

Series 10-PSE540

Remote Type Pressure Sensor/For Compact Pneumatic Pressure

How to Order

Pressure sensing range		Accuracy	
0	Positive pressure [0 to 1 MPa]	Nil	±2% F.S.
1	Vacuum [0 to -101 kPa]	A	±1% F.S.
3	Compound pressure [-100 to 100 kPa]		



10 — **PSE54** **1** **M3**

• Clean series

Port size

M3	M3 x 0.5		IM5	M5 female thread, through type	
M5	M5 x 0.8		IM5H	M5 female thread, through type (with mounting hole)	
01	R 1/8 (with M5 female thread)				
N01	NPT 1/8 (with M5 female thread)				
R04	ø4 reducer				
R06	ø6 reducer				

Option (connector)

Nil	C2
Without connector	Connector for pressure sensor controller 1 pc.

Note) At the factory, the connector is not connected to the cable, but packed together with it for shipment.

Option/Part No.

Description	Part no.	Note
Connector for pressure sensor controller	10-ZS-28-C	1 pc.

Specifications

Refer to the SMC website for Pressure Switches Precautions (M-E03-3) and Specific Product Precautions (Operation Manual).

Model	10-PSE540	10-PSE541	10-PSE543
Rated pressure range	0 to 1 MPa	0 to -101 kPa	-100 to 100 kPa
Extension analog output range	-0.1 to 0 MPa	10.1 to 0 kPa	—
Proof pressure	1.5 MPa	500 kPa	
Applicable fluid	Air/Non-corrosive gas/Non-flammable gas		
Power supply voltage	12 to 24 VDC±10%, Ripple (p-p) 10% or less (with power supply polarity protection)		
Current consumption	15 mA or less		
Output specification	Analog output 1 to 5 V (with rated pressure range), 0.6 to 1 V (with extension analog output range), Output impedance: Approx. 1 kΩ		
Accuracy (Ambient temperature at 25°C)	10-PSE54□: ±2% F.S. (with rated pressure range), ±5% F.S. (with extension analog output range) 10-PSE54□A: 1% F.S. (with rated pressure range), ±3% F.S. (with extension analog output range)		
Linearity	±0.7% F.S. or less		±0.4% F.S.
Repeatability		±0.2% F.S.	
Power supply voltage effect		±0.8% F.S.	
Environment	Enclosure	IP40	
	Operating temperature range	Operating: 0 to 50°C, Stored: -20 to 70°C (No freezing or condensation)	
	Operating humidity range	Operating/Stored: 35 to 85% RH (No condensation)	
	Withstand voltage	1000 VAC (in 50/60 Hz) for 1 minute between terminals and housing	
Insulation resistance	50 MΩ or more (500 VDC measured via megohmmeter) between terminals and housing		
Temperature characteristics	±2% F.S. (Based on 25°C)		
Sensor cable	Oilproof heavy-duty vinyl cable (ellipse), 3 cores, 2.7 x 3.2, 3 m, Conductor area: 0.15 mm ² , Insulator O.D.: 0.9 mm		
Standards	CE, UL/CSA (E216656), RoHS		
Cleanliness class (ISO class)	Class 4		

Piping Specifications

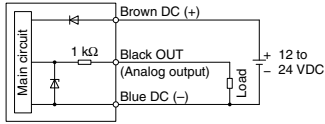
Model	M3	M5	1	N01	R04	R06	IM5	IM5H	
Port size	M3 x 0.5	M5 x 0.8	R 1/8 M5 x 0.8	NPT 1/8 M5 x 0.8	ø4 plug-in reducer	ø6 plug-in reducer	M5 female thread, through type	M5 female thread, through type with mounting hole	
Material	Case		Resin case: PBT Fitting: Stainless steel 303		Resin case: PBT Fitting: C3604BD		Resin case: PBT Fitting: A6063S-T5		
	Pressure sensing section								
Sensor cable									
3-wire oval cable (0.15 mm ²)									
Weight	With sensor cable		42.4 g	42.7 g	49.3 g	41.4 g	41.6 g	43.3 g	44.1 g
	Without sensor cable		2.9 g	3.2 g	9.8 g	1.9 g	2.1 g	3.8 g	4.6 g

Caution

This product is blown with air and double packed in a Class M3.5 (ISO Class 5) clean room.

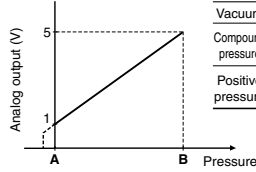
Internal Circuit

10-PSE54□
Voltage output type
1 to 5 V
Output impedance
Approx.1 kΩ



Analog Output

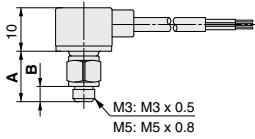
1 to 5 VDC



Range	Rated pressure range	A	B
Vacuum	0 to -101 kPa	0	-101 kPa
Compound pressure	-100 kPa to 100 kPa	-100 kPa	100 kPa
Positive pressure	0 to 1 MPa	0	1 MPa

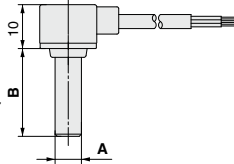
Dimensions

10-PSE54□-M3 M5



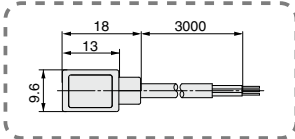
	10-PSE54□-M3	10-PSE54□-M5
A	10.8	11.5
B	3	3.5

10-PSE54□-R04 R06

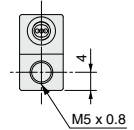
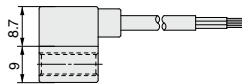


	10-PSE54□-R04	10-PSE54□-R06
A	ø4	ø6
B	18	20

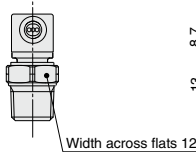
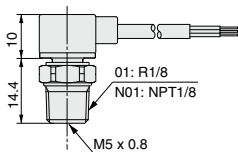
Common dimensions



10-PSE54□-IM5



10-PSE54□-01 N01



10-PSE54□-IM5H

