

Model M-5C AC-AC



Miniature Displacement Transducer

DESCRIPTION

Model M-5C ac-ac miniature displacement transducers are rugged, stable, and compact transducers, which provide high accuracy static and dynamic displacement measurement. These units are easily mounted in any position, at remote or hazardous locations where direct measurement would not be

practical. High electrical output, exceptional linearity and infinite resolution enable these units to be effective in a variety of applications. M-5C has a free unguided armature, which may be mounted to be virtually friction-free. The displacement transducer's body and armature are separable.

FEATURES

- Miniature design
- Rugged, enhanced accuracy
- Enhanced immunity to electrical noise
- ± 0.025 in to ± 0.5 in range
- -58 °F to 257 °F operating range (standard)
- Extended life cycle
- Infinite resolution
- Free unguided armature
- Not RoHS compliant

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PERFORMANCE SPECIFICATIONS

Characteristic	Measure
Stroke range	±2,54 mm to 12,7 mm [±0.10 in to 0.50 in]
Non-linearity (max.)	±0.25 % full scale
Non-repeatability	Not measureable
Output sensitivity	See table
Output load (min.)	100 ohm
Resolution	Infinite
Phase shift	< 10° @ 5 kHz

ENVIRONMENTAL SPECIFICATIONS

Characteristic	Measure
Temperature, operating	-20 °C to 125 °C [-4 °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 1.83 m [6 ft]

MECHANICAL SPECIFICATIONS

Characteristic	Measure
Case material	Stainless steel
Probe material	Stainless steel
Armature type	Free unguided
Probe thread	M3 x 0.5
Weight	See table

RANGE CODES

Range Code	Available ranges
HM	±2,54 mm [±0.10 in]
HN	±5,08 mm [±0.20 in]
HF	±7,62 mm [±0.30 in]
HG	±10,16 mm [±0.40 in]
HP	±12,7 mm [±0.50 in]

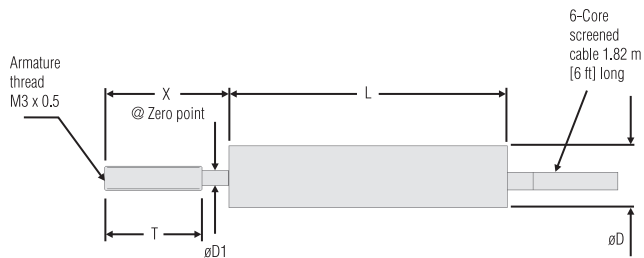
OPTION CODES

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	±2,54 mm to 12,7 mm [±0.1 in to ±0.5 in]
Electrical termination	Multiconductor shielded cable (1,83 m [6 ft])
Electrical cable orientation	Ra. Right angle cable exit
Mounting threads	13g. 1/8 in BSP
Improved linearity	L10. ±0.1 % max. linearity (less than or equal to 101,6 mm [±4.0 in])

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MOUNTING DIMENSIONS

Range code	Available stroke range	L mm [in]	X mm [in]	D mm [in]	D1 mm [in]	T mm [in]	Total weight g [oz]	Armature weight g [oz]	Output sensitivity mV/V/ 0.001 in
HJ	±0,635 [±0.025]	35,05 [1.38]	27,94 [1.1]	9,53 [0.375]	1,91 [0.075]	19,05 [0.75]	14,17 [0.5]	1,28 [0.045]	2
HM	±2,54 [±0.1]	42,93 [1.69]	19,05 [0.75]	9,53 [0.375]	2,29 [0.09]	14,99 [0.59]	15,88 [0.56]	1,41 [0.05]	4
HN	±5,08 [±0.2]	55,88 [2.2*]	25,4 [1.0]	9,53 [0.375]	2,03 [0.08]	18,03 [0.71]	17,86 [0.63]	1,98 [0.07]	4*
HF	±7,62 [±0.3]	57,91 [2.28]	29,97 [1.18]	9,53 [0.375]	2,03 [0.08]	18,03 [0.71]	22,11 [0.78]	2,21 [0.078]	2
HG	±10,16 [±0.4]	63 [2.48]	32,51 [1.28]	9,53 [0.375]	2,03 [0.08]	18,03 [0.71]	28,07 [0.99]	1,9 [0.067]	2
HP	±12,7 [±0.5]	79 [3.11]	34,8 [1.37]	9,53 [0.375]	2,03 [0.08]	18,03 [0.71]	36,0 [1.27]	2,3 [0.081]	2



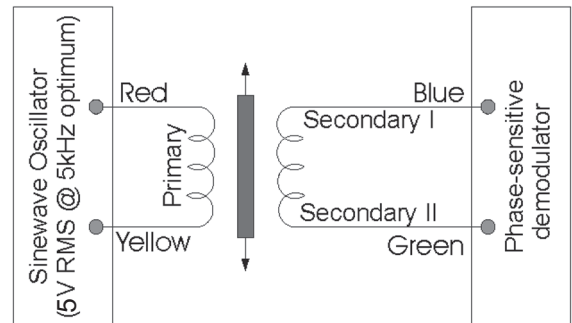
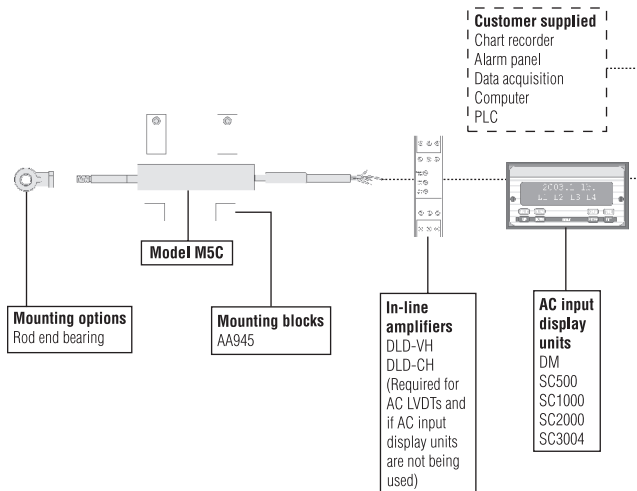
For reference only

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)

Cable shield is not connected to transducer

TYPICAL SYSTEM DIAGRAM



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.