



ASI30 SERIES AND ASI60 HEAVY DUTY SERIES Intrinsically Safe Industrial Pressure Transmitters

FEATURES

- EX: Category II 1G, Ex ia IIB T4 Ga
- The ASIX0 series is certified Intrinsically Safe for use in Group IIB Hazardous Areas, Zones 0, 1 and 2
- Certification:
ATEX Certificate Baseefa10ATEX0196
IECEX Certificate GB/BAS/ExTR 10/023/00

For OEMs that need Intrinsically Safe pressure sensors with consistent high levels of performance, reliability and stability, the ASIX0 Series sputtered thin film units offer an unbeatable price performance ratio in a small package size. They feature all stainless steel wetted parts, a broad selection of electrical and pressure connections and a wide choice of electrical outputs.

Our manufacturing process includes the latest automated equipment, producing consistent sensor performance.

Additionally the ASI60 Series transmitters feature a thicker diaphragm and a pressure restrictor to withstand the rigors of cavitation or extreme pressure spikes, delivering years of reliable and stable performance in pulsating applications.

SPECIFICATIONS

Performance	
Long Term Drift	0.2% FS/YR (non-cumulative)
Accuracy	0.25% FS
Thermal Error	
ASI30	±1.5% max, ±1% typical / 212°F (100°C)
ASI60	±2% max
Operating & Compensated Temperatures	
	-40°F to +176°F (-40°C to +80°C)
Zero Tolerance, Max.	0.5% of span
Span Tolerance, Max.	0.5% of span
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
Electrical Connection	See under "How to Order," last page
Enclosure	IP67 (IP65 for electrical code 4)
Vibration	BSEN 60068-2-6 (FC) Sine (20G) BSEN 60068-2-64 (FH) Random (14.1 Grms)
Shock	BSEN 60068-2-27 (Ea) (50G, 11ms)
Approvals	
ATEX	Ex II 1G; Ex ia IIB T4 Ga, -40°F ≤ Ta ≤ +176°F (-40°C ≤ Ta ≤ +80°C)
IECEX	Ex ia IIB T4 Ga -40°F ≤ Ta ≤ +176°F (-40°C ≤ Ta ≤ +80°C)
ATEX/IECEX Common	When used in conjunction with a Zener safety barrier or Galvanic Isolation barrier. Fully RoHS Compliant
Weight	1.8 to 5.3 ounces (50-150 grams). Configuration dependant



EMC SPECIFICATIONS

Emissions Tests: EN61326-1:2006 and EN61326-2-3:2006	
EN55011:2007	Radiated Emissions: 30-230MHz 30dB µV/M @10M 230-1000MHz 37dB µV/M @10M
Immunity Tests: EN61326-1:2006 and EN61326-2-3:2006	
EN61000-4-2:2009	Electrostatic Discharge: ±4Kv contact ±8Kv air
EN61000-4-3:2006	Radiated Immunity: 10V/M 80-1000MHz 3V/M 1400-2000MHz 1V/M 2000-2700MHz
EN61000-4-4:2004	Fast Transients: ±0.25, 0.5, 1Kv
EN61000-4-6:2007	Conducted Immunity: 3V 0.15 to 80MHz 80% 1KHz modulation

INDIVIDUAL SPECIFICATIONS

Voltage	
Output (3-wire)	0V min. to 10V max. See under "How to Order," last page
Supply Voltage	1 Volt above full scale to 30Vmax @ 4.5 mA
Source and Sinks	2 mA
Current	
Output (2-wire)	4-20 mA
Supply Voltage	8-24 Volts measured at the input to the transducer terminals
Maximum Loop Resistance	(Supply Voltage - 8) x 50ohms See Graph
Ratiometric	
Output	0.5 to 4.5V (Source and sink 2mA)
Supply Voltage	5 Vdc ±10% @ 4.5mA



■ PRESSURE CAPABILITY

Pressure Range PSI (Bar)	Proof Pressure (x Full Scale)		Burst Pressure (x Full Scale)	
	ASI30	ASI60	ASI30	ASI60
100-300 (7-20)	3.00 x FS	3.00 x FS	40 x FS	
500-1,500 (40-100)	2.00 x FS		20 x FS	
2,000-6,000 (140-400)			10 x FS	
10,000 (700)	1.40 x FS	2.50 x FS	> 60,000 PSI (4,000 bar)	
15,000 (1,000)		1.70 x FS		
25,000 (1,800)		—		
30,000 (2,200)				

■ PRESSURE PORTS

SAE

	1/8" -27 NPT	1/4" -18 NPT
Dimensions in Inches		
Fitting Code	09	05
Torque	2-3 TFFT*	2-3 TFFT*

	SAE J1926/2:3/8-24	7/16" -20 UNF	7/16" -20 UNF with 37° Flare	SAE 4 Female 7/16" Schraeder
Dimensions in Inches				
Fitting Code	13	08	04	10
Torque	18-20 NM	18-20 NM	15-16 NM	18-20 NM

BSP & Metric

	G1/4" -19 External	G1/4" -19 A Integral Face Seal	M12 x 1.5	M12x1.5 HP Metal Washer Seal	M14 x 1.5
Dimensions in MM					
Fitting Code	01	02	06	07	17
Torque	30-35NM	30-35 NM	28-30 NM	30-35 NM	2-3 TFFT*

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

General Notes:

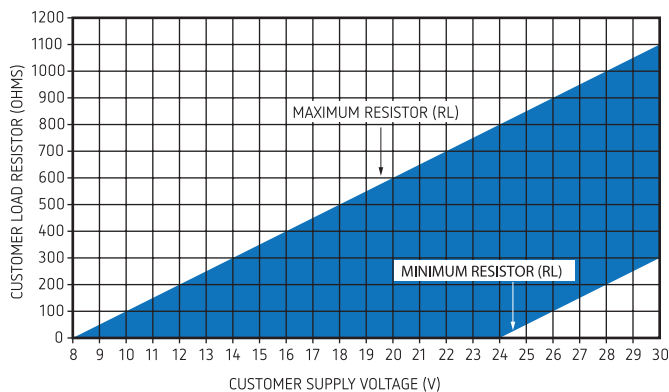
1. The diameter of all cans is 19 mm (0.748")
2. Hex is 22 mm (0.866") Across Flats (A/F) for deep socket mounting



ELECTRICAL CONNECTOR

DIN EN 175301-803 Form C		M12 x 1P		Amp Superseal 1.5		Deutsch DT04-4P		DIN EN 175301-803 Form A		
Code 8		Code 2		Code 3		Code 5		Code 4		
Pin #	Voltage Mode	Current Mode	Voltage Mode	Current Mode	Voltage Mode	Current Mode	Voltage Mode	Current Mode	Voltage Mode	Current Mode
1	V _{supply}	Supply	V _{supply}	Supply	V _{out}	No Connect	Ground	Return	V _{supply}	Supply
2	Ground	Return	V _{out}	No Connect	Ground	Return	V _{supply}	Supply	Ground	Return
3	V _{out}	No Connect	Ground	Return	V _{supply}	Supply	No Connect	No Connect	V _{out}	No Connect
4	No Connect	No Connect	No Connect	No Connect	—	—	V _{out}	No Connect	No Connect	No Connect

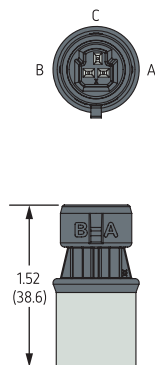
CURRENT OUTPUT MODE (LOAD RESISTOR RANGE)



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

ELECTRICAL CONNECTOR

Packard MetriPack

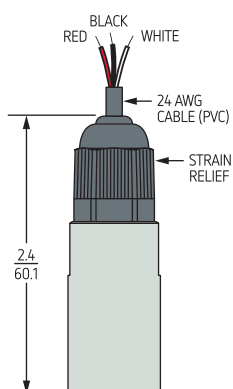


Code 6

Pin ID	Voltage Mode	Current Mode
C	V_{out}	No Connect
A	Ground	Return
B	V_{supply}	Supply
—	—	—

CABLE-OUT TYPES

Cable



Code 7

Wire Color	Voltage Mode	Current Mode
Red	Supply	Supply
Black	Ground	Return
White	V_{out}	No Connect



HOW TO ORDER

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

Series		ASI3	8	05	7	0	BS0250	02	-R	Optional Restrictor		
ASI3 Pressure Transducer										(empty)	No Restrictor	
ASI6 Heavy Duty Pressure Transducer										-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 ¹										03	3 meters	
6 0 - 5 V ¹										04	4 meters	
7 0 - 10 V										05	5 meters	
8 4 - 20 mA												
9 1 - 10 V												
Pressure Port ³										Pressure Range		
01 G1/4" A male										BV0007	0-7 bar vented gage	
02 G1/4" A male incl. soft seal										BV0010	0-10 bar vented gage	
03 M14 x 1.5 ISO9974-2 male										BV0016	0-16 bar vented gage	
04 7/16"-20 male (SAE #4, J514)										BV0025	0-25 bar vented gage	
05 1/4"-18 NPT male										BV0040	0-40 bar vented gage	
06 M12 x 1.5 (<1,000 bar, 15,000 psi)										BV0060	0-60 bar vented gage	
07 M12 x 1.5 (6g) (≥1,000 bar, 15,000 psi)										BS0100	0-100 bar sealed gage	
08 7/16"-20 male (SAE #4, J1926-2)										BS0160	0-160 bar sealed gage	
09 1/8"-27 NPT male										BS0250	0-250 bar sealed gage	
10 Schrader SAE #4, 7/16" female										BS0400	0-400 bar sealed gage	
13 3/8-24 UNF External (SAE J1926)										BS0600	0-600 bar sealed gage	
17 M14 x 1.5 straight										BS1000	0-1000 bar sealed gage ²	
										BS1600	0-1600 bar sealed gage ²	
Electrical Connection ⁴												
1 DIN EN 175301-803 Form C (mating connector not supplied)												
2 M12 x 1P (4-Pin)												
3 Amp - Superseal 1.5 Series												
4 DIN EN 175301-803 Form A												
5 Deutsch DT04-4P												
6 Packard MetriPack												
7 Cable version												
8 DIN EN 175301-803 Form C (alternate pin out)												

Notes:

1. For use with pull-up or pull-down resistors, contact factory.
2. Ranges 1,000 bar and above available with -07 pressure port only.
3. Pressure port -10 is not available with the -R Restrictor option.
4. For electrical code -7, specify cable length in meters.