

Pressure Switch



PS42 series

How to Order?

Series No.	Pressure Type	Output Type	Port Size
PS42 : Display digital pressure switch	P: -0.1MPa~1MPa V: -100kPa~0kPa C: -100kPa~100kPa	010: 2NPN+1 Analog output(1~5V) 020: 2PNP+1 Analog output(1~5V) 021: 2PNP+1 Analog output(4~20mA)	01: PT1/8+M5 02: G1/8+M5 03: NPT1/8+M5

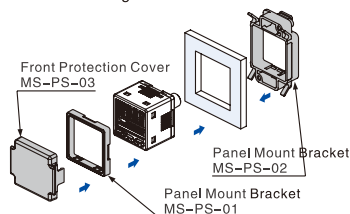
Specifications

Model	PS42P (Positive pressure)	PS42V (Vacuum pressure)	PS42C (Compound pressure)
Working pressure range		Standard pressure	
Regulating pressure range	-0.1~1.0 MPa	-100~0 kPa	100~100 kPa
Rated pressure range	-0.1~1.0 MPa	-100~0 kPa	100~100 kPa
Extended analog output range	1.5 MPa	500 kPa	500 kPa
Applicable fluid	Non-corrosive air		
Power supply voltage	12~24V DC $\pm$ 5%		
Current consumption	24V 27mA MAX or 12V 51mA MAX		
Comparative Output	NPN O.C output: 80mA/24V DC MAX or PNP O.C output: 80mA/24V DC MAX		
Digital output repeatability	$\pm$ 0.2% FS	$\pm$ 0.2% FS	$\pm$ 0.5% FS
Actuation response time	Different options by button operating 2.5ms, 5ms, 10ms, 25ms, 50ms, 100ms, 250ms, 500ms, 1000ms, 5000ms,		
Analog output	Voltage output	0.6~5V(or less)	1~5V(or less)
	Linearity: $\pm$ 1% FS; Output impedance: 1 K Ω		
	Current output	2.4~20mA(or less)	4~20mA(or less)
	Linearity: $\pm$ 1% FS Max. load impedance: 300 Ω (DC12V), 600 Ω (DC24V) Mini. load impedance: 50 Ω		
Outside input	NO		
Operating Temperature range	Operating: 0~50 $^{\circ}$ C; Stored: -10~60 $^{\circ}$ C(No freezing or condensation)		
Operating Humidity range	35~85%RH		
Temperature characteristics	$\pm$ 1% FS(25 $^{\circ}$ C)		
Protection Class	IP40		
Material	Case: Nylon + glass fiber Pressure hole: Hex brass nickle plated	LCD: LCD Propylene Seal: H-NBR	Switch: Silicone rubber
Dimensions	30 x 30 x 25mm(Rubber part) / 30 x 30 x 43mm(Including connector)		
Weight	About 80g(pressure gauge body + connector bracket)		
Standards	2M cable with Terminals		
Optional	amounting bracket 1pc		

Mounting Bracket(Optional)

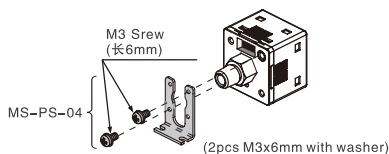
Name	Model	Description
Sensor Mount Bracket	MS-PS-04	The sensor mounting bracket is designed to be installed on the top or bottom of your device.
	MS-PS-05	Multiple sensors can be mounted side by side.
Panel Mount Bracket	MS-PS-01	Panel mount brackets are designed for installing the sensor on panels from 1mm~6mm thickness.
	MS-PS-02	
Front Protection Cover	MS-PS-03	Install the front protection cover on your device once you've completed installation of the panel mounting bracket and sensor mounting bracket.

Panel Mounting Bracket



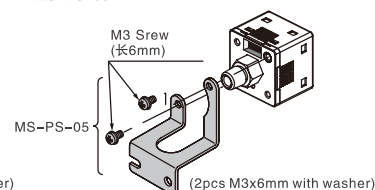
Sensor Mount Bracket

• MS-PS-04



Sensor Mount Bracket

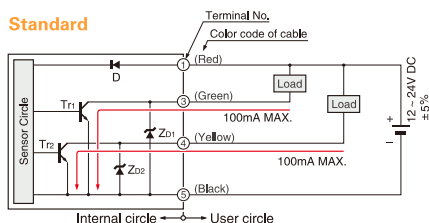
• MS-PS-05



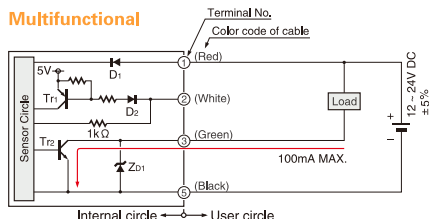
I/O Circuit and Wiring Diagrams

NPN Output Type

Standard

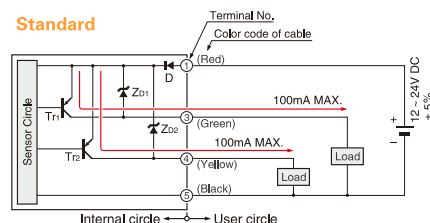


Multifunctional

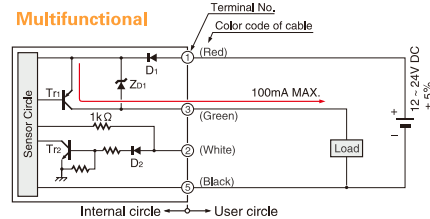


PNP Output Type

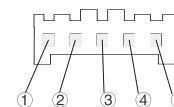
Standard



Multifunctional



Terminals

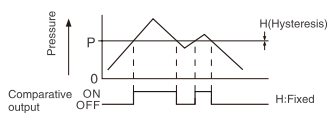


PIN NO.	Terminal Name
① Red	+V
② White	Analog Output
③ Green	Comparative Output 1
④ Yellow	Comparative Output 2
⑤ Black	0V

With 2 independent outputs and 3 output modes

① Easy Mode

Comparative Output ON/OFF Control Mode



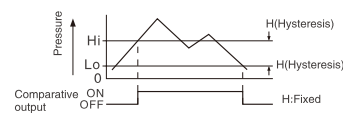
Note 1: Hysteresis can be set as 8 class

Note 2: Sub display in comparative output is 1, display "P-1" comparative output is 2: display "P-2"

②

Hysteresis mode

This mode is used for setting comparative output hysteresis to the desired level and for carrying out ON / OFF control

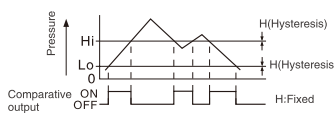


Note 1: "Hi-1" or "Lo-1" appears in the sub display for comparative output 1, and "Hi-2" or "Lo-2" appears for comparative output 2

③

Window comparator mode

This mode is used for setting comparative output ON and OFF at pressures within the setting range



Note 1: Hysteresis can be set as 8 class

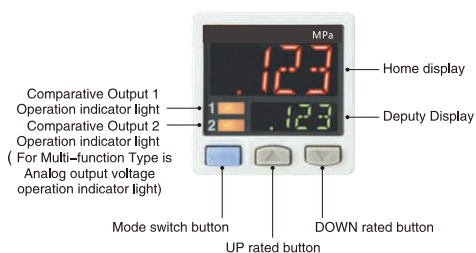
Note 2: "Hi-1" or "Lo-1" appears in the sub display for comparative output 1, and "Hi-2" or "Lo-2" appears for comparative output 2

External Specification

Menu Settings

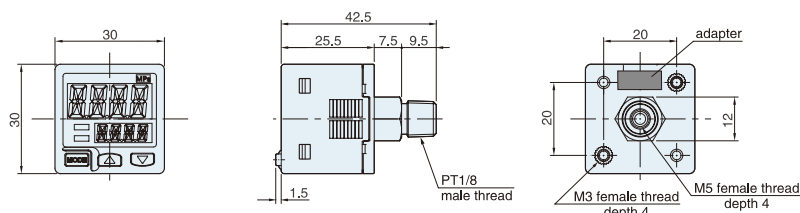
Under RUN mode, press the mode swith button continously 2 seconds, can automatically switch into mode for Menu setting.

If press the mode switch button long time, return to RUN mode. New setting works immediately.

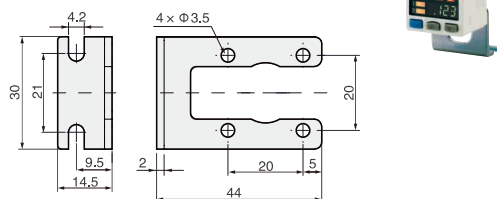


Setting items	Description
Comparative output 1 output mode setting	Setting Comparative output 1 output mode
Comparative output 2 output mode setting (standard type only)	Setting Comparative output 2 output mode
Analog voltage output / external input switching (high-function type only)	Automatically switching from analog voltage or reference input between remote zero input (only high-function type)
NO / NC switch	Setting normally open or normally closed
Reaction time setting	Setting reaction time
The home display section displays the color-switching	The home display unit can be switched colors
Unit switch (high pressure models only)	Switchable pressure units (Mpa and kPa)

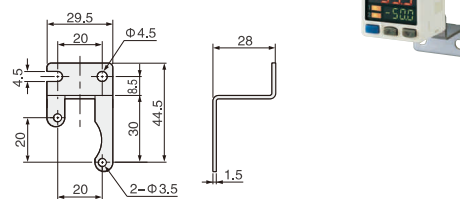
PS42P/V/C Sensor



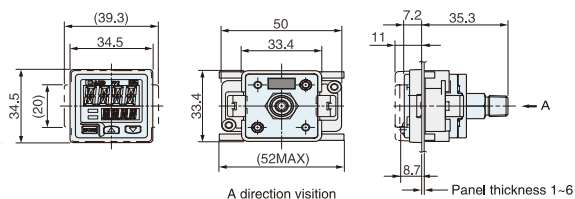
MS-PS-04 Sensor Mount adapter
(optional separately price)



MS-PS-05 Sensor Mount adapter
(optional separately price)



MS-PS-01	Panel Mount adaptor,Front Protection Cover (optional separately price)
MS-PS-02	
MS-PS-03	



Panel dimensions

Mount one panel

Slave-side sensor
continuous
installation N pcs

Master side sensor
continuous
installation N pcs

