



AGILE MODULAR PRESSURE (AMP)

PX500 FAMILY, ABSOLUTE AND SEALED GAGE

Sensata is the world leader in the production and distribution of pressure sensors. With decades of experience in developing and manufacturing our products in-house, we can offer our customers a unique value proposition: high-quality products at a reduced cost. We pride ourselves on our strict quality and reliability standards, which are met through our in-house manufacturing processes.

Our latest offering, the AMP (Agile Modular Pressure) series, builds upon this legacy by providing an off-the-shelf solution for any pressure application. This versatile series is designed to meet the specific needs of commercial, civil, and military applications.



Features

- Oil-filled MEMS technology
- Absolute and sealed gage configurations
- Fully hermetic welded design
- Qualifications: RTCA DO-160 and MIL-STD-810
- Proprietary ASIC technology for high accuracy
- Temperature compensated performance with diagnostic capability
- EMC, lightning, and ESD protected

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
- Tire pressure monitoring systems (TPMS)
- Space and satellite
- APU systems and more...

SPECIFICATIONS

Pressure Range [PSIA or PSIS]

From 0 to...	25	50	75	100	150	200	300	500	1000	1500	2000	3000	4000	5000	Consult Sensata for custom configurations
Proof Pressure Factor	3x	3x	3x	3x	3x	2x	2x	2x	2x	2x	2x	2x	1.5x	1.5x	
Burst Pressure Factor	5x	5x	5x	5x	5x	3x	3x	3x	3x	3x	3x	3x	2.5x	2x	

Electrical

Output Signal	Un-Amplified Bridge Output 10 mV/V	4-20 mA Two wire	0.5-4.5 VDC Single-ended output	0.5-9.5 VDC Single-ended output	0-5 VDC Single-ended output	0-10 VDC Single-ended output	0.5-4.5 VDC Differential output	0.5-9.5 VDC Differential output	0-5 VDC Differential output	0-10 VDC Differential output
Operating Supply Voltage	10 VDC Regulated	24-32 VDC	10-36 VDC	10-36 VDC	10-36 VDC	12-36 VDC	10-36 VDC	10-36 VDC	10-36 VDC	12-36 VDC
Response Time	T63 < 2 ms	T63 < 5 ms								
Insulation Resistance	100 MΩ @ 500 VDC									
Dielectric Strength	< 2mA, 500 VAC @ 60Hz for 60 sec	< 2mA, 250 VAC @ 60Hz for 60 sec								
Output Impedance (25°C)	4000 Ω Max @ 25°C	100 Ω Max @ 25°C								

Environmental

Operating Temperature Range	-55°C to 150°C(-65 to 300°F)	-55°C to 125°C(-65 to 257°F)
Storage Temperature Range	-55°C to 150°C(-65 to 300°F)	-55°C to 150°C(-65 to 300°F)
MTBF	> 150K flight ours	> 75K flight hours
Vibration	20G _{rms} Sinusoidal from 10 to 2000 Hz	
Shock	50G Half Sine Wave, 11 msec.	
Media Compatibility	Fuel, oil, air, hydraulic fluid, and other fluids compatible with 300-series and 17-4 PH stainless steel	

Accuracy (See Charts 1 and 2)

Total Error Band (incl. Accuracy, Linearity, Repeatability, Hysteresis, and Temperature)	±1.5% of FSO from -55°C to +150°C	±1.0% of FSO from 0°C to +100°C Increasing to ±2% @ -55°C and +125°C
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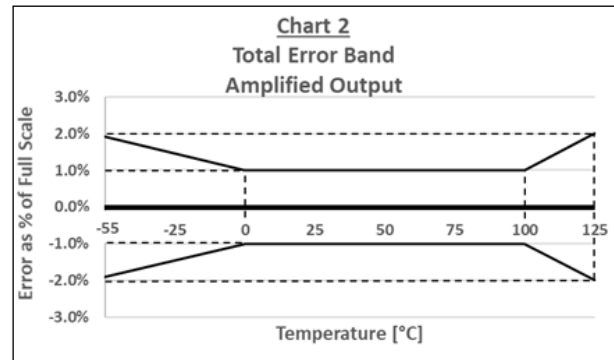
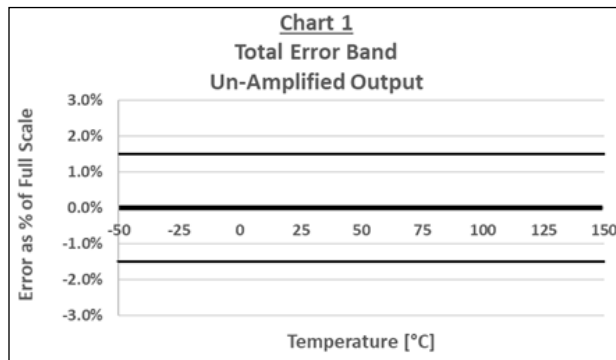
Mechanical

Pressure Ports	7/16-20 UNJF-3F per AS4395E04 7/16-20 UNJF-3F per AS4375E04
Electrical Connection (See Table 2 for pin assignment)	D38999/25YA35CN (6-pin) MIL-DTL-26482 Series 1 (6-pin) MIL-DTL-26482 Series 1 (4-pin)

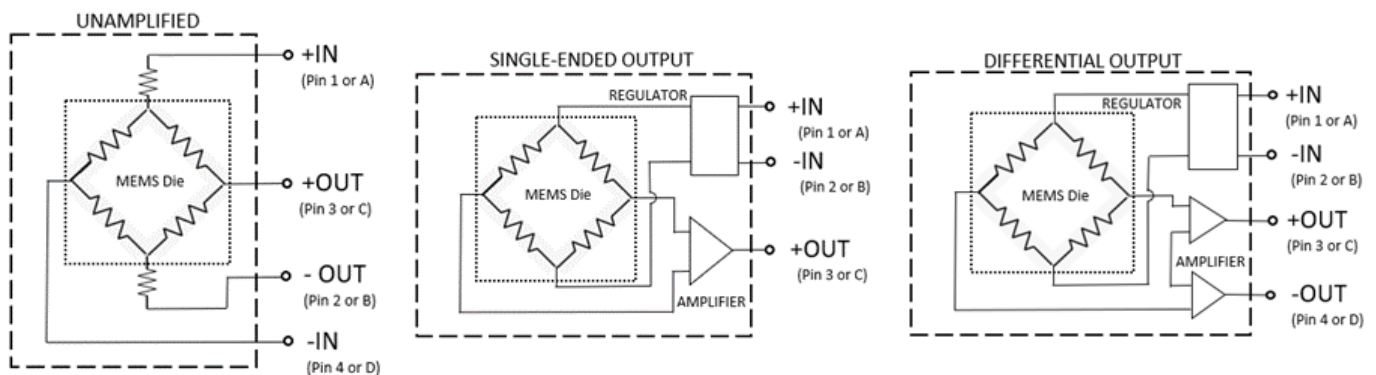
Qualification Testing

Certification	RTCA DO-160, MIL-STD-810, MIL-STD-461, RTCA DO-254
Documentation	Acceptance Test Procedure (ATP) on 100% of units

ACCURACY

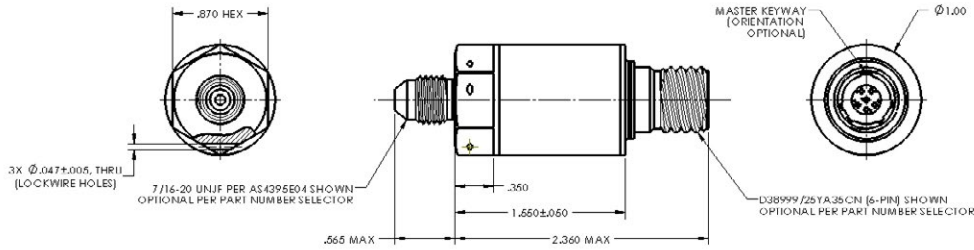


SCHEMATIC DIAGRAMS



Note: All other pins not connected

DIMENSIONS



ORDERING OPTIONS

Example : PX500-3000-A-A-1-A

Family	PX500	-	3000	-	A	-	A	-	1	-	A																						
Pressure Range	0-25 to 0-5000 psi																																
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)																																
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