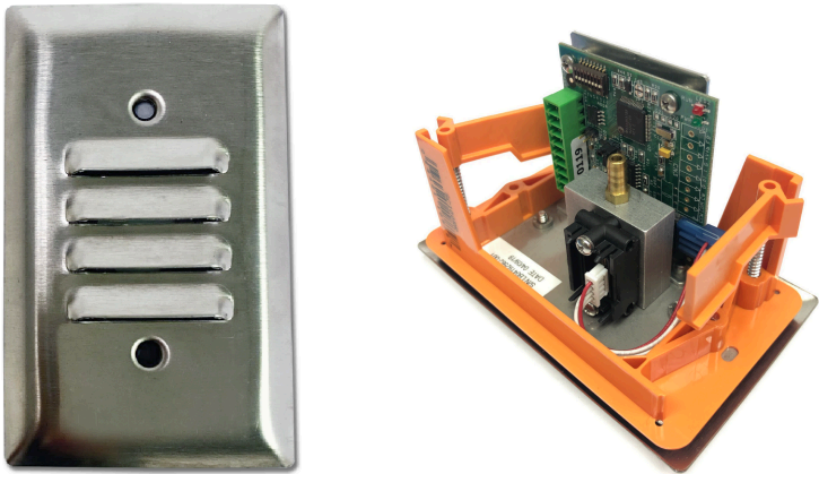
Room Differential Pressure Sensor Data Sheet

Description

Figure 1: Room Differential Pressure Sensor



The Room Differential Pressure Sensor is a mass air flow sensor designed to measure the pressure differential between reference space and monitored space.

The integrated patented CMOSens technology combines sensor element, signal processing, and digital calibration on a single, fourth-generation silicon microchip for high performance. The chip is highly sensitive; it requires only a small amount of air flow for high accuracy readings.

To create a safe critical environment, the Room Differential Pressure Sensor has fast response times, within 4.6 ms, which ensures proper room differential pressure is maintained. When compared to membrane-based sensors, the sensor has a superior dynamic range and long-term stability. Each sensor comes with a five-point calibration certificate.

Features

- Digitally processes pressure
- Fast response times
- Analog output to pressure signal
- Simple hook up to controller
- No offset drift
- Excellent repeatability
- Low profile, usually installed above a door

Performance data

Table 1: Performance data

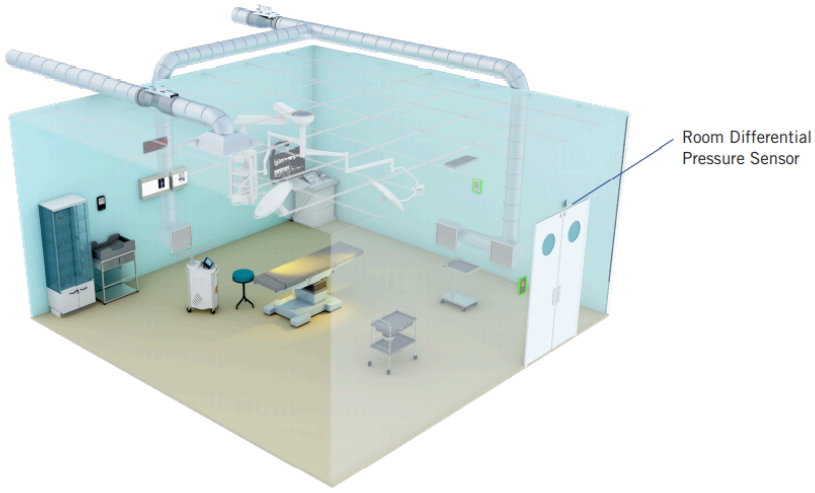
Parameter	Measurement
Measurement Range	-0.25 to +0.25 in. W.C. (-62 Pa to +62 Pa)
Temperature Compensation	Yes
Resolution	16 bits preset
Zero Point Accuracy	0.0004 in. W.C. (0.1 Pa)
Span Accuracy	3% of reading
Zero Point Reliability	0.0002 in. W.C. (0.05 Pa)
Span Repeatability	0.5% of reading
Offset Shift Due to Temp Variation	None (less than resolution)
Span Shift Due to Temp Variation	<0.5% of reading per 10° C
Response Time	4.6 ms typical at 12-bit resolution

Note: It is best practice for air flow sensors to follow an annual calibration schedule, or as needed by your particular industry, to mitigate sensor degradation and performance loss. For calibration re-certification, contact Service@Triatek.com

Table 2: Terminal block description

Terminal	Description
+Vin	Power input range: 24 VAC or 24 VDC
-Vin	
Vo	Sensor output range: 0 VDC to 5 VDC
Io	Sensor output range: 4 mA to 20 mA for +/-.25 in. W.C. (62.21 Pa)
+Vs	Door switch (dry contact)
IN	
GND	Ground for power and signal
-(RS485)	Serial communication at 2400 baud rate
+(RS485)	

Figure 2: Room Differential Pressure sensor placement



Note: For installation instructions, refer to the installation guide that correlates to the specific system you use.

Part number guide

Table 3: Part number guide

Sensor	Applicable to products
FMS-RMT-Sensor	FMS-2000M, FMS1655, FMS1655M, FMS1655L, all other controllers and monitors.

Product warranty

This product is covered by a limited warranty, details of which can be found at www.johnsoncontrols.com/buildingswarranty.

Software terms

Use of the software that is in (or constitutes) this product, or access to the cloud, or hosted services applicable to this product, if any, is subject to applicable end-user license, open-source software information, and other terms set forth at www.johnsoncontrols.com/techterms. Your use of this product constitutes an agreement to such terms.

Patents

Patents: https://jcipat.com

Single point of contact

APAC	EU	UK	NA/SA
JOHNSON CONTROLS C/O CONTROLS PRODUCT MANAGEMENT NO. 32 CHANGJIANG RD NEW DISTRICT WUXI JIANGSU PROVINCE 214028 CHINA	JOHNSON CONTROLS VOLTAWEG 20 6101 XK ECHT THE NETHERLANDS	JOHNSON CONTROLS TYCO PARK GRIMSHAW LANE MANCHESTER M40 2WL UNITED KINGDOM	JOHNSON CONTROLS 5757 N GREEN BAY AVE. GLENDALE, WI 53209 USA

Contact information

Contact your local Johnson Controls representative: www.johnsoncontrols.com/locations

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