

# Model FP2000

## Configurable Pressure Transducer



### DESCRIPTION

The FP2000 series is a configurable pressure transducer which allows the customer to select the configuration which best fits the needs of the application. Choose from multiple accuracies, outputs, pressure ports, electrical terminations, and pressure ranges.

The FP2000 is available with gage, absolute, barometric, or vacuum reference and, best of all, they delivery in two weeks or less.



### FEATURES

- mV/V, 0 Vdc to 5 Vdc, 0 Vdc to 10 Vdc, 4 mA to 20 mA
- Gage, absolute, barometric, vacuum
- Differential (wet/wet, wet/dry)
- Intrinsically safe option<sup>5</sup>
- CE available<sup>6</sup>

FP2000 pressure sensors are custom built from stocked components, and most are shipped in 10 business days or less. Please see <http://sensing.honeywell.com/TMsensor-ship> for updated listings

# Model FP2000

## PERFORMANCE SPECIFICATIONS

Characteristic	Measure
Accuracy <sup>1</sup>	See accuracy table
Output (selectable)	mV/V (see accuracy table), 0 Vdc to 5 Vdc, 0 Vdc to 10 Vdc, or 4 mA to 20 mA (two wire)
Resolution	Infinite

## ENVIRONMENTAL SPECIFICATIONS

Characteristic	Measure
Temperature, operating	-40 °C to 116 °C [-40 °F to 240 °F]
Temperature, compensated	4 °C to 60 °C [40 °F to 140 °F] <sup>2</sup>
Temperature, error band <sup>2</sup>	
0.10 % accuracy	±0.5 % full scale
0.25 % accuracy	±1.0 % full scale

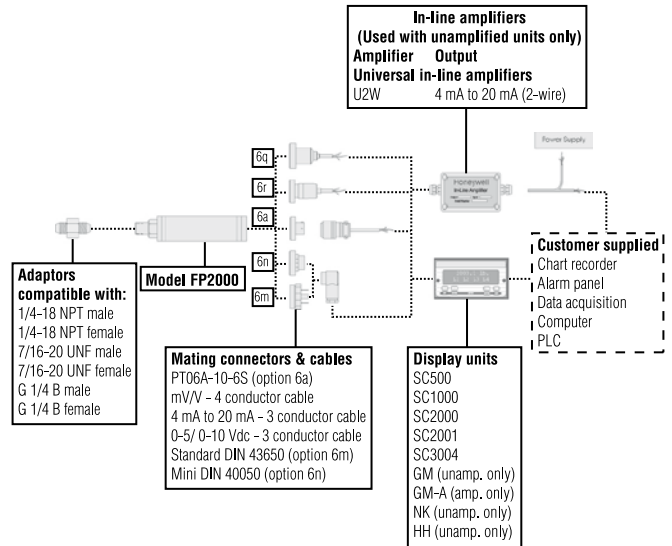
## ELECTRICAL SPECIFICATIONS

Characteristic	Measure
Excitation (calibration)	
Amplified	
(4 mA to 20 mA; 0 Vdc to 5 Vdc)	9 Vdc to 28 Vdc
Amplified	
(0 Vdc to 10 Vdc)	15 Vdc to 28 Vdc
Unamplified (mV/V)	10 Vdc

## MECHANICAL SPECIFICATIONS

Characteristic	Measure
Media <sup>3</sup>	Gas, liquid
Overload - safe	
1000 psi and below	4X full scale or 3000 psi, whichever is less
1500 psi and above	4X full scale or 15000 psi, whichever is less
Negative direction (for differential)	4X full scale or 250 psi, whichever is less
Overload - burst	
1000 psi and below	3000 psi
1500 psi and above	15000 psi
Pressure port	200 % over capacity
Wetted parts material	Ha C276 & 316L stainless steel

## TYPICAL SYSTEM DIAGRAM



# Configurable Pressure Transducer

## PRESSURE RANGES AND RANGE CODES

	psi	Range code	torr	Range code	mBar	Range code	kPa	Range code	Bar	Range code	in Hg	Range code	mm Hg	Range code	in H <sub>2</sub> O	Range code	
<b>Gage/ Absolute</b>	0.5*	AN	15**	HA	35**	JA	2**	KA	0.035**	MA	1**	UB	15**	VA	5**	WB	
	1*	AP	50**	HB	70**	JB	7**	KB	0.1**	MB	2**	UD	50**	VB	10**	WA	
	2*	AR	135**	HC	175**	JC	15**	KC	0.2	MC	5	UF	135	VC	20**	WC	
	2.5*	AS	250	HD	350	JD	35	KD	0.5	MD	10	UA	250	VD	30**	WE	
	5	AT	750	HE	700	JE	70	KE	1	ME	15	UC	750	VE	50**	WG	
	10	AV	1500	HF	750	JF	100	KF	2	MF	20	UE	1500	VF	100	WI	
	15	BJ			1000	JG	200	KG	3.5	NA	30	UG			120	WK	
	25	BL			3500	JH	300	KH	5	MG	50	UI			150	WM	
	30	BM			7000	JI	700	KJ	7	NB	60	UK			200	WP	
	50	BN			10000	JK	1000	KL	10	MH	80	UM			300	WR	
	75	BP					1500	KM	20	MI	100	UP			500	WS	
	100	BR					1700	KN	30	MJ	200	UH					
	150	CJ					2000	KP	35	NC	300	UJ					
	200	CL					3000	KQ	50	MK	500	UL					
	250	CN					5000	KR	70	ND	1000	UN					
	300	CP					7000	KS	100	ML	0-32	US					
	400	CQ					10000	KT	135	NE	16-32	UQ					
	500	CR					15000	KU	350	NG	26-32	UR					
	600	CS					20000	KV	500	MM							
	750	CT					35000	KW	700	NH							
	1000	CV					50000	KY									
	1500	DJ					70000	KZ									
	2000	DL															
	2500	DM															
	3000	DN															
	5000	DR															
	6000	DS															
	7500	DT															
	10000	DV															
	<b>Barometric (Order code FPB)</b>											0-30	UG				
												16-32	UQ				
												26-32	UR				
<b>Vacuum (Order code FPV)</b>	1	AP	50	HB	35	JA	7	KB	0.035	MA	10	UA	15	VA	10	WA	
	5	AT	135	HC	70	JB	15	KC	0.1	MB	20	UE	50	VB	20	WC	
	10	AV	250	HD	175	JC	35	KD	0.2	MC	30	UG	135	VC	30	WE	
	15	BJ	750	HE	350	JD	100	KF	0.5	MD			250	VD	50	WG	
					700	JE			1	ME			750	VE	100	WI	
<b>Differential (Order codes FDD, FDW)</b>	0.5	AN	15	HA	35	JA	2	KA	0.035	MA	1	UB	15	VA	5	WB	
	1	AP	50	HB	70	JB	7	KB	0.1	MB	2	UD	50	VB	10	WA	
	2	AR	135	HC	175	JC	15	KC	0.2	MC	5	UF	135	VC	20	WC	
	2.5	AS	250	HD	350	JD	35	KD	0.5	MD	10	UA	250	VD	30	WE	
	5	AT	750	HE	700	JE	70	KE	1	ME	15	UC	750	VE	50	WG	
	10	AV	1500	HF	750	JF	100	KF	2	MF	20	UE	1500	VF	100	WI	
	15	BJ			1000	JG	200	KG	3.5	NA	30	UG			120	WK	
	25	BL			3500	JH	300	KH	5	MG	50	UI			150	WM	
	30	BM			7000	JI	700	KJ	7	NB	60	UK			200	WP	
	50	BN			10000	JK	1000	KL	10	MH	80	UM			300	WR	
	75	BP					1500	KM	20	MI	100	UP			500	WS	
	100	BR					1700	KN	30	MJ	200	UH					
	150	CJ					2000	KP	35	NC	300	UJ					
	200	CL					3000	KQ	50	MK	500	UL					
	250	CN					5000	KR	70	ND	1000	UN					
	300	CP					7000	KS			0-32	US					
	400	CQ					10000	KT			16-32	UQ					
	500	CR					15000	KU			26-32	UR					
	600	CS					20000	KV									
	750	CT					35000	KW									
1000	CV					50000	KY										

\* 0.5 psi to 2.5 psi ranges are not available for absolute pressure

\*\* Not available in absolute

# Model FP2000

## INTERNAL AMPLIFIERS

Amplifier specifications	Unamplified output: Option 2u	Voltage output: Option 2d	Voltage output: Option 2g	Current two-wire: Option 2p
Output signal	See accuracy table	0 Vdc to 5 Vdc	0 Vdc to 10 Vdc	4 mA to 20 mA
Input power (voltage)	10 Vdc	9 Vdc to 28 Vdc	15 Vdc to 28 Vdc	9 Vdc to 32 Vdc
Input power (current)	2 mA @ 10 Vdc	10 mA	15 mA	4 mA to 24 mA
Frequency response	Natural frequency	300 Hz	300 Hz	300 Hz
Power supply rejection	N/A	60 dB	60 dB	60 dB
Operating temperature	-40 °C to 116 °C [-40 °F to 240 °F]	-29 °C to 85 °C [-20 °F to 185 °F]	-29 °C to 85 °C [-20 °F to 185 °F]	-29 °C to 85 °C [-20 °F to 185 °F]
Reverse voltage protection	N/A	Yes	Yes	Yes
Short circuit protection	N/A	Momentary	Momentary	Yes

Amplifier specifications	Voltage output: Option 2e	Voltage output: Option 2f	Intrinsically safe amp: Option 2n (2N) <sup>***</sup>	Current two-wire: Option 2y
Output signal	0 Vdc to 5 Vdc	0 Vdc to 10 Vdc	4 mA to 20 mA	4 mA to 20 mA
Input power (voltage)	9 Vdc to 28 Vdc	15 Vdc to 28 Vdc	9 Vdc to 28 Vdc	9 Vdc to 32 Vdc
Input power (current)	10 mA	15 mA	4 mA to 24 mA	4 mA to 24 mA
Frequency response	2000 Hz	2000 Hz	2000 Hz	2000 Hz
Power supply rejection	60 dB	60 dB	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]	-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	Yes	Yes
Short circuit protection	Momentary	Momentary	Yes	Yes

## ACCURACY

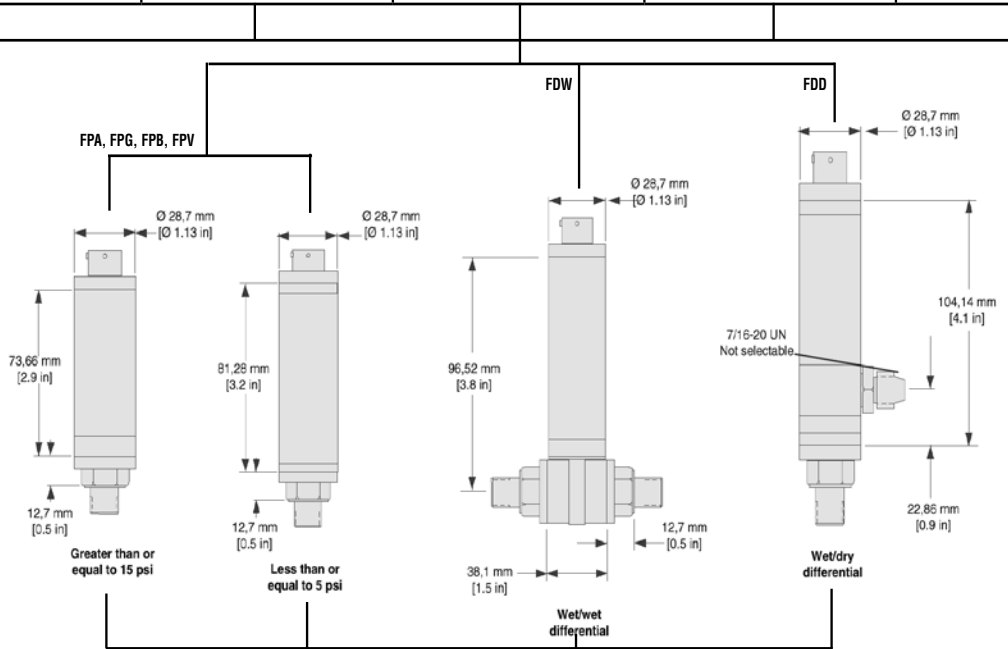
Non-amplified output @ 10 Vdc excitation	Gage and absolute	Vacuum	Barometric	Differential
0.10 % accuracy	50 mV 4	25 mV	40 mV	50 mV 4
0.25 % accuracy	100 mV	50 mV	80 mV	100 mV

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## MOUNTING DIMENSIONS

### Electrical termination

Code 6a: 6-pin, vented, Bendix style	Code 6m: 4-pin, vented, standard DIN (43650)	Code 6n: 4-pin, vented, mini DIN	Code 6q: 4-conductor, vented, integral cable, 1,52 m [5 ft]	Code 6r: 4-conductor, vented, integral cable, conduit fitting 1,52 m [5 ft]



### Pressure ports

	Code 5a 1/4-18 NPT female	Code 5b 1/4-18 NPT male	Code 5c 7/16-20 UNF female	Code 5d 7/16-20 UNF male	Code 5f G 1/4 B female	Code 5g G 1/4 B male
Less than 1000 psi						
Greater than 1500 psi						
	Code 5h 1/8-27 NPT female	Code 5i 1/8-27 NPT male	Code 5p M12-1.5 male	Code 5q M12-1.5 female	Code 5r 9/16-18 SAE male	Code 5s 9/16-18 SAE female
Less than 1000 psi						
Greater than 1500 psi						

# Model FP2000

## WIRING CODES

	Unamplified output: Option 2u	Voltage output: Option 2d/2e	Voltage output: Option 2g/2f	Current two-wire: Option 2p/2y	Intrinsically safe amp: Option 2n (2N)**
<b>Bendix PTIH-10-6P (Option 6a)</b>					
No shunt cal	A (+) Excitation B (+) Excitation C (-) Excitation D (-) Excitation E (-) Output F (+) Output	A (+) Supply B (-) Supply return C (-) Output 0 Vdc to 5 Vdc D (+) Output E No connection F No connection	A (+) Supply B (-) Supply return C (-) Output 0 Vdc to 10 Vdc D (+) Output Vdc E No connection F No connection	A (+) Supply B No connection C No connection D (+) Output 4 mA to 20 mA E No connection F No connection	A (+) Supply B No connection C No connection D (+) Output 4 mA to 20 mA E Case ground F No connection
With shunt cal (option 3d)	A (+) Excitation B (-) Excitation C (+) Output D (-) Output E No connection F Shunt Cal	A (+) Supply B (-) Supply return C (-) Output 0 Vdc to 5 Vdc D (+) Output E No connection F Shunt cal	A (+) Supply B (-) Supply return C (-) Output 0 Vdc to 10 Vdc D (+) Output E No connection F Shunt cal	A (+) Supply B No connection C No connection D (+) Output 4 mA to 20 mA E No connection F Shunt cal	A (+) Supply B No connection C No connection D (+) Output 4 mA to 20 mA E No connection F Shunt cal
<b>Std. DIN 43650 (Option 6m)</b>					
No shunt cal	1 (+) Excitation 2 (+) Output 3 (-) Output 4 (-) Excitation	1 (+) Supply 2 (+) Output 3 Supply/ output com. GND No connect. to case	1 (+) Supply 2 (+) Output 3 Supply/ output com. GND	1 (+) Supply 2 (+) Output 4 mA to 20 mA 3 No connection	1 (+) Supply 2 (+) Output 3 Case ground
With shunt cal (option 3d)	Not Applicable	1 (+) Supply 2 (+) Output 3 Supply/output com. GND Shunt cal	1 2 3 GND Shunt cal	3 No connection GND Shunt cal	GND Shunt cal
<b>Mini DIN 40050 (Option 6n)</b>					
No shunt cal	1 (+) Excitation 2 (+) Output 3 (-) Output 4 (-) Excitation	1 (+) Supply 2 (+) Output 3 Supply/output com. GND No connect. to case	1 (+) Supply 2 (+) Output 3 Supply/output com. GND No connect. to case	1 (+) Supply 2 (+) Output 4 mA to 20 mA 3 No connection GND case	1 (+) Supply 2 (+) Output 3 Case ground GND No connection
With shunt cal (option 3d)	Not Applicable	1 (+) Supply 2 (+) Output 3 Supply/output com. GND Shunt cal	1 (+) Supply 2 (+) Output 3 Supply/output com. GND Shunt cal	1 (+) Supply 2 (+) Output 4 mA to 20 mA 3 No connection GND Shunt cal	1 (+) Supply 2 (+) Output 3 Case ground GND Shunt cal
<b>1.83 m [5 ft] integral cable (Option 6q)</b>					
No shunt cal	R (+) Excitation Bl (-) Excitation G (-) Output W (+) Output	R (+) Supply Bl (-) Supply return G (-) Output W (+) Output 0 Vdc to 5 Vdc	R (+) Supply Bl (-) Supply return G (-) Output W (+) Output 0 Vdc to 10 Vdc	R (+) Supply Bl (+) Output 4 mA to 20 mA	R (+) Supply Bl (+) Output 4 mA to 20 mA W Case ground
With shunt cal (option 3d)	Not Applicable	R (+) Supply Bl (-) Supply return G Shunt cal W (+) Output 0 Vdc to 5 Vdc	R (+) Supply Bl (-) Supply return G Shunt cal W (+) Output 0 Vdc to 10 Vdc	R (+) Supply Bl (+) Output 4 mA to 20 mA G Shunt cal	R (+) Supply Bl (+) Output 4 mA to 20 mA W Case ground G Shunt cal
<b>Conduit fitting (Option 6r)</b>					
No shunt cal	R (+) Excitation Bl (-) Excitation G (-) Output W (+) Output	R (+) Supply Bl (-) Supply return G (-) Output W (+) Output 0 Vdc to 5 Vdc	R (+) Supply Bl (-) Supply return G (-) Output W (+) Output 0 Vdc to 10 Vdc	R (+) Supply Bl (+) Output 4 mA to 20 mA	R (+) Supply Bl (+) Output 4 mA to 20 mA W Case ground
With shunt cal (option 3d)	Not Applicable	R (+) Supply Bl (-) Supply return G Shunt cal W (+) Output 0 Vdc to 5 Vdc	R (+) Supply Bl (-) Supply return G Shunt cal W (+) Output 0 Vdc to 10 Vdc	R (+) Supply Bl (+) Output 4 mA to 20 mA G Shunt cal	R (+) Supply Bl (+) Output 4 mA to 20 mA W Case ground G Shunt cal

Note: For wiring codes, R=red; Bl = black; W = white; G = green. Color specifies cable and letter or number specifies connection

\*\*\* See Honeywell's Web site for most up-to-date information regarding Intrinsically Safe approvals ref. #008-0547-00.

# Configurable Pressure Transducer

## How to order

The **FP2000 Order Code** is an easy way for you to order exactly what you want the factory to build. Simply make one selection in each of the six required categories. Choose adders and accessories only if you require them. By visiting our Web site at [www.honeywell.com/sensing](http://www.honeywell.com/sensing) you can view complete technical specifications for the FP2000, or click to our on-line shopping site and actually place your order.

**Step 1**

**Transducer type**

<input type="checkbox"/> Pressure - gage	FPG
<input type="checkbox"/> Pressure - absolute	FPA
<input type="checkbox"/> Differential - wet/wet	FDW
<input type="checkbox"/> Pressure - barometric	FPB
<input type="checkbox"/> Differential - wet/dry	FDD
<input type="checkbox"/> Pressure - vacuum	FPV

Type Code

Unit type

<input type="checkbox"/> psi	<input type="checkbox"/> bar
<input type="checkbox"/> torr	<input type="checkbox"/> in Hg
<input type="checkbox"/> mBar	<input type="checkbox"/> mm Hg
<input type="checkbox"/> kPa	<input type="checkbox"/> in H <sub>2</sub> O

**Step 2**

**Pressure range**  
Gage, absolute, and differential

<input type="checkbox"/> 0.5 psi	AN	<input type="checkbox"/> 250 psi	CN
<input type="checkbox"/> 1 psi	AP	<input type="checkbox"/> 300 psi	CP
<input type="checkbox"/> 2 psi	AR	<input type="checkbox"/> 400 psi	CQ
<input type="checkbox"/> 2.5 psi	AS	<input type="checkbox"/> 500 psi	CR
<input type="checkbox"/> 5 psi	AT	<input type="checkbox"/> 600 psi	CS
<input type="checkbox"/> 10 psi	AV	<input type="checkbox"/> 750 psi	CT
<input type="checkbox"/> 15 psi	BJ	<input type="checkbox"/> 1000 psi	CV
<input type="checkbox"/> 25 psi	BL	<input type="checkbox"/> 1500 psi	DJ
<input type="checkbox"/> 30 psi	BM	<input type="checkbox"/> 2000 psi	DL
<input type="checkbox"/> 50 psi	BN	<input type="checkbox"/> 2500 psi	DM
<input type="checkbox"/> 75 psi	BP	<input type="checkbox"/> 3000 psi	DN
<input type="checkbox"/> 100 psi	BR	<input type="checkbox"/> 5000 psi	DR
<input type="checkbox"/> 150 psi	CJ	<input type="checkbox"/> 6000 psi	DS
<input type="checkbox"/> 200 psi	CL	<input type="checkbox"/> 7500 psi	DT
		<input type="checkbox"/> 10000 psi	DV

Range code

Barometric

<input type="checkbox"/> 16-32 in Hga	UQ	<input type="checkbox"/> 1 psi	AP
<input type="checkbox"/> 26-32 in Hga	UR	<input type="checkbox"/> 5 psi	AT
<input type="checkbox"/> 0-30 in Hga	UG	<input type="checkbox"/> 10 psi	AV
		<input type="checkbox"/> 15 psi	BJ

Vacuum

**Accuracy**

<input type="checkbox"/> 0.10 %	1
<input type="checkbox"/> 0.25 %	2

Accuracy code

**Step 3**

**Output**

<input type="checkbox"/> mV/V	Basic output code	2u	If adding 9d or 9f (<5000 psi)	NA	If adding 1y, 3d, 9e or 14c	2u
<input type="checkbox"/> 5 Vdc	2d	NA	2e			
<input type="checkbox"/> 10 Vdc	2g	NA	2f			
<input type="checkbox"/> 4 mA to 20 mA	2p	2n(2N)	2y			

NOTE: If any ADDERS are required, the output code must be revised. See step 4.

**Pressure Port**

<input type="checkbox"/> 1/4-18 NPT female	5a
<input type="checkbox"/> 1/4-18 NPT male	5b
<input type="checkbox"/> 7/16-20 UNF female	5c
<input type="checkbox"/> 7/16-20 UNF male	5d
<input type="checkbox"/> G 1/4 B female	5f
<input type="checkbox"/> G 1/4 B male	5g
<input type="checkbox"/> 1/8-27 NPT female	5h
<input type="checkbox"/> 1/8-27 NPT male	5i
<input type="checkbox"/> M12 x 1.5 male	5p
<input type="checkbox"/> M12 x 1.5 female	5q
<input type="checkbox"/> 9/16-18 UNF SAE male	5r
<input type="checkbox"/> 9/16-18 UNF SAE female	5s

Port code

**Electrical connector**

<input type="checkbox"/> Bendix PTIH-10-6P	6a
<input type="checkbox"/> DIN 43650	6m
<input type="checkbox"/> Mini DIN (40050)	6n
<input type="checkbox"/> Integral polyurethane 5 ft cable	6q
<input type="checkbox"/> 1/2 x 14 NPT conduit 5 ft cable exit	6r

Connector code

**Step 4**

**Adders**

<input type="checkbox"/> Enhanced thermals	Adder code	1y
Gage: 0 °F to 180 °F		
Absolute: 0 °F to 180 °F		
Differential: 0 °F to 180 °F		
Barometric: 30 °F to 170 °F		
Vacuum: 10 °F to 170 °F		
<input type="checkbox"/> Shunt cal	3d	
<input type="checkbox"/> IS rating	9d	
<input type="checkbox"/> CE rating	9e	
<input type="checkbox"/> IS and CE rating	9f	
<input type="checkbox"/> Zero and span adjustments	14c	
<input type="checkbox"/> mV/V	2u	
<input type="checkbox"/> 5 Vdc	2e	
<input type="checkbox"/> 10 Vdc	2f	
<input type="checkbox"/> 4 mA to 20 mA (CE only)	2y	
<input type="checkbox"/> 4 mA to 20 mA (IS only)	2n (2N)	
<input type="checkbox"/> 4 mA to 20 mA (IS and CE)	2n (2N)	

NOTE: If you choose any adder output from step 4, you must revise your output code selection using this output code chart. IS outputs available only on ranges up to 5000 psi.

**Accessories**

Mating connectors only

<input type="checkbox"/> Mini DIN	AA161
<input type="checkbox"/> Bendix	AA111

Mating conn. with 15 ft. cable for Bendix connector (6A)

	Without shunt	With shunt (3d)
<input type="checkbox"/> mV/V	AA113	AA513
<input type="checkbox"/> 4 mA to 20 mA	AA116	AA516
<input type="checkbox"/> 0 to 5/0 to 10 Vdc	AA117	AA517

**Step 5**

**Example order code**      **FDW 1 CN 2y 5b 6a 1y AA116**

<b>Selection</b>	<b>Description</b>	<b>Code</b>
Transducer type	Differential wet/wet	FDW
Accuracy	0.10 %	1
Pressure range	250 psi	CN
Output	4 mA to 20 mA	2y
Pressure port	1/4-18 NPT male	5b
Electrical output connections	Bendix PTIH-10-6P	6a
Adders	Enhanced temperature range	1y
Accessories	Mating connector with cable	AA116

There must be a code in each of the six basic code boxes. If there are no adders or accessories chosen, leave the boxes blank.

Description	Basic code					Adder code (see step 4)				
	Type	Accuracy	Range	Output	Pressure	Elect. conn.	Extended	Shunt cal.	IS/CE rated	Pots
Order code										
Accessory code										

Zero and span adjustments are located on the side. See drawing for details. No zero and span adjustments are available on mV/V output option.

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## NOTES

1. Accuracies stated are expected for best-fit straight line for all errors, including linearity, hysteresis, and non-repeatability through zero.
2. For low pressure ranges, temperature effects may vary.
3. The wet/wet differential pressure transducer has two separate, welded Hastelloy diaphragms. In wet/dry unit, the wet port (high port) has all-welded stainless steel and Hastelloy construction. The dry port (low port) has no isolation diaphragm.
4. For low gage and differential pressure ranges at 0.10 % accuracy, non-amplified output @ 10 Vdc excitation = 100 mV.
5. Range up to and include 5000 psi.
6. Not available with 6m.

**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](http://www.honeywell.com/sensing) or call +1-815-235-6847  
Email inquiries to [info.sc@honeywell.com](mailto: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.**

ALTHEN reserves the right to vary the foregoing details without prior notice



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