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## 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. $\mathrm{V} \max =30 \mathrm{~V}$,


## FEATURES

## BENEFIT

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

$$
\begin{aligned}
\text { LF2S } & =\text { Standard } \\
\text { LF2W } & =\text { Water Resistant }
\end{aligned}
$$

## Electrical

Travel $\quad 06,09,12,14,18,24,30,36,48$

Unit of
Measure $N=$ Inches


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

## Long FELLOW II SERIES

TECHNICAL SPECIFICATIONS

## MECHANICAL

| Total Mechanical Travel | 6 to 48 in. <br> $(150$ to 1200 mm$)$ |
| :--- | :---: |
| Starting Forces* | $1.0 \mathrm{lb}(0.45 \mathrm{~kg})$ |
| Total Weight | 0.8 to 4.9 lb |
|  | $(0.36$ to 2 kg$)$ |
| Vibration $^{\star *}$ | $20 \mathrm{~g} \mathrm{rms} / 0.75 \mathrm{~mm} \mathrm{5-2} \mathrm{~Hz}$ |
| Shock | $50 \mathrm{~g}, 11 \mathrm{~ms}$ half sine |
| Backlash | 0.001 in. |
|  | $(0.025 \mathrm{~mm})$ |


| Life | One Billion Dither Operations |
| :--- | :--- |
| ELECTRICAL |  |

ELECTRICAL

| Theoretical Electrical Travel | 6.0 to 48.0 in. (150 to 1200 mm ) |
| :---: | :---: |
| Independent | $0.1 \%$ over |
| Linearity | Theoretical Electrical Travel |
| Total Resistance | 5000 Ohms |
| Resistance Tolerance | 20\% |
| Operating | $-65^{\circ}$ to $105^{\circ} \mathrm{C}$ |
| Temperature | $\left(-85^{\circ}\right.$ to $221^{\circ} \mathrm{F}$ ) |
| Resolution | Infinite |
| Insulation Resistance | 1000 M Ohms @ 500 Vdc |
| Dielectric Strength | 1000 V rms |
| Recommended Wiper Current | $t \quad<1 \mu \mathrm{~A}$ |
| Electrical | Binder Series 681 |
| Connection | Connector or Equivalent |

Maximum Applied Voltage
30 Vdc

* Starting force for LFIIW 5 Ibs. MAX

Water resistant LFIIW 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.

## 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. ' $\gamma$ ' 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 tinds defective. The foregoing is Buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fittess 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.


- Dual Element
- Other Resistance Values
- DIN 43650 Connector
- Rod-end Bearings
- Optional Linearity Values
- Ball Joint Assembly
- M6x 1 Metric Thread
- Other Electrical Travels


## SPECIALS AND ACCESSORIES

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components
Click to view similar products for Linear Displacement Sensors category:
Click to view products by Honeywell manufacturer:
Other Similar products are found below :
$\underline{9810405} \underline{9810421}$ Z4D-F04A 05282945-012 67010001-000 ZG-RPD11 9810907 9810908 04-0760-0006 LCPL Wiper-01 04-0882-0237 02560412-006 04-0847-0023 02560618-000 RP12250L223BWB RP12300L223BWB E3FC-RP21 E3S-DBP21 E3FC-RN21 E3FC-DP23 E3FC-DP13 2M LCPL400-10K 060-3613-02 F38000100 F38000105 F38000205 F38000206 SPS-L035-LATS SPS-L075-HALS SPS-L225-HALS SPS-L225-HDLS 02560407-000 02560409-000 02560405-000 02560406-000 02560542-000 02560541-000 02560545-000 02560992-000 05282946-006 02560395-000 02560389-000 02560391-000 05282947-012 02560398-000 04560950-000 62101011-000 PT8420-0005-111-1112 E3JM10M4NNUS E3JM10M4TNNUS

