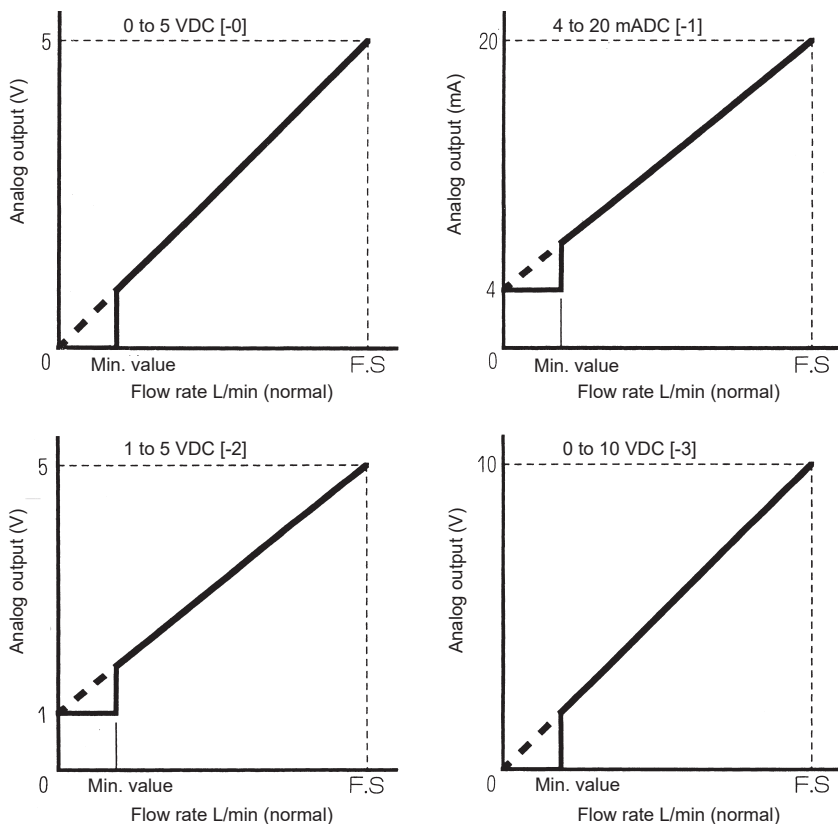


F.R.L.
F.R.
F (Filtr)
R (Reg)
L (Lub)
Drain
Separ
Mech
Press SW
Res press
exh valve
SlowStart
Anti-bac/Bac-
remove Filtr
Film
Resist FR
Oil-ProhR
Med
Press FR
No Cu/
PTFE FRL
Outdrs FRL
Adapter
Joiner
Press
Gauge
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneR
AirBoost
Speed Ctrl
Silncr
CheckV/
other
Fit/Tube
Nozzle
Air Unit
PrecsCompn
Electro
Press SW
ContactSW
AirSens
PressSW
Cool
Air Flo
Sens/Ctrl
WaterRtSens
TotAirSys
(Total Air)
TotAirSys
(Gamma)
Gas
generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg
etc
Ending

PFD series electric wiring

1 Analog output [option code: -0 (standard), -1, -2, -3]



Load resistance of analog output

Analog output	Load resistance
0 to 5 VDC	50 kΩ or more
4 to 20 mADC	300 Ω or less
1 to 5 VDC	50 kΩ or more
0 to 10 VDC	50 kΩ or more

Model No.	Min. L/min (normal)	FS L/min(normal)
PFD-501-10	25	500
PFD-102-15	50	1000
PFD-202-20	100	2000
PFD-402-25	200	4000
PFD-802-40	400	8000
PFD-163-50	800	16000

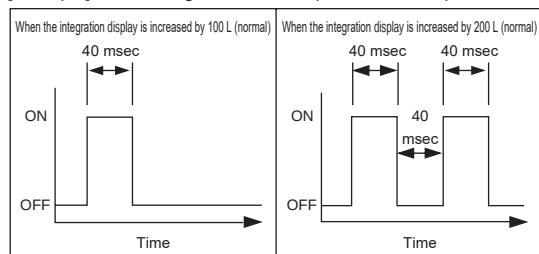
- The relation between the flow rate and the analog output is as in the figure on the left. Note that the analog output is not output normally at the min. value or less.
- Never make a short circuit between the analog output terminal and another terminal. This may lead to failure.
- Make the cable short so as not to be affected by noise and keep it away from all noise sources such as power distribution wires.

2 Integrated pulse output (switching to switch output. Only OUT2 can be used)

- For the integrated pulse output, a pulse is output per the integrated value below. L (normal)

Model No.	PFD-501 PFK-501	PFD-102 PFK-102	PFD-202 PFK-202	PFD-402 PFK-402	PFD-802 PFK-802	PFD-163
Integrating flow per pulse	10				100	

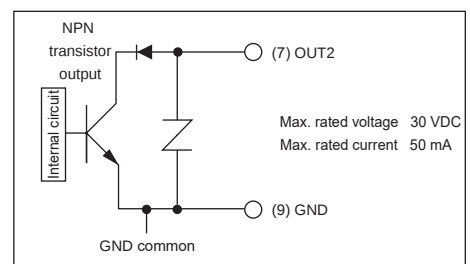
[Example] When using PFD-802, the pulse wave shape is as below.



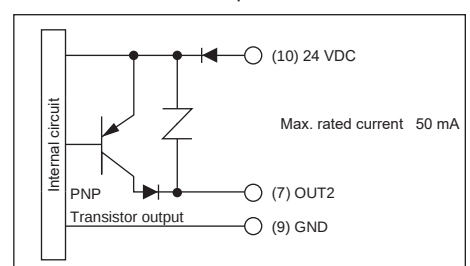
The integration display is updated at intervals of approx. 1 sec.

- Output circuit

- ◆ In case of NPN output

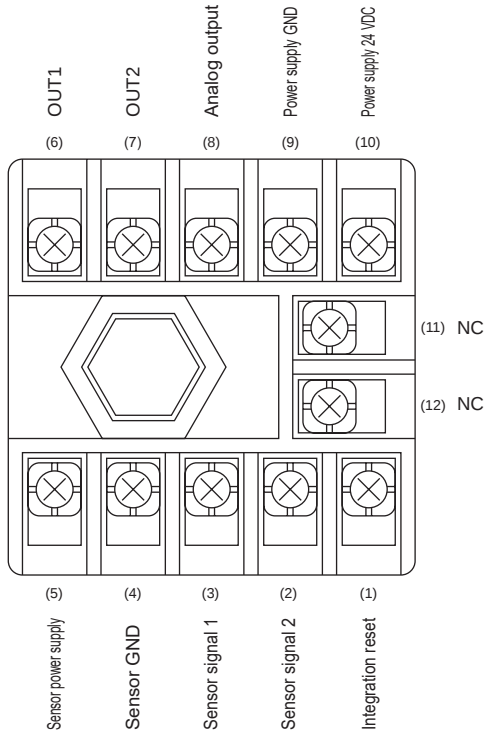


- ◆ In case of PNP output



3 Wiring method for sensor and monitor

- Always read the safety precautions before wiring.



- Use the cables attached to the product.

[Specifications]

With DC 4-conductor connector

Finish diameter: $\phi 6$

Conductor wire size: 0.5 mm^2

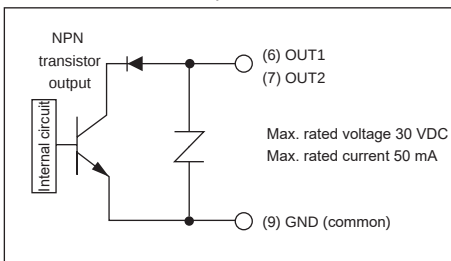
Insulator outer diameter: $\phi 1.72 \text{ mm}$

- When extending the cable, contact your CKD branch or dealer.

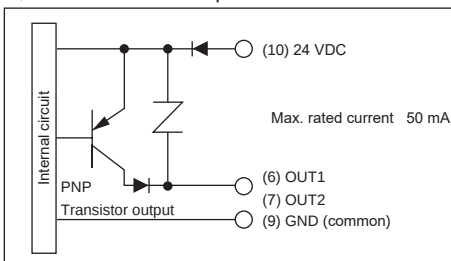
No.	Function	
1	Integration reset	By connecting this terminal to (9) GND terminal, the integrating flow value can be cleared.
2	Sensor signal 2	Connect to accessory cable [BLACK]
3	Sensor signal 1	Connect to accessory cable [WHITE]
4	Sensor GND	Connect to accessory cable [BLUE]
5	Sensor power supply	Connect to accessory cable [BROWN]
6	OUT1	NPN/PNP transistor output
7	OUT2	NPN/PNP transistor output
8	Analog output	Voltage/current output
9	Power supply GND	Connect to power supply 0 VDC
10	Power supply 24 VDC	Connect to power supply 24 VDC
11	NC	Connect nothing.
12	NC	Connect nothing.

- Switch output circuit

- ◆ In case of NPN output

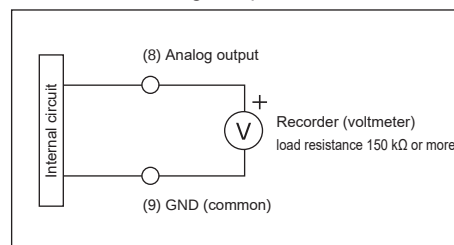


- ◆ In case of PNP output



- Analog output circuit

- ◆ In case of voltage output



- ◆ In case of current output

