

TYPE		MPS-P35 (Positive)	MPS-V35 (Vacuum)	MPS-C35 (Compound)
Rated pressure range		0.000~1.000MPa	0.0~~101.3kPa	-100.0~100.0kPa
Setting pressure range		-0.100~-1.000MPa	10.0~101.3kPa	-101.0~101.0kPa
Withstand pressure		1.5MPa		300kPa
Fluid		Filtered air, Non-corrosive / Non-flammable gas		
Set pressure resolution	kPa	—	0.1	
	MPa	0.001	—	
	kgf/cm ²	0.01	0.001	
	bar	0.01	0.001	
	psi	0.1	0.01	
	inHg	—	0.1	
	mmHg	—	1	

*1.Hysteresis value is adjustable within 1 ~ 8 digits for one point set mode and window comparator mode.
*2.If analog voltage output is selected, the analog current output cannot be selected at the same time.
*3.If analog current output is selected, the analog voltage output cannot be selected at the same time.

Measure mode

Press **SET** button for more than 5 seconds.

Fixed hysteresis value selection

Press **▲** or **▼** button to adjust fixed hysteresis value.
*Applicable for one point set mode and window comparator mode.
*Hysteresis mode does not have this setting selection.

Display color selection

Press **▲** or **▼** button to select LCD display color relation OUT1 or OUT2.

Power-Save Mode

Press **▲** or **▼** button to turn Power-Save mode on or off. (*1)

Restore factory setting

Press **▲** or **▼** button to select to restore to default factory settings.

Display fine adjustment mode

Press **▲** or **▼** button to select to display fine adjustment mode. (*2)

Measure mode

I. POWER-SAVE MODE

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- Diagram illustrating the transition from Measure mode to Power-Save mode:
- Measure mode:** The display shows "5.00" and "100".
 - Transition:** A dashed arrow points from Measure mode to Power-Save mode, labeled "No button operation for 30 seconds". Below the arrow, it says "Press any button".
 - Power-Save mode:** The display shows "SLP".

MPS-3535-NCA
2 NPN+Analog(Voltage) output(1-5V)

MPS-3535-PCA
2 PNP+Analog(Voltage) output(1-5V)

MPS-3535-NCI
2 NPN+Analog(Current) output(4-20mA)

MPS-3535-PCI
2 PNP+Analog(Current) output(4-20mA)

① Pressure Range

C	Compound (-101.0 ~ 101.0kPa)
V	Vacuum (10.0 ~ -101.3kPa)
P	Positive (-0.100 ~ 1.000MPa)

② Pressure Port

R	R 1/8", M5
N	NPT 1/8", #10-32UNF
G	G 1/8" (BSPF), M5

③ Switch Output

N	NPN open collector
P	PNP open collector

④ Cable Length

C	With 2 meter cable
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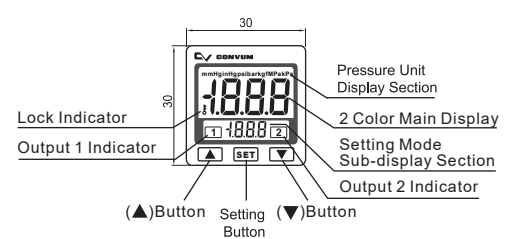
⑤ Analog Output

A	Analog(Voltage) output (1 - 5V)
I	Analog(Current) output(4 - 20mA)

⑥ Pressure Unit

Blank	Unit unchangeable
#	Unit changeable

D. PANEL DESCRIPTION



⑤ **Setting Condition 1 :**
 OUT 1 mode setting :
 "oP5" (One point set mode)
 OUT 2 mode setting :
 "oFF" (Not used)

Measure mode

⑥ **Setting Condition 2 :**
 OUT 1 mode setting :
 "oP5" (One point set mode)
 OUT 2 mode setting :
 "oP5" (One point set mode)

Measure mode

⑦ **Setting Condition 3 :**
 OUT 1 mode setting :
 "oP5" (One point set mode)
 OUT 2 mode setting :
 "H55" (Hysteresis mode)
 "v_{in}" (Window comparator mode)

Measure mode

⑧ **Setting Condition 4 :**
 OUT 1 mode setting :
 "H55" (Hysteresis mode)
 "v_{in}" (Window comparator mode)
 OUT 2 mode setting :
 "oFF" (Not used)

Measure mode

⑨ **Setting Condition 5 :**
 OUT 1 mode setting :
 "H55" (Hysteresis mode)
 "v_{in}" (Window comparator mode)
 OUT 2 mode setting :
 "oP5" (One point set mode)

Measure mode

⑩ **Setting Condition 6 :**
 OUT 1 mode setting :
 "H55" (Hysteresis mode)
 "v_{in}" (Window comparator mode)
 OUT 2 mode setting :
 "H55" (Hysteresis mode)
 "v_{in}" (Window comparator mode)

Measure mode

Figure 1 illustrates the sequence of operations for the alarm system. The diagram shows a flowchart with six states of the alarm system, each represented by a digital display showing '000' and an 'Alarm' indicator. The states are: 1. Initial state (N-1), 2. Alarm triggered (N-2), 3. Alarm cleared (N-1), 4. Alarm triggered (N-2), 5. Alarm cleared (N-1), 6. Alarm triggered (N-2). The flow is: Initial state (N-1) -> Alarm triggered (N-2) -> Alarm cleared (N-1) -> Alarm triggered (N-2) -> Alarm cleared (N-1) -> Alarm triggered (N-2). The flowchart includes buttons for 'TEST', 'RESET', and 'ALARM'.

Technical drawings of the R-R1/8" connector. The top view shows a side profile of the connector with a cable attached. The bottom view shows the front face of the connector with dimensions 30, 21, and 9. The side view shows the connector with dimensions 40.3 and 25.2. The front view shows the connector with dimensions 25.2 and 30. The connector is labeled with "R-R1/8", M5, N/NPT 1/8", #10-32UNF, G-G 1/8" (BSPF), M5, and Hex flat 12. The unit is in mm.

① Mounting bracket

BT-12

M3

Mounting bracket BT-12

BT-13

M3

Mounting bracket BT-13

② Panel Mounting

Front protective lid

Panel adapter

Panel adapter

31 × 31 ± 0.4 mm

t ≤ 4.5 mm

Panel adapter

34.4

34.4

4

Panel adapter

33

30.2

30.2

33

Front protective lid

34.4

8.5

3

Unit:mm

(1) One point set mode:

Normal open mode

Positive/Compound (MPS-P35/MPS-C35)

ON

OFF

P-1 P-2 Positive Pressure

Vacuum (MPS-V35)

ON

OFF

P-1 P-2 Vacuum Pressure

Normal close mode

Positive/Compound (MPS-P35/MPS-C35)

ON

OFF

P-1 P-2 Positive Pressure

Vacuum (MPS-V35)

ON

OFF

P-1 P-2 Vacuum Pressure

(2) Hysteresis mode:

Normal open mode

Positive/Compound (MPS-P35/MPS-C35)

ON

OFF

L-1 L-2 H-1 H-2 Positive Pressure

Vacuum (MPS-V35)

ON

OFF

L-1 L-2 H-1 H-2 Vacuum Pressure

Normal close mode

Positive/Compound (MPS-P35/MPS-C35)

ON

OFF

L-1 L-2 H-1 H-2 Positive Pressure

Vacuum (MPS-V35)

ON

OFF

L-1 L-2 H-1 H-2 Vacuum Pressure

(3) Window comparator mode:

Normal open mode

Positive/Compound (MPS-P35/MPS-C35)

ON

OFF

L-1 L-2 H-1 H-2 Positive Pressure

Vacuum (MPS-V35)

ON

OFF

L-1 L-2 H-1 H-2 Vacuum Pressure

Normal close mode

Positive/Compound (MPS-P35/MPS-C35)

ON

OFF

L-1 L-2 H-1 H-2 Positive Pressure

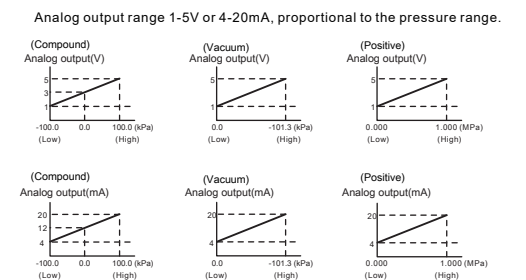
Vacuum (MPS-V35)

ON

OFF

L-1 L-2 H-1 H-2 Vacuum Pressure

L. ANALOG OUTPUT DESCRIPTION



Measure mode

Press **SET** button for more than 3 seconds.

OUT 1 Operating mode setting

One point set mode (oPS) Hysteresis mode (HYS) Window comparator mode (WIN)

Use the **▲** or **▼** button to set OUT1 operating mode.

OUT 1 type setting

NO mode NC mode

Use the **▲** or **▼** button to set OUT1 type.

OUT 2 Operating mode setting

oFF mode One point set mode (oPS) Hysteresis mode (HYS) Window comparator mode (WIN)

Use the **▲** or **▼** button to set OUT2 operating mode.

OUT 2 type setting

NO mode NC mode

Use the **▲** or **▼** button to set OUT2 type.

Response time setting

2.5ms 25ms 100ms 250ms 500ms

1500ms 1000ms

Use the **▲** or **▼** button to select response time.

Display color setting

ON: Green OFF: Red ON: Red OFF: Green Green On: Red

Use the **▲** or **▼** button to set display color.

Unit setting

(kPa/MPa) (kgf/cm²) (bar) (psi) (inHg) (mmHg)

Use the **▲** or **▼** button to set desired pressure unit.

Measure mode

【NOTE :】

- *1. This setting mode will not display when output 2 is set to OFF.
- *2. Pressure unit is MPa with positive pressure.
Pressure unit is kPa with vacuum and compound pressure.
- *3. Only applicable for Vacuum / Compound.

Press the **▲** + **▼** button at the same time until the "00" is shown.

Release the button to end zero setting.

Measure mode

Press **SET** + **▼** button for more than 2 seconds.

PE- Alternately displayed

bo

Measure mode

PE-:Peak Value
bo:-Bottom Value

③ Use key lock mode to prevent unauthorized or accidental tampering with the switch setting.

④ When lock mode is selected, panel will display "L".

Display fine adjustment mode

Use or button to change the set value.
Press button to exit.

Measure mode

This function eliminates slight differences in the output values and allows uniformity in the numbers displayed.
Displayed values of the pressure sensor can be calibrated to within $\pm 2.5\%$ R.D.

Displayed pressure value

Applied pressure

$\pm 2.5\%$ R.D.

- Factory setting display value set prior to shipment
- Display calibration range

R.D. (Real Detect)

[NOTE.] 1. Setting resolution is $\pm 0.1\%$ R.D.
2. The signal would be changed with analog output after adjusting.

Error Type	Error code	Error Condition	Troubleshooting
Excess load current	E1-1	Output 1 load current is more than 125 mA	Turn power off and check the cause of overload current
Output current error	E1-2	Output 2 load current is more than 125 mA	or lower the current load under 125 mA, then restart.
Residual pressure error	E1-3	During zero reset, inlet pressure is over 23% F.S. of ambient pressure.	Change input pressure to ambient pressure and perform zero reset again.
Applied pressure error	HiH	Supply pressure is exceeds the upper limit of pressure setting.	Adjust the pressure within operating pressure range
	LiL	Supply pressure is exceeds the lower limit of pressure setting.	
	E1-4	Internal system error	
	E1-5	Internal system error	Turn power off, and then restart.
System error	E1-6	Internal data error	If error condition remains, please return to factory for inspection
	E1-7	Internal data error	

Pressure	Force	Area	Pressure	Pressure	Pressure	Pressure	Pressure	Pressure
1 Pa	1 N	1 m ²	1 kPa	1 MPa	1 kN/cm ²	1 mmHg	1 psi	1 inHg
1 Pa	1 N	1 m ²	0.001	0.000001	0.00001097	0.00750062	0.000145038	0.000295275
1 kPa	1000 N	1 m ²	1	0.001000	0.0107106	7.50061	0.145038	0.101325
1 MPa	1000000 N	1 m ²	1000	1	10.7106	7500.62	145.038	109.362
1 mmHg	133.322 N	0.000133322 m ²	0.000133322	0.00000133322	0.0131579	1	0.0714333	0.0393701
1 psi	6.89476 N	0.000689476 m ²	0.000689476	6.89476e-06	0.0703097	51.7152	1	2.03603
1 inHg	33.4248 N	0.000334248 m ²	0.000334248	3.34248e-06	0.193337	154.453	2.03603	1