



SPD110/SPD160

Differential pressure transmitter Air
0–10 V

D-60-80

28 Feb 2005

SPD110 / SPD160 Differential pressure transmitters are intended for use in air handling systems for the monitoring of air ducts, filters and fans.

SPD110 / SPD160 are electronic differential pressure transmitters that convert the differential pressure measured into an electric 0–10 V signal.

SPD160 has a LCD display, showing the differential pressure in Pa

SPD110 / SPD160 are delivered with 2 m tube and two plastic duct connectors.

Medium: air and non-aggressive gases.



TECHNICAL DATA

Part number see table
Range see table
Max. pressure 10 x range
Signal output 0–10 V
Power 24 VAC $\pm 10\%$ / 15–36 VDC
Load resistance $> 50 \text{ k}\Omega$
Current consumption, typical 15 mA

Accuracy (linear output) $\leq 1\% \pm \text{FS}$
0–100 Pa $\leq 2\% \pm \text{FS}$
Linearity incl. temperature and hysteresis $\leq 2.5\% \pm \text{FS}$
0–100 Pa $\leq 5\% \pm \text{FS}$
Accuracy at ambient temp. of 25°C/UG = 24 V .. $\leq \pm 0.4\% \text{FS}$

Ambient temperature:

Operation $-20 \text{ to } 60^\circ\text{C}$ ($-4 \text{ to } 140^\circ\text{F}$)

Storage $-30 \text{ to } 85^\circ\text{C}$ ($-22 \text{ to } 185^\circ\text{F}$)

Load change $< 10 \text{ Hz}$

Response time $< 10 \text{ ms}$

Materials:

Connection box polyamid plastic

Mebran silicon

Duct connections ABS

Tubing PVC, soft

Enclosure rating IP 65

Weight 150 g (0.33 lb.) with accessories 350 g (0.77 lb.)

Standards:

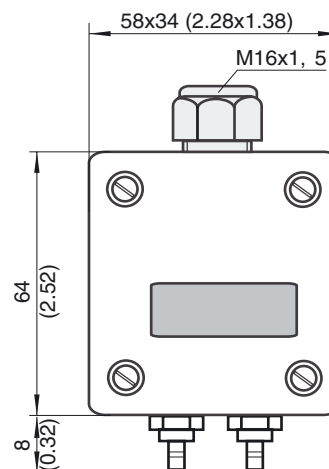
EMC EN 50081-1, EN 50082-1

Connections:

Cabel entry PG9

Pressure Male $\varnothing 5 \text{ mm}$ (0.20 in)

Dimensions in mm (in.)



PART NUMBERS

Part number	Description	Disply	Range	
			Pa	In. H2O
0-047-0002-0	SPD110-100Pa	No	0-100 Pa	0 – 0.39
0-047-0004-0	SPD110-300Pa	No	0-300 Pa	0 – 1.17
0-047-0006-0	SPD110-500Pa	No	0-500 Pa	0 – 1.95
0-047-0008-0	SPD110-1000Pa	No	0-1000 Pa	0 – 3.90
0-047-0010-0	SPD110-1200Pa	No	0-1200 Pa	0 – 4.68
0-047-0012-0	SPD110-2500Pa	No	0-2500 Pa	0 – 9.75
0-047-0014-0	SPD110-5000Pa	No	0-5000 Pa	0 – 19.50
0-047-0016-0	SPD160-300Pa	Yes	0-300 Pa	0 – 1.17
0-047-0018-0	SPD160-500Pa	Yes	0-500 Pa	0 – 1.95
0-047-0020-0	SPD160-1000Pa	Yes	0-1000 Pa	0 – 3.90
0-047-0022-0	SPD160-2500Pa	Yes	0-2500 Pa	0 – 9.75

FUNCTION

The pressure transmitter has two separate pressure chambers, each with its own connection.

Vacuum monitoring

Connect the pressure transmitter via P2. Do not connect P1. Leave P1 open, see figure 1. Make sure that dirt cannot get into P1.

High pressure monitoring

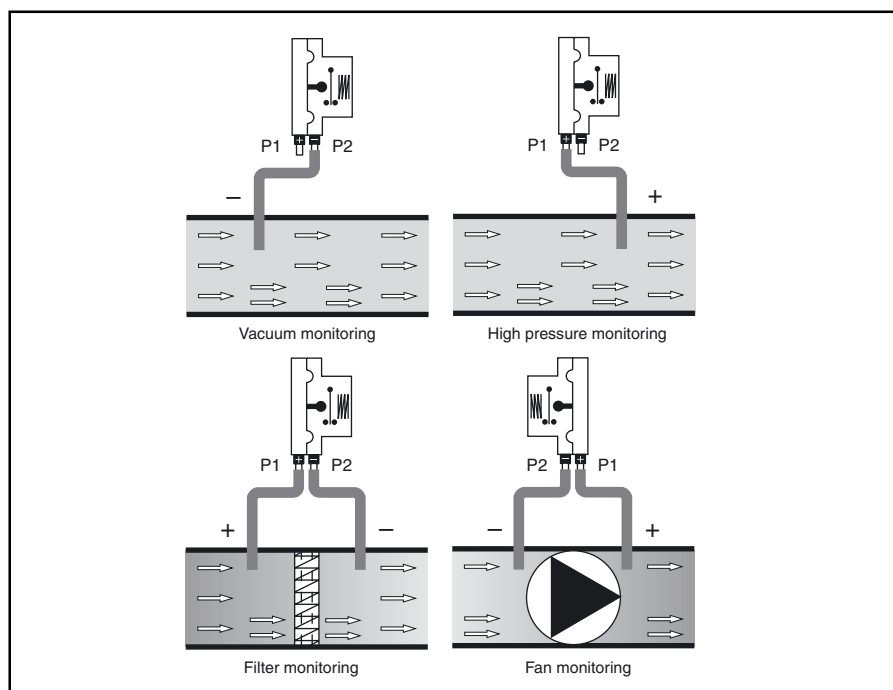
Connect the pressure transmitter via P1. Do not connect P2. Leave P2 open, see figure 1. Make sure that dirt cannot get into P2.

Filter monitoring

Connect P1 before the filter and P2 after it, see figure 1.

Fan monitoring

Connect P1 after the fan (in blowing direction) and P2 before the fan, see figure 1.

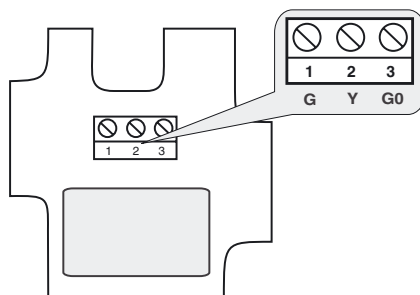


P1 = High pressure, P2 = Low pressure

MOUNTING

Note! Condensate must not run into the pressure transmitter, as it might break during freezing temperatures.

WIRING



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