

MSX 7301DI SERIES



The MSX7301DI Series Segmented Display & Transmitter for Building Control Applications

DESCRIPTION

Advanced Sensors MSX series is a Differential Pressure Transmitter that provides a 4-20ma output in conjunction with a 6-segment visual display. The product is designed for building control applications where both the control signal and equipment output can be verified. The Multi Chip Technology (MCT) Series incorporates the latest mixed signal ASIC (Application Specific Integrated Circuit) with an Silicon MEMS sense element producing a highly accurate and stable transmitter.

APPLICATIONS

- Fan Chiller Monitoring
- Filter monitoring in air handler units
- Building pressure in pharmaceutical/semiconductor clean rooms
- Duct static pressure in commercial buildings
- Air velocity/flow in VAV systems

FEATURES

- Ranges 100Pa to 150 psi
- ABS V0 Housing/ IP64
- Expansion Screw Mounting with Wall Mount
- Fast Response Time
- Wide Temperature Range
- 6 Digit Segmented Display (14x42mm)
- Integrated Cable Gland
- Low Overall Errors, 1%TEB
- Integrated Ribbed Pressure Connections
- Custom Outputs and Ranges Available

SPECIFICATIONS	Symbol	Min	Typical	Max	Unit	Note
Performance Specifications						
Overall Accuracy		±0.5% of reading ±0.5% FSS				2
Resolution				0.1	Pa	
Response Time			±0.1		mS	
Stability				±1.0	%FS/YR	
Operating Voltage		12		30	Vdc	
Weight				150	grams	
Compensated Temperature		-0 to 50			°C	
Operating Temperature		-45 to 70			°C	

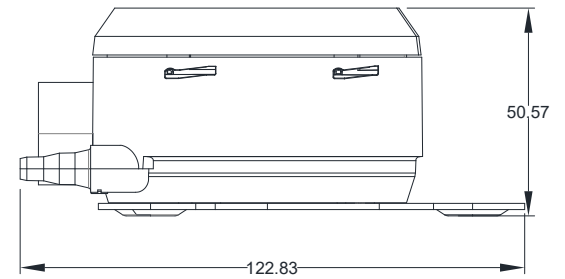
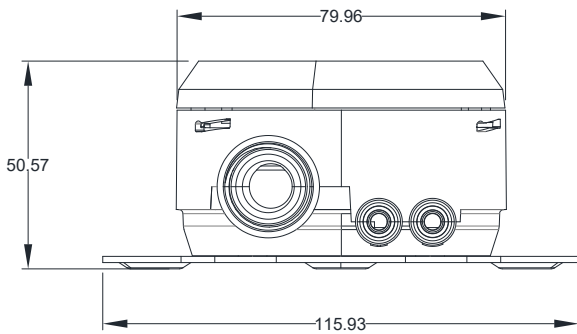
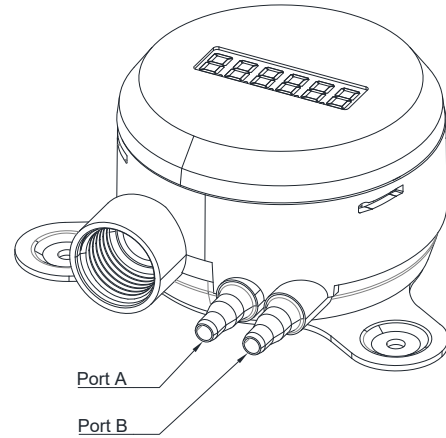
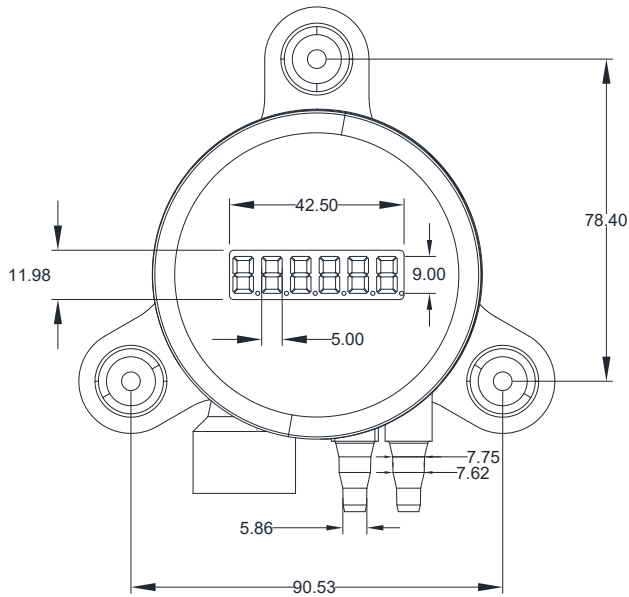
SPECIFICATIONS	Symbol	Min	Typical	Max	Unit	Note
Absolute Maximum Conditions						3
Supply Voltage		-24		36	V	
Storage Temperature		-55		85	°C	
Burst Pressure				3x	Range	
Maximum Load Resistor		0	250	500	Ω	
Maximum Current Consumption				40	mA	
Wetted Materials		Compatible with Air Or Non Ionic Gases				
Enclosure Rating (IP Rating)		IP64				

Reference Conditions: $V_{supply} = 24Vdc$, $R_{Load} = 250 \Omega$ $T_a = 25^\circ C$.

1. All specification at reference conditions unless otherwise noted.
2. Maximum deviation from the Ideal Transfer Function expressed as a percentage of the %FSS over the compensated temperature range. Includes calibration errors (Offset & Span), temperature errors (Offset & Span), pressure non-linearity, pressure and thermal hysteresis.
3. Exceeding Absolute Maximum Specification may damage the device. Extended exposure beyond the operating conditions may affect device reliability.

Construction Details	Material
External	
Pressure Glands	Ribbed, Diameter 7.2mm
Housing Material	ABS V-0 Per UL94
Electrical Connection, Screw Terminal	0.05 to 2.5mm ² /30 to 14AWG
Cable Gland	Diameter 5 to 10mm
Process Connections	3/16" (5 mm) ID Tubing Maximum OD 9 mm.

MECHANICAL DIMENSIONS in [mm]



Electrical Connections	Wire Color
Voltage Supply +	Red
Voltage Supply -	Black

Pressure Connections	Process Port
Positive Pressure	Port A
Negative/Reference Pressure	Port B

MOUNTING INSTRUCTIONS

Mount the transmitter on the fixing plate with screws first, then mount the ABS plate along with the transmitter on the wall by drilling 6mm diameter screws and pins are supplied.)

PART NUMBERING FOR ORDERS

Series	Port Type	Pressure Range (Pressure Units	Pressure Type (Range Availability)	Output Type	Electrical Connection
MSX 7301DI	HBD=Horizontal Barb, Dual	0100 0500 010K 100K	P= Pa	U= Unidirectional (All Ranges) B= Bidirectional (All Ranges)	I = 4-20 mA Current	CG = Cable Gland

Part Number Example: MSX 7301D 0100B ICG

Bi Directional Output from -100 to +100 Pa, Cable Gland Interconnection with two wire 4-20mA output.

WARRANTY

Pressure sensors have a limited one-year warranty to the original purchaser. AVSensors will repair or replace, at its option, without charge those items it finds defective. This is the buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall AVSensors be liable for consequential, special, or indirect damages. This warranty does not apply to units that have been modified, misused, neglected or installed where the application exceeds published ratings. Specifications may change without notice. The information supplied is believed to be accurate and reliable as of this printing, however, we assume no responsibility for its use.