

# Linear and Rotary Position Transducers

Honeywell Sensing and Control manufactures a variety of potentiometric position sensors. The sensors use a tried and true potentiometric technology originally developed for military applications and more recently applied to industrial markets. MystR® conductive plastic potentiometric sensors are long-life units designed for rugged industrial applications. The proprietary MystR® conductive plastic has an extensive temperature range, infinite resolution and provides absolute position measurement on power-up. Intermediate signal conditioning is not required for normal ratio-metric position sensing. Very small stroke units (5 mm [0.2 in]) and units required to withstand exposure to harsh chemicals or work immersed in many different oils are available. If there is heavy hose down or spray from oil or water, a water resistant or waterproof potentiometer such as the AQ series should be used.

Linear products have CE approval, Intrinsically Safe For Class I, II, III, Division 1, Groups A, B, C, D, E, F, G With Entity. Vmax: 30 Vdc, Imax: 100 mA, Ci: 0.0 micro F, Li: 0.0 mH, T4A @ 105 °C Ambient.

**Mechanical life:**  
**Approvals:**  
**Housing:**  
**Element:**  
**Shaft:**  
**Wiper current:**  
**Resolution:**

1 billion dither operations  
CE, NEMA 4 - water resistant  
Anodized aluminium  
MystR® conductive plastic film  
Stainless steel  
< 1 uA  
Infinite

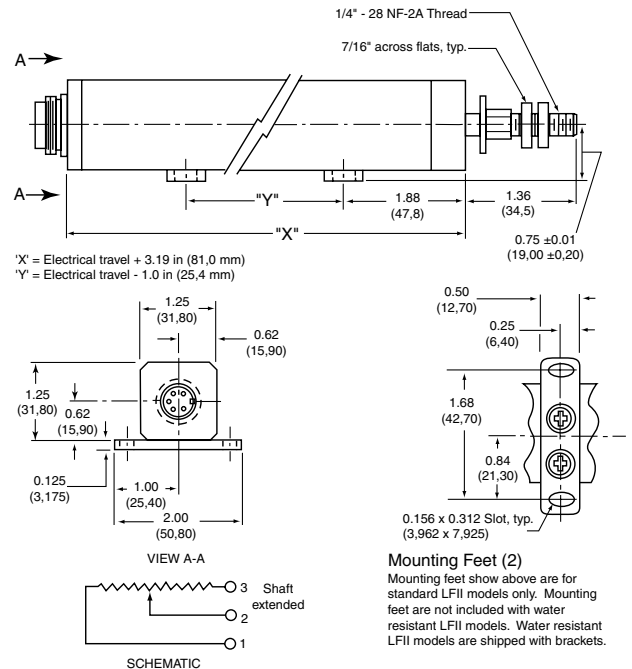
## LFII Series Longfellow II linear position transducer



The new Longfellow II incorporates design innovations to increase transducer life and provide greater resistance to vibration, while providing a smooth high-quality signal for demanding factory control applications. It has a solid stainless steel shaft, longer front-end bearings, a vibration-free damped element, a spring-loaded ball joint and a high precision precious metal wiper. Carrier guides are extruded the full length of the housing to ensure smooth operation even under severe side load conditions.

The newly designed internal components provide improvements based on worldwide testing and field experience.

<b>Operating temperature:</b>	-65 °C to 105 °C (-85 °F to 221 °F)
<b>Supply voltage (max.):</b>	30 Vdc
<b>Linearity:</b>	± 0.1 %
<b>Starting force (max.):</b>	
Standard	0.45 kg (1.0 lb)
Water resistant	2.27 kg (5.0 lb)
<b>Backlash (max.):</b>	0.025 mm (0.001 in)
<b>Total Resistance:</b>	5000 Ohm
<b>Shaft Ø:</b>	1/4 in
<b>Termination:</b>	Connector, Binder Series 681
<b>Housing length:</b>	= Electrical travel + 3.19 in (81.02 mm)
<b>Mechanical travel:</b>	= Electrical travel + 0.09 in (2.29 mm)



## OPTIONS

### Standard

Mating connector, 3718401, sold separately

ELECTRICAL TRAVEL (IN (MM))	REFERENCE
6.0 (152.4)	LF2S06N5KB6A
9.0 (228.6)	LF2S09N5KB6A
12.0 (304.8)	LF2S12N5KB6A
14.0 (355.6)	LF2S14N5KB6A
18.0 (457.2)	LF2S18N5KB6A
24.0 (609.6)	LF2S24N5KB6A
30.0 (762.0)	LF2S30N5KB6A
36.0 (914.4)	LF2S36N5KB6A
48.0 (1219.2)	LF2S48N5KB6A

### Water resistant

Mating connector, E02903021, sold separately

ELECTRICAL TRAVEL (IN (MM))	REFERENCE
6.0 (152.4)	LF2W06N5KB6A
9.0 (228.6)	LF2W09N5KB6A
12.0 (304.8)	LF2W12N5KB6A
14.0 (355.6)	LF2W14N5KB6A
18.0 (457.2)	LF2W18N5KB6A
24.0 (609.6)	LF2W24N5KB6A
30.0 (762.0)	LF2W30N5KB6A
36.0 (914.4)	LF2W36N5KB6A
48.0 (1219.2)	LF2W48N5KB6A

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