

Flow Sensor Options

Pressure Sensor Part Number	Pressure Range	Vs Power Requirements	Vout Range	Pressure Equation	Orifice Size*	PTFCC L/(min kPa)	Comments	No Sensor Test		Sensor Test	
								0 L/min	90 L/min	0 L/min	90 L/min
MP3V5004DP	0-3.92 kPa	3.000 VDC	0.6-3.0 VDC	DeIP = Vout/0.6 -1.0	0.63924"	45.000	This part is extremely cheap and application fit	0.600V	3.000V	open	16.250"
MPXV7002DP	-2 to 2 kPa	5.000 VDC	0.5-4.5 VDC	DeIP = Vout - 2.5	0.90405"	63.639	Bidirectional for monitoring inhale and exhale.	2.500V	4.500V	open	8.125"
MP3V5010DP	0-10 kPa	3.000 VDC	0.24-2.94 VDC	DeIP = [Vout/3.0 - 0.08]/0.09	0.4043"	28.460	This sensor creates a 1.5 psi drop across the meter	0.240V	2.94V	open	40.25"
SM9333	-125 to 125 Pa	3.3 VDC	I2C, -26,215-26214	DeIP = Counts*125/26215	NA	NA	Nice sensor but no orifice was determined	-	-	-	-
SM9336	-250 to 250 Pa	3.3 VDC	I2C, -26,215-26214	DeIP = Counts*125/26216	NA	NA	Nice sensor but no orifice was determined	-	-	-	-

\* = Full Scale output at 90 liters/min

Vout = the sensor output read by the Arduino corresponding to pressure measured

Vs = the source voltage supply for the sensor.

Sensor test is a water column of this height in the tube connected to the sensor

Once Pressure is known:

Flow (liters/Min) = MF \* PTFCC \* (DeIP)^0.5

MF = 1.000 or as required to calibrate the flow meter.