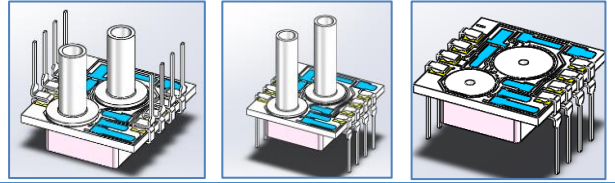


The MCT 4-20mA Series
Dual In Line Package
PCB Mounted 4-20mA Output



DESCRIPTION

Advanced Sensors Multi Chip Technology (MCT) 4-20mA Series incorporates the latest mixed signal ASIC (Application Specific Integrated Circuit) with a bonded silicon gage to provide a 2 wire 4-20mA loop output for remote level measurement in process control industries. The designs superior performance provides 1% Total Error across a wide temperature range of -10 to 85 °C. With all the advanced features, the MCT 4-20mA series is the ideal choice for OEM customers.

APPLICATIONS

- Liquid Level Measurement Propane
- Factory Automation
- Process Controls

FEATURES

- 2 Wire 4-20mA Loop Power
- PCB Mounted, Transmitter
- High Accuracy
- Low Overall Errors, 1%TEB
- Many Port Configurations
- Custom Outputs and Ranges Available

SPECIFICATIONS	Symbol	Min	Typical	Max	Unit	Note
Performance Specifications						
Pressure Accuracy		-0.25		0.25	mA	2
Total Error Band	TEB	-1.0		1.0	%FSS	3
Long Term Stability			±0.4		%FSS	
Output DAC				12	bits	
Conversion Time			1.0		mS	4
Power On to Valid Data				<10	mS	5
Life		1kk			cycles	
Weight				120	grams	
Compensated Temperature		-20 to 85			°C	6
Operating Temperature		-40 to 125			°C	

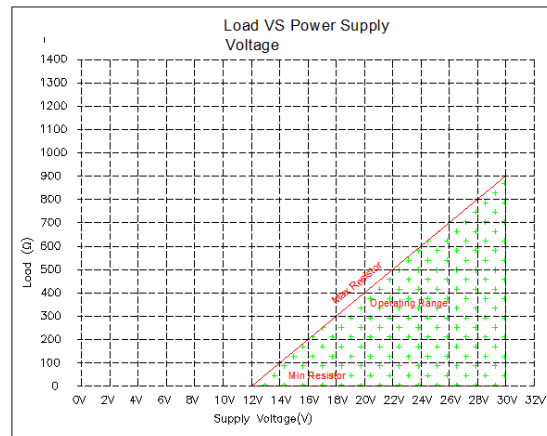
SPECIFICATIONS	Symbol	Min	Typical	Max	Unit	Note
Absolute Maximum Conditions						
Supply Voltage		-16		35	V	
Storage Temperature		-50		150	°C	
Burst Pressure				3x	Range	
Wetted Materials		Ceramic, RTV, Glass Silicon				

Reference Conditions: Vsupply: Table Below, Ta=25° C.

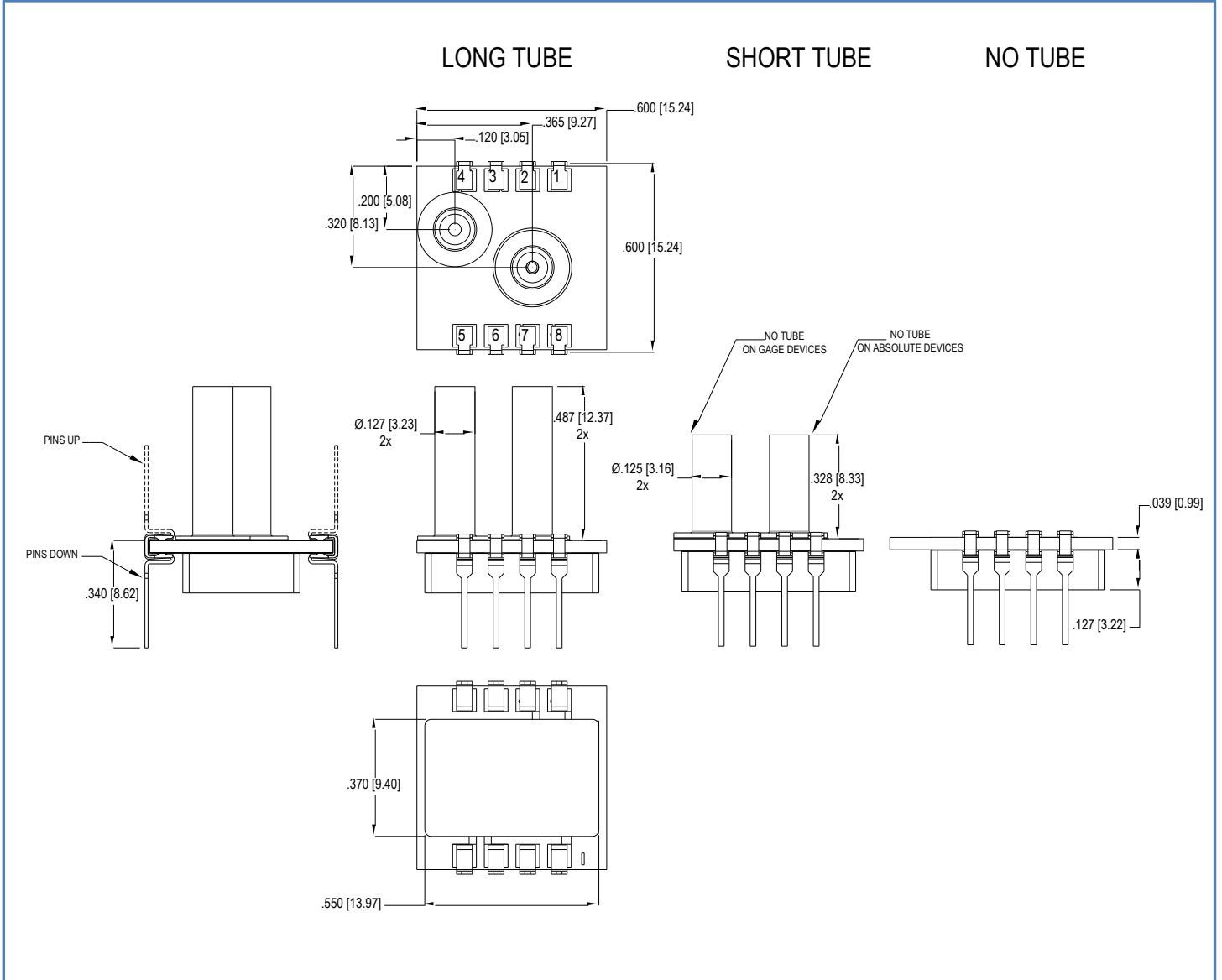
1. All specification at reference conditions unless otherwise noted.
2. Maximum deviation from a Best Fit Straight Line through Pmin and Pmax measured at 25°C. Errors included Pressure Non Linearity, Pressure Hysteresis and Repeatability.
3. Maximum deviation from the Ideal Transfer Function expressed 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.
4. The time for the output DAC to be updated with new data.
5. The time for the output DAC to have valid data after a power on reset.
6. Exceeding Absolute Maximum Specification may damage the device. Extended exposure beyond the operating conditions may affect device reliability.

Transmitter Output	Current
Electrical Output Type	4-20mA
Supply Voltage (Vsupply)	24
Operating Voltage	10-28
Current Consumption	--
Span (FSS)	16.0
Output Load	-
Reverse/Overvoltage Protection	Yes

Table 1. Load Resistance vs Supply Voltage



MECHANICAL DIMENSIONS in [mm]



PART NUMBERING FOR ORDERS

Series	Port Type	Package	Pressure Range	Pressure Units	Pressure Type (Range Availability) [Package Availability]	Output Type	
MCT 4-20	VHD=Vertical Hole, Dual	T= DIL Thru Hole	005	M=mBar	G= Gage (All Ranges) [All Port Types]	5=4-20 mA	
			010				
			020				
			050				
			100				
	200						
	HBD=Horizontal Barb, Dual		A=Absolute (All Ranges) [All Port Types]				
				001	P=PSI		B=Bidirectional (All Ranges) [All Port Types]
				002			
				005			
				015			
	030						
	VBT=Vertical Barb, Top		050				
				100			
				150			
HBO=Horizontal Barb, Opposing	001	B=Bar					
			002				
			003				
HBT=Horizontal Barb, Top	006						

Part Number Example: MCT 4-20 VBT T 005PG55

Vertical Barbed Top Port, J Leaded SMT Package, 0 to +5 PSI Range, 4-20mA Output Type

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.