KPSI 380

- **SDI-12 Submersible Temperature Transducer**
- **Accuracy of ≤ 0.1ºC**
- **Nickel RTD**
- **Highly Stable**
- **Optional Lightning Protection Available**

CE RoHS

DESCRIPTION

The MEAS KPSI 380 submersible temperature transducer represents the leading edge of temperature sensing technology available today. Incorporating a highly stable media-isolated sensor, the MEAS KPSI 380 features a SDI-12 serial-digital interface. SDI-12 is a standard for interfacing data recorders with microprocessor-based sensors, especially in the environmental monitoring field. It 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. The MEAS KPSI 380 calibration is traceable to the National Institute of Standards and Technology (NIST).

FEATURES

Custom Polyurethane Cable Lengths
Welded 316SS Body Construction
Optional Lifetime Lightning Protection

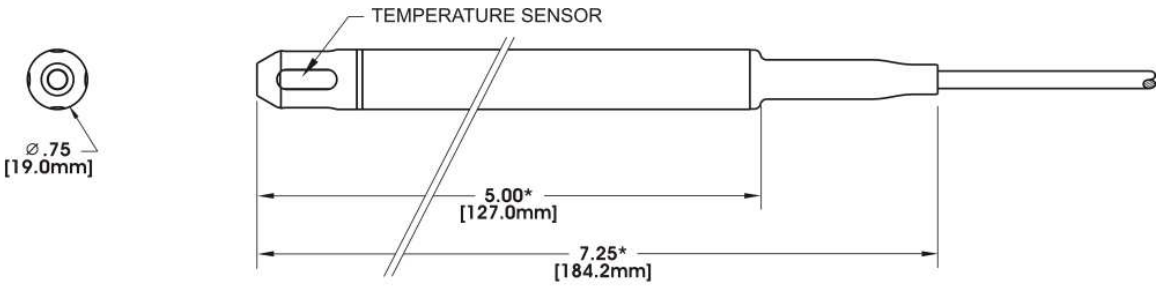
APPLICATIONS

Stream Gauging
Surface Water Monitoring
Aquifer Characterization and Groundwater Monitoring
Storm Water
Dam Operations
Thermo Electric Water Discharge
Aquaculture and Egg Hatcheries

SPECIFICATIONS

PARAMETER		COMMENT
MEASUREMENT ACCURACY		
Temperature	±0.1ºC	Programmable non-volatile calibration coefficients
Response Time	2 min	(63.2%) for 25ºC submersion step at 1m/s flow
Stability	±0.05ºC	per 12 months
Supply Voltage	±0.5 VDC	
MEASUREMENT RESOLUTION		
Temperature	±0.01ºC	
Supply Voltage	±0.1 VDC	
ENVIRONMENTAL		
Wetted Materials	316 SS; Delrin®; polyurethane	Delrin® is a registered trademark of DuPont.
Calibrated Temp Range	-5 to 45ºC	
Operating Temp Range	-20 to 60 ºC	
ELECTRICAL		
Supply Voltage	6-28 VDC	10 second power-on boot-up delay
Current Draw	10 mA 1.5 mA	average current during measurement quiescent
Communication Interface	SDI-12 or RS-485	protocol compliant to SDI-12 version 1.3
CERTIFICATIONS		
CE		EN 61000-4-2 [-3, -4, -5, -6, -8], CISPR11
IP-68, NEMA6P		
PHYSICAL		
Approximate Weight	0.75 lbs (340 g) transducer 0.05 lbs/ft (79 g/m) cable	
Cable Jacket Material	Polyurethane (standard)	
Cable Pull Strength	200 lbs (90 kg)	
Cable Number of Conductors	4	
Cable Conductor Size	22 AWG	
Cable Seal	Molded Polyurethane	
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	

DIMENSIONS



***Add 3.80" for lightning protection option**

Molded Cable Seal Configuration for Polyurethane Cable

KPSI 380

ORDER INFORMATION

MODEL	SUBMERSIBLE TEMPERATURE TRANSDUCER
380	SDI-12
↓	**MATERIAL**
S	Stainless Steel
↓	**OUTPUT**
C	SDI-12
D	RS-485, SDI-12 protocol
↓	**NOSEPIECE**
H	Slotted nose cap
↓	**ELECTRICAL CONNECTION**
0	Molded cable seal
↓	**LIGHTNING PROTECTION**
A	None
B	Full Lightning Protection (only available with OUTPUT option C: SDI-12)
↓	**CABLE TYPE**
1	Polyurethane
↓	**CABLE LENGTH**
# # # #	(in feet)
↓ ↓ ↓ ↓	

3	8	0	S		H	0		1	X	X	X	X

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