

Model 440

Two-Wire Gage/Absolute Pressure Transmitter



DESCRIPTION

Two-wire transmitter Model 440 offers rugged, stainless steel construction suitable for even the harshest working environments. These models are available with zero and span adjustments located under the removeable electrical connector and operate with a supply voltage from 9 Vdc to 32 Vdc.

Two-wire, 4 mA to 20 mA output is provided. The Model 440 offers an accuracy of 0.25 % F.S. DIN-type electrical connector is standard on the Model 440.

FEATURES

- 5 psig/a to 10000 psig/a range
- Two-wire, 4 mA to 20 mA output
- 0.25 % accuracy
- Intrinsically safe option available
- Solderless and water-resistant connection

Model 440

PERFORMANCE SPECIFICATIONS

Characteristic	Measure
Pressure ranges	5, 10, 15, 25, 50, 75, 100, 150, 200, 300, 500, 750, 1000, 1500, 2000, 3000, 5000, 7500, 10000 psig/a
Accuracy ³	±0.25 % full scale
Non-linearity and hysteresis	±0.20 % best-fit straight line
Non-repeatability	±0.20 % best-fit straight line
Output	4 mA to 20 mA
Resolution	Infinite

ENVIRONMENTAL SPECIFICATIONS

Characteristic	Measure
Temperature, operating	-29 °C to 85 °C [-20 °F to 185 °F]
Temperature, compensated	-1 °C to 54 °C [30 °F to 130 °F]
Temperature effect, zero	0.01 % full scale/°F
Temperature effect, span	0.01 % reading/°F

ELECTRICAL SPECIFICATIONS

Characteristic	Measure
Excitation (calibration)	24 Vdc
Excitation (acceptable)	9 Vdc to 32 Vdc
Insulation resistance	5000 mOhm @ 50 Vdc
Electrical termination (std) ¹	DIN 43650 water resistant
Mating connector (not incl)	DIN mating connector with solderless terminal ¹
Zero and span adjustments	Located under top cover
Frequency response	2000 Hz

MECHANICAL SPECIFICATIONS

Characteristic	Measure
Media	Gas, liquid
Overload, safe	50 % over capacity
Overload, burst	200 % over capacity
Pressure port	1/4-18 NPT female
Wetted parts material	
<300 psig/a	HA C276/316 stainless steel
300 psig/a to 1500 psig/a	17-4 PH stainless steel
>1500 psig/a	15-5 PH stainless steel
Weight	13 oz
Case material	Stainless steel

RANGE CODES

Range Code	Available ranges	Range Code	Available ranges
AT	5 psig/a	CP	300 psig/a
AV	10 psig/a	CR	500 psig/a
BJ	15 psig/a	CT	750 psig/a
BL	25 psig/a	CV	1000 psig/a
BN	50 psig/a	DJ	1500 psig/a
BP	75 psig/a	DL	2000 psig/a
BR	100 psig/a	DN	3000 psig/a
CJ	150 psig/a	DR	5000 psig/a
CL	200 psig/a	DT	7500 psig/a
		DV	10000 psig/a

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.
Pressure ranges	5, 15, 50, 100, 200, 500, 1000, 3000, 5000, 10000 psig 10, 25, 75, 150, 300, 750, 1500, 2000, 7500 psig/a 5, 15, 50, 100, 200, 500, 1000, 3000, 5000, 10000 psia
Temperature compensation	1a. 60 °F to 160 °F
Internal amplifiers	2k. 4 mA to 20 mA (2 wire) output 2n. (2N) 4 mA to 20 mA (2 wire) intrinsically safe
Pressure ports	5a. 1/4-18 NPT female
Electrical termination	6m. DIN 43650
Special calibration ²	9a. 10 point (5 up/5 down) 20 % increments @ 70 °F 9b. 20 point (10 up/10 down) 10 % increments @ 70 °F



SPECIAL REQUIREMENTS (CONSULT FACTORY)

Have a special requirement? New case pressure, different cable lengths, electrical connectors, or materials? Consult our factory by calling +1 614-850-5000 (800-848-6564). Customization is key to our test and measurement business. Special outputs, wiring codes, and calibrations are all standard to us.

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RANGE CODES

Pressure range	5	10	15	25	50	75	100	150	200	300	500	750	1000	1500	2000	3000	5000	7500	10000
RANGE CODE	AT	AV	BJ	BL	BN	BP	BR	CJ	CL	CP	CR	CT	CV	DJ	DL	DN	DR	DT	DV
D mm [in]	38 [1.50]																		
L mm [in]	66 [2.6]									84 [3.3]			76 [3.0]						
Over pressure (test) (psi)	150 % full scale																		
Over pressure (burst) (psi)	20	40	60	100	200	300	400	600	800	2000	3000	3500	4000	8000	12000	20000	25000	25000	
Port volume cm³ [in³]	3,1 [0.12]																		
Natural frequency (Hz)	1 K	1.3 K	2.1 K	2.5 K	2.9 K	3.5 K	4.6 K	6 K	7 K	9 K	9.5 K	12 K	17 K	20 K	35 K	40 K	54 K	60 K	80 K

INTERNAL AMPLIFIERS

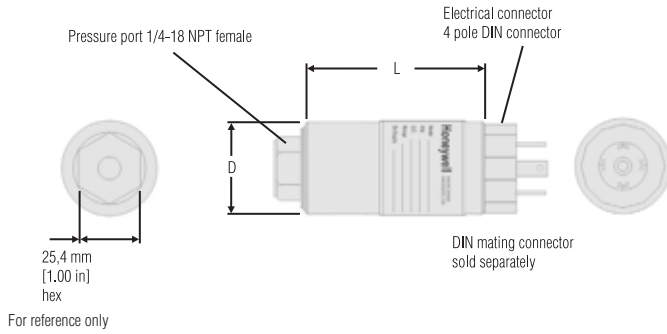
Amplifier specifications	Current two-wire: Option 2k4	Intrinsically safe amp: Option 2n (2N)*
Output signal	4 mA to 20 mA	4 mA to 20 mA
Input power (voltage)	9 Vdc to 32 Vdc	9 Vdc to 28 Vdc
Input power (current)	4 mA to 24 mA	4 mA to 24 mA
Frequency response	300 Hz	2000 Hz
Power supply rejection	60 db	60 db
Operating temperature	-29 °C to 85 °C [-20 °F to 185 °F]	-29 °C to 85 °C [-20 °F to 185 °F]
Reverse voltage protection	Yes	Yes
Short circuit protection	Yes	Yes
Wiring code: connector (std)	1 (+) Supply 2 (+) Output 3 No connection GND Case ground	1 (+) Supply 2 (+) Output 3 No connection GND Case ground

* See Honeywell's Web site for the most up-to-date information regarding intrinsically safe approvals, ref. #008-0547-00.

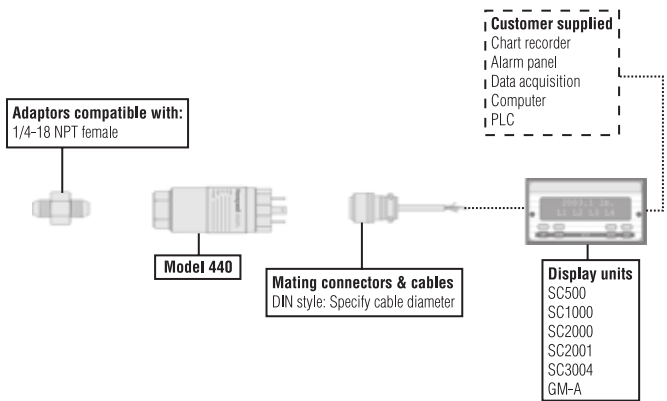
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MOUNTING DIMENSIONS AND CHARACTERISTICS



TYPICAL SYSTEM DIAGRAM



NOTES

1. Specify cable diameter: can handle diameter of 4,5 mm to 14 mm or 1/2 in NPT conduit fitting.
2. Availability varies with range.
3. Accuracies stated are expected for best-fit straight line for all errors including linearity, hysteresis & non-repeatability thru zero.
4. Max. load resistance is 500 ohm @ 23 Vdc.

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.