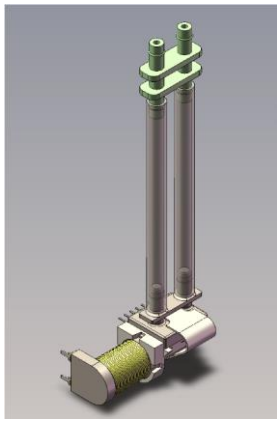
AV Sensors
AdVanced Sensor Design and Manufacture

DVAV-1000



DVAV1000
Digital Auto Zero
Ultra Low Pressure
High Sensitivity Output

DESCRIPTION

Advanced Sensors Digital Variable Air Volume (VAV) sensor contains an integrated Auto Zero function that deliver the ultimate stability in air duct air flow measurement. Within the transducer base is a high output 1inH2o Silicon MEMS sensor coupled with a solenoid bobbin that shunts the pressure ports when energized allowing the end user to zero the output to assure the highest stability in VAV measurement. The integrated pressure hosing is UL94V rated and allows for easily installation into air damper systems.

APPLICATIONS

- Building Automation Systems
- VAV Systems

FEATURES

- Integrated Solenoid Bobbin
- High Output 1inH20 Sensor
- UL Rated 94V Port
- 12 Volt Solenoid Coil
- High-impedance bridge
- Low power consumption

SPECIFICATIONS	Symbol	Min	Typical	Max	Unit	Note
Performance Characteristic (Transducer Output @ 1.5mA)						
Supply Voltage		1.0	1.5	2.0	mA	
Bridge Resistance		3050		4250	Ω	
Zero Pressure Offset		-10	8	+6	mV/V	
Pressure Non Linearity		-0.3		+0.3	%FSS	2
Full Scale Span		20	30	60	mV	
Temperature Coefficient Resistance		2300	2800	3100	ppm/°C	3
Temperature Coefficient Sensitivity		-2100	-1800	-1499	ppm/°C	3
Temperature Coefficient Offset		-30	5	30	uV/V/°C	3

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SPECIFICATIONS	Symbol	Min	Typical	Max	Unit	Note
Performance Characteristic (Solenoid)						
Coil Voltage		9.0		12.0	V	
Coil Resistance		315	330	350	Ω	
Max Duty Cycle at 12Vdc			0	10	%	
Coil Energize Voltage		2.0			V	
Coil De-Energize Voltage				8.0	V	
Coil Inductance at 120Hz			75		mH	
Cycle Life				32	Million	

SPECIFICATIONS	Symbol	Min	Typical	Max	Unit	Note
Flow & Delta Pressure Characteristics						
Overpressure Package	O_{vp}			2500	Pa	
Package Leakage at O_{vp}				1	ccm	
Valve Leakage at 1inH20				3	ccm	
Valve Flow at 1inH20		30			ccm	

Reference Conditions: Vsupply: 1.5mA , Ta=25˚C.

1. All specification at reference conditions unless otherwise noted. Output is ratio metric to supply voltage.
2. ½ Terminal Base Non Linearity (Measured at 0, 50% and 100% FS).
3. Deviation between 25˚C and 75˚C expressed as percentage of reading at 25˚C.

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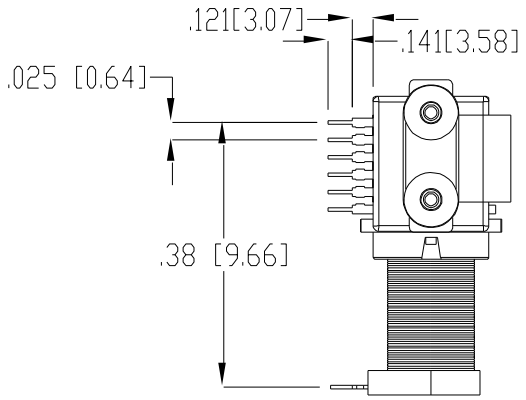
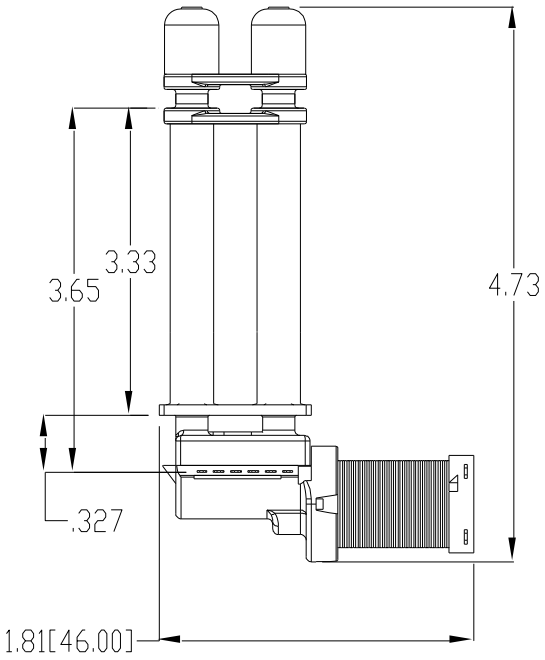
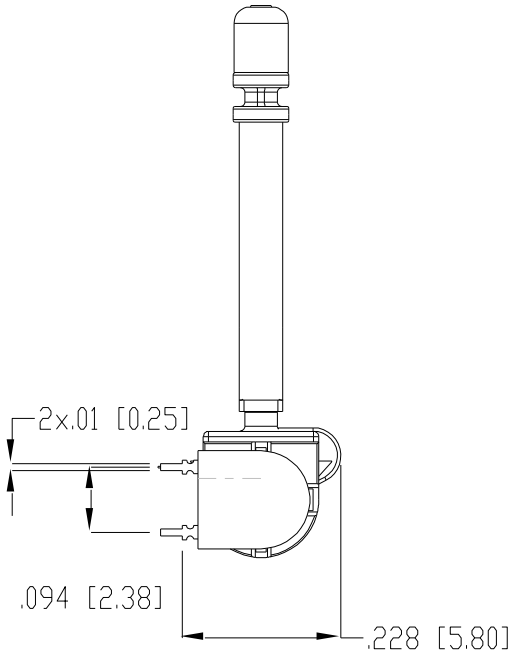
MECHANICAL DIMENSIONS in [mm]







PART NUMBERING FOR ORDERS

Series	Port Style	Pressure Range	Pressure Units
DVAV-1000	DCAZ=Digital Controlled Auto Zero	001	W=inH20

Part Number Example: DVAV-1000 DCAZ001W

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.