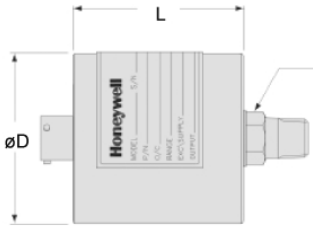
Model TJE Precision Gage/ Absolute Pressure Transducer

Order Code AP121 (gage) AP122 (absolute)

- 1 to 60,000 psig/a Range
- mV/V, 4-20 mA, 0-5 VDC or 0-10 VDC Output
- Stainless Steel, Hermetically Sealed
- 0.1% Accuracy



1 to 5 psig/ psia

10 to 1,500 psig/ psia

2,000 to 60,000 psig/ psia

Dimensions

	Pressure Ranges (psi)															
	1	2	5	10	15	25	50	75	100	150	200	300	500	750	1,000	1,500
Range Code	AP	AR	AT	AV	BJ	BL	BN	BP	BR	CJ	CL	CP	CR	CT	CV	DJ
D (in./ mm) for psia	2.25/ 57			1.50/ 38												
D (in./ mm) for psig	2.25/ 57			1.75/ 45	1.50/ 38											
L (in./ mm) for psia	2.54/ 65			2.35/ 60												
L* (in./ mm) for psia	3.79/ 96			3.60/ 91												
L (in./ mm) for psig	1.81/ 46			2.00/ 51	2.02/ 51											
L* (in./ mm) for psig	3.06/ 78			3.25/ 83	3.27/ 83											
Over Pressure (test) (psi)	150% Full Scale			150% Full Scale												
Over Pressure (burst) (psi)	50			100		200		400		800		2k		3k	3.5k	4k
Port Volume (in.^{3}/ cm^3)	0.32/ 5.2			0.25/ 4.1				0.17/ 2.8								
Natural Frequency (Hz)	500	550	1000	1.3k	2.1k	2.5k	2.9k	3.5k	4.6k	6k	7k	9k	9.5k	12k	17k	20k

	Pressure Ranges (psi)									
	2,000	3,000	5,000	7,500	10,000	15,000	20,000	30,000	50,000	60,000
Range Code	DL	DN	DR	DT	DV	EJ	EL	EN	EP	ES
D (in./ mm)	1.50/ 38					1.50/ 38				
L (in./ mm)	1.90/ 48					2.21/ 56				
L* (in./ mm)	3.15/ 80					3.46/ 89				
Over Pressure (test) (psi)	150% Full Scale					Contact Factory				
Over Pressure (burst) (psi)	8k	12k	20k	25k	25k	40k	45k	60k	80k	80k
Port Volume (in.^{3}/ cm^3)	0.12/ 3.1					0.06/ 1.5				
Natural Frequency (Hz)	35k	40k	54k	60k	80k	100k	>100k	>100k	>100k	>100k

* Length of pressure transducer with amplified option (see options on third page)

** 0.5 psi is available for gage only.

Honeywell sensotec

Model TJE

Performance

Accuracy (note 1).....+/-0.10% Full Scale
Linearity.....+/-0.10% Full Scale
Hysteresis.....+/-0.05% Full Scale
Media.....All gases/ liquids compatible with wetted parts
Resolution.....Infinite
Calibration.....5 point calibration: 0%, 50% and 100% of Full Scale

Environmental

Temperature, Compensated.....60° to 160°F
Temperature, Effect
Zero.....0.0025% Full scale/ °F
Span.....0.0025% Reading/ °F
Sealing.....Hermetically sealed IP68/ Nema 6P

Electrical

Strain Gage Type.....Bonded foil
Insulation Resistance.....5,000 Megohms @ 50VDC
Bridge Resistance.....350 Ohms
Shunt Calibration Data.....Included
Electrical Termination (std).....PTIH-10-6P or equiv. (Hermetic Stainless)
Mating Connector (not incl.).....PT06A-10-6S or equiv.

Mechanical

Wetted Parts Material
Less than 2000 psig/a.....17-4 PH Stainless Steel
Greater than or equal to 2000 psig/a.....15-5 PH Stainless Steel
Weight.....10 oz.
Case Material.....304 Stainless Steel
Marking.....Permanent metal nameplate MIL-STD130F 4.3; Individual sequential serial number per sensor; Country of origin and date of manufacture

Internal Amplifiers

Amplifier Specifications	mV/V Output Standard	Voltage Output Option 2a (note 4)	Vehicle Voltage Output Option 2c (note 4)	Vehicle Voltage Output Option 2t (note 4)	Current 3 Wire Option 2j (note 4)	Current 2 Wire Option 2k (note 4)	Intrinsically Safe Amp Option 2N (2n)
Output Signal	3 mV/V (note 2)	0-5VDC	0-5VDC or +/- 5VDC @ 5mA	0-10VDC or +/- 10VDC @ 5mA	4-20 mA	4-20 mA	4-20 mA
Input Power (Voltage)	10 VDC Regulated	+/-15VDC or 26-32VDC	11-28 VDC	15-28 VDC	22-32 VDC (note 3)	9-32 VDC (note 3)	9-28 VDC (note 3)
Input Power (Current)	28.5 mA @ 10 VDC	45 mA	40 mA	40 mA	65 mA	4-28 mA	4-24 mA
Frequency Response (amp)	Natural Frequency	2000 Hz	3000 Hz	3000 Hz	2500 Hz	300 Hz	2000 Hz
Power Supply Rejection	Not Applicable	60 db	60 db	60 db	60 db	60 db	60 db
Operating Temperature	-100° to 250° F	-20° to 185° F	-40° to 200° F	-40° to 185° F	-40° to 185° F	-40° to 185° F	-20° to 185° F
Reverse Voltage Protection	Not Applicable	Yes	Yes	Yes	Yes	Yes	Yes
Short Circuit Protection	Not Applicable	Momentary	Momentary	Momentary	Yes	Yes	Yes
Wiring Code: Connector (Std.) (note 5)	A (+) Excitation B (+) Excitation C (-) Excitation D (-) Excitation E (-) Output F (+) Output	A (+) Supply B Output Common/ C Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B** Output Common/ C** Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B** Output Common/ C** Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B** Output Common/ C** Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B No Connection C No Connection D (+) Output E Case Ground F No Connection	A (+) Supply B No Connection C No Connection D (+) Output E Case Ground F No Connection
Wiring Code: Cable (note 5) (note 6) (note 7)	R (+) Excitation Bl (-) Excitation G (-) Output W (+) Output	R (+) Supply Bl Output Common/ G Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl* Output Common/ G* Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl* Output Common/ G* Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl* Output Common/ G* Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl (+) Output W Case Ground	R (+) Supply Bl (+) Output W Case Ground
For Current Information		Reference application sheet #008-0356-00 for current information.	Reference application sheet #008-0357-00 for current information.	Reference application sheet #008-0360-00 for current information.	Reference application sheet #008-0361-00 for current information.	Reference application sheet #008-0361-60 for current information.	See Sensotec web site for most up-to-date information regarding Intrinsically Safe approvals ref. #008-0547-00.

* Black and Green wires are internally connected.
** Pins B and C are internally connected.

Notes:

1. Accuracies stated are expected for Best Fit Straight Line for all errors including linearity, hysteresis & non-repeatability thru zero.
2. Output for 0.5, 1, 2 psig/a units is 1-2mV/V.
3. Input power (voltage) for internal amplifier options 2j, 2k, 2n(2N) depends on load resistance.
4. CE mark requires options 6a & 3d.
5. Interconnecting shunt cal. 1 with shunt cal. 2 terminal provides 50% (unamplified units), 75% (4-20 mA 3 wire units), or 80% (voltage amp. units) of full scale output for quick calibration. Shunt Calibration comes standard with internal amplifier options 2a, 2b, 2c, 2t and 2j.
6. G=Green; B=Blue; W=White; Bl=Black; Br=Brown; Y=Yellow; R=Red; O=Orange. Color specifying cable and number or letter specifying connector
7. No mating connector necessary with cable option.

Honeywell sensotec

elneo instruments

Model TJE

Options

	Same Day Ship	Fast Track Manufacture	Built to Order	Built from Scratch
Pressure Ranges	15; 25; 50; 100; 200 psig/a 500; 1000; 3000; 5000; 7500; 10,000 psig	75; 300; 750; 1500; 2000 psig/a 500; 1000; 3000; 5000; 7500; 10,000 psia		1; 2; 5; 10; 15,000; 20,000; 30,000; 50,000; 60,000 psig/a
Temperature Compensation	1a. 60° to 160° F	1b. 30° to 130° F 1c. 0° to 185° F 1d. -20° to 130° F 1e. -20° to 200° F 1f. 70° to 250° F (note 11)	1g. 70° to 325° F (note 11) 1i. -65° to 250° F (note 11)	
Internal Amplifiers (note 10)	2u. Unamplified mV/V output 2c. 0-5 VDC output	2a. 0-5 VDC (4-wire) output 2j. 4-20 mA (3-wire) output 2t. 0-10 VDC output	2k. 4-20 mA (2-wire) output (note 8) 2N (2n). 4-20 mA (2-wire) Intrinsically safe (note 8)	
Internal Amplifier Enhancements			3a. Input/ Output Isolation (note 15) 3d. Remote Buffered Shunt Cal.	
Pressure Ports (note 9)		5a. 1/4-18 NPT Female 5b. 1/4-18 NPT Male 5d. 7/16-20 UNF Male 5g. G 1/4 Male	5c. 7/16-20 UNF Female (per MS33649-4)	
Electrical Termination	6a. Bendix PTIH-10-6P-(or equiv.) 6 pin (max. 400°F)		6b. MS type connector mates with MS3106-14S 6 pin (max. 160°F) (note13) 6i. Submersible Cable (note 14) 6j. 1/2-14 conduit fitting with 5 ft. of 4 conductor PVC cable	
Shunt Calibration		8a. Precision Internal Resistor (note 11)		
Special Calibration (note 9)		9a. 10 point (5 up/5 down) 20% increments @ 70°F (gage) 9b. 20 point (10 up/10 down) 10% increments @ 70°F (gage)		
Wetted Diaphragm (note 9)				10a. 316 Stainless steel (note 9) 10b. Crucible A-286 10c. Hastelloy-C 10d. Monel K-500
Bridge Resistance (note 9)			12a. 1,000 Ohms (foil) (max. 400°F) 12b. 5,000 Ohms (foil) (max. 400°F)	
Potentiometers		14a. No access to pots 14b. Top access to pots		
Shock & Vibration			44a. Shock & vibration resistance	
Interfaces		53e. Signature Calibration (note 11) 53t. T.E.D.S. IEEE1451.4 Module (note 16)		

Supplied as standard

Notes:

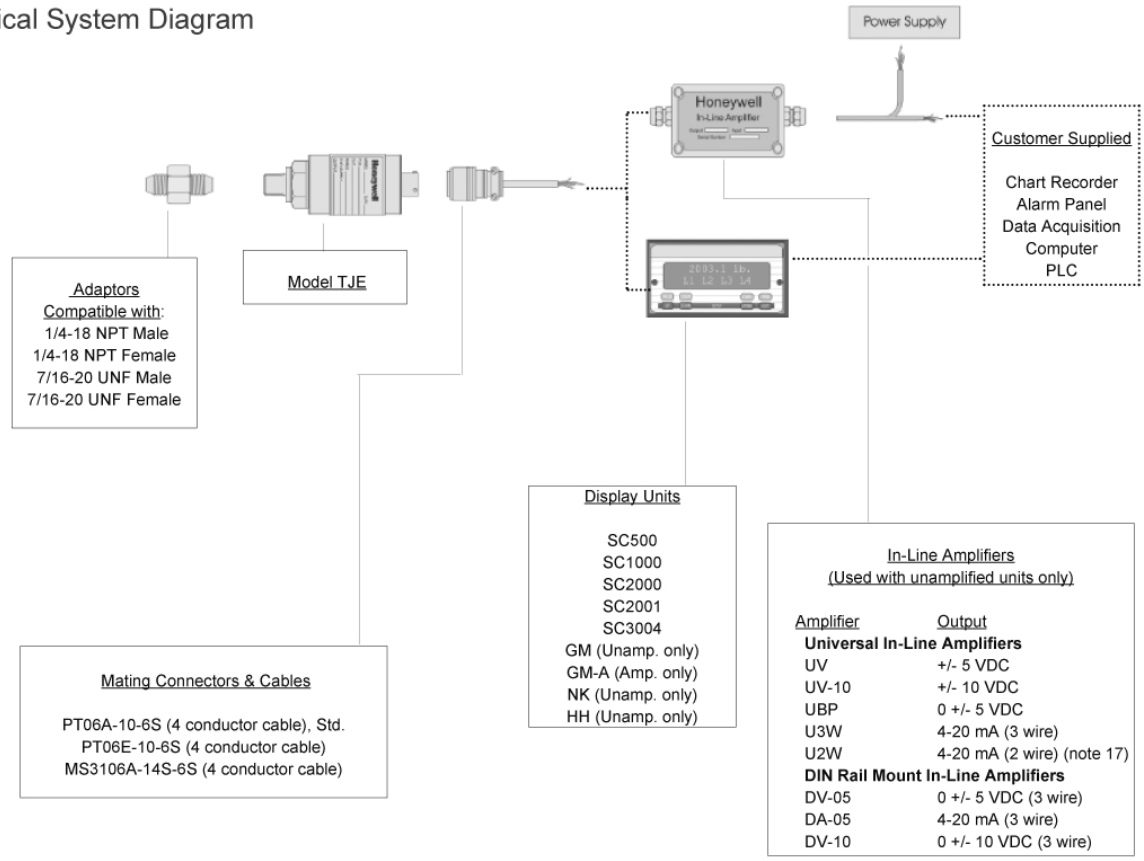
8. Options 2k, 2n(2N) only available with option 12b.
9. Availability varies according to range.
10. Not available with temperatures below -20°F or above 185°F.
11. Cannot be used with amplified option.
12. Gage pressure units greater than 200 psi are sealed at atmospheric pressure.
13. No pot access available with MS type connector.
14. Temp 180° F max, nonshielded standard, shielded available.
15. Input/Output Isolation only available with Voltage output (options 2a, 2b, 2c).
16. Consult factory for TEDS availability with amplified models.

Honeywell sensotec

Capteurs

Model TJE

Typical System Diagram



Special Customer Requirements (Consult Factory)

Case pressure
Different cable lengths
Different materials
ESD
Fatigue rating
Lightning protection
O_2 Clean
OEM labels
Overload stops
Radiation proof
Sig Cal
Special electrical O/P
Special temp comp
Special wiring codes
Temperature & pressure calibration

Notes:

17. 5,000 Ohm bridge required

Approved

Approved
Intrinsically Safe Amp

How to Order

Combine the order code, the range code and the options code.

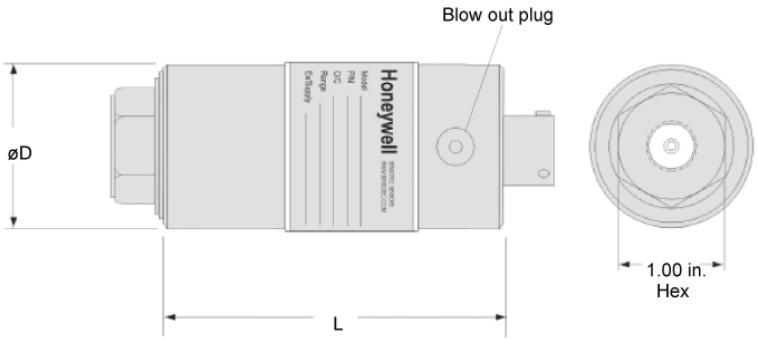
Sample Code: AP121 (Order Code) AT (Range Code) 1c,2a (Options Code)

Honeywell sensotec

Model HP High Pressure Transducers

Order Code BP521

- 50,000 to 100,000 psi
- AE F250-C Port
- High Pressure Capacity
- 0.5% Accuracy



Wiring Code

Connector/Unamplified

A&B	(+) Excitation
C&D	(-) Excitation
E	(-) Output
F	(+) Output

Dimensions

	Pressure Range		
	50,000	75,000	100,000 (note 1)
Range Code	EP	ER	ET
D (in.)	1.50		
L (in.)	2.92		
L* (in.)	4.35		
Over Pressure (test) (psi)	75,000	100,000	100,000
Over Pressure (burst) (psi)	100,000	125,000	140,000
Port Volume ($in.^3$)	0.015		
Natural Frequency (Hz)	Greater than 100 kHz		
Installation Torque (ft.-lb./N-m)	25/ 34	30/ 41	35/ 47

Performance

Accuracy (note 2).....+/- 0.5% Full Scale
Resolution.....Infinite
Calibration.....5 point calibration: 0%, 50% and 100% of Full Scale

Environmental

Temperature, Compensated.....60° to 160° F
Zero.....0.005% Full Scale/° F
Span.....0.005% Reading/° F
Sealing.....Hermetically sealed IP68/ NEMA 6P

Electrical

Strain Gage Type.....Bonded Foil
Insulation Resistance.....5,000 Megohms @ 50 VDC
Bridge Resistance.....350 Ohms
Shunt Calibration Data.....Included
Electrical Termination (std).....PTIH-10-6P or equivalent (Hermetic Stainless)
Mating Connector (not incl.).....PT06A-10-6S

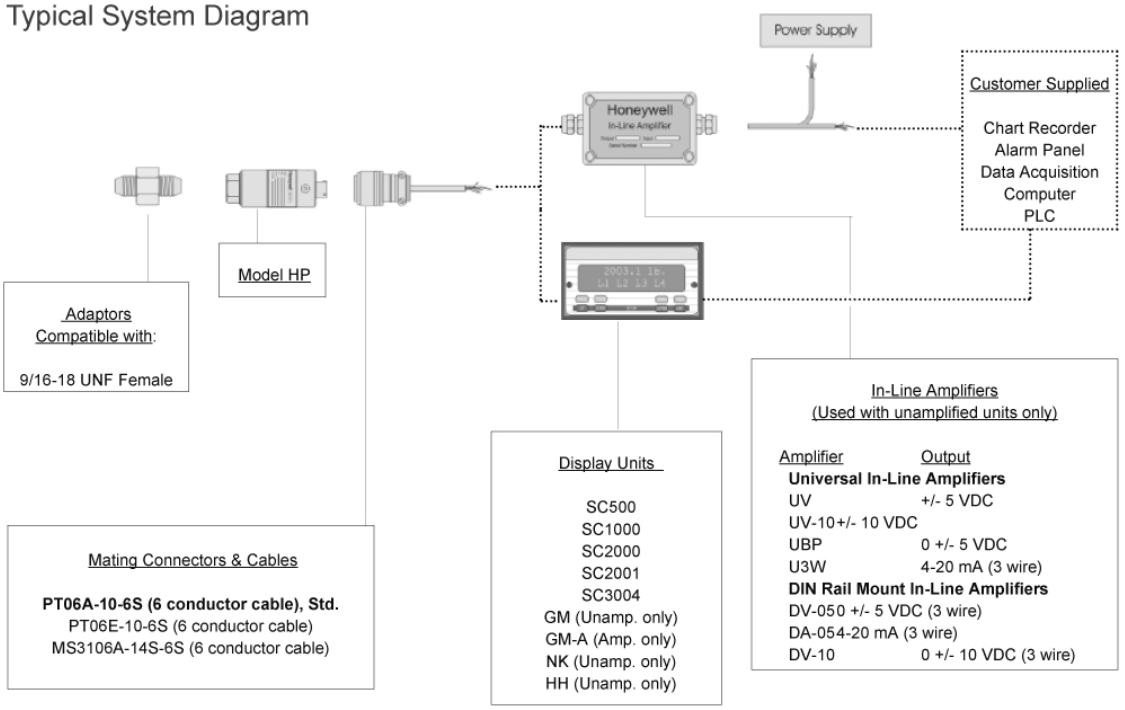
Mechanical

Media.....All gases/ liquids compatible with wetted parts
Wetted Parts Material.....15-5 PH Stainless Steel
Weight.....12 oz.
Case Material.....304 Stainless Steel
Marking.....Permanent metal nameplate MIL-STD130F 4.3;
Individual sequential serial number per sensor;
Country of origin and date of manufacture

* Length of pressure transducer with amplified option (see options on third page)

Model HP

Typical System Diagram



Internal Amplifiers

Amplifier Specifications	mV/V Output Standard	Vehicle Voltage Output Option 2a (note 6)	Vehicle Voltage Output Option 2c (note 6)	Vehicle Voltage Output Option 2t (note 6)	Current 3 Wire Option 2j (note 6)	Current 2 Wire Option 2k (note 6)	Intrinsically Safe Amp Option 2N (2n)
Output Signal	1 mV/V	0-5VDC	0-5VDC or +/- 5VDC @ 5mA	0-10VDC or +/- 10VDC @ 5mA	4-20 mA	4-20 mA	20 mA
Input Power (Voltage)	10 VDC Regulated	+/-15VDC or 26-32VDC	11-28 VDC	15-28 VDC	22-32 VDC (note 3)	9-32 VDC (note 3)	9-28 VDC (note 3)
Input Power (Current)	28.5 mA @ 10 VDC	45 mA	40 mA	40 mA	65 mA	4-28 mA	4-24 mA
Frequency Response	Natural Frequency	2000 Hz	3000 Hz	3000 Hz	2500 Hz	300 Hz	2000 Hz
Power Supply Rejection	--	60 db	60 db	60 db	60 db	60 db	60 db
Operating Temperature	-100° to 250° F	-20° to 185° F	-40° to 185° F	-40° to 185° F	-40° to 185° F	-40° to 185° F	-20° to 185° F
Reverse Voltage Protection	Not Applicable	Yes	Yes	Yes	Yes	Yes	Yes
Short Circuit Protection	Not Applicable	Momentary	Momentary	Momentary	Yes	Yes	Yes
Wiring Code: Connector (Std.) (note 5)	A (+) Excitation B (+) Excitation C (-) Excitation D (-) Excitation E (-) Output F (+) Output	A (+) Supply B Output Common/ C Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B** Output Common/ C** Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B** Output Common/ C** Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B** Output Common/ C** Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B No Connection C No Connection D (+) Output E Case Ground F No Connection	A (+) Supply B No Connection C No Connection D (+) Output E Case Ground F No Connection
Wiring Code: Cable (note 5) (note 6) (note 7)	R (+) Excitation Bl (-) Excitation G (-) Output W (+) Output	R (+) Supply Bl Output Common/ G Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl* Output Common/ G* Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl* Output Common/ G* Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl* Output Common/ G* Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl (+) Output W Case Ground	R (+) Supply Bl (+) Output W Case Ground
For Current Information		Reference application sheet #008-0356-00 for current information.	Reference application sheet #008-0357-00 for current information.	Reference application sheet #008-0360-00 for current information.	Reference application sheet #008-0361-00 for current information.	Reference application sheet #008-0361-60 for current information.	See Sensotec website for most up-to-date information regarding Intrinsically safe approvals reference #008-0547-00.

* Black and Green wires are internally connected.
** Pins B and C are internally connected.

Honeywell sensotec

Model HP

Options

	Built to Order
Pressure Ranges	50,000; 75,000; 100,000 psi
Temperature Compensation	1a. 60° to 160° F 1b. 30° to 130° F 1c. 0° to 185° F 1d. -20° to 130° F 1e. -20° to 200° F 1f. 70° to 250° F 1g. 70° to 325° F 1m. -25° to 110° C
Internal Amplifiers	2u. Unamplified, mV/V Output 2a. 0-5 VDC (4-wire) output 2c. 0-5 VDC 2j. 4-20 mA (3-wire) output 2k. 4-20 mA (2-wire) output 2N (2n). 4-20 mA (2-wire) Intrinsically safe 2t. 0-10 VDC
Internal Amp Enhancements	3a. Input/output isolation 3d. Remote Buffered Shunt Calibration
Pressure Ports	5u. 9/16-18 Autoclave F-250-C
Electrical Termination (note 7)	6a. Bendix PTIH-10-6P (or equivalent) 6 pin (max. 250° F) 6e. Integral cable: Teflon (-65° to 475° F) 6f. Integral cable: PVC (-20° to 160° F0 6g. Integral cable: Neoprene (0° to 185° F) 6h. Integral cable: Silicone (-65° to 300° F) 6i. Integral underwater cable (max. 180° F)
Shunt Calibration	8a. Precision Internal Resistor (note 8)
Special Calibration	9a. 10 point (5 up/5 down) 20% increments@ 60° F
Bridge Type	11a. Square Bridge 11b. Symmetrical Bridge 11c. Square and symmetrical bridge
Bridge Resistance	12b. 5000 Ohm (foil) (max. 250° F)
Potentiometers	14a. No access to pots 14b. Top access to pots
Shock and Vibration	44a. Shock and vibration resistance
Interfaces	53e. Signature Calibration (note 8) 53t. T.E.D.S. IEEE 1451.4 Module (note 9)

Supplied as standard

Notes

1. For pressure ranges 75,000 psi or above, consult factory for pressure port information.
2. Accuracies stated are expected for Best Fit Straight Line for all errors, including linearity, hysteresis & non-repeatability thru zero.
3. Input power (voltage) for internal amplifier options 2j, 2k, 2n,N depends on load resistance.
4. CE mark requires options 6a & 3d.
5. Interconnecting shunt cal. 1 with shunt cal. 2 terminal provides 50% (unamplified units), 75% (4-20 mA 3 wire units), or 80% (voltage amp. units) of full scale output for quick calibration.
6. G=Green; B=Blue; W=White; Bl=Black; Br=Brown; Y=Yellow; R=Red; O=Orange. Color specifying cable and number or letter specifying connector
7. No mating connector necessary with cable option.
8. Cannot be used with amplified option.
9. Consult factory for TEDS availability with amplified models.

Special Customer Requirements (Consult Factory)

Different electrical connectors
Different materials
Different threads
O ring material
O_2 Clean
Radiation proof
Special temperature compensation
Temperature and pressure calibration

How to Order

Combine the order code, the range code and the options code.

Sample Code: BP521 (Order Code) ER (Range Code) 1c (Options Code)

Honeywell sensotec

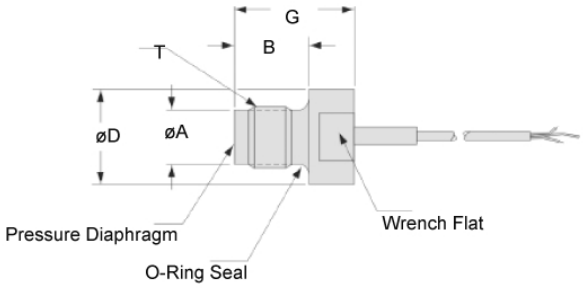
Rue de l'Estampage, 7 4340 Awans - Tél:04/344.97.32 - Fax:04/341.38.86 info@elneo.com - www.elneo.com

Capteurs

Model S Subminiature, Flush Diaphragm Pressure Transducers

Order Code BP357; BP358 (note 1)

- 100 to 15,000 psi Range
- Flush Mount Design
- High Frequency
- mV/V Output
- 1% Accuracy



Wiring Code

Cable/ Unamplified

Red	(+) Excitation
Black	(-) Excitation
Green	(-) Output
White	(+) Output

Dimensions

Order Code	T (thread)	ø A (in.)	ø D (in.)	B (in.)	G (in.)	Diaphragm
BP357	3/8-24 UNF	0.310	0.50	0.45	0.69	Welded
BP358	7/16-20 UNF	0.375	0.56	0.50	0.75	Welded

Performance

Pressure Ranges ..
3/8-24 UNF Thread.....100; 150; 200; 300; 500; 750; 1000; 1500; 2000; 3000;
.....5000; 7500; 10,000; 15,000 psig
7/16-20 UNF Thread.....150; 300; 750; 1500; 7500; 15,000 psig
Accuracy (note 2).....1.0% Full Scale (note 6)
Non-Linearity and Hysteresis.....1.0% Full Scale (note 2)
Non-Repeatability.....+/-0.15% Full Scale
Output.....2 mV/V (note 6)
Resolution.....Infinite

Environmental

Temperature, Operating.....-65° to 300°F
Temperature, Compensated.....60° to 160°F
Temperature, Effect
Zero.....0.01% Full scale/ °F (note 6)
Span.....0.02% Reading/ °F (note 6)

Electrical

Strain Gage Type.....Bonded Foil
Excitation (calibration).....5 VDC
Excitation (acceptable).....Up to 5VDC (or AC)
Insulation Resistance.....5000 Megohm @ 50 VDC
Bridge Resistance.....350 Ohms
Shunt Calibration Data.....Included
Electrical Termination (std).....4 twisted leads (5 ft.) with external balance board

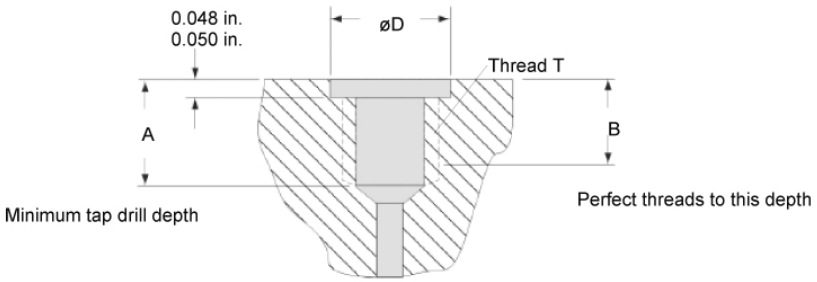
Mechanical

Media.....Gases, Liquids compatible with wetted parts
Overload-Safe.....50% over capacity
Overload-Burst.....400% Full Scale
Dead Volume.....Flush
Wetted Parts Material.....17-4 PH Stainless Steel
Weight.....2 oz.
Case Material.....Stainless Steel

Honeywell sensotec

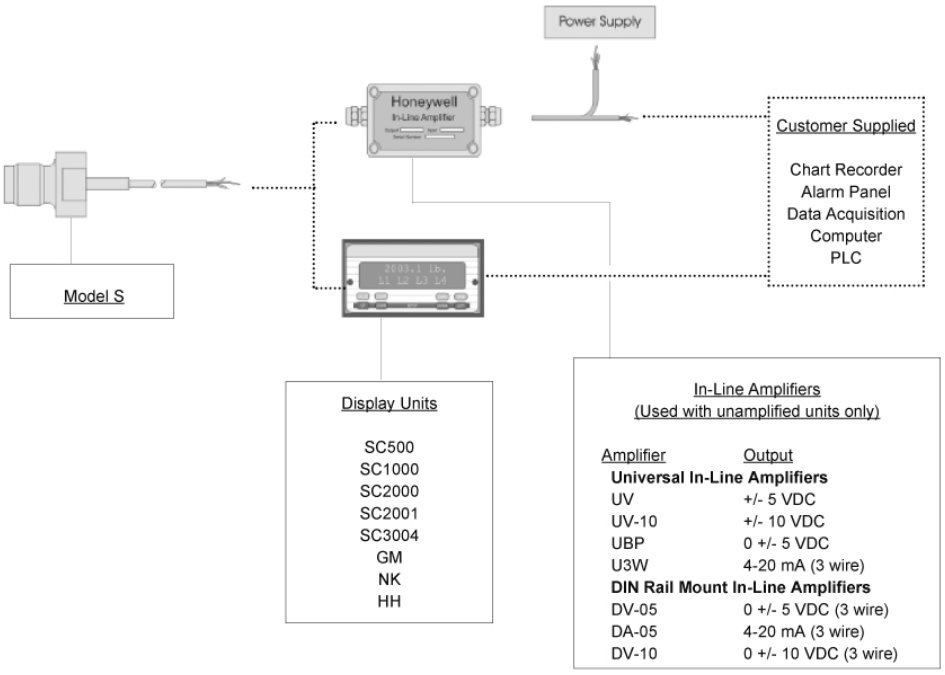
Model S

Installation (note 3)



T	A (in.) (note 5)	B (in.)	D (in.) +.000/-.002"	O-Ring	Max. Torque (for 17-4 PH only)
3/8-24 UNF	0.47	0.30	0.445	#11	300 in.-lb.
7/16-20 UNF	0.54	0.36	0.504	#12	500 in.-lb.

Typical System Diagram



Capteurs

Model S

Options

	Same Day Ship (BP357 only)	Fast Track Manufacture	Built to Order	Built from Scratch
Pressure Ranges	200; 500; 1000; 2000; 3000; 5000; 10,000 psig	100; 150; 300; 750; 1500; 7500 psig		15,000 psig
Temperature Compensation	1a. 60° to 160° F	1b. 30° to 130° F 1c. 0° to 185° F 1d. -20° to 130° F 1e. -20° to 200° F 1i. -65° to 250° F	1g. 70° to 325° F 1h. 70° to 400° F	
Internal Amplifiers	2u. Unamplified, mV/V output			
Pressure Ports	3/8-24 UNF		7/16 -20 UNF (BP358)	
Electrical Termination	4 Twisted Leads (5 ft.)	6d. Microtec DR-4S-4H 4 pin (max. 250° F) (note 4) 6i. Integral underwater cable (max. 180° F) (note 4)	6e. Integral cable: Teflon 6h. Integral cable: Silicone	
Special Calibration		9a. 10 point (5 up/ 5 down) 20% increments @ 70°F 9b. 20 point (10 up/ 10 down) 10% increments @ 70°F		
Wetted Diaphragm				10c. Hastelloy C 10e. Inconel X-750
Shock & Vibration		44a. Shock and Vibration Resistance		

Supplied as standard

Range Codes

Range	Range Code	Range	Range Code
100 psig	BR	1,500 psig	DJ
150 psig	CJ	2,000 psig	DL
200 psig	CL	3,000 psig	DN
300 psig	CP	5,000 psig	DR
500 psig	CR	7,500 psig	DT
750 psig	CT	10,000 psig	DV
1,000 psig	CV	15,000 psig	EJ

Notes

1. Order Code subject to change with varying thread, range and electrical termination
2. Accuracies stated are expected for Best Fit Straight Line for all errors, including linearity, hysteresis & non-repeatability thru zero.
3. Standard "S" type transducers have straight threads and use an O-ring for pressure sealing. To get the best seal with the O-ring on the transducer, the tapped hole should have the dimensions shown on previous page. For normal operating temperatures (-65° to 250° F) use BUNA-N (black) O-rings. For high temperatures (250° to 400° F) use silicone (red).
4. Only available on certain models, consult factory.
5. "A" dimension changes with different thread options. Consult factory for specifications for different thread options.
6. Consult factory for specifications for ranges less than 100 psi.

Special Customer Requirements (Consult Factory)

Different electrical termination
Different materials
Different threads
O ring material
O_2 Clean
Radiation proof
Special temperature compensation
Temperature and pressure calibration

How to Order

Combine the order code, the range code and the options code.

Sample Code: BP357 (Order Code) DN (Range Code) 1c (Options Code)

Honeywell sensotec

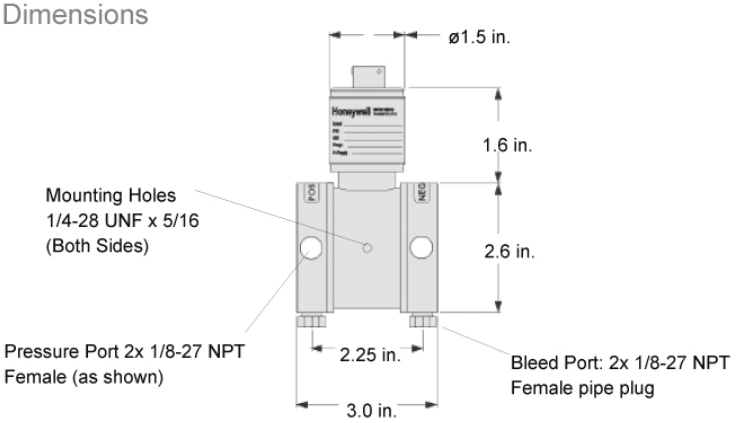
Rue de l'Estampage, 7 4340 Awans - Tél:04/344.97.32 - Fax:04/341.38.86 info@elneo.com - www.elneo.com

Model KZ Low Range Wet/ Wet Differential Pressure Transducer

Order Code AD115

- 0.5 to 30 psid
- All -Welded Design
- Amplified Output Available

Dimensions



Wiring Code

Connector/ Unamplified

A & B	(+) Excitation
C & D	(-) Excitation
E	(-) Output
F	(+) Output

Performance

Pressure Ranges	+/- 0.5; 1; 2; 5; 10; 15; 25; 30 psid**
Accuracy	+/- 0.25% Full Scale
Linearity	+/- 0.15% Full Scale (typical)
Hysteresis	+/- 0.10% Full Scale (typical)
Non-Repeatability	+/- 0.05% Full Scale (typical)
Output (standard)	
0.5 psid	1.0 mV/V nominal
1 to 4 psid	1.5 mV/V nominal
5 to 30 psid	2.0 mV/V nominal
Line Pressure	1500 psi
Resolution	Infinite

Environmental

Temperature, Operating	30° to 190°F
Temperature, Compensated	30° to 130°F
Temperature, Effect	
Zero	+/- 0.5% Full scale/ 100 °F
Span	+/- 0.5% Reading/ 100 °F

Electrical

Strain Gage Type	Bonded Foil
Excitation (calibration)	10 VDC
Excitation (acceptable)	Up to 10 VDC or AC
Insulation Resistance	5000 Megohms @ 50 VDC max.
Bridge Resistance	350 Ohms (nominal)
Shunt Calibration Data	Included
Electrical Termination (std)	Bendix PTIH-10-6P or equivalent
Mating Connector (not incl.)	Bendix PT06A-10-6S or equivalent

Mechanical

Media	All fluid and gases compatible with 316 stainless steel
Overload-Safe	1500 psi
Pressure Port	1/8-27 NPT Female (2)
Dead Volume	0.4 cu. in.
Wetted Parts Material	316 Stainless Steel
Weight	4.2 lb.
Case Material	Stainless Steel

**Option: specify Inches of Water Column, Inches of Hg Column, mBar or kPa for the pressure ranges

Honeywell sensotec

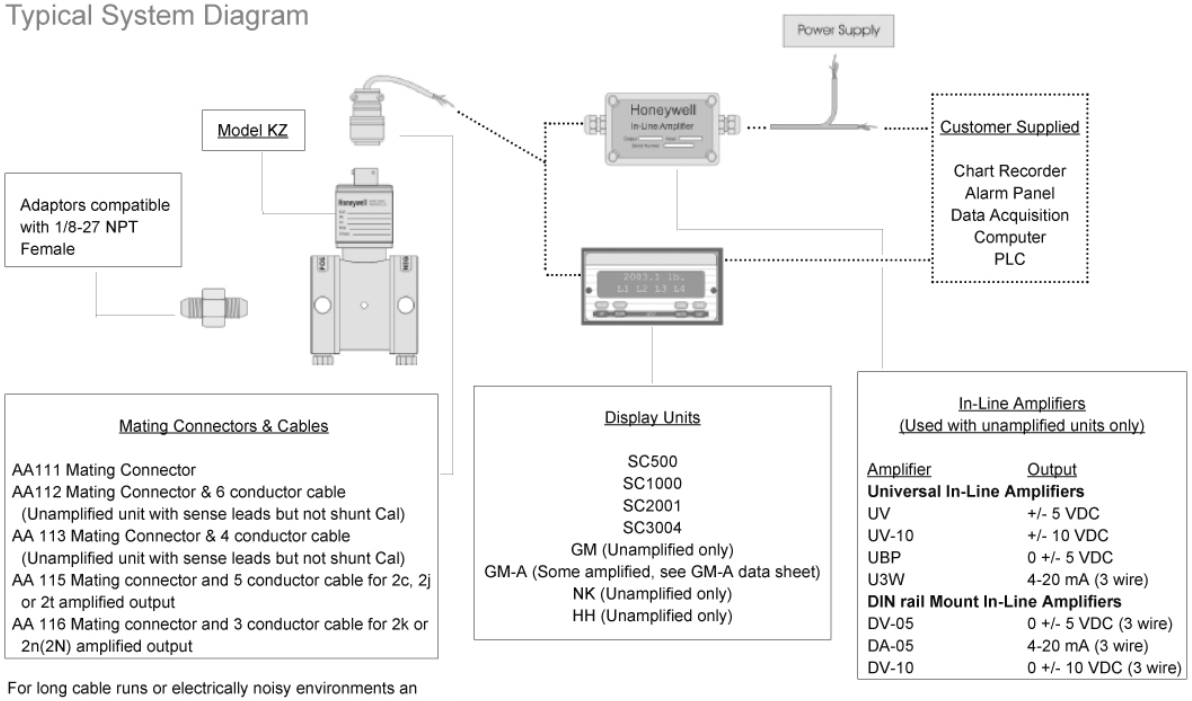
Model KZ

Internal Amplifiers

Amplifier Specifications	Voltage Output Option 2b	Voltage Output Option 2c	Voltage Output Option 2t	Current 3 Wire Option 2j	Current 2 Wire Option 2k	Intrinsically Safe Option 2n (2N)***
Output Signal	+/- 5V	0-5V or +/- 5V @ 5mA	0-10V or +/- 10V @ 5mA	4-20 mA	4-20 mA	4-20 mA
Input Power (Voltage)	+/-15V or 26-32 VDC	11-28 VDC	15-28 VDC	22-32 VDC	9-32 VDC	9-28 VDC
Input Power (Current)	45 mA	40 mA	40 mA	65 mA	4-28 mA	4-24 mA
Frequency Response (amp)	3000 Hz	3000 Hz	3000 Hz	2500 Hz	300 Hz	2000 Hz
Power Supply Rejection	60 db	60 db	60 db	60 db	60 db	60 db
Operating Temperature	-20° to 185° F	-20° to 185° F	-20° to 185° F	0° to 185° F	0° to 185° F	-20° to 185° F
Reverse Voltage Protection	Yes	Yes	Yes	Yes	Yes	Yes
Short Circuit Protection	Momentary	Momentary	Momentary	Yes	Yes	Yes
Wiring Code: Connector (Std.) (note 2)	A (+) Supply B Output Common/ C Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B** Output Common/ C** Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B** Output Common/ C** Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B** Output Common/ C** Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B No connection C No connection D (+) Output E Case Ground F No connection	A (+) Supply B No connection C No connection D (+) Output E Case Ground F No connection
Wiring Code: Cable (note 2) (note 3) (note 4)	R (+) Supply Bl Output Common/ G Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl*Output Common/ G*Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl*Output Common/ G*Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl*Output Common/ G*Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl (+) Output W Case Ground	R (+) Supply Bl (+) Output W Case Ground

* Black and Green wires are internally connected.
** Pins B and C are internally connected.
*** See Sensotec website for most up-to-date information regarding Intrinsically Safe approvals ref. #008-0547-00.

Typical System Diagram



Mating Connectors & Cables

AA111 Mating Connector
AA112 Mating Connector & 6 conductor cable (Unamplified unit with sense leads but not shunt Cal)
AA 113 Mating Connector & 4 conductor cable (Unamplified unit with sense leads but not shunt Cal)
AA 115 Mating connector and 5 conductor cable for 2c, 2j or 2t amplified output
AA 116 Mating connector and 3 conductor cable for 2k or 2n(2N) amplified output

Display Units

SC500
SC1000
SC2001
SC3004
GM (Unamplified only)
GM-A (Some amplified, see GM-A data sheet)
NK (Unamplified only)
HH (Unamplified only)

In-Line Amplifiers
(Used with unamplified units only)

Amplifier	Output
Universal In-Line Amplifiers	
UV	+/- 5 VDC
UV-10	+/- 10 VDC
UBP	0 +/- 5 VDC
U3W	4-20 mA (3 wire)
DIN rail Mount In-Line Amplifiers	
DV-05	0 +/- 5 VDC (3 wire)
DA-05	4-20 mA (3 wire)
DV-10	0 +/- 10 VDC (3 wire)

For long cable runs or electrically noisy environments an amplified sensor or locally mounted amplifier is often preferred.

Range Codes

Range	Range Code
0.5 psid	AN
1 psid	AP
2 psid	AR
5 psid	AT
10 psid	AV
15 psid	BJ
25 psid	BL
30 psid	BM

Honeywell sensotec

elneo instruments

Model KZ

Options

	Build to Order	Build from Scratch
Pressure Ranges (psid)	0.5, 1, 2, 5, 10, 15, 25, 30	
Temperature Compensation	1b. 30° to 130° F 1a. 60° to 160° F 1d. -20° to 130° F 1c. 0° to 185° F 1j. 0° to 50° C	
Internal Amplifiers	2u. Unamplified, mV/V output 2b. 4 wire +/-5VDC 2c. 0-5VDC 2t. 0-10VDC 2j. 4-20mA (3 wire) output	2k. 4-20mA(2-wire) output 2n(2N). 4-20mA (2-wire) intrinsically safe
Internal Amp Enhancements	3a. Input/ Output Isolation (note 8) 3d. Remote Buffered Shunt Calibration	
Pressure Ports (note 5)	5h. 1/8-27 NPT Female (2) 5a. 1/4" - 18 NPT Female 5c. 7/16" - 20 UNF Female (per MS33656E4)	
Electrical Termination	6a. Bendix PTIH-10-6P (or equiv.) 6 pin (max. 120°C) 6e. Integral cable: Teflon (-54° to 245° C) 6f. Integral cable: PVC (-30° to 70° C) 6i. Integral underwater Cable(8m) (max. 80° C) (note 1) 6j. 1/2-14 conduit fitting with 5 ft. of 4 conductor PVC cable	6g. Integral cable: Neoprene (-20 to 80° C) (note 1) 6h. Integral cable: Silicone (-54 to 150° C) 6m. DIN 43650 6q. Molded Integral Cable: Polyurethane (note 1) 6t. Integral Cable with Heyco Spring Strain relief (1.6m)
Shunt Calibration	8a. Precision Internal Resistor (note 6)	
Special Calibration	9a. 10 point (5 up/5 down) 20% increments @ 20° C 9b. 20 point (10 up/10 down) 10% increments @ 20° C	
Wetted Diaphragm	10a. 316 Stainless Steel	
Bridge Type	11a. Square bridge 11b. Symmetrical bridge 11c. Square & symmetrical bridge	
Potentiometers	14b. Top access to pots (note 7) 14a. No access to pots	
Increased Line Pressure		25a. 2000 psi line pressure 25b. 3000 psi line pressure 25c. 5000 psi line pressure (note 1)
Interfaces	53e. Signature Calibration 53t. T.E.D.S. IEEE 1451.4 Module (note 9)	

Supplied as standard

Notes

1. Availability varies according to range.
2. Interconnecting shunt cal. 1 terminal with shunt cal. 2 terminal provides 50% (unamplified units), 75% (4-20mA 3-wire units) or 80% (voltage amplified units) of full scale output for quick calibration. Shunt Calibration comes standard with internal amplifier options 2b, 2c, 2t and 2j.
3. O=Orange; Y=Yellow; B=Blue; Bl=Black; R=Red; Br=Brown; W=White; G=Green. Color specifying cable and number or letter specifying connector.
4. No mating connector necessary for cable option.
5. Some pressure port options may require axial orientation.
6. Only available with unamplified option 2u.
7. Only available with amplified options.
8. Only available with VDC output options 2b, 2c.
9. Consult factory for TEDS availability with amplified models.

Special Customer Requirements (Consult Factory)

Pressure Port adaptors
Mating connectors and cables

How to Order

Combine the order code, the range code and the options code.

Sample Code: AD115 (Order Code) AP (Range Code) 6h (Options Code)

Honeywell sensotec

Rue de l'Estampage, 7 4340 Awans - Tél:04/344.97.32 - Fax:04/341.38.86 info@elneo.com - www.elneo.com

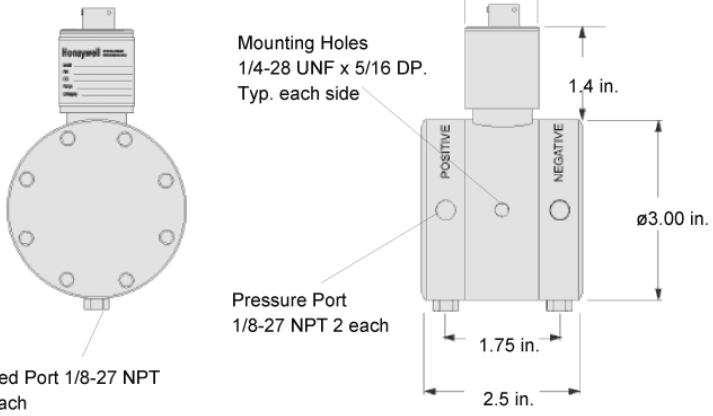
Capteurs

Model Z Mid Range Wet/ Wet Differential Pressure Transducer

Order Code AD122

- 50 to 750 psid
- 0.25% Accuracy
- Amplified Output Available

Dimensions



Wiring Code

Connector/ Unamplified

A & B	(+) Excitation
C & D	(-) Excitation
E	(-) Output
F	(+) Output

Performance

Pressure Ranges	50; 75; 100; 150; 200; 300; 500; 750 psid
Accuracy	+/- 0.25% Full Scale
Linearity	+/- 0.15% Full Scale (typical)
Hysteresis	+/- 0.10% Full Scale (typical)
Non-Repeatability	+/- 0.05% Full Scale (typical)
Output (standard)	2 mV/V (nominal)
Line Pressure	1500 psi
Resolution	Infinite

Environmental

Temperature, Operating	-65° to 250°F
Temperature, Compensated	60° to 160°F
Temperature, Effect	
Zero	+/- 0.5% Full scale/ 100 °F
Span	+/- 0.5% Reading/ 100 °F

Electrical

Strain Gage Type	Bonded Foil
Excitation (calibration)	10 VDC
Excitation (acceptable)	UP to 10 VDC or AC
Insulation Resistance	5000 Megohms @ 50 VDC
Bridge Resistance	350 Ohms
Shunt Calibration Data	Included
Electrical Termination (std)	PTIH-10-6P or equivalent (Hermetic stainless)
Mating Connector (not incl.)	PT06A-10-6S or equivalent

Mechanical

Media	Gas, Liquid
Overload-Safe	1500 psi
Pressure Port	1/8-27 NPT Female (2)
Dead Volume	0.25 cu. in.
Wetted Parts Material	17-4 PH Stainless Steel
Weight	5.0 lb.
Case Material	Stainless Steel

Note: Unless otherwise specified on order, amplified units with 4-20 mA output will provide 4 mA at 0 psid and 20 mA at positive full scale and unit will not operate in the negative direction. An available alternative is to specify 4 mA at negative full scale and 20 mA at positive full scale. amps add 2 in. to housing.

Honeywell sensotec

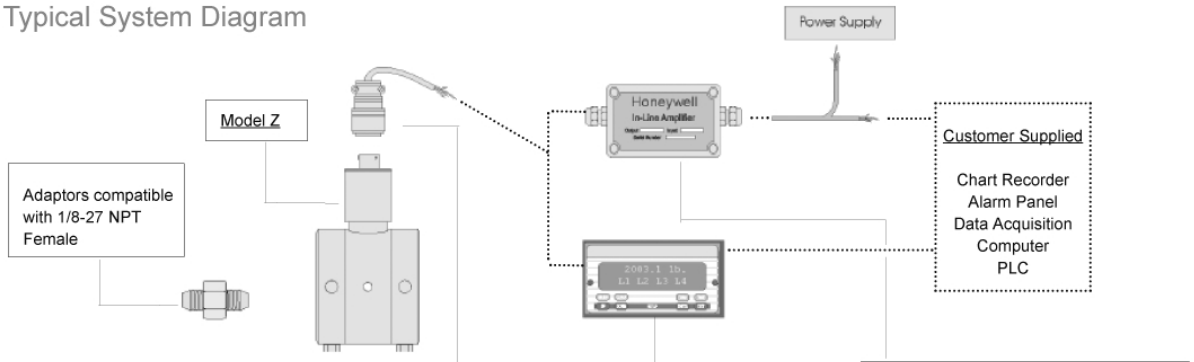
Model Z

Internal Amplifiers

Amplifier Specifications	Voltage Output Option 2b	Voltage Output Option 2c	Voltage Output Option 2t	Current 3 Wire Option 2j	Current 2 Wire Option 2k	Intrinsically Safe Option 2n (2N)***
Output Signal	+/- 5V	0-5V or +/- 5V @ 5mA	0-10V or +/- 10V @ 5mA	4-20 mA	4-20 mA	4-20 mA
Input Power (Voltage)	+/-15V or 26-32 VDC	11-28 VDC	15-28 VDC	22-32 VDC	9-32 VDC	9-28 VDC
Input Power (Current)	45 mA	40 mA	40 mA	65 mA	4-28 mA	4-24 mA
Frequency Response (amp)	3000 Hz	3000 Hz	3000 Hz	2500 Hz	300 Hz	2000 Hz
Power Supply Rejection	60 db	60 db	60 db	60 db	60 db	60 db
Operating Temperature	-20° to 185° F	-20° to 185° F	-20° to 185° F	0° to 185° F	0° to 185° F	-20° to 185° F
Reverse Voltage Protection	Yes	Yes	Yes	Yes	Yes	Yes
Short Circuit Protection	Momentary	Momentary	Momentary	Yes	Yes	Yes
Wiring Code: Connector (Std.) (note 2)	A (+) Supply B Output Common/ C Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B** Output Common/ C** Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B** Output Common/ C** Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B** Output Common/ C** Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B No connection C No connection D (+) Output E Case Ground F No connection	A (+) Supply B No connection C No connection D (+) Output E Case Ground F No connection
Wiring Code: Cable (note 2) (note 3) (note 4)	R (+) Supply Bl Output Common/ G Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl*Output Common/ G*Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl*Output Common/ G*Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl*Output Common/ G*Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl (+) Output W Case Ground	R (+) Supply Bl (+) Output W Case Ground

* Black and Green wires are internally connected.
** Pins B and C are internally connected.
*** See Sensotec website for most up-to-date information regarding Intrinsically Safe approvals ref. #008-0547-00.

Typical System Diagram



Mating Connectors & Cables

AA111 Mating Connector
AA112 Mating Connector & 6 conductor cable (Unamplified unit with sense leads but not shunt Cal)
AA 113 Mating Connector & 4 conductor cable (Unamplified unit with sense leads but not shunt Cal)
AA 115 Mating connector and 5 conductor cable for 2c, 2j or 2t amplified output
AA 116 Mating connector and 3 conductor cable for 2k or 2n(2N) amplified output

For long cable runs or electrically noisy environments an amplified sensor or locally mounted amplifier is often preferred.

Display Units

SC500
SC1000
SC2001
SC3004
GM (Unamplified only)
GM-A (Some amplified, see GM-A data sheet)
NK (Unamplified only)
HH (Unamplified only)

In-Line Amplifiers
(Used with unamplified units only)

Amplifier	Output
Universal In-Line Amplifiers	
UV	+/- 5 VDC
UV-10	+/- 10 VDC
UBP	0 +/- 5 VDC
U3W	4-20 mA (3 wire)
DIN rail Mount In-Line Amplifiers	
DV-05	0 +/- 5 VDC (3 wire)
DA-05	4-20 mA (3 wire)
DV-10	0 +/- 10 VDC (3 wire)

Range Codes

Range	Range Code
50 psid	BN
75 psid	BP
100 psid	BR
150 psid	CJ
200 psid	CL
300 psid	CP
500 psid	CR
750 psid	CT

Model Z

Options

	Same Day Ship	Fast track manufacture	Build to Order	Build from Scratch
Pressure Ranges (psid)	50, 100, 200, 500			75, 150, 300, 750
Temperature Compensation	1a. 60° to 160° F	1b. 30° to 130° F 1c. 0° to 185° F 1f. 70° to 250° F 1j. 0° to 50° C	1d. -20° to 130° F 1e. -20° to 200° F 1i. -65° to 250° F 1m. -25° to 110° C	1g. 70° to 325° F 1h. 70° to 400° F
Internal Amplifiers	2u. Unamplified, mV/V output	2b. 4 wire +/-5VDC 2c. 0-5VDC 2t. 0-10VDC 2j. 4-20mA (3 wire) output	2k. 4-20mA(2-wire) output 2n(2N). 4-20mA (2-wire) intrinsically safe	
Internal Amp Enhancements		3d. Remote Buffered Shunt Calibration	3a. Input/ Output Isolation (note 8)	
Pressure Ports (note 5)	5h. 1/8-27 NPT Female		5c. 7/16" - 20 UNF Female (per MS33656E4)	
Electrical Termination	6a. Bendix PTIH-10-6P (or equivalent) 6 pin (max. 250°F)	6e. Integral cable: Teflon (-54° to 245° C) 6f. Integral cable: PVC (-30° to 70° C) 6i. Integral underwater cable (8m) (max 80° C) (note 1) 6j. 1/2-14 conduit fitting with 5 ft. 4 conductor PVC cable	6b. MS type connector (note 1) 6g. Integral cable: Neoprene (-20 to 80° C) (note 1) 6h. Integral cable: Silicone (-54 to 150° C)	
Shunt Calibration		8a. Precision Internal Resistor (note 7)		
Special Calibration		9a. 10 point (5 up/5 down) 20% increments @ 20° C 9b. 20 point (10 up/10 down) 10% increments @ 20° C		
Wetted Diaphragm	17-4 PH Stainless Steel		10a. 316 Stainless Steel	
Bridge Type		11a. Square bridge 11b. Symmetrical bridge 11c. Square & symmetrical bridge		
Potentiometers		14a. No access to pots 14b. Top access to pots (note 6)		
O Ring Seals				26a. Metal 26b. Vi-Ton 26c. Teflon
Interfaces		53e. Signature Calibration 53t. T.E.D.S. IEEE 1451.4 Module (note 9)		

Supplied as standard

Notes

1. Availability varies according to range.
2. Interconnecting shunt cal. 1 terminal with shunt cal. 2 terminal provides 50% (unamplified units), 75% (4-20mA 3-wire units) or 80% (voltage amplified units) of full scale output for quick calibration. Shunt Calibration comes standard with internal amplifier options 2b, 2c, 2t and 2j.
3. O=Orange; Y=Yellow; B=Blue; Bl=Black; R=Red; Br=Brown; W=White; G=Green. Color specifying cable and number or letter specifying connector.
4. No mating connector necessary for cable option.
5. Some pressure port options may require axial orientation.
6. Only available with unamplified option 2u.
7. Only available with amplified options.
8. Only available with VDC output options 2b, 2c.
9. Consult factory for TEDS availability with amplified models.

Special Customer Requirements (Consult Factory)

Pressure Port adaptors
Mating connectors and cables
Special Wetted Material

Approved Approved Approved Intrinsically Safe Amp

How to Order

Combine the order code, the range code and the options code.

Sample Code: AD122 (Order Code) CT (Range Code) 6h (Options Code)

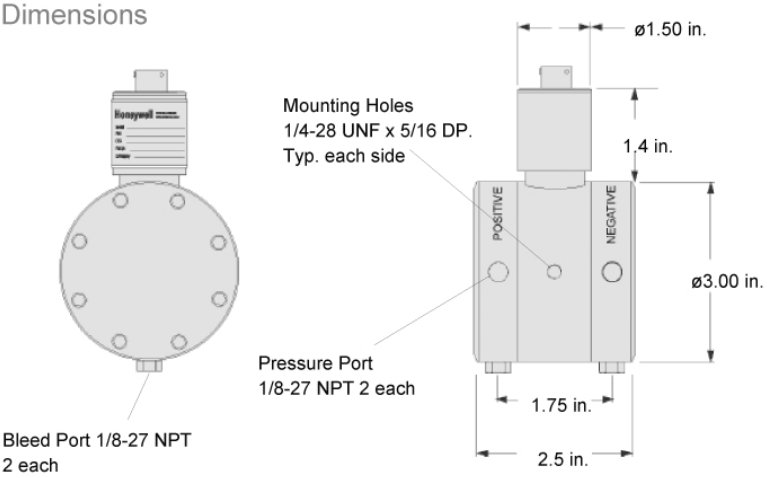
Honeywell sensotec

Model A-5 Mid Range Wet/ Wet Differential Pressure Transducer

Order Code AD123

- 50 to 750 psid
- 0.5% Accuracy
- Amplified Output Available

Dimensions



Wiring Code

Connector/ Unamplified

A & B	(+) Excitation
C & D	(-) Excitation
E	(-) Output
F	(+) Output

Performance

Pressure Ranges	50; 75; 100; 150; 200; 300; 500; 750 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)	2 mV/V (nominal)
Line Pressure	1500 psi
Resolution	Infinite

Environmental

Temperature, Operating	-65° to 250°F
Temperature, Compensated	60° to 160°F
Temperature, Effect	
Zero	+/- 0.75% Full scale/ 100 °F
Span	+/- 1.0% Reading/ 100 °F

Electrical

Strain Gage Type	Bonded Foil
Excitation (calibration)	10 VDC
Excitation (acceptable)	Up to 10 VDC or AC
Insulation Resistance	5000 Megohms @ 50 VDC
Bridge Resistance	350 Ohms
Shunt Calibration Data	Included
Electrical Termination (std)	PTIH-10-6P or equivalent (Hermetic stainless)
Mating Connector (not incl.)	PT06A-10-6S or equivalent

Mechanical

Media	Gas, Liquid
Overload-Safe	1500 psi
Pressure Port	1/8-27 NPT Female (2)
Dead Volume	0.25 cu. in.
Wetted Parts Material	17-4 PH Stainless Steel
Weight	5.0 lb.
Case Material	Stainless Steel

Note: Unless otherwise specified on order, amplified units with 4-20 mA output will provide 4 mA at 0 psid and 20 mA at positive full scale and the unit will not operate in the negative direction. An available alternative is to specify 4 mA at negative full scale and 20 mA at positive full scale. All amps add 2 in. to housing.

Honeywell sensotec

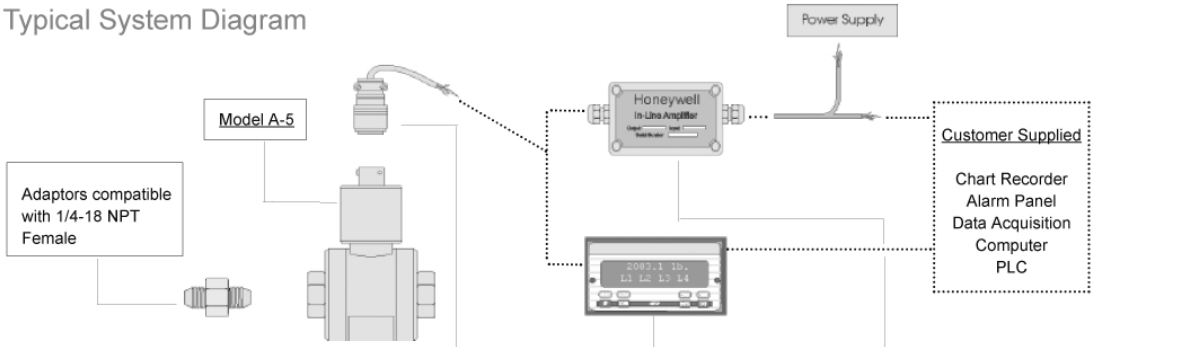
Model A-5

Internal Amplifiers

Amplifier Specifications	Voltage Output Option 2b	Voltage Output Option 2c	Voltage Output Option 2t	Current 3 Wire Option 2j	Current 2 Wire Option 2k	Intrinsically Safe Option 2n (2N)***
Output Signal	+/- 5V	0-5V or +/- 5V @ 5mA	0-10V or +/- 10V @ 5mA	4-20 mA	4-20 mA	4-20 mA
Input Power (Voltage)	+/-15V or 26-32 VDC	11-28 VDC	15-28 VDC	22-32 VDC	9-32 VDC	9-28 VDC
Input Power (Current)	45 mA	40 mA	40 mA	65 mA	4-28 mA	4-24 mA
Frequency Response (amp)	3000 Hz	3000 Hz	3000 Hz	2500 Hz	300 Hz	2000 Hz
Power Supply Rejection	60 db	60 db	60 db	60 db	60 db	60 db
Operating Temperature	-20° to 185° F	-20° to 185° F	-20° to 185° F	0° to 185° F	0° to 185° F	-20° to 185° F
Reverse Voltage Protection	Yes	Yes	Yes	Yes	Yes	Yes
Short Circuit Protection	Momentary	Momentary	Momentary	Yes	Yes	Yes
Wiring Code: Connector (Std.) (note 2)	A (+) Supply B Output Common/ C Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B** Output Common/ C** Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B** Output Common/ C** Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B** Output Common/ C** Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B No connection C No connection D (+) Output E Case Ground F No connection	A (+) Supply B No connection C No connection D (+) Output E Case Ground F No connection
Wiring Code: Cable (note 2) (note 3) (note 4)	R (+) Supply Bl Output Common/ G Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl*Output Common/ G*Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl*Output Common/ G*Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl*Output Common/ G*Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl (+) Output W Case Ground	R (+) Supply Bl (+) Output W Case Ground

* Black and Green wires are internally connected.
** Pins B and C are internally connected.
*** See Sensotec website for most up-to-date information regarding Intrinsically Safe approvals ref. #008-0547-00.

Typical System Diagram



Mating Connectors & Cables

AA111 Mating Connector
AA112 Mating Connector & 6 conductor cable (Unamplified unit with sense leads but not shunt Cal)
AA 113 Mating Connector & 4 conductor cable (Unamplified unit with sense leads but not shunt Cal)
AA 115 Mating connector and 5 conductor cable for 2c, 2j or 2t amplified output
AA 116 Mating connector and 3 conductor cable for 2k or 2n(2N) amplified output

For long cable runs or electrically noisy environments an amplified sensor or locally mounted amplifier is often preferred.

Display Units

SC500
SC1000
SC2001
SC3004
GM (Unamplified only)
GM-A (Some amplified, see GM-A data sheet)
NK (Unamplified only)
HH (Unamplified only)

In-Line Amplifiers
(Used with unamplified units only)

Amplifier	Output
Universal In-Line Amplifiers	
UV	+/- 5 VDC
UV-10	+/- 10 VDC
UBP	0 +/- 5 VDC
U3W	4-20 mA (3 wire)
DIN rail Mount In-Line Amplifiers	
DV-05	0 +/- 5 VDC (3 wire)
DA-05	4-20 mA (3 wire)
DV-10	0 +/- 10 VDC (3 wire)

Range Codes

Range	Range Code
2000 psid	DL
3000 psid	DN
5000 psid	DR
7500 psid	DT
10,000 psid	DV

Honeywell sensotec

elneo instruments

Model A-5

Options

	Build to Order	Build from scratch
Pressure Ranges (psid)	2000, 3000, 5000, 7500, 10000	
Temperature Compensation	1a. 60° to 160° F 1b. 30° to 130° F 1c. 0° to 185° F 1d. -20° to 130° F 1e. -20° to 200° F 1f. 70° to 250° F 1i. -65° to 250° F 1j. 0° to 50° C 1m. -25° to 110° C	1g. 70° to 325° F 1h. 70° to 400° F
Internal Amplifiers	2u. Unamplified, mV/V output 2b. 4 wire +/-5VDC 2c. 0-5VDC 2t. 0-10VDC 2j. 4-20mA (3 wire) output	2k. 4-20mA(2-wire) output 2n(2N). 4-20mA (2-wire) intrinsically safe
Internal Amp Enhancements	3d. Remote Buffered Shunt Calibration	3a. Input/ Output Isolation (note 6)
Pressure Ports (note 5)	5a. 1/4-18 NPT Female	5c. 7/16" - 20 UNF Female (per MS33656E4)
Electrical Termination	6a. Bendix PTIH-10-6P (or equivalent) 6 pin (max. 250°F) 6e. Integral cable: Teflon (-54° to 245° C) 6f. Integral cable: PVC (-30° to 70° C) 6i. Integral underwater cable(8m) (max 80° C) (note 1) 6j. 1/2-14 conduit fitting with 5 ft. 4 conductor PVC cable	6b. MS type connector (note 1) 6g. Integral cable: Neoprene (-20 to 80° C) (note 1) 6h. Integral cable: Silicone (-54 to 150° C)
Shunt Calibration	8a. Precision Internal Resistor (note 7)	
Special Calibration		9a. 10 point (5 up/5 down) 20% increments @ 20° C 9b. 20 point (10 up/10 down) 10% increments @ 20° C
Wetted Diaphragm	17-4 PH Stainless Steel	
Bridge Type	11a. Square bridge	11c. Square & symmetrical bridge 11b. Symmetrical bridge
Potentiometers	14b. Top access to pots (note 8) 14a. No access to pots	
O Ring Seals	26a. Metal	
Interfaces	53e. Signature Calibration 53t. T.E.D.S. IEEE 1451.4 Module (note 9)	

Supplied as standard

Notes

1. Availability varies according to range.
2. Interconnecting shunt cal. 1 terminal with shunt cal. 2 terminal provides 50% (unamplified units), 75% (4-20mA 3-wire units) or 80% (voltage amplified units) of full scale output for quick calibration. Shunt Calibration comes standard with internal amplifier options 2b, 2c, 2t and 2j.
3. O=Orange; Y=Yellow; B=Blue; Bl=Black; R=Red; Br=Brown; W=White; G=Green. Color specifying cable and number or letter specifying connector.
4. No mating connector necessary for cable option.
5. Some pressure port options may require axial orientation.
6. Only available with unamplified option 2u.
7. Only available with amplified options.
8. Only available with VDC output options 2b, 2c.
9. Consult factory for TEDS availability with amplified models.

Special Customer Requirements (Consult Factory)

Pressure Port adaptors
Mating connectors and cables
Enhanced Line Pressure

CE Approved

How to Order

Combine the order code, the range code and the options code.

Sample Code: BD142 (Order Code) DV (Range Code) 6h (Options Code)

Honeywell sensotec

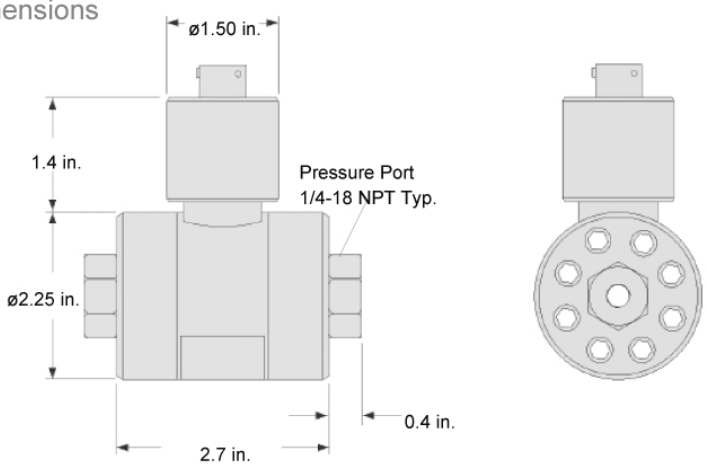
Capteurs

Model A-5 High Range Wet/ Wet Differential Pressure Transducer

Order Code BD142

- 2000 to 10,000 psid
- 0.5% Accuracy
- Amplified Output Available

Dimensions



Wiring Code

Connector/ Unamplified

A & B	(+) Excitation
C & D	(-) Excitation
E	(-) Output
F	(+) Output

Performance

Pressure Ranges	2000; 3000; 5000; 7500; 10,000 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)	2 mV/V (nominal)
Line Pressure	2000 psi
Resolution	Infinite

Environmental

Temperature, Operating	-65° to 250°F
Temperature, Compensated	60° to 160°F
Temperature, Effect	
Zero	+/- 0.75% Full scale/ 100 °F
Span	+/- 1.0% Reading/ 100 °F

Electrical

Strain Gage Type	Bonded Foil
Excitation (calibration)	10 VDC
Bridge Resistance	350 Ohms (nominal)
Shunt Calibration Data	Included
Electrical Termination (std)	PTIH-10-6P or equivalent (Hermetic stainless)
Mating Connector (not incl.)	PT06A-10-6S or equivalent

Mechanical

Media	Gas, Liquid
Overload-Safe	
2000 to 3000 psid	100% over capacity
5000 to 10,000 psid	50% over capacity
Pressure Port	1/4-18 NPT female (2)
Wetted Parts Material	17-4 PH Stainless Steel
Case Material	Stainless Steel

Note: Unless otherwise specified on order, amplified units with 4-20 mA output will provide 4 mA at 0 psid and 20 mA at positive full scale and the unit will not operate in the negative direction. An available alternative is to specify 4 mA at negative full scale and 20 mA at positive full scale. All amps add 2 in. to amplifier housing.

Honeywell sensotec

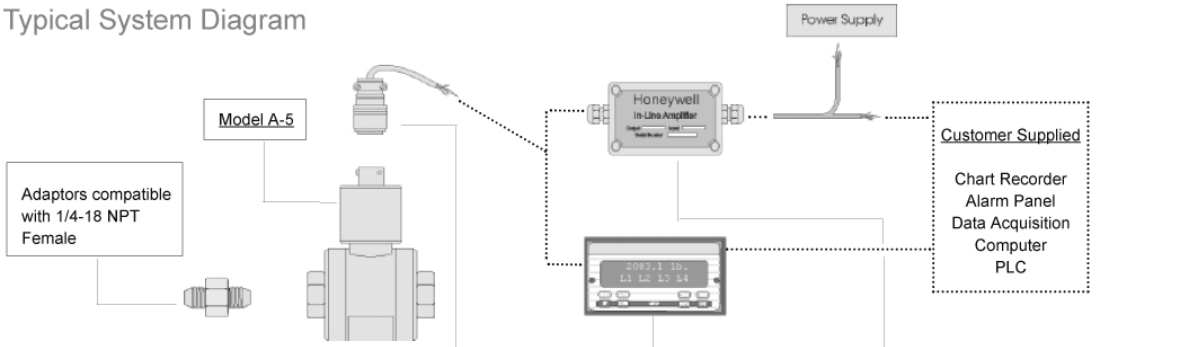
Model A-5

Internal Amplifiers

Amplifier Specifications	Voltage Output Option 2b	Voltage Output Option 2c	Voltage Output Option 2t	Current 3 Wire Option 2j	Current 2 Wire Option 2k	Intrinsically Safe Option 2n (2N)***
Output Signal	+/- 5V	0-5V or +/- 5V @ 5mA	0-10V or +/- 10V @ 5mA	4-20 mA	4-20 mA	4-20 mA
Input Power (Voltage)	+/-15V or 26-32 VDC	11-28 VDC	15-28 VDC	22-32 VDC	9-32 VDC	9-28 VDC
Input Power (Current)	45 mA	40 mA	40 mA	65 mA	4-28 mA	4-24 mA
Frequency Response (amp)	3000 Hz	3000 Hz	3000 Hz	2500 Hz	300 Hz	2000 Hz
Power Supply Rejection	60 db	60 db	60 db	60 db	60 db	60 db
Operating Temperature	-20° to 185° F	-20° to 185° F	-20° to 185° F	0° to 185° F	0° to 185° F	-20° to 185° F
Reverse Voltage Protection	Yes	Yes	Yes	Yes	Yes	Yes
Short Circuit Protection	Momentary	Momentary	Momentary	Yes	Yes	Yes
Wiring Code: Connector (Std.) (note 2)	A (+) Supply B Output Common/ C Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B** Output Common/ C** Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B** Output Common/ C** Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B** Output Common/ C** Supply Return D (+) Output E Shunt Cal 1 F Shunt Cal 2	A (+) Supply B No connection C No connection D (+) Output E Case Ground F No connection	A (+) Supply B No connection C No connection D (+) Output E Case Ground F No connection
Wiring Code: Cable (note 2) (note 3) (note 4)	R (+) Supply Bl Output Common/ G Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl*Output Common/ G*Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl*Output Common/ G*Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl*Output Common/ G*Supply Return W (+) Output B Shunt Cal 1 Br Shunt Cal 2	R (+) Supply Bl (+) Output W Case Ground	R (+) Supply Bl (+) Output W Case Ground

* Black and Green wires are internally connected.
** Pins B and C are internally connected.
*** See Sensotec website for most up-to-date information regarding Intrinsically Safe approvals ref. #008-0547-00.

Typical System Diagram



Mating Connectors & Cables

AA111 Mating Connector
AA112 Mating Connector & 6 conductor cable (Unamplified unit with sense leads but not shunt Cal)
AA 113 Mating Connector & 4 conductor cable (Unamplified unit with sense leads but not shunt Cal)
AA 115 Mating connector and 5 conductor cable for 2c, 2j or 2t amplified output
AA 116 Mating connector and 3 conductor cable for 2k or 2n(2N) amplified output

Display Units

SC500
SC1000
SC2001
SC3004
GM (Unamplified only)
GM-A (Some amplified, see GM-A data sheet)
NK (Unamplified only)
HH (Unamplified only)

In-Line Amplifiers
(Used with unamplified units only)

Amplifier	Output
Universal In-Line Amplifiers	
UV	+/- 5 VDC
UV-10	+/- 10 VDC
UBP	0 +/- 5 VDC
U3W	4-20 mA (3 wire)
DIN rail Mount In-Line Amplifiers	
DV-05	0 +/- 5 VDC (3 wire)
DA-05	4-20 mA (3 wire)
DV-10	0 +/- 10 VDC (3 wire)

For long cable runs or electrically noisy environments an amplified sensor or locally mounted amplifier is often preferred.

Range Codes

Range	Range Code
2000 psid	DL
3000 psid	DN
5000 psid	DR
7500 psid	DT
10,000 psid	DV

Capteurs

Model A-5

Options

	Build to Order	Build from scratch
Pressure Ranges (psid)	2000, 3000, 5000, 7500, 10000	
Temperature Compensation	1a. 60° to 160° F 1b. 30° to 130° F 1c. 0° to 185° F 1d. -20° to 130° F 1e. -20° to 200° F 1f. 70° to 250° F 1i. -65° to 250° F 1j. 0° to 50° C 1m. -25° to 110° C	1g. 70° to 325° F 1h. 70° to 400° F
Internal Amplifiers	2u. Unamplified, mV/V output 2b. 4 wire +/-5VDC 2c. 0-5VDC 2t. 0-10VDC 2j. 4-20mA (3 wire) output	2k. 4-20mA(2-wire) output 2n(2N). 4-20mA (2-wire) intrinsically safe
Internal Amp Enhancements	3d. Remote Buffered Shunt Calibration	3a. Input/ Output Isolation (note 6)
Pressure Ports (note 5)	5a. 1/4-18 NPT Female	5c. 7/16" - 20 UNF Female (per MS33656E4)
Electrical Termination	6a. Bendix PTIH-10-6P (or equivalent) 6 pin (max. 250°F) 6e. Integral cable: Teflon (-54° to 245° C) 6f. Integral cable: PVC (-30° to 70° C) 6i. Integral underwater cable(8m) (max 80° C) (note 1) 6j. 1/2-14 conduit fitting with 5 ft. 4 conductor PVC cable	6b. MS type connector (note 1) 6g. Integral cable: Neoprene (-20 to 80° C) (note 1) 6h. Integral cable: Silicone (-54 to 150° C)
Shunt Calibration	8a. Precision Internal Resistor (note 7)	
Special Calibration		9a. 10 point (5 up/5 down) 20% increments @ 20° C 9b. 20 point (10 up/10 down) 10% increments @ 20° C
Wetted Diaphragm	17-4 PH Stainless Steel	
Bridge Type	11a. Square bridge	11c. Square & symmetrical bridge 11b. Symmetrical bridge
Potentiometers	14b. Top access to pots (note 8) 14a. No access to pots	
O Ring Seals	26a. Metal	
Interfaces	53e. Signature Calibration 53t. T.E.D.S. IEEE 1451.4 Module (note 9)	

Supplied as standard

Notes

1. Availability varies according to range.
2. Interconnecting shunt cal. 1 terminal with shunt cal. 2 terminal provides 50% (unamplified units), 75% (4-20mA 3-wire units) or 80% (voltage amplified units) of full scale output for quick calibration. Shunt Calibration comes standard with internal amplifier options 2b, 2c, 2t and 2j.
3. O=Orange; Y=Yellow; B=Blue; Bl=Black; R=Red; Br=Brown; W=White; G=Green. Color specifying cable and number or letter specifying connector.
4. No mating connector necessary for cable option.
5. Some pressure port options may require axial orientation.
6. Only available with unamplified option 2u.
7. Only available with amplified options.
8. Only available with VDC output options 2b, 2c.
9. Consult factory for TEDS availability with amplified models.

Special Customer Requirements (Consult Factory)

Pressure Port adaptors
Mating connectors and cables
Enhanced Line Pressure

CE Approved

How to Order

Combine the order code, the range code and the options code.

Sample Code: BD142 (Order Code) DV (Range Code) 6h (Options Code)

Honeywell sensotec

Rue de l'Estampage, 7 4340 Awans - Tél:04/344.97.32 - Fax:04/341.38.86 info@elneo.com - www.elneo.com