

### 7330 Series Pro-Stik II Magnetostrictive Sensor with Field Programmable Span

The 7330 Series Pro-Stik II design takes field proven technology and incorporates features including field programmable span. A variety of floats and mounting accessories is also available to fit many applications.

The construction of the sensor has all of the electronics integrated into the 5/8" diameter sensing tube. This breakthrough in package design eliminates the bulky electronics enclosure at the top of the sensor.

#### 7330X

The 7330X Pro-Stik II is ideal for level monitoring in a variety of liquids and tanks.

- Mini connector or 3/4" NPT fitting
- Totally welded construction optional
- Cathodic protection optional
- Security feature uses a timing sequence to unlock the probe for programming.

#### 7330V

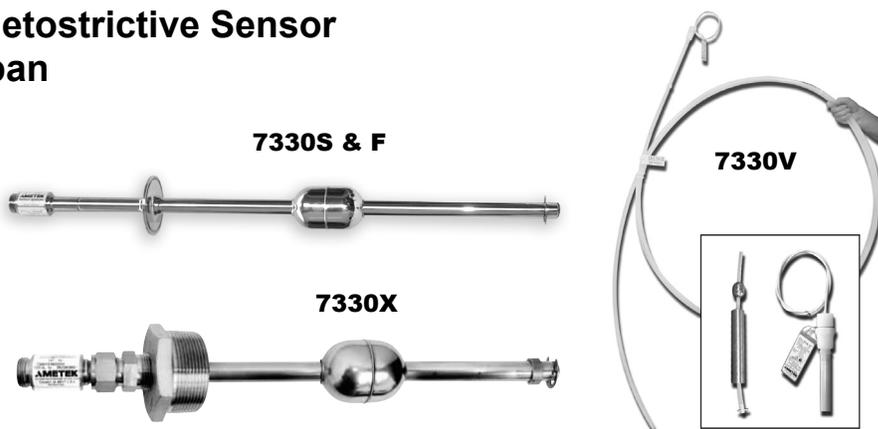
The 7330V Pro-Stik II is ideal for level monitoring in a variety of liquids and tank designs especially when overhead room is limited. Diagnostic output provides continuous information about the float's position.

Available in flexible and semi-flexible PVDF (polyvinylidene fluoride) in lengths up to 40 ft. PVDF material provides an excellent option for monitoring chemicals not compatible with stainless steel.

#### 7330S & F

The 7330 S & F probes are effective in demanding applications such as underground leak detection and inventory management. The rugged, 316 stainless steel construction is ideal for food processing, pharmaceutical and other sanitary environments.

- Provides continuous absolute position data.
- No calibration required.
- Finish is welded, ground and polished
- Installed with a standard Tri-clamp fitting. Can also be ordered without a Tri-clamp.
- "Timing sequence" unlocks probe, preventing accidental re-programming.
- Diagnostic outputs



Specifications			
<b>Operating Voltage</b>	13.5 to 30 VDC	<b>Probe Length</b> (7330 S & F) Stainless Steel M, R, D, S	18" to 120"
<b>Output</b>		(7330X) Stainless Steel R (7330X) Stainless Steel M, D, S	19" to 128" 18" to 288"
Operating Output	4 to 20mA	(7330V) PVDF Style C (7330V) PVDF Style X	20" to 192" 25" to 480"
Diagnostic Output	3.9mA and 20.1mA, float outside of span 3.8mA, no signal received (Note: Diagnostic Tolerance +/- 0.02mA)		Consult Factory for longer lengths
<b>Operating Temperature</b>		<b>Hazardous Areas Approvals</b>	<b>Other Approvals</b>
Sensing Area (7330X, S & F)	-20° to 100° C (No Hazardous Location)	<b>FM, CSA</b>	3A Approval for 7330S ONLY.
Electronics Area (7330X, S & F)	-20° to 70° C	-20° ≤ Tamb ≤ 70° C	 FM & CSA Approval for 7330X, V, S & F
All (7330V)	-20° to 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	
<b>Pressure Rating</b> (7330X, S & F)	316SS Probe: 1000 psi max. Floats: Depend. Call Factory.	<b>ATEX</b>	<b>Sanitary</b> 3A (74-02)
(7330V)	PVDF Probe: 150 psi max.	EEx ia IIB T4	 
<b>Resolution</b>	0.025% of span or 0.014", (Whichever is Greater)	NEMKO 04 ATEX 1357X	
<b>Repeatability</b>	0.014" + 0.05% of span typical, 0.014" + 0.4% of span maximum	CE 0344 Ex II 1G	
<b>Accuracy</b>	0.1% of span or 0.050" (Whichever is Greater)		
<b>Null Zone</b> (7330X, S & F)	8"		
(7330V)	C Mounting Style : 9" X Mounting Style : 12"		
<b>Dead Band</b> (7330X, S & F)	2"		
(7330V)	C Mounting Style : 3" X Mounting Style : 6 to 14" (Depends on OAL)		
<b>Intrinsically Safe Barrier</b>	See Installation Drawing E0240200		
<b>Enclosure Material Rating</b> (7330X, S & F)	316SS IP68		
(7330V)	PVDF IP68		

Specifications are subject to change without notice. Patented.

Accessories			
Item	P/N	Item	P/N
<b>7330 V Style</b>		<b>7330 X Style</b>	
Float: 316 Stainless Steel, 2.05" dia., 0.56s.g.	14020002	Float Kit, 316 SS, 2.05" Diameter w/ E Clip and Spacer 0.54s.g.	SD0515000
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	Float Kit, Nitrophyll, 2.02" Diameter w/ E Clip and Spacer 0.40s.g.	SD0536500
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	Cable Assembly, 4 pin, 6 feet long (M style only)	01533141
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	Adjustable Tube Coupling 5/8" x 3/4" NPT	04283800
Float Spacer: PVDF split ring spacer and screws. (For use with "C" style mounting).	SD0511000	Junction Box, side mount, explosion proof with zero & span push buttons	SD0536101
<b>7330 S &amp; F Styles</b>		Safety Barrier Single Channel	04517238
Cable/Connector Ass'y, 6 ft., M Style	01533141	Safety Barrier Dual Channel	04517248
Meter, 4.5 Digital Display, Panel Mount, 2 Output Relays	04541069	Meter, 4 1/2 digit display, panel mount, 2 output relays	04541069
Sanitary Float Kit, 316SS, 1.83" dia., .61s.g., F Style Only	SD0529100	Bushing, 3/4" x 2" NPT 316SS	04587241

**733** — **O** — **S** — **M** — **E** — **072** — **F1** — **XXX** — **X** — **XX**

**7330 Pro-Stik II**

**Output**  
**0** = 4 to 20mA  
**1** = 20 to 4mA

**Style**  
 For 7330 S & F  
**S** = Sanitary 240 Grit  
**F** = Food Grade 180 Grit  
 For 7330 X  
**X** = 316 Stainless Steel  
 For 7330 V  
**V** = PVDF (polyvinylidene fluoride)

Consult factory for other options.

**Connector Style**  
 For 7330 S & F  
**M** = 4 Pin Mini  
**S** = 3/4" NPT Single  
 For 7330 X  
**M** = 4 Pin Mini  
**R** = 1/2" NPT Right Angle  
**D** = 3/4" NPT Dual  
**S** = 3/4" NPT Single  
 For 7330 V  
**S** = 1/2" NPT Single for housing mounting (For "C" mounting style only)  
**D** = 3/4" NPT Dual for housing and vessel mounting (For "X" mounting style only)

**Fittings**  
**E** = English  
**M** = Metric

**# of Floats**  
**F1** = 1 Float

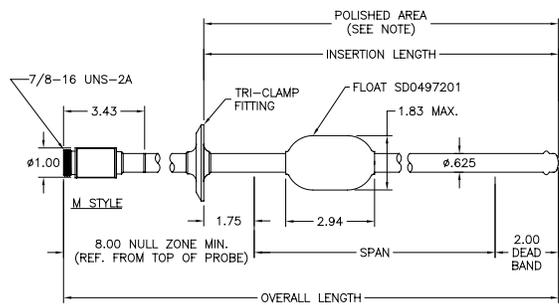
**Max Span**  
 For 7330 S & F  
 ie. 072 = 72" (Min 8" Max 110". Max span is equal to overall length -10)  
 For 7330 X  
 ie. 072 = 72" (Min 8" Max 278". Max span is equal to overall length -10)  
 For 7330 V  
 ie. 072 = 72" (Min 7" Max 454". Max span is equal to overall length minus the Null Zone and Dead Band)

**Overall Length**  
 For 7330 S & F  
 ie. 072 = 72" Min 18" Max 120"  
 For 7330 X  
 ie. 072 = 72" Min 18" Max 288"  
 For 7330 V  
 ie. 072 = 72" Min 20" Max 480"

**Options**  
 For 7330 S & F  
**20** = 2" Tri-Clamp  
**25** = 2.5" Tri-Clamp  
**30** = 3" Tri-Clamp  
**40** = 4" Tri-Clamp  
 For 7330 X  
**XX** = None  
 For 7330 V  
**XX** = None

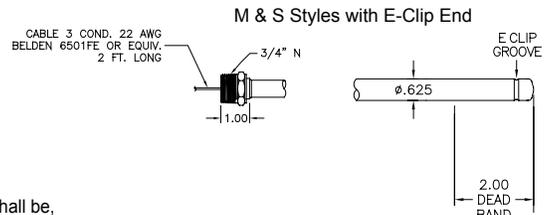
**Mounting Style**  
 For 7330 S & F  
**P** = Tri-Clamp with CIP End 3A (float included)  
**T** = Tri-Clamp with E-Clip End (float kit purchased separately)  
 For 7330 X  
**X** = None  
 For 7330 V  
**X** = None  
**C** = Temperature Constrained (0-40°C) Version

### 7330 S & F Dimensions

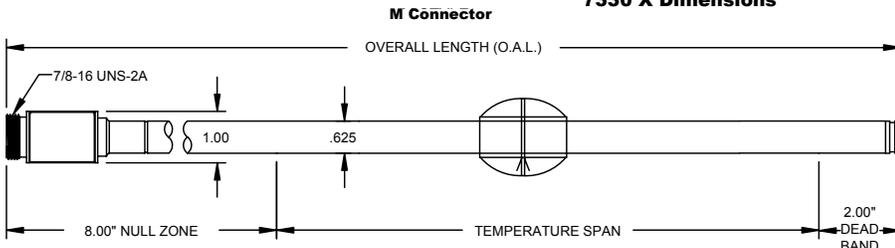


M & S Styles with CIP End

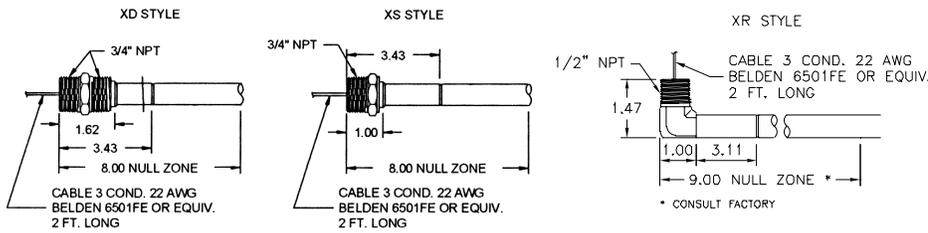
**Note:** All polished area surfaces shall be,  
 a) 180 grit or better for 3A Food Grade,  
 b) 240 grit or better for 3A Sanitary.



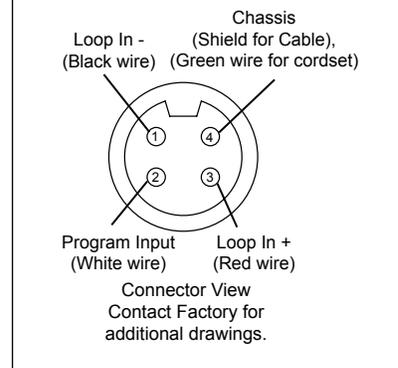
### 7330 X Dimensions



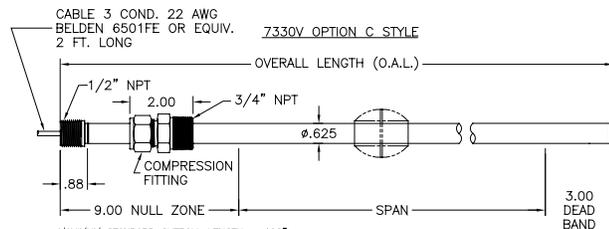
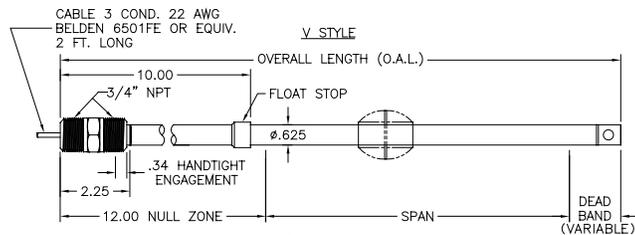
M Connector



### Wiring Diagram For 7330 X, S & F



### 7330 V Dimensions



MAXIMUM STANDARD OVERALL LENGTH = 480"  
 MINIMUM STANDARD OVERALL LENGTH = 25"  
 EXPANSION CLEARANCE REQ'D AT BOTTOM OF TANK (V STYLE):  
 MIN. CLEARANCE = (O.A.L.) X (MAX. OPERATING TEMP(°C) - 20) X (.00014)  
 OVERALL LENGTH = INSERTION LENGTH - CLEARANCE + 1"

O.A.L. (in)	DEAD BAND(in)	CLEARANCE(in)
25-144	6.00	1.00
145-288	8.00	2.00
289-432	12.00	3.00
433-480	14.00	4.00

**NOTES:** UNLESS OTHERWISE SPECIFIED:  
 1. OPERATING TEMPERATURE OF V-C STYLE PROBE IS 0-40°C (32-104°F)  
 2. ALL DIMENSIONS ARE FOR REFERENCE ONLY.

### Wiring Diagram For 7330 V

Signal Name	Pigtail Cable
Loop (-)	Black
Prgm Input	White
Loop (+)	Red