

Model DLF DC-DC



Long Stroke Displacement Transducer

DESCRIPTION

Model DLF (captive guided spring return) operates from either 5 Vdc regulated or 6 Vdc to 18 Vdc unregulated and generate an output signal of ± 2 Vdc. The output signal is electrically isolated

from the input voltage and can be used with digital panel meters to from a complete readout system. The DLF, captive guided spring return, from 0.5 in to 3.0 in.

FEATURES

- ± 0.25 % non-linearity
- ± 12.7 mm to 76.2 mm [± 0.5 in to 3.0 in] range
- Low voltage requirements
- Easy to operate
- Stainless steel construction
- Reverse polarity protected
- Single or dual supply wiring (field selectable)
- Infinite resolution
- Captive guided spring return armature
- Not RoHS compliant

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PERFORMANCE SPECIFICATIONS

| Characteristic | Measure |
|----------------------|---------------------------------------|
| Stroke range | ±12,7 mm to 76,2 mm [±0.5 in to 3 in] |
| Non-linearity (max.) | ±0.25 % full scale |
| Output load (min.) | 2000 ohm |
| Output impedance | 2 ohm |
| Output sensitivity | ±2 Vdc (nominal) |
| Isolation | 1000 V input to output |
| Polarity | Output positive for outward stroke |

ENVIRONMENTAL SPECIFICATIONS

| Characteristic | Measure |
|---------------------------------|------------------------------------|
| Temperature, operating | -50 °C to 70 °C [-58 °F to 158 °F] |
| Temperature effect, zero (max.) | 0.006 % full scale/°F |
| Temperature effect, span (max.) | 0.017 % full scale/°F |

ELECTRICAL SPECIFICATIONS

| Characteristic | Measure |
|--|---|
| Element type | dc-dc displacement transducer |
| Input supply (acceptable), regulated | 5 Vdc @ 100 mA max. |
| Input supply (acceptable), unregulated | 6 Vdc to 18 Vdc @ 100 mA max. |
| Ripple | 30 mV peak to peak |
| Electrical termination | Multiconductor shielded cable (1.83 m [6 ft]) |
| Reverse polarity protection | Yes |

MECHANICAL SPECIFICATIONS

| Characteristic | Measure |
|---------------------|------------------------------|
| Case material | Stainless steel |
| Probe material | Stainless steel |
| Armature type | Captive guided spring return |
| Probe thread | N/A |
| Weight | See table |
| Spring force (max.) | 4.0 oz/in |

RANGE CODES

| Range Code | Available ranges |
|------------|--------------------|
| HP | ±12,7 mm [±0.5 in] |
| HQ | ±25,4 mm [±1.0 in] |
| HR | ±50,8 mm [±2.0 in] |
| HS | ±76,2 mm [±3.0 in] |

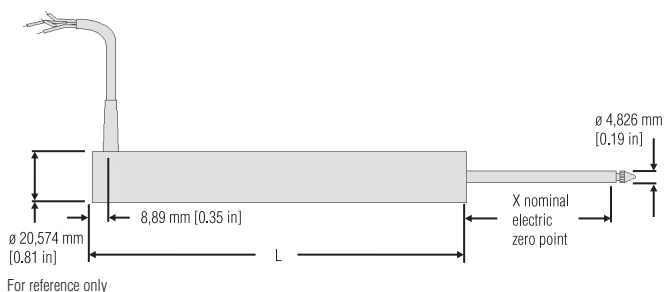
OPTION CODES

| Range Code | Many range/option combinations are available in our quick-ship and fast-track manufacture programs. Please see http://sensing.honeywell.com/TMsensor-ship for updated listings. |
|------------------------------|--|
| Stroke ranges | ±12,7 mm to 76,2 mm [±0.5 in to 3 in] |
| Electrical termination | Multiconductor shielded cable (1.83 m [6 ft]) TM405. Axial Bendix connector on body radial (side) TM406. Bendix connector on body |
| Electrical cable orientation | TM49. Axial cable exit |
| Mounting threads | TM511. 13/16-32 UNF |
| Improved linearity | L10. ±0.1 % max. linearity |

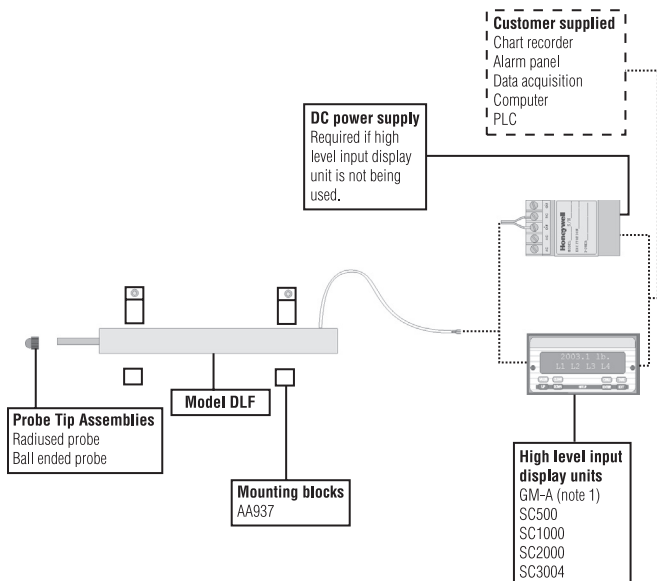
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MOUNTING DIMENSIONS

| Range code | Available stroke range | L | X | Approx. unit weight |
|------------|------------------------|----------------------|-------------------|---------------------|
| HP | ±12,7 mm [±0.5 in] | 184,15 mm [7.25 in] | 38,1 mm [1.5 in] | 226,7 g [8 oz] |
| HQ | ±25,4 mm [±1.0 in] | 209,6 mm [8.25 in] | 63,5 mm [2.5 in] | 283,5 g [10 oz] |
| HR | ±50,8 mm [±2.0 in] | 326,39 mm [12.85 in] | 76,2 mm [3.0 in] | 396,9 g [14 oz] |
| HS | ±76,2 mm [±3.0 in] | 438,15 mm [17.25 in] | 114,3 mm [4.5 in] | 510,29 g [18 oz] |

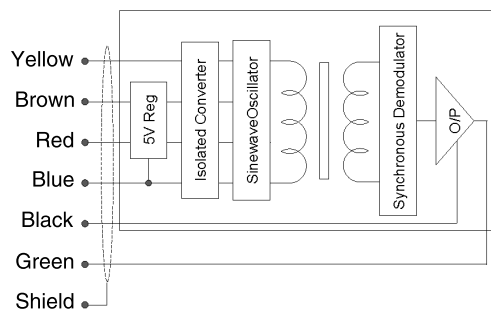


TYPICAL SYSTEM DIAGRAM



WIRING CODES

| Wire color | 5 V supply | 6 Vdc to 18 Vdc supply |
|------------|---------------------|------------------------|
| Yellow | 5 V input | Connect to brown |
| Brown | Insulate | Connect to yellow |
| Red | Insulate | 6 Vdc to 18 Vdc |
| Blue | Supply common (0 V) | Supply common (0 V) |
| Black | Output low | Output low |
| Green | Output high | Output high |
| Shield | Instrument ground | Instrument ground |



Note: Incorrect connection may cause irreparable damage, consult factory for assistance.

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NOTES

1. GM-A should not be used with an amplified displacement transducer unless using an external power supply to power the displacement transducer.

Warranty. Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

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.

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.

For more information about Sensing and Control products, visit www.honeywell.com/sensing or call +1-815-235-6847

Email inquiries to info.sc@honeywell.com

WARNING **PERSONAL INJURY**

- DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

WARNING **MISUSE OF DOCUMENTATION**

- The information presented in this catalogue is for reference only. DO NOT USE this document as product installation information.
- Complete installation, operation and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.

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