

# Pressure Sensor for General Fluids

**Rated pressure range** 0 to 2 MPa/0 to 5 MPa/0 to 10 MPa added

**Withstand voltage** 500 VAC  
 <Twice that of the PSE560>

**M12 connector**

**Enclosure: IP65**

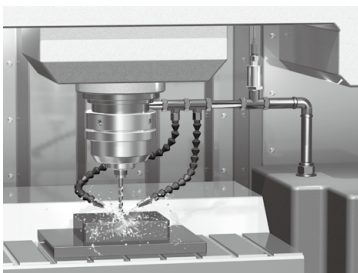
**Materials of Parts in Contact with Fluid**

Piping port*1	C3604 + Nickel plating
Pressure sensor*1	Al <sub>2</sub> O <sub>3</sub> (Alumina 96%)
Square ring	FKM

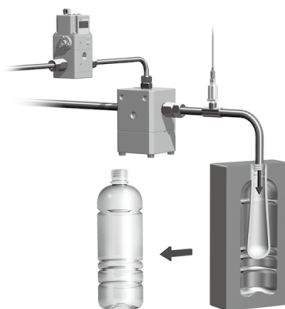
\*1: Stainless steel 316L is used for the PSE560.  
 For details, refer to the **WEB catalog**.



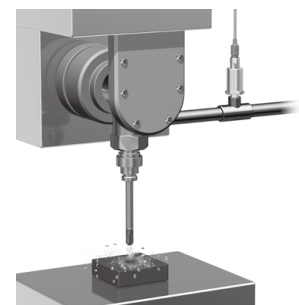
**Application Examples**



Liquid coolant pressure control






PET bottle molding machines



Liquid pressure control of gun drills

**Series Variations**

Series	Rated pressure range								Proof pressure
	-100 kPa	0	100 kPa	500 kPa	1 MPa	2 MPa	5 MPa	10 MPa	
PSE570			1 MPa						3.0 MPa
PSE573	±100 kPa								600 kPa
PSE574			500 kPa						1.5 MPa
 PSE575			2 MPa						5.0 MPa
 PSE576			5 MPa						12.5 MPa
 PSE577			10 MPa						30 MPa

For details, refer to the **WEB catalog**.

**PSE57**  **Series**



## How to Order



**PSE57** **7** - **02** -      

### Sensor range

<b>5</b>	Positive pressure (0 to 2 MPa)
<b>6</b>	Positive pressure (0 to 5 MPa)
<b>7</b>	Positive pressure (0 to 10 MPa)

### Port size

<b>02</b>	R1/4 (with M5 female thread)
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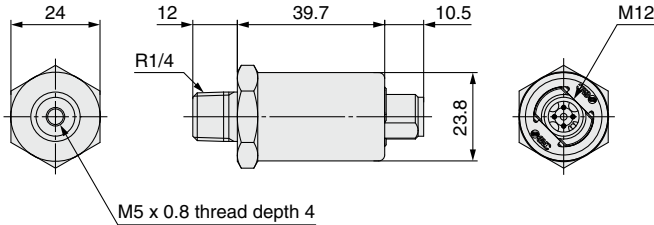
### Output specifications

<b>Nil</b>	Voltage output (1 to 5 V)
<b>28</b>	Current output (4 to 20 mA)

### Lead wire/Options

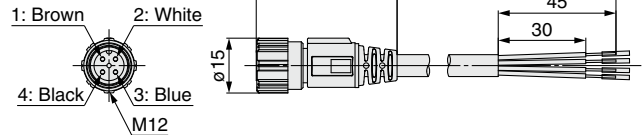
<b>Nil</b>	Lead wire and M12 connector (3 m), Straight
<b>L</b>	Lead wire and M12 connector (3 m), Right angle
<b>N</b>	None

## Dimensions [mm]

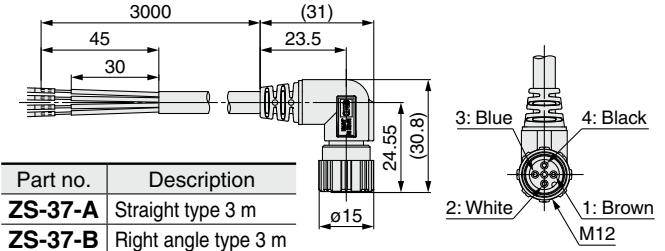


### Lead wire and M12 connector

#### ZS-37-A



#### ZS-37-B

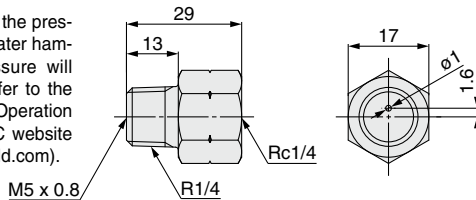


Part no.	Description
<b>ZS-37-A</b>	Straight type 3 m
<b>ZS-37-B</b>	Right angle type 3 m

### Adapter with restrictor

#### ZS-31-X175

\*: If it is expected that the pressure, such as the water hammer or surge pressure will fluctuate rapidly, refer to the Precautions in the Operation Manual on the SMC website (<http://www.smcworld.com>).



## Specifications

Model		<b>PSE575</b>	<b>PSE576</b>	<b>PSE577</b>
Pressure specifications	Rated pressure range	0 to 2 MPa	0 to 5 MPa	0 to 10 MPa
	Proof pressure	5 MPa	12.5 MPa	30 MPa
Temperature characteristics		±5% F.S. (25°C reference)		

Model		<b>PSE57□-02</b>	<b>PSE57□-02-28</b>
Fluid	Applicable fluid	Gas or liquid that will not corrode materials of parts in contact with fluid	
Electrical specifications	Power supply voltage	12 to 24 VDC ±10% with 10% voltage ripple or less	
	Current consumption	10 mA or less	
Protection		Reverse connection protection	
Analog output	Output	Analog output: 1 to 5 V	Analog output: 4 to 20 mA
		Output impedance: Approx. 1 kΩ	Maximum load impedance: 500 Ω or less (at 24 VDC) 100 Ω or less (at 12 VDC)
Analog output accuracy (Ambient temperature at 25°C)		±2.5% F.S.	
Linearity		±0.5% F.S.	
Repeatability		±0.5% F.S. (Ambient temperature at 25°C)	
Environment	Enclosure	IP65	
	Withstand voltage	500 VAC for 1 minute between terminals and housing	
	Insulation resistance	100 MΩ or more (500 VDC measured via megohmmeter) between terminals and housing	
	Operating temperature range	Operating: -10 to 60°C, Stored: -20 to 70°C (No freezing or condensation)	
	Operating humidity range	Operating/Stored: 35 to 85% RH (No condensation)	
Standards		CE, RoHS	

### Piping Specifications

Model		<b>02</b>
Port size		R1/4 M5 x 0.8
Materials of parts in contact with fluid		Piping port: C3604 + Nickel plating Pressure sensor: Al <sub>2</sub> O <sub>3</sub> (Alumina 96%) Square ring: FKM
Weight	Without lead wire and M12 connector	103 g
	With lead wire and M12 connector	Straight type   Right angle type 191 g

### Cable Specifications

Conductor	Nominal cross section	AWG23
	Outside diameter	0.72 mm
Insulator	Material	Cross-linked vinyl chloride
	Outside diameter	1.14 mm
	Color	Brown, Blue, Black, White
Sheath	Material	Oil resistant vinyl chloride
Finished O.D.		ø4
Length		3 m

**⚠ Safety Instructions** Be sure to read the "Handling Precautions for SMC Products" (M-E03-3) and "Operation Manual" before use.