

## APPLICATIONS

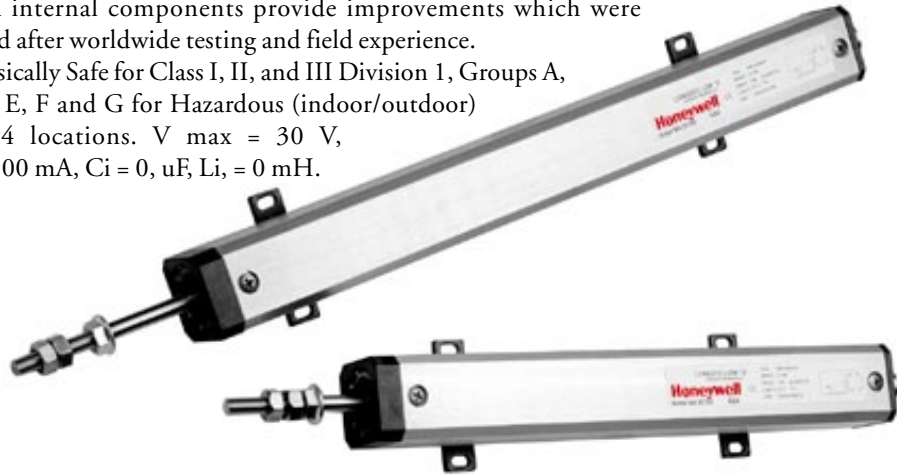
- INJECTION MOLDING MACHINES
- PRINTING PRESSES
- MEAT PACKING EQUIPMENT
- DRILL PRESSES
- WOODWORKING MACHINES
- CRANES
- FRONT-END LOADERS
- SCALES
- SEMI CONDUCTOR PROCESSING

## LONGFELLOW II • LINEAR POSITION TRANSDUCER

The new Longfellow II has a rugged long-life design featuring greater resistance to vibration and a smooth high quality signal. 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 extruded the full length of the housing insure smooth operation even under severe side load conditions.

The Longfellow II is a direct drop-in replacement for existing Waters, Data Instruments, Novotechnik, Gefran or Sfernice units. The newly designed internal components provide improvements which were developed after worldwide testing and field experience.

Intrinsically Safe for Class I, II, and III Division 1, Groups A, B, C, D, E, F and G for Hazardous (indoor/outdoor) NEMA 4 locations.  $V_{max} = 30 V$ ,  $I_{max} = 100 mA$ ,  $C_i = 0, \mu F$ ,  $L_i = 0 mH$ .



**LONG FELLOW II SERIES**  
LINEAR POSITION TRANSDUCER

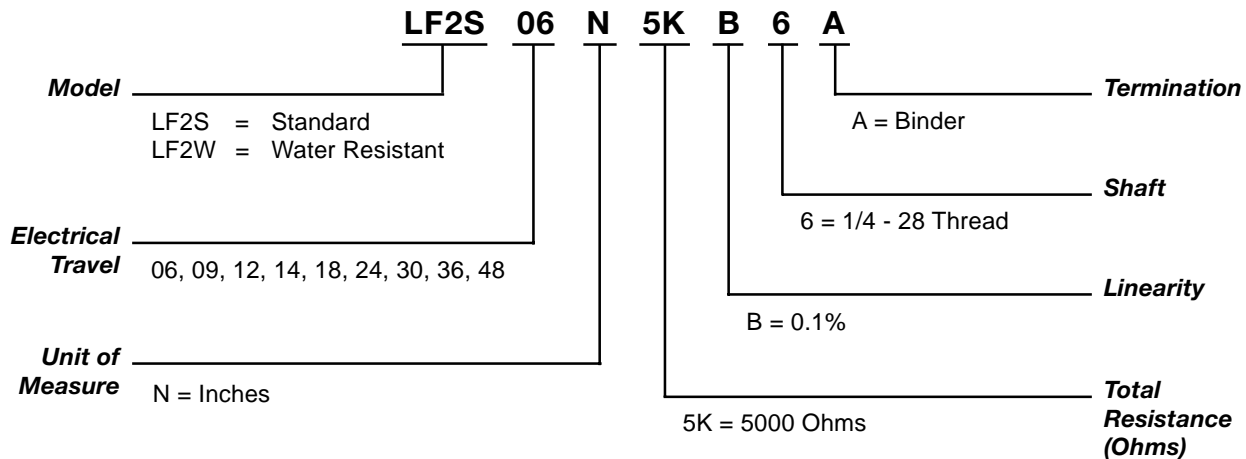
### FEATURES

- Vibration damped element
- Spring-loaded ball joint assembly
- Extruded wiper carrier guides
- Precious metal wipers
- MystR® plastic elements
- High DC level output
- High performance bearings
- Absolute continuous measurement
- Shaft seals
- LF2W

### BENEFIT

- No wiper bounce in high vibration Environments
- Operation under high side loads
- Smooth operation under large misalignment
- Insures high performance, low noise, no oxidation
- Tested up to one billion operations
- Works with simple controllers
- Long life under side load conditions
- Accurate position at power-up
- Protect internal components from environments
- NEMA 4 and water resistant

### HOW TO ORDER



Note: Not all combinations are available. Minimum quantity orders apply. Contact the factory for more details.

## TECHNICAL SPECIFICATIONS

### MECHANICAL

Total Mechanical Travel	6 to 48 in. (150 to 1200 mm)
Starting Forces*	1.0 lb (0.45 kg)
Total Weight	0.8 to 4.9 lb (0.36 to 2 kg)
Vibration**	20 g rms/0.75 mm 5-2 Hz
Shock	50 g, 11 ms half sine
Backlash	0.001 in. (0.025 mm)
Life	One Billion Dither Operations

### ELECTRICAL

Theoretical Electrical Travel	6.0 to 48.0 in. (150 to 1200 mm)
Independent Linearity	0.1% over Theoretical Electrical Travel
Total Resistance	5000 Ohms
Resistance Tolerance	20%
Operating Temperature	-65° to 105° C (-85° to 221° F)
Resolution	Infinite
Insulation Resistance	1000 M Ohms @ 500 Vdc
Dielectric Strength	1000 V rms
Recommended Wiper Current	<1 $\mu$ A
Electrical Connection	Binder Series 681 Connector or Equivalent
Maximum Applied Voltage	30 Vdc

\* Starting force for LFIW 5 lbs. MAX  
Water resistant LFIW Models are rated to NEMA 4

\*\* For vibration levels up to 50 g rms and higher additional housing clamps are required

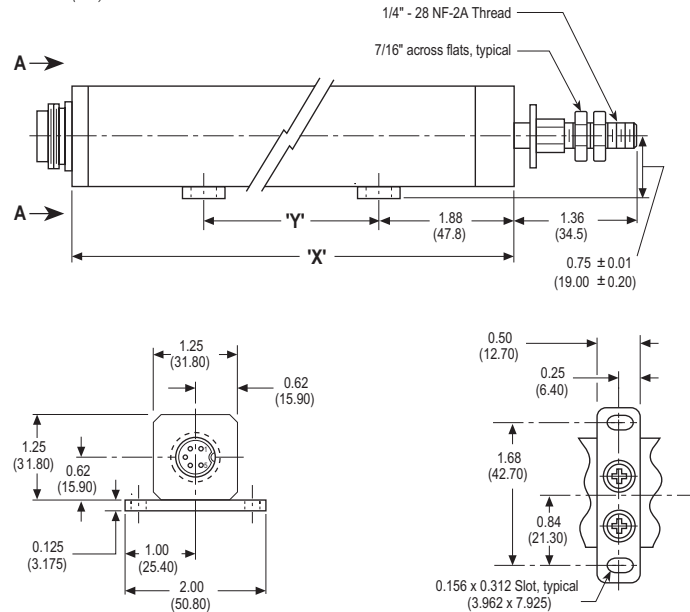
Caution: Do not test on an Ohm Meter on the Rx 1 scale or other current devices.

Caution: Excessive Wiper Current can cause Output errors or damage.

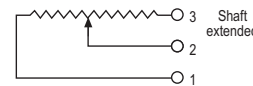
Caution: Zero shaft side load is recommended to achieve maximum life.

### DIMENSIONS

xx.xx = inches  
(xx.x) = mm



VIEW A-A



SCHEMATIC

### MOUNTING FEET (2)

Mounting feet shown above are for standard LF II models only. Mounting feet are not included with water resistant LF II models. Water resistant LF II models are shipped with brackets.

### Notes:

1. Total Mechanical Travel equals Electrical Travel plus 0.090 inches minimum
2. 'X' Overall Length equals Electrical Travel plus 3.19 inches
3. 'Y' Equals Electrical Travel minus 1.00 inches  
(EXCEPT for LF II 09/225: 'Y' Equals Electrical Travel minus 1.12 inches)

### WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. The foregoing is Buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

## SPECIALS AND ACCESSORIES

- Other Electrical Travels
- Other Resistance Values
- Rod-end Bearings
- Ball Joint Assembly
- Dual Element
- DIN 43650 Connector
- Optional Linearity Values
- M6 x 1 Metric Thread

Item # 1102800 M.G. 10/01

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