AGILE MODULAR PRESSURE

MEMS PIEZORESISTIVE, UNAMPLIFIED & AMPLIFIED OUTPUT

Sensata sells more pressure sensors than any other company worldwide. Decades of experience allow Sensata to develop and manufacture products in-house which reduces the cost to the customer and ensures that strict quality and reliability standards are met. The AMP (Agile Modular Pressure) series improves upon this pedigree by offering an off the shelf solution for any unique pressure application. Sensata's pressure sensors are ideal for commercial, civil and military applications.

Features

- Absolute and Sealed Gage configurations
- Fully hermetic, welded design
- Qualifications: RTCA DO-160 and MIL-STD-810
- Temperature compensated performance with diagnostic capability
- EMC, lightning, and ESD protected
- Single- and Multi- channel options

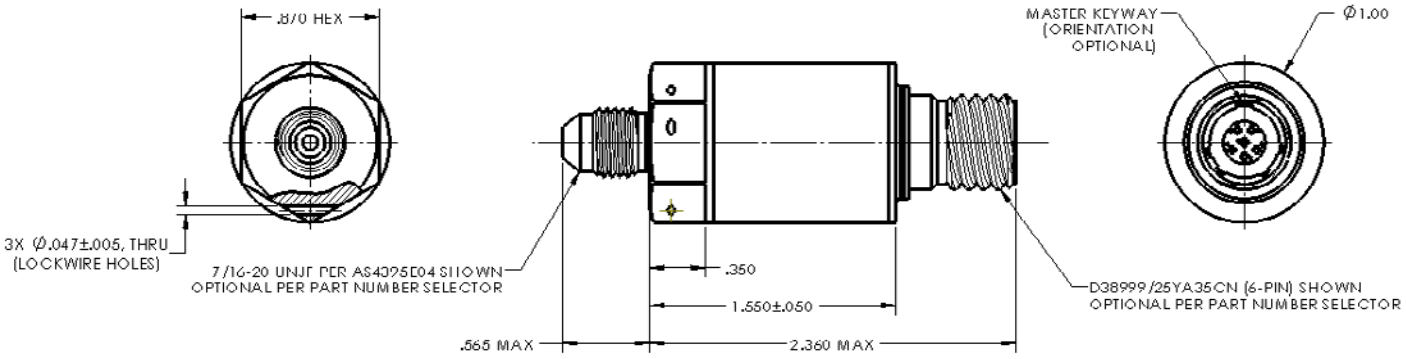
Applications

- Engine monitoring and control
- Bleed air
- Flight control
- Hydraulic actuation
- Health and Usage Monitoring Systems (HUMS)
- Cabin air and climate controls
- Landing gear
- Brakes
- Space and satellite
- APU systems and more…

SPECIFICATIONS

Specification	UNAMPLIFIED OUTPUT	AMPLIFIED OUTPUT
Supply Voltage	10 VDC	28 VDC Nominal (See Ordering Options for Supply Range)
Output Voltage	Unamplified bridge output 0-100 mV	Amplified voltage (differential or single-ended), Amplified 4-20 mA
Input Impedance (25°C)	1000 Ω Min	N/A
Output Impedance (25 °C)	4000 Ω Max	100 Ω Max
Accuracy (Total Error Band incl. Accuracy, Linearity, Repeatability, Hysteresis, Temperature)	±1.5% FSO from -55°C to 150°C	±1.0% FSO from 0°C to +100°C Increasing to ±3.0% FSO @ -55°C and @ +125°C
Response Time	T63 < 2 ms	T63 < 10 ms
MTBF	> 300K flight hours	>150K flight hours
Pressure Ranges	0-25 PSI to 0-5000 PSI	
Compatible Media	Fuel, oil, air, hydraulic fluid (Fully hermetic. All fluids compatible with 300-series and 17-4 PH Stainless Steel)	
Operating Temperature	-55°C to +150°C	-55°C to +125°C
Storage Temperature	-55°C to +150°C	
Proof Pressure Factor	3X (25 to 150 psi), 2X (151 to 3000 psi), 1.5X (3001 to 5000 psi)	
Burst Pressure Factor	5X (25 to 150 psi), 3X (151 to 3000 psi), 2.5X (3001 to 5000 psi)	
Pressure Cycling	>0.5M cycles per ARP1383 (0 – Full Scale Pressure – 0 psi)	
Insulation Resistance	100 MΩ @ 500 VDC	
Dielectric Strength	<2mA, 500 VAC @60Hz for 60 sec	<2mA, 250 VAC @60 Hz for 60 sec
Qualifications	RTCA DO-160, MIL-STD-810, MIL-STD-461, RTCA-DO-254	
Pressure Interface	7/16-20 UNJF-3F per AS4395E04 7/16-20 UNJF-3F per AS4375E04	
Port Connection & Housing Material	Stainless Steel	
Electrical Connection	D38999/25YA35CN (6-pin) MIL-DTL-26482 Series 1 (6-pin) MIL-DTL-26482 Series 1 (4-pin)	
Documentation	Acceptance Test Procedure (ATP) on 100% of units	

DIMENSIONAL DRAWINGS



CONNECTOR PIN ASSIGNMENT

	Connector Type											
	MIL-DTL-26482 Series 1 (6-pin) (PTIH- 10 -6P) MIL-DTL-26482 Series 1 (4-pin) (PTIH- 8 -4P)						MIL-DTL-38999/25YA35CN (6-pin)					
	Pin A	Pin B	Pin C	Pin D	Pin E	Pin F	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6
A = Unamplified 10 mv/V	+IN	-IN	+OUT	-OUT			+IN	-IN	+OUT	-OUT		
B = 4 - 20 mA	+IN	-IN					+IN	-IN				
C = 0.5 - 4.5 VDC, Single-ended output	+IN	-IN	OUT				+IN	-IN	OUT			
D = 0.5 - 9.5 VDC, Single-ended output	+IN	-IN	OUT				+IN	-IN	OUT			
E = 0 - 5 VDC, Single-ended output	+IN	-IN	OUT				+IN	-IN	OUT			
F = 0 - 10 VDC, Single-ended output	+IN	-IN	OUT				+IN	-IN	OUT			
CD = 0.5 - 4.5 VDC, Differential output	+IN	-IN	+OUT	-OUT			+IN	-IN	+OUT	-OUT		
DD = 0.5 - 9.5 VDC, Differential output	+IN	-IN	+OUT	-OUT			+IN	-IN	+OUT	-OUT		
ED = 0 - 5 VDC, Differential output	+IN	-IN	+OUT	-OUT			+IN	-IN	+OUT	-OUT		
FD = 0 - 10 VDC, Differential output	+IN	-IN	+OUT	-OUT			+IN	-IN	+OUT	-OUT		

Note: Blank pins are not connected
Note: Other pin assignment available upon request

ORDERING OPTIONS

Example : PX500-XXXX-A-A-1-A

PX500 - XXXX - A - A - 1 - A

Family

PX500

Pressure Range

Maximum Required Pressure (in PSI)
Example:
0-25 psi = 25
0-5000 psi = 5000

Pressure Reference

A = Absolute
S = Sealed Gage

Pressure Connection

A = 7/16-20 UNJF per AS4395E04
B = 7/16-20 UNJF per AS4375E04

Electrical Connection

1 = D38999/25YA35CN (6-pin)
2 = MIL-DTL-26482 Series 1 (6-pin)
3 = MIL-DTL-26482 Series 1 (4-pin)

Electrical Input / Output

Output	Input (Supply)
A = Unamplified 10 mV/V	10 VDC Regulated
B = Amplified 4-20 mA, two-wire	24 – 32 VDC
C = Amplified 0.5-4.5 VDC, Single-ended output	10 – 36 VDC
D = Amplified 0.5-9.5 VDC, Single-ended output	10 – 36 VDC
E = Amplified 0-5 VDC, Single-ended output	10 – 36 VDC
F = Amplified 0-10 VDC, Single-ended output	12 – 36 VDC
CD = Amplified 0.5-4.5 VDC, Differential output	10 – 36 VDC
DD = Amplified 0.5-9.5 VDC, Differential output	10 – 36 VDC
ED = Amplified 0-5 VDC, Differential output	10 – 36 VDC
FD = Amplified 0-10 VDC, Differential output	12 – 36 VDC

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

CONTACT US
support@sensata.com
+1(508)236-3800

Rev.09/29/2021