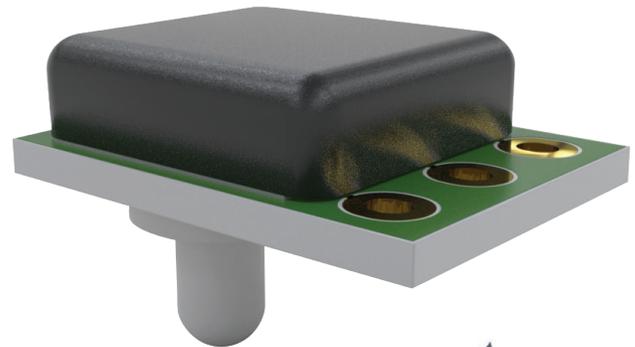




Fully Compensated TVC Series

The TVC Series is a fully compensated harsh-media, pressure-sensor package designed to handle today's toughest pressure-sensing environments with temperatures between -40°C and 150°C.

The unique pressure port isolates onboard electronics, and the three wetted materials—silicon, glass, and ceramic—enable the TVC Series to withstand a variety of harsh media, such as fuel. The only thing needed to operate the TVC Series is a single 5.0VDC supply—no external components required.



FEATURES

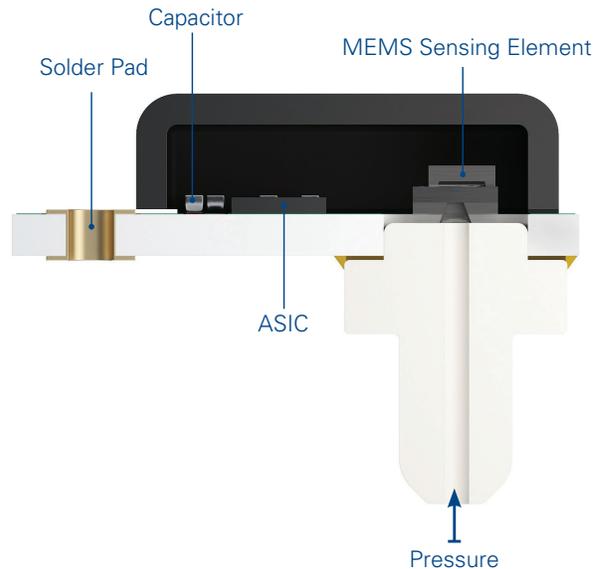
- Pressure Range** 15 to 300 psi / 1 to 21 bar / 103 to 2,068 KPa
- Temperature Range** -40°C to 150°C
- Type** Absolute or gage
- Packaging** Tape and reel

APPLICATIONS

Industrial: The TVC Series is used to monitor HVAC systems, water levels, water pressure, and processes. It is also used for air-conditioning and other refrigerant systems, portable-measurement and analysis instrumentation, and industrial automation.

Automotive: The TVC Series is used to monitor the pressure of transmission fluid, fuel systems, oil systems, EGR systems, exhaust gas, etc.

Medical: The TVC Series is used in equipment for diagnosis and analysis.



Features	Min.	Typ.	Max.	Unit	Notes
Electrical					
Supply Voltage (Vdd)	4.5	5	5.5	Volts	
Supply Current			10	mA	
Output Current			2.5	mA	
Short Circuit Current	-25		25	mA	
Reverse Polarity Protection	-33			Volts	Device will cease operation during supply voltage fault.
Overvoltage Protection			33	Volts	Device will cease operation during supply voltage fault.
ESD	>4			kV	Human body model 1.5kOhm/100pF.
Performance					
Output Range (Vout)	10		90	%Vdd	
Output Clamping Limit (Vout)	5		95	%Vdd	
Resolution		0.03		%FS	12 bit DAC
Accuracy	-2.5	0	2.5	% FS	Accuracy includes all error for hysteresis and linearity over the entire operating temperature range. It does not include lifetime drift. -40°C to 150°C.
Static Proof Pressure		2X FS		PSIA	
Burst Pressure		3X FS		PSIA	
Lifetime Drift			0.5	%FS	
Repeatability			0.25	%FS	
Environmental					
Operating Temperature	-40		150	°C	
Storage Temperature	-55		150	°C	

TVC Series Part Number Configurator

TVC-XXXX X

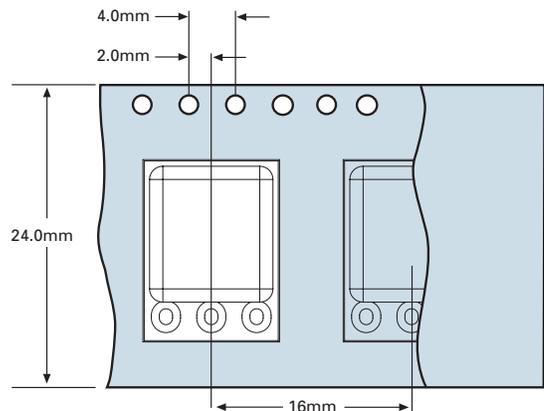
Full-Scale Pressure

0015 = 15 psi
 0030 = 30 psi
 0100 = 100 psi
 0300 = 300 psi

Pressure Type

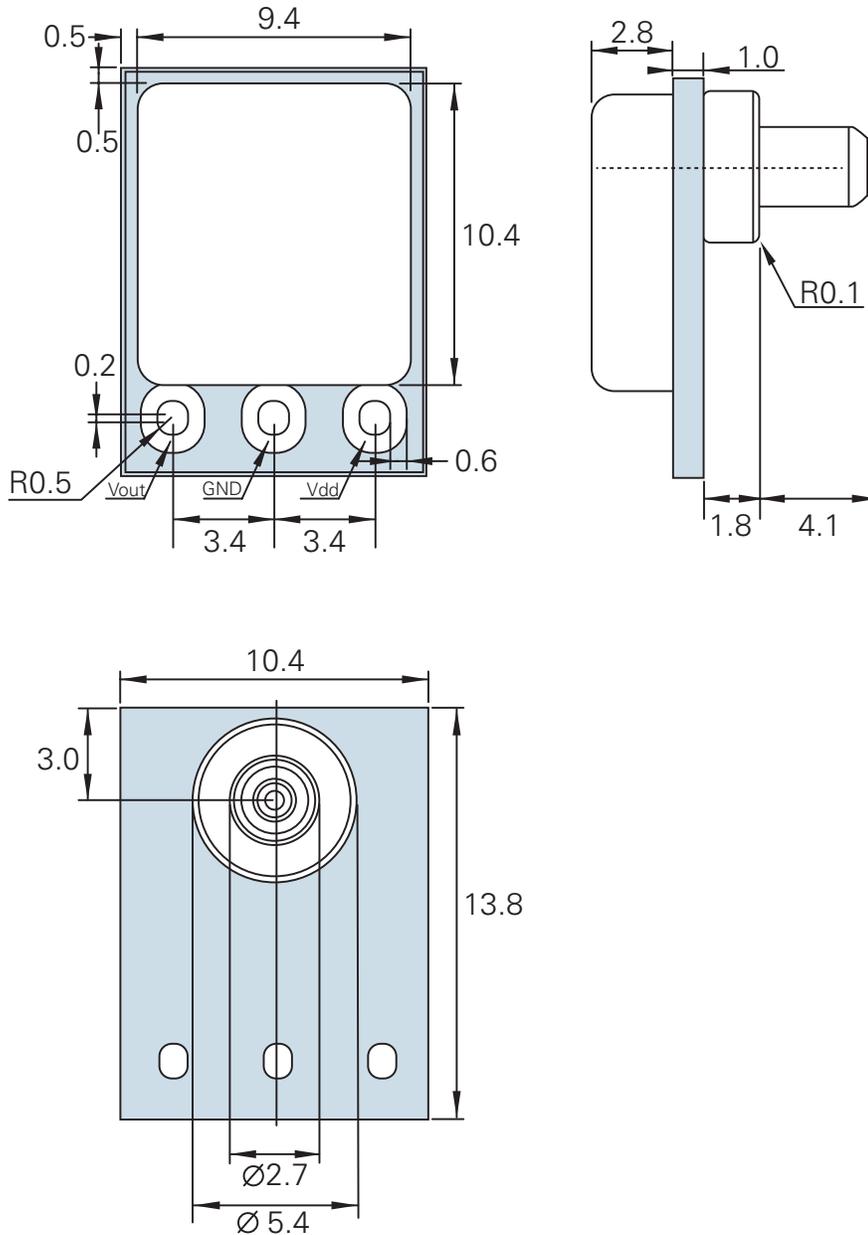
A = Absolute
 G = Gage

PACKAGING AND SHIPPING



DIMENSIONS FOR STANDARD PACKAGING OPTIONS (in millimeters)

Dimensions for reference only.
Engineering drawings (with tolerance) available upon order.





Merit Sensor owns and operates a MEMS wafer fab, which enables the production of customized piezoresistive pressure sensors for medical, industrial, and automotive applications. We help you get to market quickly with creative and flexible solutions and provide prompt, personal, and professional customer support.

