

## Model DM

### Demodulator for AC Transducer/ Displacement Transducers



#### DESCRIPTION

Model DM, for carrier transducers, is a low-cost bench, panel or rack-mounted instrument which contains a power supply, signal conditioner, amplifier (Bipolar 5 V output) and digitizer. The 4 1/2-digit LED display features bright, easy-to-read 14,2 mm [0.56 in] high characters. The compact 1/8 DIN size case measures 9,7 cm W x 4,8 cm H x 13,2 cm D [3.8 in x 1.9 in x 5.2 in]. Wires

easily attach to the rear connector using screw terminals. The Model DM features a 5 kHz drive supply for the transducer, a stable signal amplifier and a novel demodulation technique that produces an enhanced accuracy result.

#### FEATURES

- Used with displacement transducers
- 4 1/2 digit LED display
- 3 conversions per second

# Model DM

## TRANSDUCER INTERFACE

| Characteristic               | Measure                          |
|------------------------------|----------------------------------|
| Transducer excitation        | 3 VRMS @ 5 kHz                   |
| Type of inputs accepted      | ac, displacement transducer, VRT |
| Input gain range             | < 1 to 300                       |
| Calibration methods          | Manual displacement              |
| Noise and ripple             | < 300 microvolts                 |
| Transducer minimum impedance | 7 ohm                            |

## ELECTRICAL SPECIFICATIONS

| Characteristic                 | Measure                  |
|--------------------------------|--------------------------|
| Number of characters displayed | 4 1/2                    |
| Conversions per second         | 3                        |
| Power requirements, standard   | 115 Vac @ 5 watts        |
| Power requirements, optional   | 220 Vac, 12 Vdc          |
| Scaling                        | 0-19999                  |
| Scaling method                 | Zero and span adjustment |
| Polarity indication            | Yes                      |
| Decimal point selection        | Jumper (non-solder)      |
| Display size                   | 14,2 mm [0.56 in]        |
| Overrange indication           | Flashing display         |
| Display resolution             | 1/20000 max.             |
| Digital display                | LED                      |
| Analog output                  | ±5 Vdc                   |
| Amplifier output impedance     | < 2 ohm                  |
| Accuracy                       | ±0.2 % full scale        |
| Amplifier frequency response   | 300 Hz                   |
| Common mode rejection          | 60 db                    |
| Scan adjustment, fine          | > ±15 %                  |
| Scan adjustment, coarse        | > ±80 %                  |
| Zero adjustment, fine          | > ±5 %                   |
| Zero adjustment, coarse        | > ±20 %                  |
| Short circuit protected        | Yes                      |

## ENVIRONMENTAL SPECIFICATIONS

| Characteristic         | Measure                            |
|------------------------|------------------------------------|
| Temperature, storage   | -29 °C to 93 °C [-20 °F to 200 °F] |
| Temperature, operating | 0 °C to 54 °C [32 °F to 130 °F]    |

## PHYSICAL SPECIFICATIONS

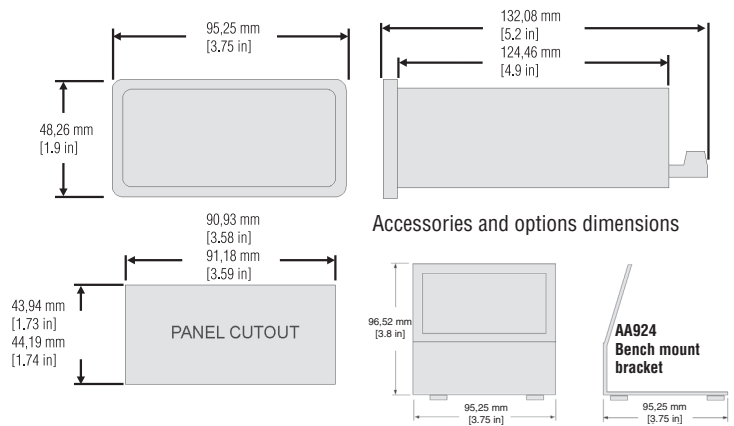
| Characteristic         | Measure                        |
|------------------------|--------------------------------|
| Weight                 | 0,9 kg [2 lb]                  |
| Mounting               | Bench, rack or panel           |
| Case size (standard)   | 1/8 DIN                        |
| Case material          | Noryl plastic                  |
| Input/output connector | Removable with screw terminals |

Not RoHS compliant

## OPTION CODES

|                  | 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. |
|------------------|--|
| Alarm outputs    | 58a. Hi-lo limits  |
| Display options  | 58c. Peak/hold<br>58d. Track/hold  |
| Power supply     | 110 Vac<br>60a. 220 Vac<br>60c. Battery powered (12 Vdc)   |
| Front panel      | 51d. Custom front panel  |
| Mounting options | 51a. Rack mount adapter  |

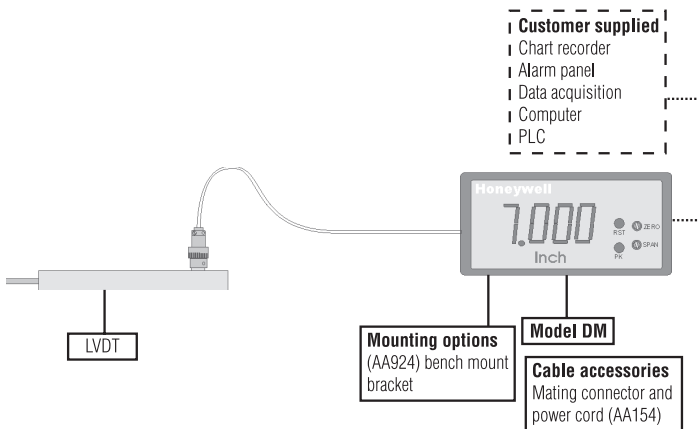
## MOUNTING DIMENSIONS AND CHARACTERISTICS



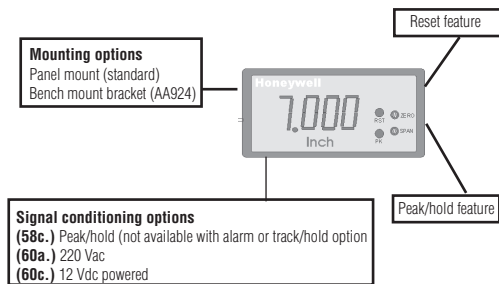
# Model DM

# Demodulator for AC Transducer

## TYPICAL SYSTEM DIAGRAM



## FLEXIBLE PLATFORM



**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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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.

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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.**