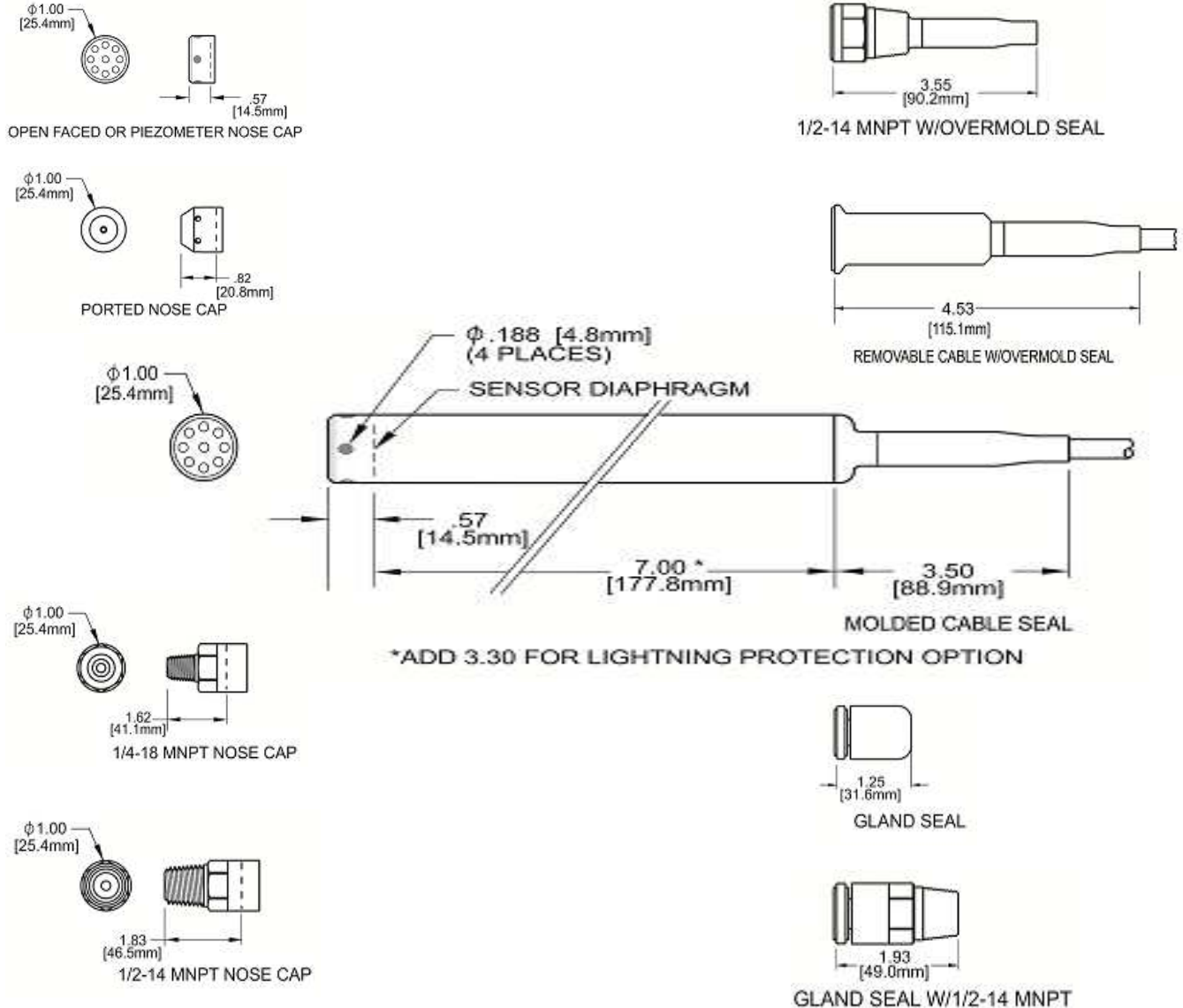


**NEW REMOVABLE CABLE OPTIONS AVAILABLE**

**Specifications**

PARAMETER	COMMENT	
<b>LEVEL RANGES</b>		
Full Scale Level Ranges (intermediate level ranges are available)	10 thru 230 ft. (3 thru 70m) H <sub>2</sub> O	Vented Gage Reference
Proof Pressure	1.5 x FS	
Burst Pressure	2.0 x FS	
<b>STATIC PERFORMANCE</b> (Combined Errors Due to Nonlinearity, Hysteresis, Non-repeatability, and Thermal Effects over the Compensated Temperature Range)		
Level	±0.05% FS TEB ±0.10% FS TEB	For level ranges > 10 ft. (3m) H <sub>2</sub> O For level ranges ≤ 10 ft. (3m) H <sub>2</sub> O
Temperature	+0.5°C	
Excitation	±0.5 VDC	8 to 28 volts
Resolution	+0.0001% FS	
<b>MEASUREMENT RESOLUTION</b>		
Level	±0.0001%FS	
Temperature	±0.001°C	
Excitation	±0.1 VDC	
<b>ENVIRONMENTAL</b>		
Wetted Materials	316 SS or Titanium; POM; FKM; polyurethane or ETFE	
Compensated Temp Range	0 to 50°C	
Operating Temp Range	-20 to 60 °C	When attached to polyurethane cable
Protection Rating	IP 68, NEMA 6P	
<b>ELECTRICAL</b>		
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
<b>CERTIFICATIONS</b>		
	CE compliant	EN 61326-1:2013 and 61326-2-3:2013
<b>PHYSICAL</b>		
Approximate Weight	0.75 lbs. (340 g) transducer 0.05 lbs./ft. (79 g/m) cable	
Cable Jacket Material	Polyurethane ETFE Armored polyurethane (optional 859 accessory)	PVC Jacketed steel armored polyurethane Polyurethane
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
<b>LIGHTNING PROTECTION</b> (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	

Dimensions



\*ADD 3.30 FOR LIGHTNING PROTECTION OPTION

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				
↓	↓	↓				
			<b>MATERIAL</b>			
S	Stainless Steel					
T	Titanium					
↓						
			<b>OUTPUT</b>			
C	SDI-12					
D	RS 485 w/SDI-12 protocol					
↓						
			<b>ELECTRICAL CONNECTION</b>			
0	Molded cable seal					
A	Gland cable seal					
↓						
			<b>CABLE TYPE</b>			
1	Polyurethane					
2	ETFE (Connection A Only)					
4	Armored (Connection O Only; 200 Feet Max)					
↓						
			<b>CABLE LENGTH</b>			
#	#	#	#	#	#	(in feet)
8	5	9				

