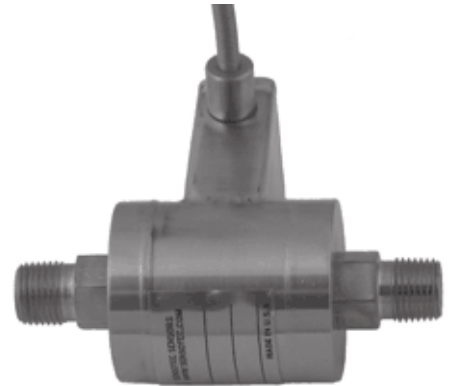


## Model P-30-P

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### Subminiature Wet/Wet Differential Pressure Transducer



#### DESCRIPTION

The Model P-30-P, wet/wet differential pressure transducer, is a subminiature unit which is uniquely suited to aerospace and chemical applications. Features include small size, bidirectional

overload protection, wide temperature compensation, and high natural frequencies.

#### FEATURES

- 0.3 % accuracy
- 5 psid to 2000 psid
- High frequency
- Light weight
- Compact design

# Model P-30-P

## PERFORMANCE SPECIFICATIONS

| Characteristic         | Measure   |
|------------------------|---|
| Pressure ranges (psid) | 5, 10, 15, 25, 50, 75, 100, 150, 200, 300, 500, 750, 1000, 2000 |
| Accuracy               | ±0.3 % full scale   |
| Linearity              | ±0.2 % full scale (typical)                                     |
| Hysteresis             | ±0.1 % full scale (typical)                                     |
| Non-repeatability      | ±0.1 % full scale (typical)                                     |
| Output (standard)      |   |
| 5 psid to 25 psid      | 100 mV (nominal)  |
| 50 psid to 2000 psid   | 2 mV/V (nominal)  |
| Line pressure          |   |
| 5 psid to 25 psid      | 250 psi   |
| 50 psid to 2000 psid   | 500 psi or 2X full scale (whichever is higher) up to 2000 psi   |
| Resolution             | Infinite  |

## ENVIRONMENTAL SPECIFICATIONS

| Characteristic           | Measure                             |
|--------------------------|-------------------------------------|
| Temperature, operating   | -54 °C to 121 °C [-65 °F to 250 °F] |
| Temperature, compensated | 16 °C to 71 °C [60 °F to 160 °F]    |
| Temperature effect, zero |                                     |
| 5 psid to 25 psid        | ±2.0 % full scale/100 °F            |
| 50 psid to 2000 psid     | ±1.0 % reading/100 °F               |
| Temperature effect, span |                                     |
| 5 psid to 25 psid        | ±2.0 % full scale/100 °F            |
| 50 psid to 2000 psid     | ±1.0 % reading/100 °F               |

## ELECTRICAL SPECIFICATIONS

| Characteristic           | Measure                   |
|--------------------------|---------------------------|
| Strain gage type         |                           |
| 5 psid to 25 psid        | Bonded semiconductor      |
| 50 psid to 2000 psid     | Bonded foil               |
| Excitation (calibration) | 10 Vdc                    |
| Bridge resistance        |                           |
| 5 psid to 25 psid        | 500 ohm                   |
| 50 psid to 2000 psid     | 350 ohm                   |
| Shunt calibration data   | Included                  |
| Elec. termination (std)  | Teflon cable 1.5 m [5 ft] |

## MECHANICAL SPECIFICATIONS

| Characteristic        | Measure                        |
|-----------------------|--------------------------------|
| Media                 | Gas, liquid                    |
| Overload-safe         | Max. line pressure either side |
| Pressure port         | 1/8-27 NPT male: 7/16 hex      |
| Wetted parts material | 17-4 PH stainless steel        |
| Case material         | Stainless steel                |

## RANGE CODES

| Range Code | Range    | Range Code | Range     |
|------------|----------|------------|-----------|
| <b>AT</b>  | 5 psid   | <b>CJ</b>  | 150 psid  |
| <b>AV</b>  | 10 psid  | <b>CL</b>  | 200 psid  |
| <b>BJ</b>  | 15 psid  | <b>CP</b>  | 300 psid  |
| <b>BL</b>  | 25 psid  | <b>CR</b>  | 500 psid  |
| <b>BN</b>  | 50 psid  | <b>CT</b>  | 750 psid  |
| <b>BP</b>  | 75 psid  | <b>CV</b>  | 1000 psid |
| <b>BR</b>  | 100 psid | <b>DL</b>  | 2000 psid |

## OPTION CODES

|                                 |   |  |
|---------------------------------|---|--|
|                                 | <b>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.</b> |  |
| <b>Pressure ranges (psid)</b>   | 5, 10, 15, 25, 50, 75, 100, 150, 200, 300, 500, 750, 1000, 2000   |  |
| <b>Temperature compensation</b> | 1a. 60 °F to 160 °F<br>1b. 30 °F to 130 °F<br>1c. 0 °F to 185 °F<br>1d. -20 °F to 130 °F  | 1e. -20 °F to 200 °F<br>1f. 70 °F to 250 °F<br>1g. 0 °C to 50 °C |
| <b>Internal amplifiers</b>      | 2u. Unamplified, mV/V output  |  |
| <b>Pressure ports</b>           | 5i. 1/8- 27 NPT male<br>5d. 7/16- 20 UNF male (per MS33656-E4)  |  |
| <b>Electrical termination</b>   | 6e. Integral cable: Teflon (-54 °C to 245 °C)<br>6i. Integral underwater cable (8 m [26 ft]) (max. 80 °C) <sup>1</sup>  |  |

## WIRING CODES

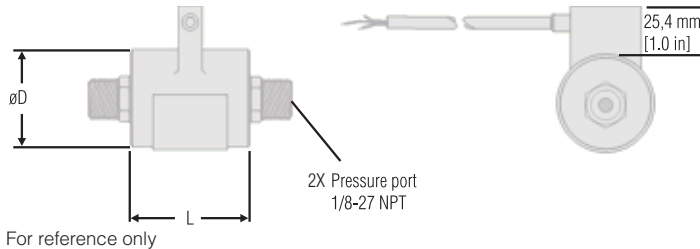
| Connector/unamplified |                |
|-----------------------|----------------|
| <b>Red</b>            | (+) excitation |
| <b>Black</b>          | (-) excitation |
| <b>Green</b>          | (-) output     |
| <b>White</b>          | (+) output     |

# Model P-30-P

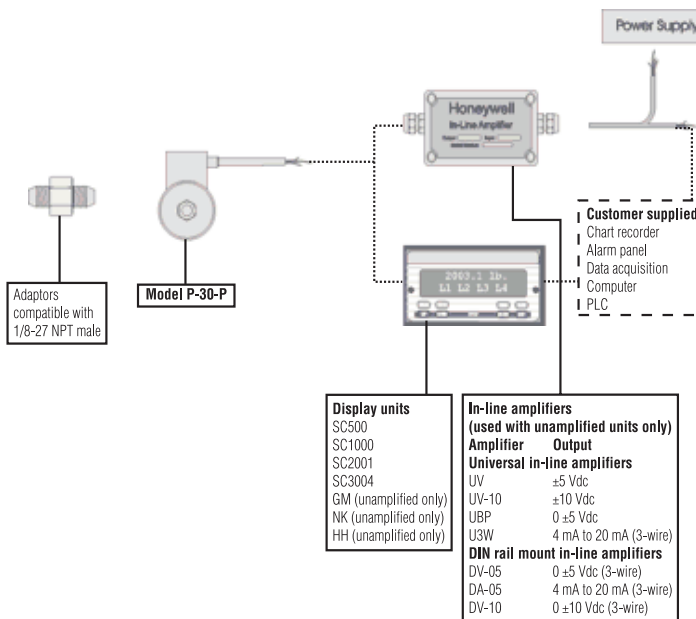
# Subminiature Wet/Wet Differential Pressure Transducer

## MOUNTING DIMENSIONS AND CHARACTERISTICS

| Range (psid) | Order codes | D mm [in]      | L mm [in]     |
|--------------|-------------|----------------|---------------|
| 5 to 25      | BD311       | 28,7 mm [1.13] | 35,6 mm [1.4] |
| 50 to 500    | BD312       | 28,7 mm [1.13] | 35,6 mm [1.4] |
| 750 to 2000  | BD312       | 35,1 mm [1.38] | 40,6 mm [1.6] |



## TYPICAL SYSTEM DIAGRAM



## NOTES

1. Availability varies according to range.

For long cable runs or electrically noisy environments an amplified sensor or locally mounted amplifier is often preferred.

**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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- 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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