

## Model DLB DC-DC



## Long Stroke Displacement Transducer

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### DESCRIPTION

Model DLB (free unguided) displacement transducer operates from either 5 Vdc regulated or 6 Vdc to 18 Vdc unregulated and generates an output signal of  $\pm 2$  Vdc. The output signal is electrically isolated from the input voltage and can be used with

digital panel meters to form a complete readout system. The DLB, free unguided is available with stroke ranges of  $\pm 0.5$  in to  $\pm 8.0$  in.

### FEATURES

- $\pm 0.25$  % non-linearity
- $\pm 12.7$  mm to  $\pm 203.2$  mm [ $\pm 0.5$  in to  $\pm 8$  in]
- Low voltage requirements
- Easy to operate
- Stainless steel construction
- Reverse polarity protected
- Single or dual supply wiring (field selectable)
- Infinite resolution
- Free unguided armature
- Not RoHS compliant

# Model DLB DC-DC

## PERFORMANCE SPECIFICATIONS

Characteristic	Measure
Stroke range	±12,7 mm to 203,2 mm [±0.5 in to 8.0 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 V 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	Free unguided
Probe thread	M5 x 0.8
Weight	See table
Spring force (max.)	Not applicable

## 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]
HT	±101,6 mm [±4.0 in]
HU	±152,4 mm [±6.0 in]
HV	±203,2 mm [±8.0 in]

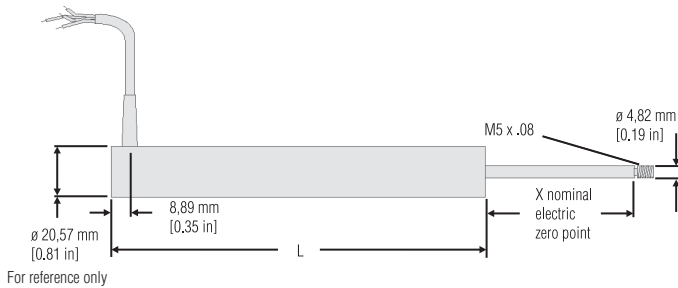
## OPTION CODES

Range Code	Many range/option combinations are available in our quick-ship and fast-track manufacture programs. Please see <a href="http://sensing.honeywell.com/TMsensor-ship">http://sensing.honeywell.com/TMsensor-ship</a> for updated listings.
Stroke ranges	±12,7 mm to 203,2 mm [±0.5 in to 8.0 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 (less than or equal to ±101.6 mm [±4 in])

# Long Stroke Displacement Transducer

## MOUNTING DIMENSIONS

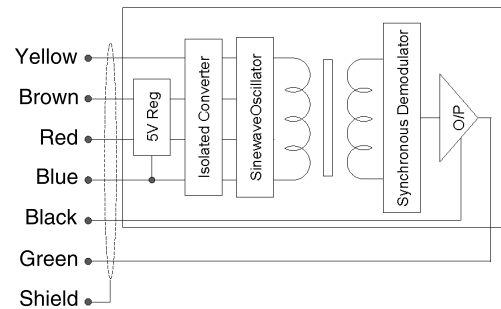
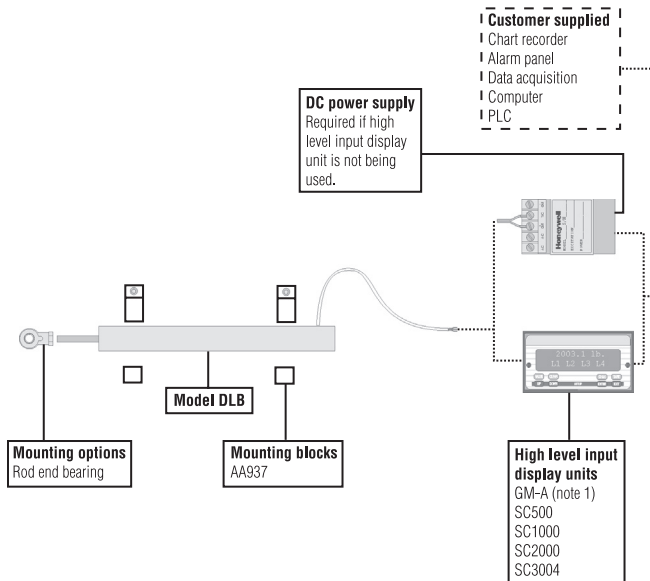
Range code	Available stroke range	L	X	Approx. body weight	Approx. armature weight
HP	±12,7 mm [±0.5 in]	175,26 mm [6.9 in]	43,18 mm [1.7 in]	212,62 g [7.5 oz]	28,35 g [1.0 oz]
HQ	±25,4 mm [±1.0 in]	200,6 mm [7.9 in]	68,58 mm [2.7 in]	269,32 g [9.5 oz]	56,70 g [2.0 oz]
HR	±50,8 mm [±2.0 in]	317,5 mm [12.5 in]	81,28 mm [3.2 in]	368,54 g [13.0 oz]	70,87 g [2.5 oz]
HS	±76,2 mm [±3.0 in]	429,26 mm [16.9 in]	119,38 mm [4.7 in]	496,12 g [17.5 oz]	85,05 g [3.0 oz]
HT	±101,6 mm [±4.0 in]	472,44 mm [18.6 in]	132,08 mm [5.2 in]	623,69 g [22.0 oz]	99,22 g [3.5 oz]
HU	±152,4 mm [±6.0 in]	662,94 mm [26.1 in]	182,88 mm [7.2 in]	850,49 g [30.0 oz]	113,40 g [4.0 oz]
HV	±203,2 mm [±8.0 in]	853,44 mm [33.6 in]	259,08 mm [10.2 in]	1247,37 g [44.0 oz]	141,75 g [5.0 oz]



## 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

## TYPICAL SYSTEM DIAGRAM



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.**

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### **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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