

# 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

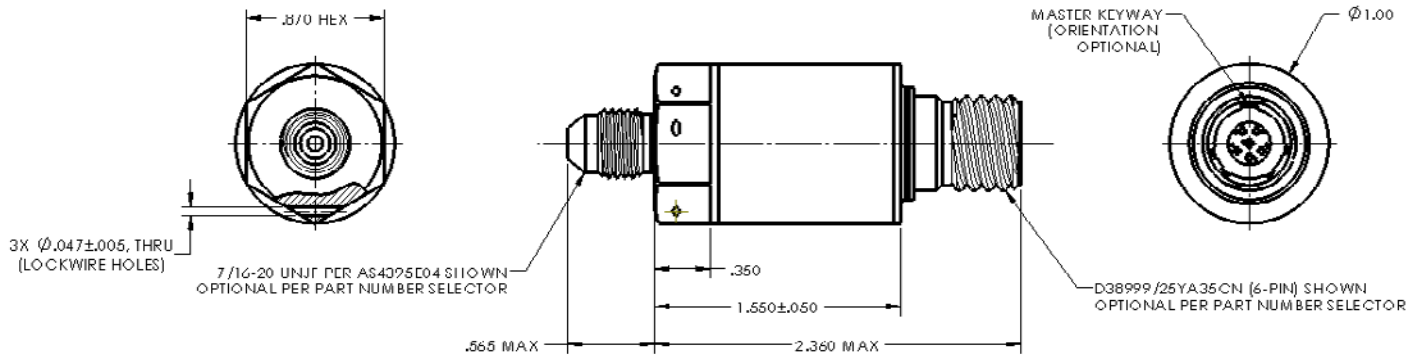
- Engine monitoring and control
- Bleed air
- Flight control
- Hydraulic actuation
- Health and Usage Monitoring Systems (HUMS)
- Cabin air and climate controls
- Landing gear
- Brakes
- Space and satellite
- APU systems and more...

## SPECIFICATIONS

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



## DIMENSIONAL DRAWINGS

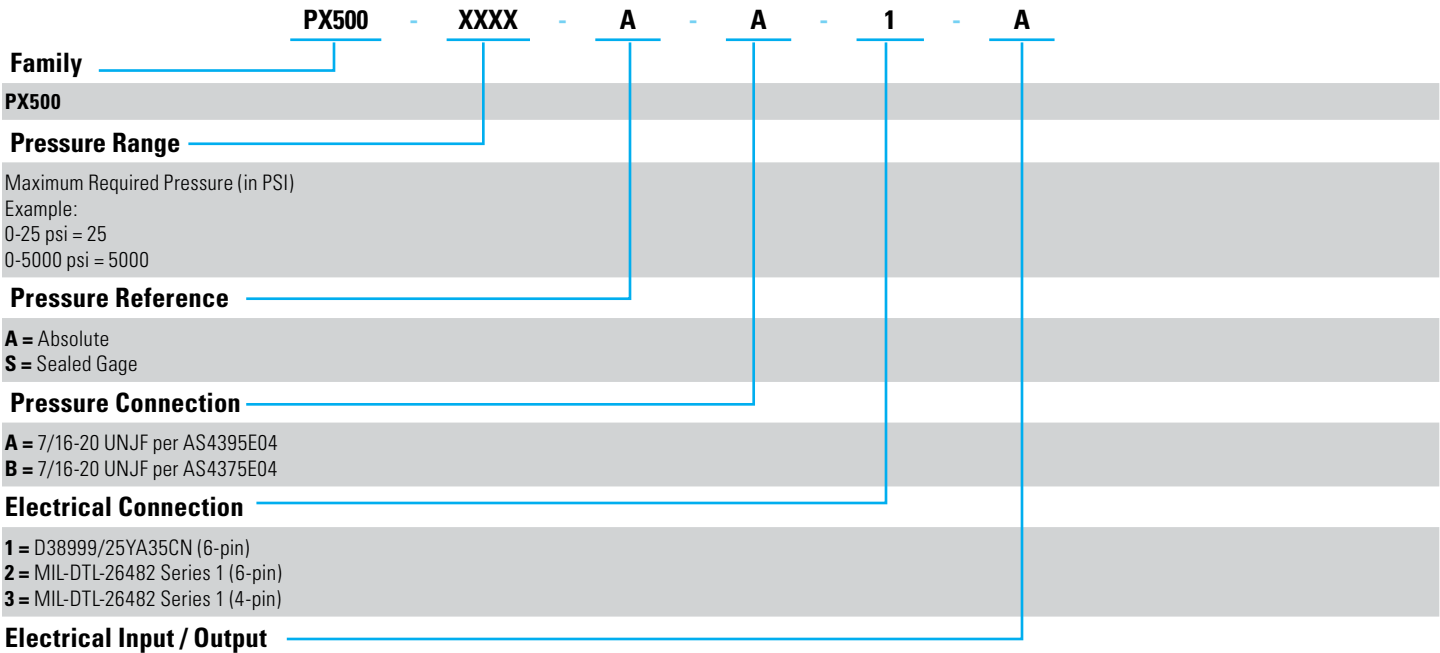


## CONNECTOR PIN ASSIGNMENT

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

**Note:** Blank pins are not connected

**Note:** Other pin assignment available upon request



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

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