

## Ordering Information

This is only for reference, the actual product does not support all combinations. For selecting the specified model, follow the Autonics website.

P S M ① - ② ③ ④

## ① No. of channels

4: 4 channels  
8: 8 channels

## ③ Control output

No mark: NPN open collector output  
P: PNP open collector output

## ② Sensor input

V: 1 - 5 VDC≐  
A: DC 4 - 20 mA

## ④ Option input/output

D: Digital input  
R: RS485 communication

## Pressure Sensor Indicators

PSM Series  
CATALOG

For your safety, read and follow the considerations written in the instruction manual, other manuals and Autonics website.

The specifications, dimensions, etc. are subject to change without notice for product improvement. Some models may be discontinued without notice.

## Features

- Display 8 (PSM8) or 4 (PSM4) channels of pressure value from pressure sensors
- Input range: 1 - 5 VDC≐, DC 4 - 20 mA (by model)
- Pressure sensor model auto recognition (Autonics PSS Series pressure sensors)
- Set PV display color by control output type (red/green)
- Individual output indicators for each channel
- RS485 (Modbus RTU) communication support
- Refrigeration pressure control mode
- Easy wiring and connection with sensor connectors (CNE)
- Power supply: 12 - 24 VDC≐ ±10%

## Product Components

- Product
- Bracket
- Instruction manual

## Specifications

Model	PSM4-□□□	PSM8-□□□
Display pressure range	Refer to 'Rated Pressure and Max. Pressure Display Range'.	
Max. inputs	4	8
Sensor input	<ul style="list-style-type: none"> <li>• 1 - 5 VDC≐ (Input impedance: ≈ 300 kΩ)</li> <li>• DC 4 - 20 mA model (Input impedance: ≈ 100 Ω)</li> </ul>	
Sensor supply power	12 - 24 VDC≐, 40 mA per channel (1 - 4 ch max. current: ≤ 100 mA, 5 - 8 ch max. current: ≤ 100 mA)	
Display type	7 Segment LED 4 digit	
Display accuracy	±0.1% F.S. ±2 digit (at 23 ±5 °C)	
Control output and display temp. characteristic	-10 to 0 °C: ±0.3% F.S. ±2 digit 0 to 50 °C: ±0.2% F.S. ±2 digit (at 25 °C)	
Option input	Digital input 1	
Contact input	[L]: ≤ 0.2 V	
Solid state input	Residual voltage ≤ 1.0 V, Leakage current ≤ 0.1 mA	
Protection structure	Front: IP65, the others: IP30 (IEC standard)	
Approval	CE ENEC	
Unit weight (packaged)	≈ 65 g (≈ 108 g)	
Power supply	12 - 24 VDC≐ ±10% (ripple P-P: ≤ 10%)	
Power consumption	≤ 3 W	
Current consumption	≤ 100 mA <sup>01)</sup>	
Control output	NPN open collector output / PNP open collector output model	
Load voltage	≤ 30 VDC≐	
Load current	≤ 100 mA	
Residual voltage	NPN: ≤ 1 VDC≐, PNP: ≤ 2 VDC≐	
Hysteresis	Different by output operation mode <sup>02)</sup>	
Repeat error	±0.1% F.S. ±Min display interval	
Response time	<ul style="list-style-type: none"> <li>• 4 CH model: 2.5, 100, 500, 1000 ms</li> <li>• 8 CH model: 5, 100, 500, 1000 ms</li> </ul>	
RS485 comm.	Modbus RTU	
Protection circuit	Output short over-current protection circuit, power supply reverse connection protection circuit	
Insulation resistance	≥ 100 MΩ (500 VDC≐ megger)	
Dielectric strength	Between power terminal and case: 1,000 VAC~ 50 / 60 Hz for 1 min Between power terminal and RS485 terminal: 500 VAC~ 50 / 60 Hz for 1 min	
Vibration	1.5 mm amplitude at frequency of 10 to 55 Hz (for 1 min) in each X, Y, Z direction for 2 hours	
Ambient temperature	-10 to 50 °C, storage: -20 to 60 °C (rated at no freezing or condensation)	
Ambient humidity	30 to 85%RH, storage: 30 to 85%RH (rated at no freezing or condensation)	

01) Except sensor consumption current.  
All output indicators ON: ≤ 120 mA / RS485 communication connection: 120 mA

02) Refer to output operation mode.

## Communication Interface

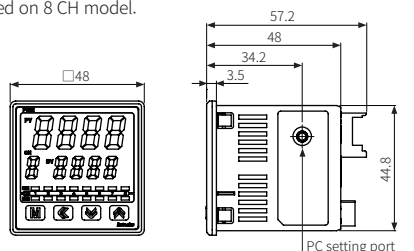
### ■ RS485

<b>Communication protocol</b>	Modbus RTU
<b>Application standard</b>	Compliance with EIA RS485
<b>Max. connections</b>	31 units (address: 01 to 127)
<b>Synchronous method</b>	Asynchronous
<b>Communication method</b>	Two-wire half duplex
<b>Communication distance</b>	< 800 m
<b>Baud rate</b>	2400, 4800, 9600 (default), 19200, 38400 bps
<b>Communication response time</b>	5 to 99 ms (default: 20 ms)
<b>Start bit</b>	1 bit (fixed)
<b>Data bit</b>	8 bit (fixed)
<b>Parity bit</b>	None (default), Even, Odd
<b>Stop bit</b>	1 bit, 2 bit (default)

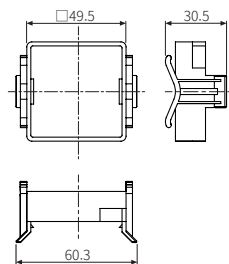
- Do not change parameter by front keys of the product during communication connection. It may cause malfunction.
- Do not set duplicated address on the same communication line.
- When setting the parameter using SCM-US, match the communication speed to the PSM. Settable communication speed: 2400 ~ 19200 bps (recommendation: 9600 bps)
- SCM-US is for setting parameter, unsuitable for monitoring.
- The communication via RS485 and the SCM-US can not be used simultaneously because when the SCM-US is connected, communication through the power / communication connection terminal is blocked.

## Dimensions

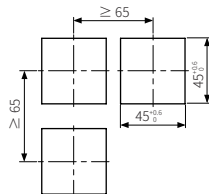
- Unit: mm, For the detailed drawings, follow the Autonics website.
- Below is based on 8 CH model.



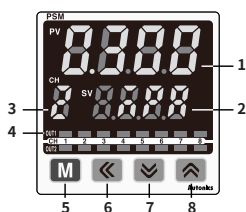
### ■ Bracket



### ■ Panel cut-out



## Unit Descriptions



- PV display part (green, red)**  
Run mode: Displays PV (present value)  
Setting mode: Displays parameter
- SV display part (green)**  
Run mode: Displays pressure unit  
Setting mode: Displays parameter setting value
- Channel display part (red)**  
Run mode: Displays channel  
Setting mode: Displays parameter setting channel

### 4. Output (OUT1: red, OUT2: green) indicator

Turns ON when the corresponding control output is ON.

### 5. [M] key

Enters parameter group, selects item and returns run mode

### 6. [◀] key

Run mode: Changes channels

Setting mode: Changes parameter setting channel or digit

### 7. [▼], [▲] key

Sets preset of output operation mode, runs the mode or changes parameter

## Sold Separately

- Pressure sensor: PSS Series
- Communication converter: SCM-US
- Sensor connector plug: CNE-P04-□
- IO cable: CO Series
- Connector socket: HIF3BA-20D-2.54R, Hirose Electric (contact the manufacturer)