

# 7250X Digital Stik Sensor Data Sheet

# Proven Magnetostrictive Sensing Performance in a Revolutionary New Package

The 7250X Digital Stik takes field proven magnetostrictive sensing technology and packages it in a revolutionary new way for greater reliability and easier installation and mounting. It is ideal for liquid level monitoring, interface level and leak detection in a variety of liquid media in both above ground and underground storage tanks.

The 7250X 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.

The probe is constructed of 316 Stainless Steel and comes with a variety of connectors, including a mini connector for quick connect applications, a single 3/4" NPT that can be used with a compression fitting, a double 3/4" NPT for mounting with a flange or bushing, and a 1/2" right angle for use in low overhead applications.

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 7250X is 0.0001" with a linearity of 0.01% (See specifications).

Factory Mutual (FM) certified that the 7250X Digital Stik is Intrinsically Safe for use in ethylene and propane (petroleum) applications (See specifications).

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



Specifications						
Power Supply Voltage	+5 VDC ± 10% typical (+3.7 VDC min.)	Probe Length Stainless Steel R Style	21" to 288"			
Current (at +5 VDC)	10mA max. (8mA typical) plus 1.5mA max. (1mA typical) per	Stainless Steel D,S,M Style	20" to 288"			
	temperature sensor	(Probes available in 1" increments)	Consult Factory for longer lengths			
Operating Temperature Sensing Area	-40°C to 100°C (Non Hazardous Location) -40°C to 70°C (Hazardous Location)	-40° ≤Tamb ≤70° C	$\sim$			
Electronics Area	-40°C to 70°C	Class I, II, III, Div. 1 Groups C, D, E, F, G, T4	c FM us			
Pressure Rating	Steel Probe: 1000 psi max. Float: Dependent. Call	Class I, Div. 2 Groups A, B, C, D, T4	APPROVED			
Resolution	0.0001" (Protocol Dependent)	Class I, Zone 0, AEx ia IIB T4				
Repeatability	Equal to Resolution					
Linearity	Probes up to 288": ± 0.01% of span or ± 0.015", whichever is	ATEX AEx/EX ia IIB T4 Ga				
Hysteresis	Probes up to 288": ± 0.002% of span or ± 0.005", whichever is	FM13ATEX0102X IECEx FMG 12.0008X	Sanitary Approvals			
Null Zone	R Style: 9" D, S and M Style: 8"	Issued Date: 06/29/12 IEC 60079-0:2011				
Dead Band	2"	IEC 60079-11:2011	200			
Intrinsically Safe Barrier	See Installation Drawing E0241200. Consult Factory.	IEC 60079-26:2006 INMETRO DNV 14.0106X				
Enclosure Material Rating	316 Stainless Steel IP68	<b>( €</b> 0575 ᠍ II 1G				
Specifications are subject to change without notice. Patented.						

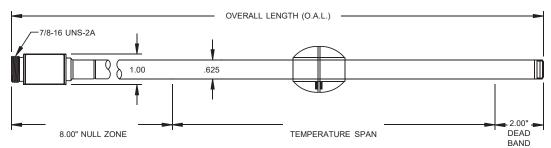


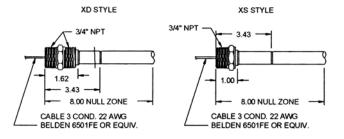
## 7250X Digital Stainless Steel Sensor

#### **Part Numbering** XXX 7250 Digital Stik **Number of Temp Points** # of Floats **Mounting Style** Style/Material X = 316 Stainless Steel Consult factory for other **R1** = 1 Sensor, 18"\* **R5** = 5 Sensors **T1** = 1 Sensor, 4"\* **F1** = 1 Float **F2** = 2 Floats X = None \*From the bottom of the probe. Connector Style M = 4 Pin Mini R = 1/2" NPT Right Angle D = 3/4" NPT Dual Overall Length In 1" increments Special Mounting XX = None Output Protocol 2 = 25 level readings 5 = 10 level readings In 1" increments i.e. 072 = 72" (Min 8" Max 278". Max span is equal to overall length -10) i.e. 072 = 72" (Min 18" Max 288") S = 3/4" NPT Single

### **Dimension Drawing**

#### **M** Connector





Accessorries				
Item	Part Number			
Float Kit, 316 SS, 2.05" Diameter w/E Clip and Spacer 0.54sg	SD0515000			
Cable Assembly (Enhanced Fuel Compatability) 4 Pin, 6ft Long (M Style)	01533154			
Cable Assembly Standard 4 Pin, 6ft Long (M Style)	01533141			
Adjustable Tibe Coupling 5/8" x 3/4" NPT	04283800			
Junction Box, Side Mount, N4X with Zero & Span Push Buttons	SD0536101			
Bushing, 3/4" x 2" NPT 316SS	04587241			

Wiring Diagram (M Conn	lector Style)
Common (Black wire)	Orain (Cable Shield, chassis ground on ss housing probes)
(White wire)	Power (Red wire)
	ctor View r additional drawings.

Intrinsically Safe Entity Parameters						
V <sub>max</sub>	I <sub>max</sub>	PI	CI	Lı		
7.93 V	280mA	1.0 W	30.1µF	0μΗ		

