

Model 420

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)⁴
- CE approved⁵

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
A	(+) supply
B	no connection
C	no connection
D	(+) output (4 mA to 20 mA)
E	Case ground
F	no connection

RANGE CODES

Range Code	Available ranges
DL	2000 psid
DN	3000 psid
DR	5000 psid
DT	7500 psid
DV	10000 psid

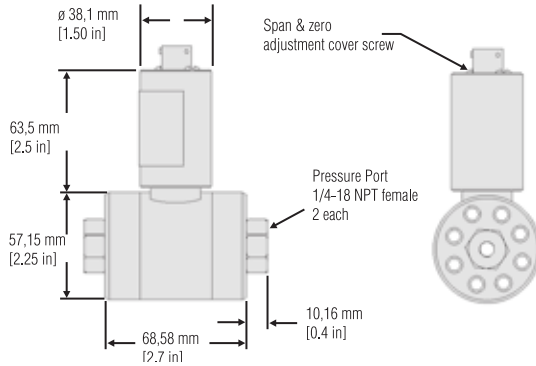
OPTION CODES

	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.
Pressure ranges (psid)	2000, 3000, 5000, 7500, 10000
Temperature compensation	1a. 60 °F to 160 °F 1b. 30 °F to 130 °F 1c. 0 °F to 185 °F
Internal amplifiers	2k. 4 mA to 20 mA (two wire)
Internal amplifier enhancements	3d. Remote buffered shunt calibration
Pressure ports	5h. 1/4-18 NPT female 5c. 7/16- 20 UNF female
Electrical termination	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) ¹ 6h. Integral cable: Silicone (-54 °C to 150 °C) 6i. Integral underwater cable (8 m [26 ft]) (max. 80 °C) ¹ 6j. 1/2-14 conduit fitting with 1,5 m [5 ft] 4 conductor PVC cable
Special calibration	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]
Wetted diaphragm	17-4 PH stainless steel
O-ring seals	26a. Metal

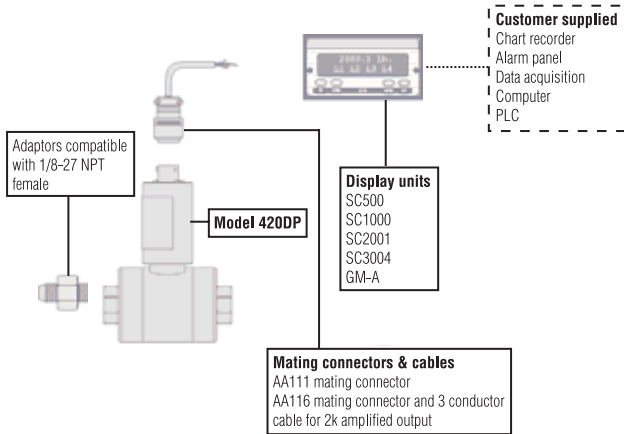
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MOUNTING DIMENSIONS AND CHARACTERISTICS



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.

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