



bar

AS30 and AS50 SERIES

Compact OEM Pressure Transmitters



FEATURES

- Exceptional Long Term Stability
- 0-100 psi to 0-30,000 psi Ranges (0-7 bar to 0-2,200 bar)
- High Proof Pressures with All Stainless Steel Wetted Parts
- Broad Choice of Outputs, Electrical Connectors, and Pressure Ports
- Dual Pressure and Temperature Sensing option

INTEGRAL CONNECTOR VERSIONS



AS30 and AS50 Series offer high levels of stability and reliability with proven sputtered thin film technology and unbeatable price performance ratio in a small package size. A broad choice of electrical and pressure connections allow stock configurations to suit most applications without modification.

SPECIFICATIONS

Performance	
Long Term Drift	0.2% FS/YR (non-cumulative)
Accuracy	0.25% FS
Thermal Error	
0.83% FS/100°F (1.5% FS/100°C)	
Compensated Temperatures -40°F to +257°F (-40°C to +105°C)	
Operating Temperatures	-40°F to +257°F (-40°C to +105°C) for elec. codes 1, 2, 4, 3, 5, 6 -5°F to +180°F (-20°C to +80°C) for elec. code 7
Zero Tolerance	0.5% of span
Span Tolerance	
0.5% of span	
Response Time	
1 ms	
Fatigue Life	
Designed for more than 100 M cycles	
Mechanical Configuration	
Pressure Port	See under "How to Order," last page
Wetted Parts	17-4 PH Stainless Steel
Housing	304 Stainless Steel
Electrical Connection	See under "How to Order," last page
Enclosure	IP67 (IP65 for electrical code 4)
Vibration	40G peak to peak sinusoidal, (Random Vibration: 20 to 1000 Hz @ approx. 40G peak per MIL-STD-810E)
Shock	Withstands free fall to IEC 68-2-32 procedure 1
EMC (Radiated Immunity)	100 V/m
Approvals	CE, conforms to European Pressure Directive, Fully RoHS compliant, CRN Registered to ANSI/ASME B31.3, UL recognized files # E219842 & E174228
Weight	1.8 - 5.3 ounces (50 - 150 grams). Configuration dependent.
Voltage	
Output (3-wire)	0 V min. to 10 V max. See under "How to Order," last page
Supply Voltage	2 Volts above full scale to 30 VDC max @ 4.5 mA (6.5 mA on dual output version)
Source and Sinks	2 mA
Current	
Output (2-wire)	4-20 mA
Supply Voltage	8-30 VDC
Maximum Loop Resistance	(Supply Voltage-8) x 50 ohms
Ratiometric	
Output	0.5 to 4.5 VDC @ 4 mA (6.5 mA on dual output version)
Supply Voltage	5 VDC ±10%



PRESSURE CAPABILITY

Pressure Range PSI (Bar)	Proof Pressure (x Full Scale)		Burst Pressure (x Full Scale)	
	AS30 / AS50		AS30 / AS50	
100-300 (7-25)	3.00 x FS		40 x FS	
500-1,500 (40-100)	2.00 x FS		20 x FS	
2,000-6,000 (160-400)			10 x FS	
7,500-9,000 (600)			4 x FS	
10,000 (700)				
15,000 (1,000)				
25,000 (1,800)	1.40 x FS	1.8 x FS		
30,000 (2,200)		1.5 x FS		

PRESSURE PORTS

NPT and SAE Dimensions in Inches. Metric Dimensions in MM.

Fitting Code	1/8"-27 NPT	Fitting Code	1/4"-18 NPT	Fitting Code	3/8-24 UNF	Fitting Code	Autoclave F250C
Torque	2-3 TFFT*	Torque	2-3 TFFT*	Torque	18-20 NM	Torque	18-20 NM
Fitting Code	SAE 4 Female 7/16" Schraeder	Fitting Code	7/16"-20 UNF	Fitting Code	7/16"-20 UNF with 37° Flare	Fitting Code	G1/4"-19 A
Torque	18-20 NM	Torque	18-20 NM	Torque	15-16 NM	Torque	30-35 NM
Fitting Code	G1/4"-19 A Integral Face-Seal	Fitting Code	M12 x 1.5	Fitting Code	M12x1.5 HP Metal Washer Seal	Fitting Code	M14 x 1.5
Torque	30-35 NM	Torque	28-30 NM	Torque	30-35 NM	Torque	30-35 NM

*NPT Threads 2-3 turns from finger tight. Wrench tighten 2-3 turns.

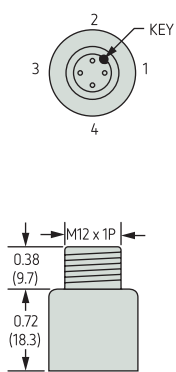
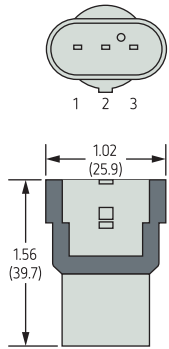
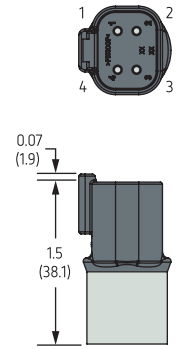
General Notes:

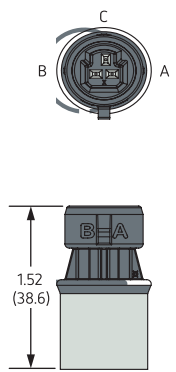
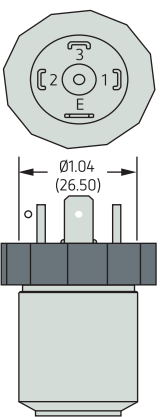
- The diameter of all cans is 19 mm (0.748")
- Hex is 22 mm (0.866") Across Flats (A/F) for deep socket mounting
- O-Ring material, where applicable, is Viton unless otherwise specified.



PRESSURE TRANSDUCERS

Integral Connector Versions

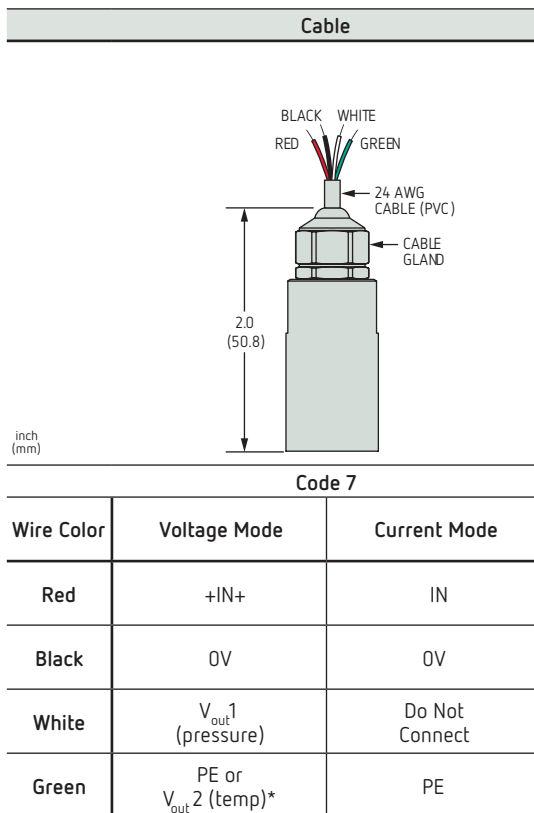
DIN EN 175301-803, Form C				M12 x 1P		Amp Superseal 1.5		Deutsch DT04-4P		
 inch (mm)										
Code 1		Code 8		Code 2		Code 3		Code 5		
Pin #	Voltage Mode	Current Mode	Voltage Mode	Current Mode	Voltage Mode	Current Mode	Voltage Mode	Current Mode	Voltage Mode	Current Mode
1	V_{out1} (pressure)	Do Not Connect	+IN	+IN	+IN	+IN	V_{out}	Do Not Connect	0V	0V
2	+IN	+IN	0V	0V	V_{out1} (pressure)	Do Not Connect	0V	0V	+IN	+IN
3	PE or V_{out2} (temp)*	PE	V_{out}	Do Not Connect	0V	0V	+IN	+IN	PE or V_{out2} (temp)*	PE
4	0V	0V	PE	PE	PE or V_{out2} (temp)*	PE	—	—	V_{out1} (pressure)	Do Not Connect

Packard MetriPack			DIN EN 175301-803, Form A		
					
Code 6			Code 4		
Pin ID	Voltage Mode	Current Mode	Pin #	Voltage Mode	Current Mode
A	0V	0V	1	+IN	+IN
B	+IN	+IN	2	0V	0V
C	V_{out}	Do Not Connect	3	V_{out1} (pressure)	Do Not Connect
E	—	—	E	PE or V_{out2} (temp)*	PE

*This pin is used for temperature sensing output when this option is utilized. Otherwise, the pin is used for PE.

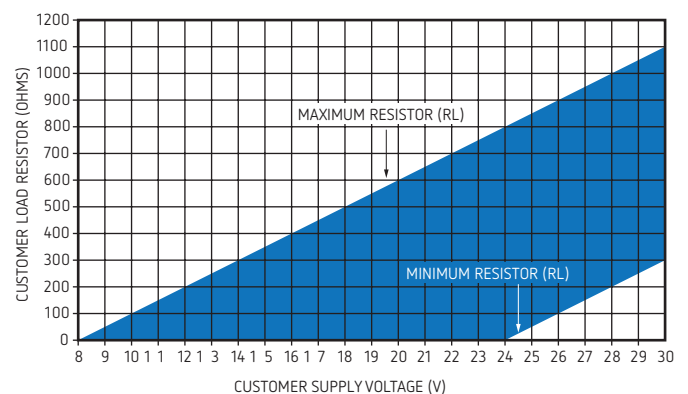


WIRE & CABLE OPTIONS



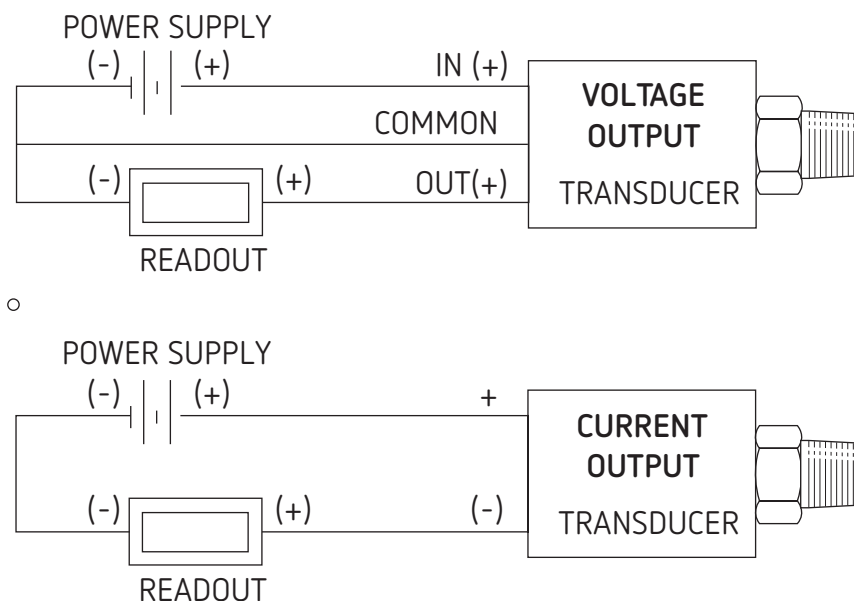
*This pin is used for temperature sensing output when this option is utilized. Otherwise, the pin is used for PE.

CURRENT OUTPUT MODE (LOAD RESISTOR RANGE)



Minimum Resistor Value = $50 \cdot (+V - 24)$ for $+V > 24V$
Maximum Resistor Value = $50 \cdot (+V - 8)$ for $+V > 8V$

WIRING DIAGRAM





HOW TO ORDER

Use the **bold** characters from the chart below to construct a product code:

		AS3	8	05	7	0	BS0250	02	-R		
Series										Optional Restrictor	
AS3	Pressure Transducer without Temperature Output									(empty)	No Restrictor
AS5	Pressure Transducer with Temperature Output									-R	Restrictor
Output										Cable Length (For electrical connection 7 only)	
2	1 - 5 V									(empty)	Without cable
3	0,5 - 4,5 V									01	1 meter
4	0,5 - 4,5 V ratiometric									02	2 meters
5	1 - 6 V									03	3 meters
6	0 - 5 V									04	4 meters
7	0 - 10 V									05	5 meters
8	4 - 20 mA									Pressure Range	
9	1 - 10 V									BV0007	0-7 bar vented gage
Z	Custom									BV0010	0-10 bar vented gage
Pressure Port³										BV0016	0-16 bar vented gage
01	G1/4" A male									BV0025	0-25 bar vented gage
02	G1/4" A male incl. soft seal									BV0040	0-40 bar vented gage
03	M14 x 1,5 ISO9974-2 male									BV0060	0-60 bar vented gage
04	7/16"-20 male (SAE #4, J514)									BS0100	0-100 bar sealed gage
05	1/4"-18 NPT male									BS0160	0-160 bar sealed gage
06	M12 x 1.5 (<1,000 bar, 15,000 psi)									BS0250	0-250 bar sealed gage
07	M12 x 1.5 (6g) (≥1,000 bar, 15,000 psi)									BS0400	0-400 bar sealed gage
08	7/16"-20 male (SAE #4, J1926-2)									BS0600	0-600 bar sealed gage
09	1/8"-27 NPT male									BS1000	0-1000 bar sealed gage ²
10	Schrader SAE #4, 7/16" female									BS1600	0-1600 bar sealed gage ²
11	M14 x 1.5 straight with 60° inner sealing cone									BS2200	0-2200 bar sealed gage ²
13	3/8-24 UNF External (SAE J1926)									Temperature Output¹	
14	Autoclave F250C Internal (>1000 bar)									0	No Temperature Output (For AS3 Series only)
Electrical Connection⁴										T1	-40 °C to +125 °C (For AS5 Series only)
1	DIN EN 175301-803 Form C (mating connector not supplied)									T2	0 °C to +100 °C (For AS5 Series only)
2	M12 x 1P (4-Pin)									T3	0 °C to +80 °C (For AS5 Series only)
3	Amp - Superseal 1.5 Series									Notes:	
4	DIN EN 175301-803 Form A									1. Temperature outputs are for voltage output pressure sensors only (applies to codes -2 -3, -4, and -5 only) and limited to electrical codes -1, -2, -4, -5, and -7 Accuracy is 3.5% of temperature span. Requires additional 2mA of power.	
5	Deutsch DT04-4P									2. Ranges 1,000 bar and above available with -07 pressure port only.	
6	Packard MetriPack									3. Pressure port -10 is not available with the -R Restrictor option.	
7	Cable version									4. For electrical code -7, specify cable length in meters.	
8	DIN EN 175301-803 Form C (alternate pin out)										



For large quantities customized models are available on request.

If the transducer is to be supplied with a calibration protocol (please note that there will be extra charge), the letter "K" must be added to the product code.

For all transducers, mating connectors or mating connectors with cable have to be ordered separately!