

Model JD

Differential Digital Pressure Gauge



DESCRIPTION

The hand-held Model JD wet/wet differential pressure gauge delivers long-lasting, enhanced accuracy performance. Accuracy of 0.2 % coupled with an enhanced resolution, 4½-digit display makes this unit an excellent transfer standard for calibrating pressure measuring equipment.

The JD is rugged and features high/low pressure capture with an update rate of three times per second. These units are manufactured from stainless steel and use sensor technology which has no moving parts, requires little recalibration, and has excellent overpressure tolerance.

Each unit has a membrane face with raised buttons and tactile feedback for setup and operation. The high, low, and clear buttons are easily accessible on this front membrane. Zero adjustment and zero offset/tare functions are standard on each unit. Calibration and setup parameters are stored on a memory chip to protect from loss even when power is interrupted. Unauthorized set ups and calibrations are also blocked with internal security. Various combinations of the front panel buttons can be de-activated.

FEATURES

- Ranges 1 psi to 10000 psi differential
- Field selectable units of measure
- 4 mA to 20 mA (two-wire) or 0 Vdc to 5 Vdc analog outputs (optional)
- Two programmable limits and relays (optional)
- High and low detection with microprocessor memory
- 4½ digit display with 0.5 in height
- Accuracy 0.2 % full scale
- Optional NEMA 4 rating
- NIST traceable
- CE compliant (certain models, consult factory)
- On/off switch with auto-off feature

Model JD

PERFORMANCE SPECIFICATIONS

Characteristic	Measure
Linearity and hysteresis	0.2 % full scale (better than test gage accuracy)
Pressure range 0 psid to	1, 5, 5, 10, 15, 25, 50, 75, 100, 150, 200, 300, 500, 750, 1000, 1500, 2000, 3000, 5000, 7500, 10000 psid
High and low capture	Standard
Update speed	3 times per sec
Zero and span signal adjustment	Standard: Models JDB, JDE, JDX

ENVIRONMENTAL SPECIFICATIONS

Characteristic	Measure
Temperature, operating	-1 °C to 71 °C [30 °F to 160 °F]

ELECTRICAL SPECIFICATIONS

Characteristic	Measure
Rating	NEMA 2 (optional NEMA 4)
Power, Model JDW	One or two 9 V alkaline batteries (included)
Power, Model JDT	110 Vac adapter @ 60 Hz (included)
Power, Model JDV	11 Vdc to 32 Vdc @ 100 mA (3 ft cable included)
Power, Model JDB	11 Vdc to 32 Vdc (depending on loop resistance) @ 20 mA
Power, Model JDE	11 Vdc to 32 Vdc @ 100 mA
Power, Model JDR	11 Vdc to 32 Vdc @ 100 mA
Power, Model JDX	11 Vdc to 32 Vdc @ 100 mA
Electrical connection	3 ft cable (standard) on Models: JDB, JDE, JDR, JDX, JDV

MECHANICAL SPECIFICATIONS

Characteristic	Measure
Diameter	93,98 mm [3.7 in]
Display	4½ LCD digits - 12,7 mm [0.5 in] high
Pressure port	1/8-27 NPT female on ranges to 750 psid; 1/4-18 NPT female on ranges 1000 psid and above
Wetted surfaces	Stainless steel
O-ring material	1 psid to 750 psid - Viton 1000 psid to 10000 psid - Teflon-coated stainless steel
Housing	Stainless steel
Face membrane	Tactile feedback raised buttons
Calibration data	Stored on memory chip
Low battery indication	Standard on Model JDW
Limits and relays	Models JDR and JDX

ACCESSORIES ORDER CODES

Order code	Accessory
AD12	Pressure adapter (Zinc plated steel) 1/8-27 NPTM by 1/4-18 NPTF*
AD5	Pressure adapter (Zinc plated steel) 1/4-18 NPTM to 1/4-18 NPTM*
AD2	Pressure adapter (Zinc plated steel) 1/4-18 NPTM to 7/16-20 UNF F*
AD3	Pressure adapter (Zinc plated steel) 1/4-18 NPTM to 7/16-20 UNFM*
NISTCERTS	NIST certification (in addition to NIST statement)

* Stainless steel available

ADDITIONAL SPECIFICATIONS

Pressure range (psi)	Maximum line pressure (psi) ¹	Maximum safe over pressure (psi) ²	Incremental display steps (psi) - positive only
0 psi to 1 psi	1500	1500	0.001
0 psi to 2 psi	1500	1500	0.001
0 psi to 5 psi	1500	1500	0.005
0 psi to 10 psi	1500	1500	0.01
0 psi to 15 psi	1500	1500	0.01
0 psi to 25 psi	1500	1500	0.02
0 psi to 50 psi	1500	1500	0.05
0 psi to 75 psi	1500	1500	0.05
0 psi to 100 psi	1500	1500	0.1
0 psi to 150 psi	1500	1500	0.1
0 psi to 200 psi	1500	1500	0.1
0 psi to 300 psi	1500	1500	0.2
0 psi to 500 psi	1500	1500	0.5
0 psi to 750 psi	1500	1500	0.5
0 psi to 1000 psi	1500	1500	1
0 psi to 1500 psi	3500	2250	1
0 psi to 2000 psi	4000	3000	1
0 psi to 3000 psi	5000	4500	2
0 psi to 5000 psi	7000	7000	5
0 psi to 7500 psi	9500	9500	5
0 psi to 10000 psi	12000	12000	5

¹ Maximum line pressure is the amount of pressure that can be placed on both sides of the diaphragm

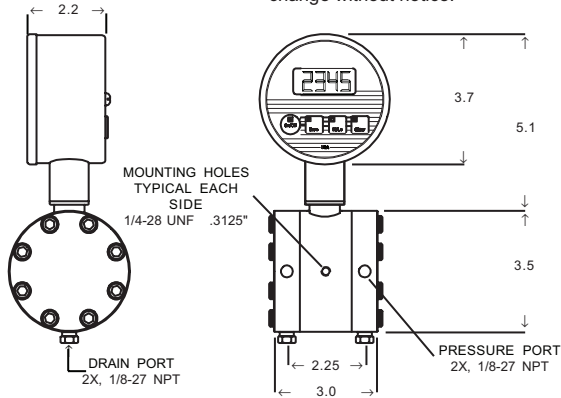
² Maximum safe overpressure is the pressure which the unit can experience occasionally without the loss of accuracy or permanent damage

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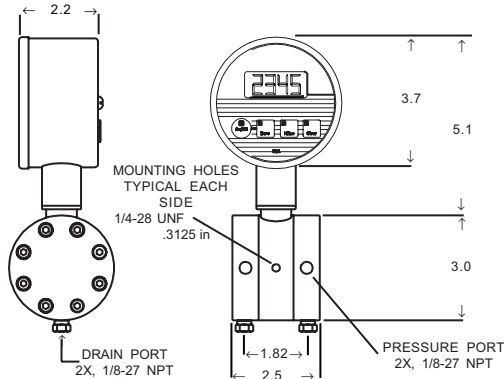
MOUNTING DIMENSIONS AND CHARACTERISTICS

Request certified drawing before designing mountings or fixtures. Specifications subject to change without notice.

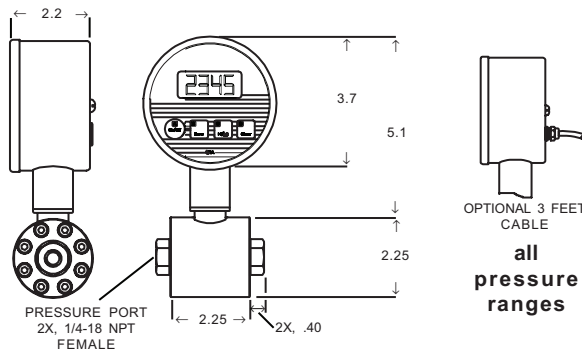
1 TO 25 PSID



50 TO 750 PSID



1000 TO 10000 PSID



For reference only

ORDER GUIDE

* = Example

SERIES

JD*

MODEL DESIGNATION

Models with output signal

B = 4 mA to 20 mA (two-wire)

E = 0 Vdc to 5 Vdc

R = 2 programmable limits & relays

X = 0 Vdc to 5 Vdc with two limits & relays

Models with no output signal

W = Battery powered (9 V alkaline)*

T = 110 Vac adapter (included)

V = 11 Vdc to 32 Vdc (3 ft. cable)

PRESSURE RANGE (PSID)

1 = 0-1 75 = 0-75 1K = 0-1000

2 = 0-2 100 = 0-100 1.5K = 0-1500

5 = 0-5* 150 = 0-150 2K = 0-2000

10 = 0-10 200 = 0-200 3K = 0-3000

15 = 0-15 300 = 0-300 5K = 0-5000

25 = 0-25 500 = 0-500 7.5K = 0-7500

50 = 0-50 750 = 0-750 10K = 0-10000

REFERENCE

D = Differential unit scaled from 0 psi to positive full scale value on the positive pressure side.*

Bi-directional scaling is available as an option.

Please consult the factory.

ELECTRICAL CONNECTION

Z = No electrical connection (Model JDW - 9 V battery)*

C = 3 foot cable (Models JDB, JDE, JDR, JDX & JDV)

T = ac adapter (Model JDT)

B = Bendix (opt) PTIH-10-6P or equal (connector sold separately)

Call factory for availability of other electrical connections and cable lengths.

NEMA 4 CONSTRUCTION

4 = NEMA 4 (not available on Model JDT)

FIELD SELECTABLE STANDARD UNITS OF MEASURE

Bar = Bar

Ft H2O = Feet of water

MBar = Millibar

In H2O = Inches of water

kPa = Kilopascals

In Hg = Inches of mercury

MPa = Megapascals

mmHg = mm of mercury

Consult factory for other units of measure not listed

This order codes used ONLY if you want NEMA 4 rating

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NOTES

1. The limit/relay models include two LED status indicators on front face and two form C relays (normally open, common, normally closed) that are rated at a maximum 24 Vdc/Vac at 1 A or 48 Vdc/Vac at 1/2 A.

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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