



## 7250V Digital Flex Stik Sensor Data Sheet

### Flexible PVDF Low Voltage Magnetostrictive Sensor with Serial Communications

The 7250V Digital Stik takes field proven magnetostrictive sensing technology and packages it in an exclusive compact design for greater reliability and easier installation and mounting. It is ideal for liquid level, interface level and measuring temperature in a variety of liquid media found in any size tank.

The 7250V Digital Stik combines low power consumption with a patented high resolution design. It requires only 5 volts DC making it ideal for mobile, battery operated and wireless applications.

The system has been designed to meet EPA Leak Detection and API Inventory Monitoring requirements and has been approved for use in hazardous environments.

The sensor's electronics are SMT components and integrated into a 5/8" diameter sensing tube. This breakthrough design eliminates the bulky electronics enclosure at the top of the sensor and offers greater options for insertion and mounting.

Sensors are available in flexible and semi-flexible PVDF (polyvinylidene fluoride) in lengths up to 50 feet. It's Ideal for use in tall tanks or installations where overhead room is limited. PVDF material provides an excellent option for monitoring chemicals not compatible with stainless steel.

The 7250 communicates through a single signal. The data is transmitted via asynchronous serial communications and is offered with serial protocol options including an ASCII format. There are other options available to OEMs for use in developing a communications interface with the probe. The patented design allows for very high resolution on a low

power budget. The resolution of the 7250 is 0.0001" with a linearity of 0.01% (See specifications).

Factory Mutual (FM) certified that the 7250 Digital Stik is Intrinsically Safe for use in ethylene and propane (petroleum) applications (See specifications). The 7250 has been approved to the following standards:

CSA C22.2 Nos. 25,142,157 and 213  
 FM 3600, 3610, 3611 and 3810  
 Cenelec EN 50014, 50020 and 50284

The 7250 has an inherently lower cost design which results in savings. It provides the same performance and reliability as sensors that consume more power. Combining low power requirements with high resolution provides the ultimate performance and reliability.

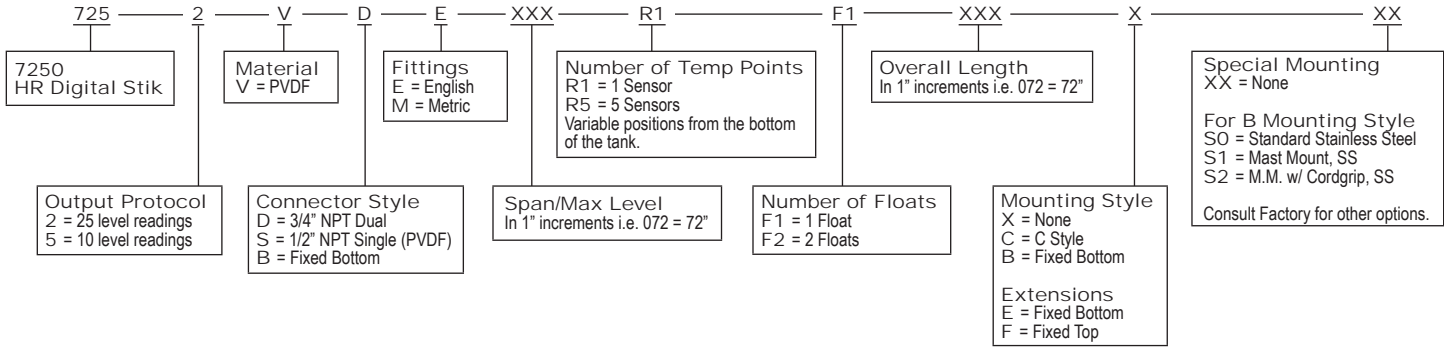


Specifications			
Power Supply Voltage	+5 VDC $\pm$ 10% typical (+3.7 VDC min.)	Probe Length Standard V Style	47" to 600"
Current (at +5 VDC)	10mA max. (8mA typical) plus 1.5mA max. (1mA typical) per temperature sensor	Option C Style	25" to 192"
Operating Temperature Sensing Area	-40°C to 70°C (Hazardous Location)	Probes available in 1" increments. Consult Factory for longer lengths.	
Electronics Area	-40°C to 70°C	Hazardous Areas Approvals	
Pressure Rating	PVDF Probe: 150 psi max. Float: Dependent. Call Factory.	FM -40° $\leq$ Tamb $\leq$ 70° C Class I, II, III, Div. 1 Groups C, D, E, F, G, T4 Class I, Div. 2 Groups A, B, C, D, T4 Class I, Zone 0, AEx ia IIB T4	
Resolution	0.0001" (Protocol Dependent)	ATEX	
Repeatability	Equal to Resolution	Ex ia IIB T4	
Linearity	Probes 193" to 600": $\pm$ 0.01% of span or $\pm$ 0.039", whichever is greater.	NEMKO 05 ATEX 1219X	
Hysteresis	Probes 193" to 600": $\pm$ 0.002% of span or $\pm$ 0.005", whichever is greater.	CE 0344 Ex II 1G	
Null Zone	Standard V Style: 12" Option C Style: 9"		
Dead Band	Standard V Style: 6" to 14" Option C Style: 3"		
Intrinsically Safe Barrier	See Installation Drawing E0241200. Consult Factory.		
Enclosure Material Rating	PVDF IP68		

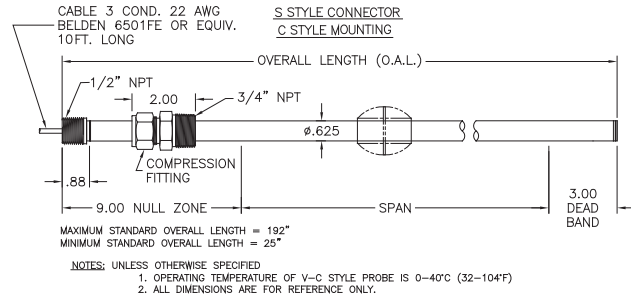
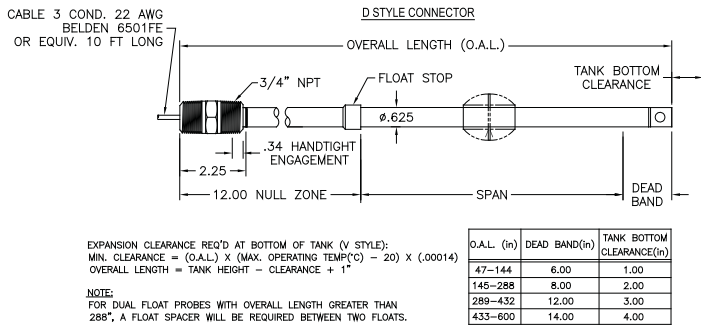
Specifications are subject to change without notice. Patented.

# 7250V Digital Flex Stik Sensor

## Part Numbering



## Dimension Drawing

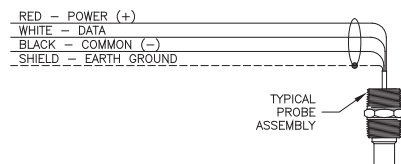


## Intrinsically Safe Entity Parameters

V <sub>max</sub>	I <sub>max</sub>	P <sub>I</sub>	C <sub>I</sub>	L <sub>I</sub>
7.93 V	280mA	1.0 W	30.1µF	0µH

**NOTE:** The surface of the isolating material (PVDF) exceeds the limit of 4cm<sup>2</sup> as specified in EN 50284 and the probability of electrostatic charging needs to be considered for use in Category 1 (Zone 0).

## Wiring Diagram



## Accessories

Item	Part Number
Weight Kit: for use with PVDF probes with OAL of 146" to 288" 316 Stainless Steel components, 2" d x 7" h weight and retaining pin. (For use with X style mounting)	SD0517408
Weight Kit: for use with PVDF probes with OAL of 289" to 432" 316 Stainless Steel components, 2" d x 7" h weight and retaining pin. (For use with X style mounting)	SD0517411
Weight Kit: for use with PVDF probes with OAL of 433" to 480" 316 Stainless Steel components, 2" d x 7" h weight and retaining pin. (For use with X style mounting)	SD0517413
Float: PVDF split ring and screws. (For use with C style mounting)	SD0511000
Float Spacer: Urethane spacer to maintain required distance between upper and lower float magnets on 289" to 600" F2 probes.	SD0532500
316ss Product Float: 2.05" dia., 0.54 sg, 350 psi.	14020002
316ss Gasoline/Water Interface Float: 2.05" dia., 0.85 sg, 350 psi.	SD0437900
Urethane Product Float: 3.85" dia., 0.30 sg, 50 psi.	P0085900
Urethane Gasoline/Water Interface Float: 3.85" dia., 0.85 sg, 50 psi.	SD0435901