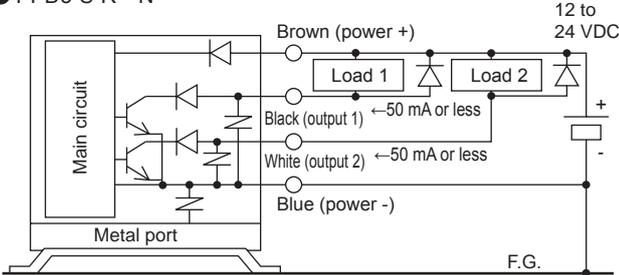


Internal circuit/connection method

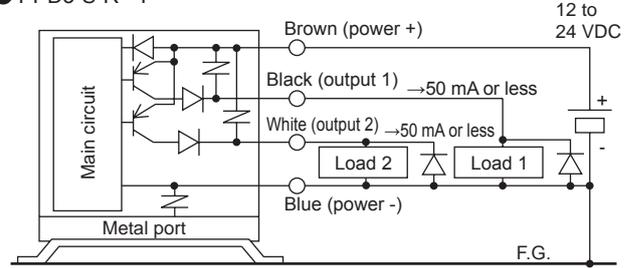
[Circuit and connection method]

Sensor integrated

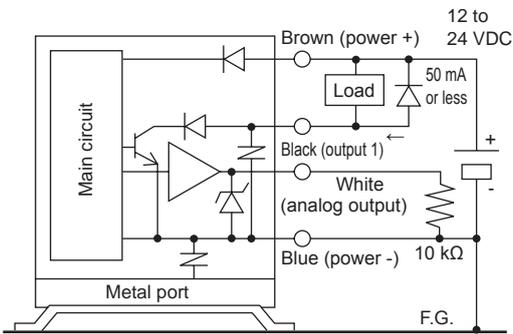
● PPD3-S-R**N



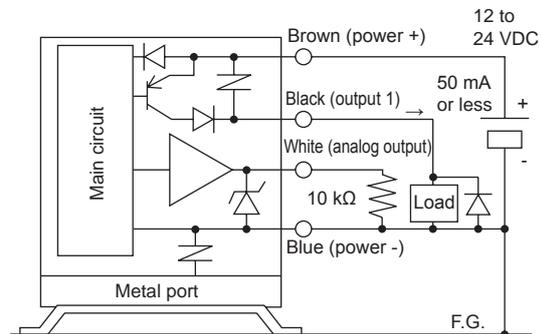
● PPD3-S-R**P



● PPD3-S-R**NA



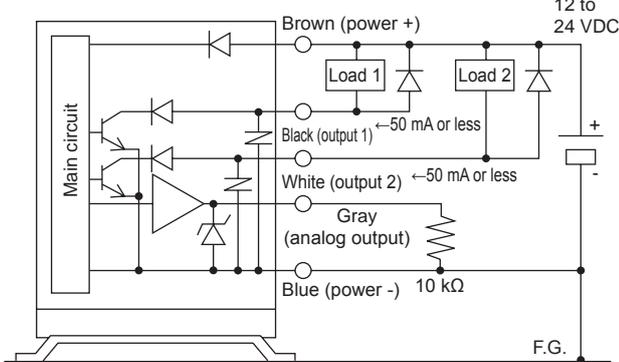
● PPD3-S-R**PA



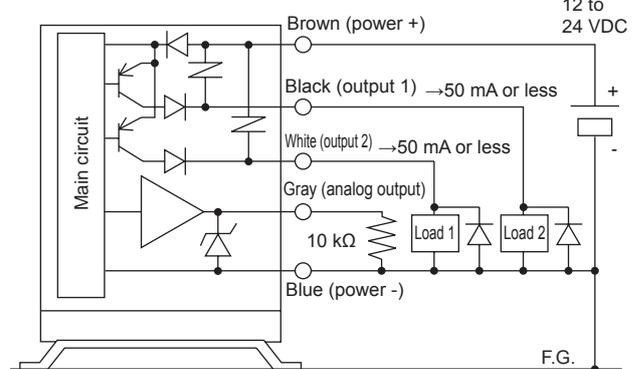
[Circuit and connection method]

Sensor separated

● PPD3-S-R*NAD

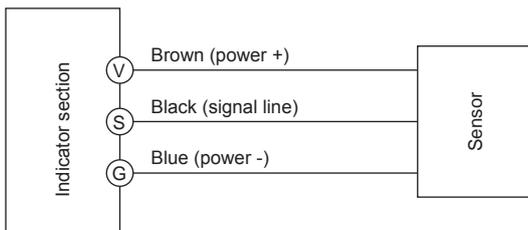


● PPD3-S-R*PAD

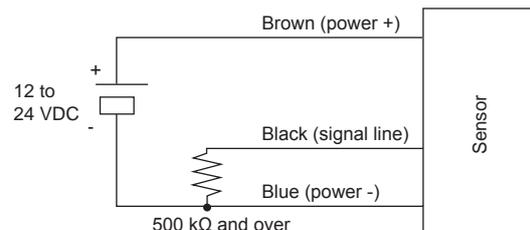


Sensor section connection method

● PPD3-S-R*D



● PPD3-S-R*A Connection method when single sensor is used



MEMO

SCPD3

SCM

SSD2

MDC2

SMG

LCM

LCR

LCG

LCX

STM

STG

STR2

MRL2

GRC

Cylinder
Switch

MN3E
MN4E

4GA/B

M4GA/B

MN4GA/B

F.R.(module
unit)

Clean
F.R

Precision
R

Press gauge
Diff. press gauge

Electro-
pneumatic R

Speed
controller

Auxiliary
valve

Fitting/
tube

Clean
air unit

**Pressure
sensor**

**Flow rate
sensor**

Valve for
air blow

Ending

PPD3-S Series

Display and function

Lamp state
 ☉: Stable lamp
 ⚡: Flicker

Overflow LED
 ☉: Indicates the 4th digit

RUN LED
 ☉: Normal pressure display (not lit when set)
 ⚡: When using peak hold function

Switch output lamp (OUT1, OUT2)
 ☉: Each switch output ON
 ⚡: During overcurrent protection (There is no OUT2 when an analog output is provided)

Minus sign (-) LED
 ☉: A minus value is indicated.

3 digit LED
 ● Displays pressure, various switch setting, and machine status

MODE Key
 ● To enter various setting modes
 ● To advance setting mode
 ● To return to pressure display
 ● To cancel peak hold operation

1 Key
 ● When pressure is displayed = sequentially displays CH1 data
 ● During peak hold operation = displays max. value
 ● When selecting a mode = sets the mode
 ● During data setting = increases the value, etc.

2 Key
 ● When pressure is displayed = sequentially displays CH2 data
 ● During peak hold operation = displays min. value
 ● When selecting a mode = sets the mode
 ● During data setting = decreases the value, etc.

LED display

Numbers and alphabetic characters are displayed with a combination of LED displays.

Rated pressure	980 kPa	300 kPa	100 kPa
Model No.	R10	R03	R01
Pressure code	J0 <i>J0</i>	L0 <i>L0</i>	H0 <i>H0</i>

Model No. display	<i>J0n</i>
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Character	A	B (b)	C	D (d)	H	I (i)	J	L	N (n)	O (o)	P
Display	<i>A</i>	<i>b</i>	<i>C</i>	<i>d</i>	<i>H</i>	<i>I</i>	<i>J</i>	<i>L</i>	<i>n</i>	<i>o</i>	<i>P</i>

Output	NPN output	PNP output
Model No.	N, NA	P, PA
Output code	N <i>n</i>	P <i>p</i>

Confirming setting values

CH1 data display
Hold down 1

CH2 data display
Hold down 2

By pressing each key during pressure display, the switch data ON setting/OFF setting/operation waveform, zero point adjustment value, pressure range, and output can be confirmed. Switch operation is not affected during the following operations.

Zero point adjustment value/model No. display

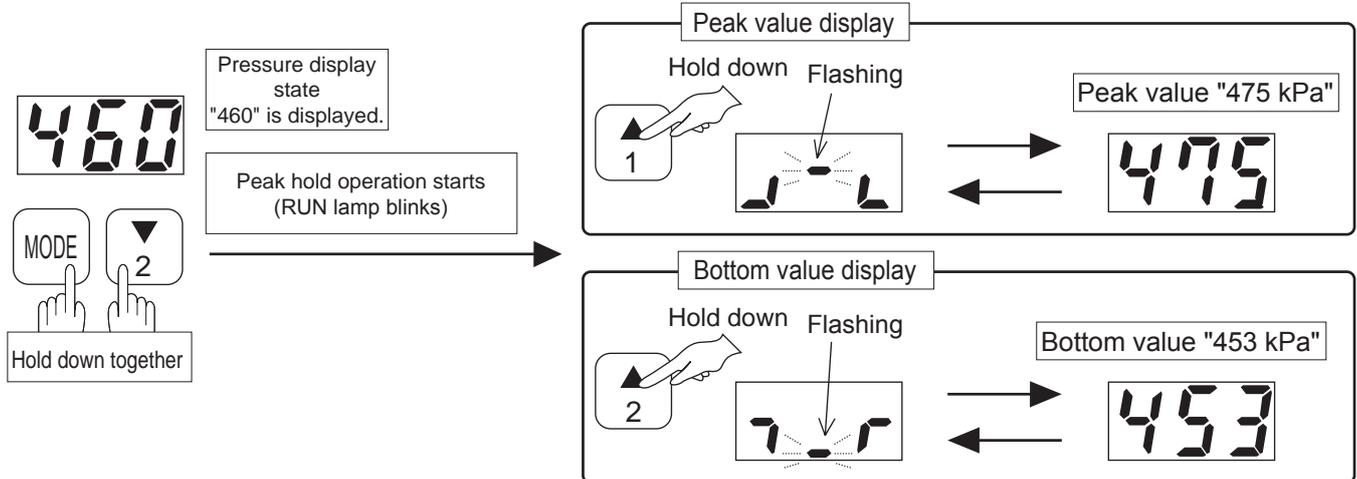
Hold down together 1 and 2

The zero point adjustment value and model number are alternately displayed. The switch operation is not affected during this operation.

Using each function

Peak hold function

The pressure value for a set period is displayed to see the max. and min. values. Use this to check the stability of main pressure and working pressure etc. Peak holding does not affect this product's basic functions such as switch operations or pressure display.



Switch output function

Refer to following page for operation method.

The PPD3-S has a 2-point or 1-point switch output, and operates in 4 operation modes and stopping operation. The switch is started by setting the required operation mode (refer to the switch operation mode in page 1017) and by making two settings, ON and OFF, that specify the operation pressure.

Determine the required operation mode and ON and OFF setting values before making settings. Select and set the following data to operate the switch.

CH1: operation mode

CH1: ON setting value

CH1: OFF setting value

CH2: operation mode

CH2: ON setting value

CH2: OFF setting value

(There is no CH2 when an analog output is provided. Nothing can be output even if set)

Switch output test function

Refer to following page for operation method.

Use this function to forcibly turn the switch output ON and confirm the wiring connection or initial operation of the input device.

Note 1: Use this test function to check the wiring connection and input device operation. Avoid using this function instead of actual signals when executing the sequence program while the machinery and equipment are operating. (Refer to Precautions of caution "During use & maintenance" on page 1044.)

Zero point adjustment function

Refer to following page for operation method.

Deviation of the display from the zero point is compensated in the atmospheric pressure pressurized state.

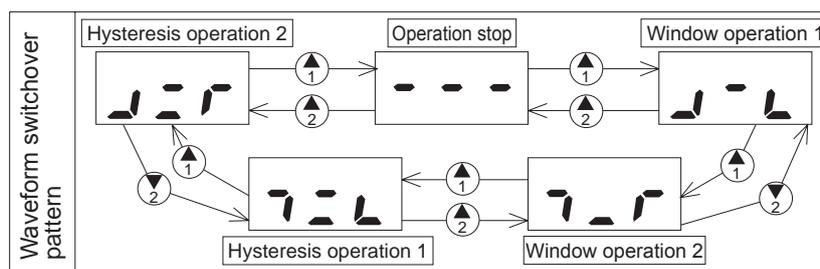
Note 2: The above settings and test greatly affect the output signal and display. Before this operation, stop the machinery and equipment that use this product and confirm that safety can be ensured in case of problems or incorrect display. Using this function while the machinery and equipment are operating could cause problems or incorrect display.

Note 3: To avoid incorrect operation, all keys must be held down for a set time to select the mode.

SCPD3
SCM
SSD2
MDC2
SMG
LCM
LCR
LCG
LCX
STM
STG
STR2
MRL2
GRC
Cylinder Switch
MN3E MN4E
4GA/B
M4GA/B
MN4GA/B
F.R.(module unit)
Clean F.R
Precision R
Press gauge Diff. press gauge
Electro-pneumatic R
Speed controller
Auxiliary valve
Fitting/tube
Clean air unit
Pressure sensor
Flow rate sensor
Valve for air blow
Ending

Switch operation mode

Operation mode name	Operation waveform	LED operation waveform display	Examples
1 Window operation 1 (ON when inside range)			When used to confirm main pressure, the ON signal is output as the normal signal if main pressure is within the appropriate range.
2 Window operation 2 (ON when outside range)			When used to confirm main pressure, the ON signal is output as the error signal if main pressure is abnormal.
3 Hysteresis operation 1 (ON at low pressure)			When used to confirm suction, the ON signal is output if the workpiece is suctioned and suction pressure has sufficiently dropped (vacuum).
4 Hysteresis operation 2 (ON at high pressure)			When used to confirm contact, the ON signal is output if the workpiece is held and pressure is sufficiently increased.
5 Operation stop			When not using the switch output, stop operation to prevent damage and accidents.



- Note 1: When using for a winding operation, provide an interval of 3% F.S. and over between the 2 set values.
 A 1% F.S. hysteresis is automatically added to the ON side and OFF side.
- Note 2: When using for a hysteresis operation, provide an interval of 1% F.S. and over between the 2 set values.
 If the two settings are the same, operation may not take place or may be unstable.
- Note 3: The left face of the operation waveform indicates negative pressure, and the right side indicates positive pressure.
- Note 4: The magnitude relation of the ON set value and OFF set value is determined when the operation mode is determined, and a reverse magnitude relation cannot be attained. As this product gives priority to the specified operation mode, it automatically judges the magnitude relation of two setting values when they are input and assigns them as ON and OFF setting values accordingly. Thus, even if ON and OFF setting values are input the other way by mistake, they will be corrected and the specified operation mode will be performed.

- SCPD3
- SCM
- SSD2
- MDC2
- SMG
- LCM
- LCR
- LCG
- LCX
- STM
- STG
- STR2
- MRL2
- GRC
- Cylinder Switch
- MN3E
- MN4E
- 4GA/B
- M4GA/B
- MN4GA/B
- F.R.(module unit)
- Clean F.R
- Precision R
- Press gauge
- Diff. press gauge
- Electro-pneumatic R
- Speed controller
- Auxiliary valve
- Fitting/tube
- Clean air unit
- Pressure sensor
- Flow rate sensor
- Valve for air blow
- Ending