Honeywell

Model MVL7 AC-AC

Long Stroke Displacement Transducer

DESCRIPTION

Model MVL7 (free unguided armature) ac-ac long stroke displacement transducer is designed for measuring static and dynamic displacements from ±0.5 in to ±8.0 in. This model achieves an impressive 0.25 % full scale non-linearities. Displacement transducer bodies and probes are constructed of stainless steel for durability in harsh, industrial environments.

FEATURES

- 0.25 % non-linearity
- Stainless steel construction
- Enhanced immunity to electrical noise
- Infinite resolution
- 12,7 mm to 203,2 mm [0.5 in to 8.0 in] range
- -58 °F to 257 °F operating range (standard)
- Free unguided armature
- Not RoHS compliant

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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
Non-repeatability (max.)	Not applicable
Output sensitivity	See table
Resolution	Infinite

ENVIRONMENTAL SPECIFICATIONS

Characteristic	Measure
Temperature, operating	-50 °C to 125 °C [-58 °F to 257 °F]
Temperature effect, zero (max.)	0.006 % full scale/°F
Temperature effect, span (max.)	0.006 % full scale/°F

ELECTRICAL SPECIFICATIONS

Characteristic	Measure
Element type	ac-ac displacement transducer
Input supply (calibrated)	5 V RMS @ 5 kHz
Input supply (acceptable)	1 V to 7 V RMS @ 2 kHz to 10 kHz
Electrical termination	Multiconductor shielded cable

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

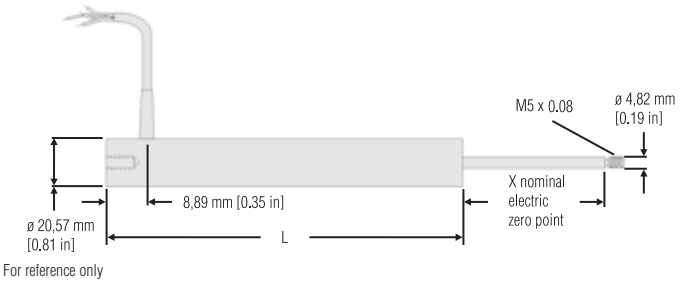
Range Code	Available ranges
HP	±12,7 mm [±0.5 in]
HQ	±25,4 mm [±1.0 in]
HR	±50,8 mm [±2.0 in]
HS	±76,2 mm [±3.0 in]
HT	±101,6 mm [±4.0 in]
HU	±152,4 mm [±6.0 in]
HV	±203,2 mm [±8.0 in]

OPTION CODES

Range Code	**Many range/option combinations are available in our quick-ship and fast-track manufacture programs. Please see http://sensing.honeywell.com/TMsensor-ship 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])
Higher temperature	TM315. 204 °C [400 °F] up to 101,6 mm [±4.0 in]

MOUNTING DIMENSIONS

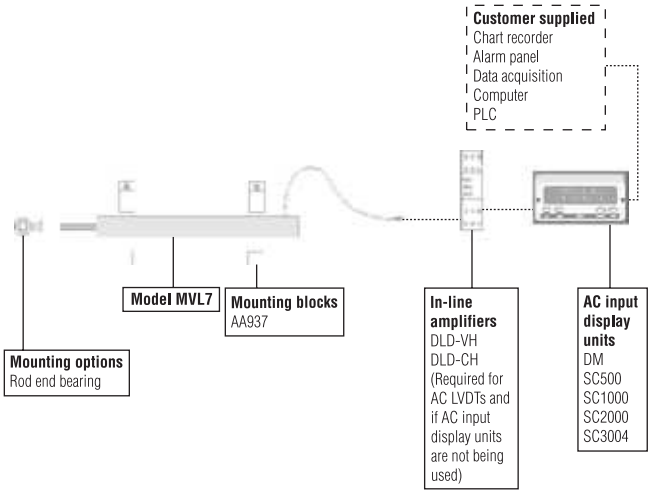
Range code	Available stroke range	L	X	Approx. body weight	Approx. armature weight	Typical full scale output at 3 V RMS
HP	±12,7 mm [±0.5 in]	127 mm [5.0 in]	43,18 mm [1.7 in]	170,1 g [6 oz]	35,44 g [1.25 oz]	2.4 V RMS
HQ	±25,4 mm [±1.0 in]	152,4 mm [6.0 in]	68,58 mm [2.7 in]	226,8 g [8 oz]	49,61 g [1.75 oz]	3.0 V RMS
HR	±50,8 mm [±2.0 in]	269,24 mm [10.6 in]	81,28 mm [3.2 in]	368,54 g [13 oz]	56,7 g [2.0 oz]	4.8 V RMS
HS	±76,2 mm [±3.0 in]	381 mm [15.0 in]	119,38 mm [4.7 in]	453,59 g [16 oz]	62,37 g [2.2 oz]	4.5 V RMS
HT	±101,6 mm [±4.0 in]	425,45 mm [16.75 in]	132,08 mm [5.2 in]	566,99 g [20 oz]	70,87 g [2.5 oz]	9.5 V RMS
HU	±152,4 mm [±6.0 in]	615,95 mm [24.25 in]	182,88 mm [7.2 in]	822,14 g [29 oz]	113,40 g [4.0 oz]	7.2 V RMS
HV	±203,2 mm [±8.0 in]	806,45 mm [31.75 in]	259,08 mm [10.2 in]	1190,68 g [42 oz]	144,58 g [5.1 oz]	4.8 V RMS

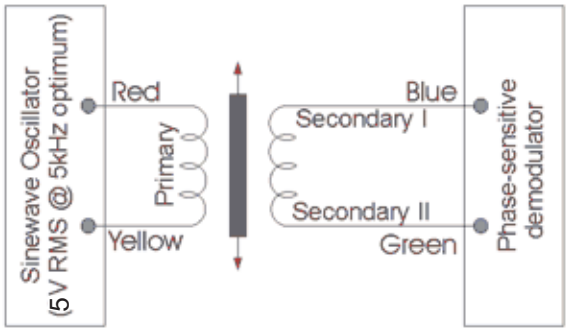


WIRING CODES

Wire color	Supply
Red	(+) supply (calibrated @ 5 V RMS, 5 kHz)
Yellow	Supply return
Blue	Output
Green	Output return
Black	Secondary center tap (normally not connected)

TYPICAL SYSTEM DIAGRAM





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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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