

## Model 420

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### DP High Range Two Wire Wet/Wet Differential Pressure Transducer



#### DESCRIPTION

The Model 420 DP two-wire high range differential pressure transmitters utilize supply voltage of 9 Vdc to 32 Vdc to produce a two-wire 4 mA to 20mA process loop output for differential pressure ranges of 2000 psid to 10000 psid. A minimum full scale accuracy of 0.5% is achieved. Stainless steel construc-

tion ensures durability under harsh, industrial conditions and includes zero and span adjustments. A variety of options are available with the Model 420 including choice of pressure adaptors and pressure ports.

#### FEATURES

- 0.5% accuracy
- 2000 psid to 10000 psid range
- Stainless steel
- Intrinsically safe available (2N option only)<sup>4</sup>
- CE approved<sup>5</sup>

# Model 420

## PERFORMANCE SPECIFICATIONS

Characteristic	Measure
Pressure ranges	2000, 3000, 5000, 7500, 10000 psid
Accuracy	±0.5 % full scale
Linearity	±0.25 % full scale (typical)
Hysteresis	±0.13 % full scale (typical)
Non-repeatability	±0.07 % full scale (typical)
Output (standard)	4 mA to 20 mA
Line pressure	1500 psi
Resolution	Infinite

## ENVIRONMENTAL SPECIFICATIONS

Characteristic	Measure
Temperature, operating	18 °C to 82 °C [0 °F to 180 °F]
Temperature, compensated	16 °C to 71 °C [60 °F to 160 °F]
Temperature, effect, zero	±1.0 % full scale/38 °C [100 °F]
Temperature, effect, span	±1.0 % reading/38 °C [100 °F]

## ELECTRICAL SPECIFICATIONS

Characteristic	Measure
Strain gage type	Bonded foil
Excitation (calibration)	15 Vdc to 40 Vdc
Max. load resistance	500 ohm
Shunt calibration data	Included
Elec. termination (std)	PTIH-10-6P or equiv. (Hermetic stainless)
Mating conn. (not incl)	PT06A-10-6S or equiv. (AA111)

## MECHANICAL SPECIFICATIONS

Characteristic	Measure
Media	Gas, liquid
Overload-safe	50% over capacity
Pressure port	1/4-18 NPT female (2)
Wetted parts material	17-4 PH stainless steel
Case material	Stainless steel

## WIRING CODES

Connector	Two-wire current 4 mA to 20 mA
<b>A</b>	(+) supply
<b>B</b>	no connection
<b>C</b>	no connection
<b>D</b>	(+) output (4 mA to 20 mA)
<b>E</b>	Case ground
<b>F</b>	no connection

## RANGE CODES

Range Code	Available ranges
<b>DL</b>	2000 psid
<b>DN</b>	3000 psid
<b>DR</b>	5000 psid
<b>DT</b>	7500 psid
<b>DV</b>	10000 psid

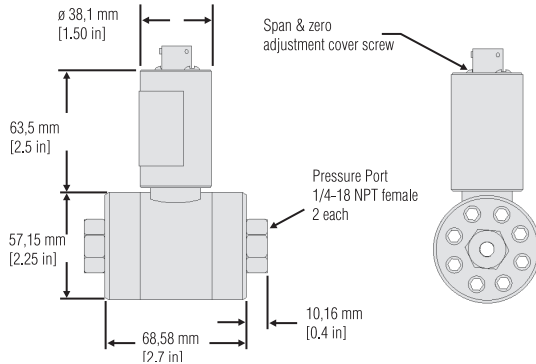
## OPTION CODES

	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.
<b>Pressure ranges (psid)</b>	2000, 3000, 5000, 7500, 10000
<b>Temperature compensation</b>	1a. 60 °F to 160 °F 1b. 30 °F to 130 °F 1c. 0 °F to 185 °F
<b>Internal amplifiers</b>	2k. 4 mA to 20 mA (two wire)
<b>Internal amplifier enhancements</b>	3d. Remote buffered shunt calibration
<b>Pressure ports</b>	5a. 1/4-18 NPT female 5c. 7/16- 20 UNF female
<b>Electrical termination</b>	6a. Bendix PTIH-10-6P (or equivalent) 6 pin (max. 121 °C) 6e. Integral cable: Teflon (-54 °C to 245 °C) 6f. Integral cable: PVC (-30 °C to 70 °C) 6g. Integral cable: Neoprene (-20 °C to 80 °C) <sup>1</sup> 6h. Integral cable: Silicone (-54 °C to 150 °C) 6i. Integral underwater cable (8 m [26 ft]) (max. 80 °C) <sup>1</sup> 6j. 1/2-14 conduit fitting with 1,5 m [5 ft] 4 conductor PVC cable
<b>Special calibration</b>	9a. 10 point (5 up/5 down) 20% increments @ 20 °C [68 °F] 9b. 20 point (10 up/10 down) 20% increments @ 20 °C [68 °F]
<b>Wetted diaphragm</b>	17-4 PH stainless steel
<b>O-ring seals</b>	26a. Metal

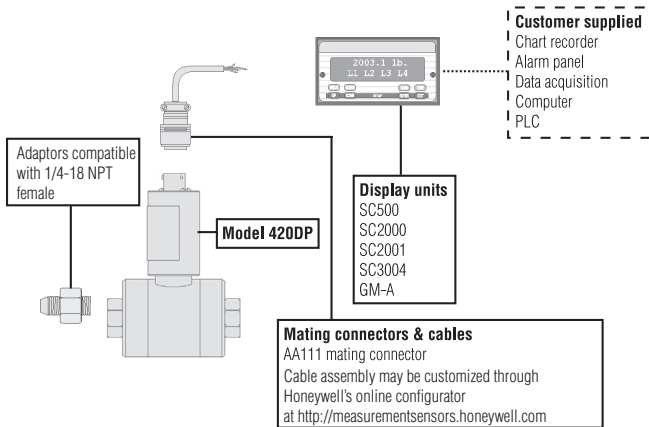
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## MOUNTING DIMENSIONS AND CHARACTERISTICS



## TYPICAL SYSTEM DIAGRAM



## Find out more

Honeywell serves its customers through a worldwide network of sales offices, representatives and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact your local sales office. To learn more about Honeywell's test and measurement products, call **+1-614-850-5000**, visit <http://measurementsensors.honeywell.com>, or e-mail inquiries to [info.tm@honeywell.com](mailto:info.tm@honeywell.com)

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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.

### **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 datasheet 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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