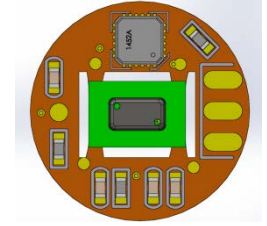


FRT-1 Series

FR4 Disc

High Level Analog, Fully Compensated
High Accuracy, OEM Assembly



DESCRIPTION

Advanced Sensors Fiberglass Reinforced Technology (FRT) 1 Series incorporates a rugged silicon MEMS pressure sensor that is designed to measure barometric pressures within a small FR4 footprint. The sensor outputs a proportional voltage from 0.5 to 4.5V_{ddc} within barometric pressure of 800 to 1100mBar. The sensor incorporates an application specific integrated circuit (ASIC) with a full analog path that ensures a wide dynamic output can be monitored at 15kHz in high speed train applications. The sensor is highly accurate with total errors less than 0.20% TEB over a wide temperature range. The sensor is ideal for many barometric applications where high accuracy and full bandwidth are needed .

APPLICATIONS

- High Speed Trains
- High Accuracy Weather Station
- OEM Custom Product

FEATURES

- 0.5 to 4.5V_{ddc} Output
- Wide Temperature Range
- Highly Accurate, 0.20% TEB
- Absolute Pressures
- ±16V_{dc} Voltage Protection
- Small FR4 Footprint

SPECIFICATIONS

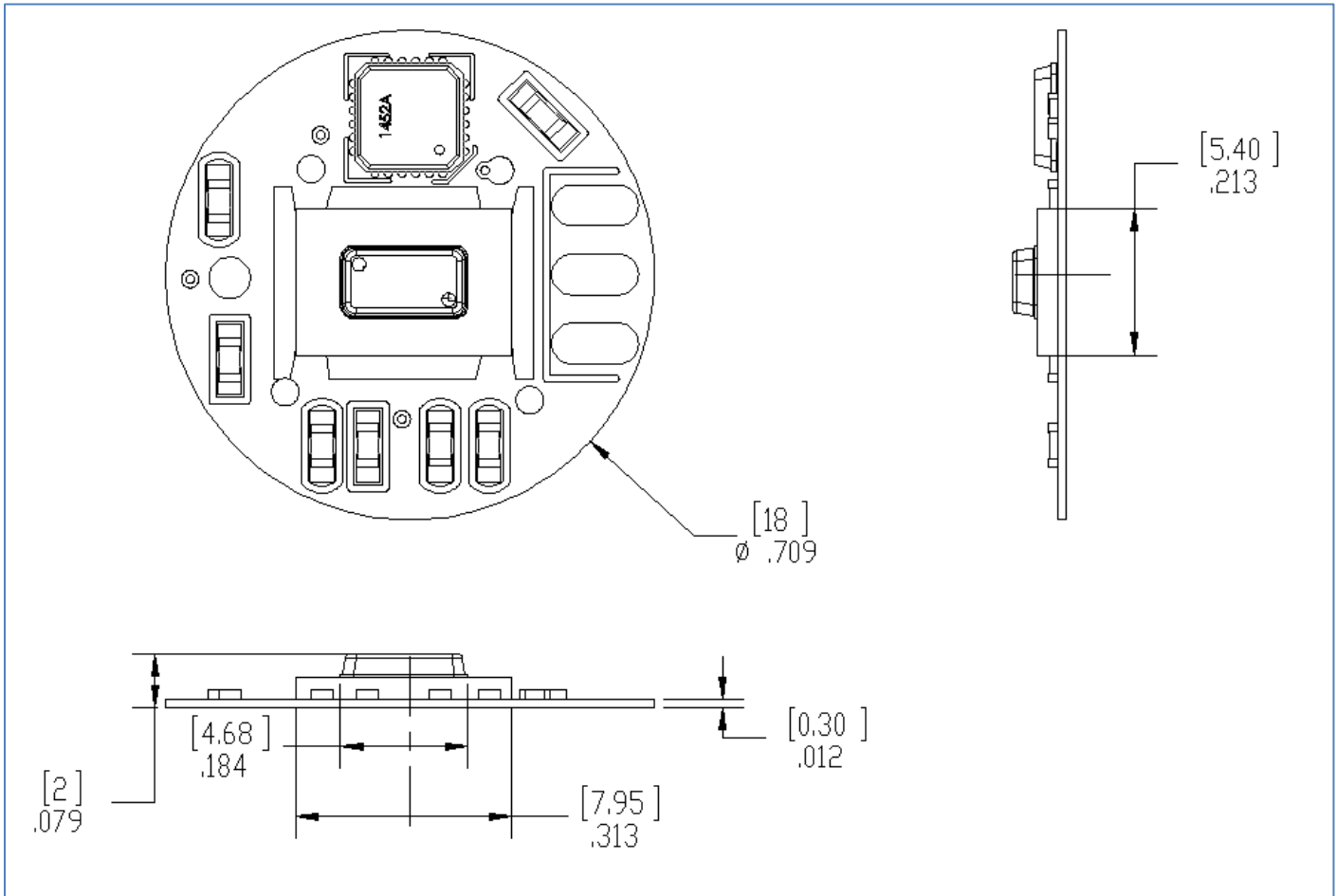
	Symbol	Min	Typical	Max	Unit	Note
Performance Specifications						
Supply Voltage		4.5	5.0	5.5	V _{dc}	1
Supply Current			3.2		mA	
Input Pressure Range		800		1100	mBar A	
Output Voltage at 800mBar			0.5		V _{dc}	
Output Voltage at 1100mBar			4.5		V _{dc}	
Accuracy, Total Error Band		-0.20	0.12	0.20	%FSS	2
Compensated Temperature Range		-20		50	°C	
Operating Temperatures			-40 to 100		°C	

SPECIFICATIONS	Symbol	Min	Typical	Max	Unit	Note
Absolute Maximum Conditions						
Supply Voltage				6	V	
Storage Temperature		-40		125	°C	
Media Compatibility		CDA, Non Ionic, Non Corrosive Gases				

Reference Conditions: Vsupply: 5.00Vdc, Ta=25°C. .

1. All specification at reference conditions unless otherwise noted. Output is ratio metric to supply voltage.
2. Total errors over the Input Pressure Range and within the Compensated Temperature Range. Errors include calibration errors, hysteresis, pressure nonlinearity and temperature errors with the compensated temperature range.

MECHANICAL DIMENSIONS in [mm]



PART NUMBERING FOR ORDERS

Series	Port Style	Pressure Range	Options
FRT-1	CR= Circular FR4 Disc	00= 800-1100 01= 600-1100 02= 800-1300 04= 600-1300	-C4 = 4M Cable

Part Number Example: RFT-1CR01**600-1100 mBar, Circular FR4 Disc, no cable****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.