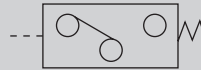
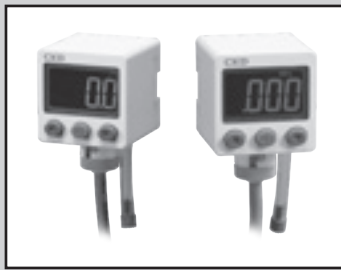


Electronic pressure sensor with digital display

PPG-D Series



Features

- Pressure range: Compound pressure (-100.0 to 100.0 kPa)
Vacuum pressure (0.0 to -101.3 kPa)
Positive pressure (0.000 to 1.000 MPa)
- 2-color display
- Copy function
- Switch output 2 points, analog output 1 point (1 to 5 V or 4 to 20 mA)
- Hysteresis setting possible
- Pressure display accuracy: $\pm 2\% \text{F.S.} \pm 1$ digit
- Pressure unit can be switched *1: kPa, MPa, kgf/cm², bar, psi, inHg
- Degree of protection: IP65

2-color display (Green/red)

The display color can be set to green or red, allowing the pressure state to be confirmed at a glance.



	50.0	50.0	0.0	rEd
ON	Green	Red	Green	Red
OFF	Red	Green	Green	Red

International compliance *1

The pressure unit can be changed.



*1: Supported when the model No. ends in "2".



Copy function

Ideal for reducing work processes and preventing misoperation.

Setting master device



Setting copy device



Dust-proof/waterproof performance

Degree of protection: IP65



Easy installation

Wiring The cables are connectors, making pressure switch mounting possible after electric wiring.



Piping Select from male and female threads.



*2: Environment inspection is only available for "RoHS certificate" and "REACH certificate". Parts level detailed data is not supported.

Specifications

1 MPa ≈ 145.0 psi, 1 MPa = 10 bar

Item	PPG-D-P-□-□ (Positive pressure)		PPG-D-V-□-□ (Vacuum pressure)		PPG-D-R-□-□ (Compound pressure)	
Rated pressure	0.000 (≈0 psi, 0 bar) to 1.000 MPa (≈145 psi, 10 bar)		0.0 (≈0 psi, 0 bar) to -101.3 kPa (≈-15 psi, -1 bar)		-100.0 (≈-14 psi, -1 bar) to 100.0 kPa (≈14 psi, 1 bar)	
Set pressure	-0.100 (≈-14 psi, -1 bar) to 1.000 MPa (≈145 psi, 10 bar)		10.0 (≈2 psi, 1 bar) to -101.3 kPa (≈-15 psi, -1 bar)		-101.0 (≈-14 psi, -1 bar) to 101.0 kPa (≈14 psi, 1 bar)	
Proof pressure	1.5 MPa (≈217 psi, 15 bar)		300 kPa (≈43 psi, 3 bar)			
Applicable fluids	Clean air, non-corrosive/non-combustible gas					
Display unit	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		
Power supply voltage	12 to 24 VDC ±10%, ripple (P-P) 10% or less or Class 2					
Current consumption	40 mA or less (no load)					
Switch output	Output	NPN or PNP transistor, open collector 2 points				
	Max. load current	125 mA				
	Max. power supply voltage	NPN output: 30 VDC, PNP output: 24 VDC				
	Internal voltage drop	1.5 V or less				
	Response time	2.5 ms or less (Chattering prevention function: 25 ms, 100 ms, 250 ms, 500 ms, 1000 ms, and 1500 ms are selectable)				
	Switch output load short-circuit protection	Yes				
Analog output *2, *3	Voltage output	Voltage	1 to 5 V (±2.5%)			
		Impedance	Approx. 1 kΩ			
	Current output	Current	4 to 20 mA (±2.5%)			
		Impedance	Max. load impedance: 250 Ω (12 VDC) 600 Ω (24 VDC) Min. load impedance: 50 Ω			
	Linearity	±1% F.S.				
Display	LCD display	3½-digit, 7 segment (Red/Green)				
	Switch ON indicator lamp	Orange (1, 2 indicator lamps) OUT1 OUT2				
	Update time	Approx. 0.2 seconds				
	Display accuracy	±2% F.S. ±1 digit (Reference temperature: 25 ±3°C)				
Repeatability (switch output)	±0.2% F.S. ±1 digit					
Environment conditions	Degree of protection	IP65				
	Operating ambient temperature	0 (32°F) to 50°C (122°F)				
	Storage ambient temperature	-10 (14°F) to 60 °C (140°F) (no condensation or freezing)				
	Ambient humidity	35 to 85% RH (no condensation)				
	Withstand voltage	1000 VAC, 1 minute (between the case and lead wire)				
	Insulation resistance	50 MΩ (500 VDC, between the case and lead wire)				
	Vibration resistance	Compound amplitude 1.5 mm, 10 G, 10 Hz - 55 Hz - 10 Hz per minute, 2 hours each in X, Y, Z directions				
Shock resistance	100 m/s ² (10 G), 3 times each in X, Y, Z directions					
Temperature characteristics	±2% F.S. (25°C (77°F) Reference) temperature range 0 (32°F) to 50 °C (122°F)					
Port size	6BM: R1/8", M5 6NM: NPT1/8", #10-32UNF 6GM: G1/8", M5 6B: Rc1/8 (female thread), 6N: NPT 1/8 (female thread), 6G: G1/8 (female thread)					
Lead wire	Oil resistant cable ø4, 5-conductor (0.15mm ² , insulator outer diameter ø0.95 mm) 2 m					
Weight	Male thread: approx. 86 g (including lead wire 2 m)/Female thread: approx. 115 g (including lead wire 2 m)					

*1: The hysteresis value of one-point set mode and window comparator mode can be adjusted to between 1 and 8 digits.

*2: Analog current output cannot be selected together with analog voltage output.

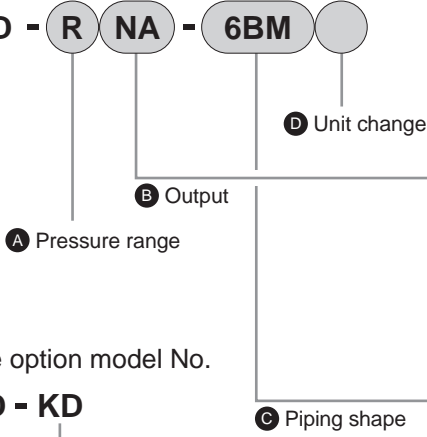
*3: Analog voltage output cannot be selected together with analog current output.

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
ElecPneuR
AirBoost
Speed Ctrl
Silncr
CheckV/ other
Fit/Tube
Nozzle
Air Unit
PrecsCompn
Electro Press SW
ContactSW
AirSens
PresSW Cool
Air Flo Sens/Ctrl
WaterRISens
TotAirSys (Total Air)
TotAirSys (Gamma)
Gas generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending

PPG-D Series

F.R.L. How to order

PPG - D - R NA - 6BM



Discrete option model No.

PPG - D - KD

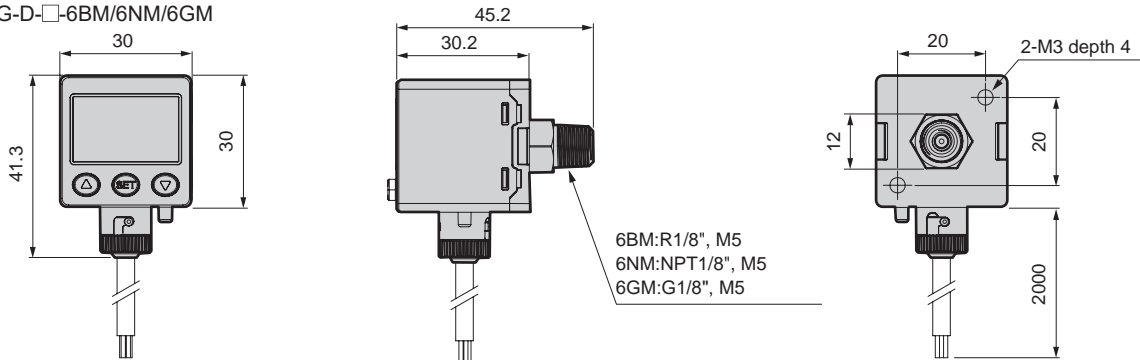
Code	Applicable C Piping shape	Item
KD	6BM/6NM/6GM	Parallel mounting bracket (for male thread) (mounting screws included)
KL		L-shaped mounting bracket (for male thread) (mounting screws included)
KDA	6B/6N/6G	Parallel mounting bracket (for female thread) (mounting screws included)
KLA		L-shaped mounting bracket (for female thread) (mounting screws included)
KHS	6BM/6NM/6GM	Panel adapter
KHSCB	6B/6N/6G	Panel adapter + Front protective cover

Code	Item
A Pressure range	
R	Compound pressure (-100 to 100 kPa)
V	Vacuum pressure (0 to -101.3 kPa)
P	Positive pressure (0.000 to 1.000 MPa)
B Output	
NV	NPN transistor open collector 2 points + analog (voltage) output (1 to 5 V)
NA	NPN transistor open collector 2 points + analog (current) output (4 to 20 mA)
NC	NPN transistor open collector 2 points + copy function
PV	PNP transistor open collector 2 points + analog (voltage) output (1 to 5 V)
PA	PNP transistor open collector 2 points + analog (current) output (4 to 20 mA)
PC	PNP transistor, open collector 2 points + copy function
C Piping shape	
6BM	R1/8" (male thread), M5
6NM	NPT1/8", #10-32UNF
6GM	G1/8" (male thread), M5
6B	Rc1/8 (female thread)
6N	NPT 1/8 (female thread)
6G	G1/8 (female thread)
D Unit change	
Blank	SI unit fixed (kPa/MPa) Instruction manual: Japanese, English
2	With unit switching function Instruction manual: Traditional Chinese, English*1

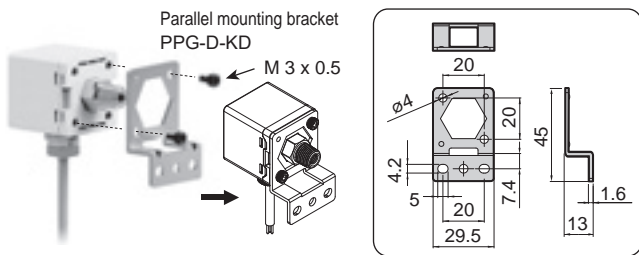
*1: In compliance with the new Measurement Act, it cannot be used in Japan.

Dimensions (piping shape male thread)

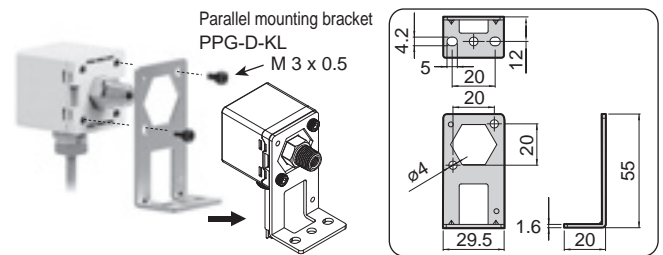
Body PPG-D-□-6BM/6NM/6GM



Parallel mounting bracket (mounting screws included)

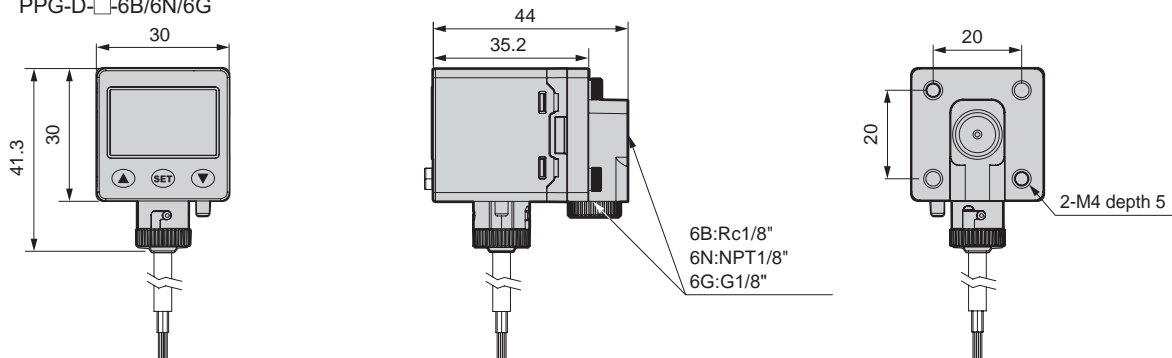


L-shaped mounting bracket (mounting screws included)

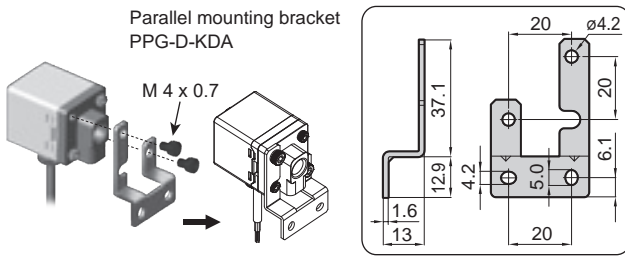


Dimensions (piping shape female thread)

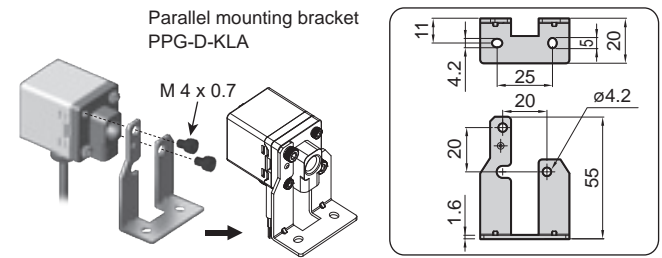
Body PPG-D-□-6B/6N/6G



● Parallel mounting bracket (mounting screws included)

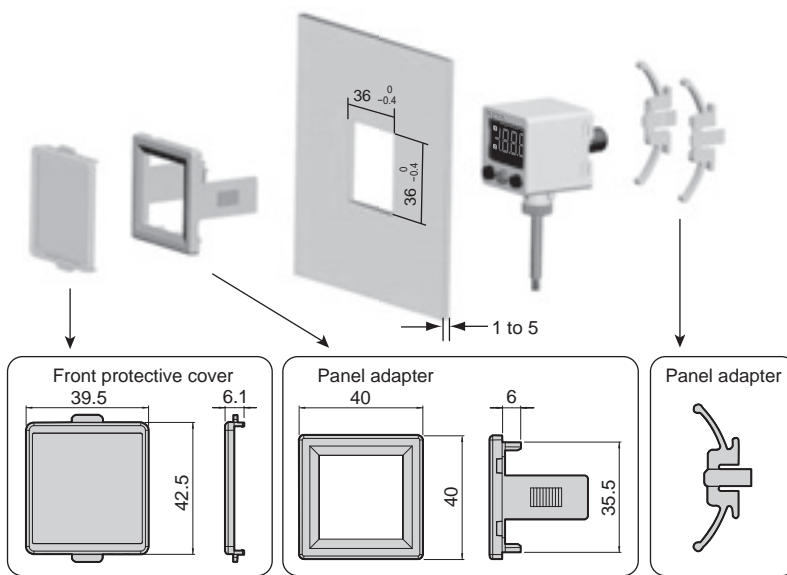


● L-shaped mounting bracket (mounting screws included)

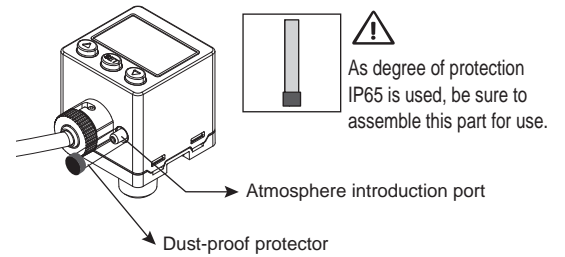


Common option Dimensions

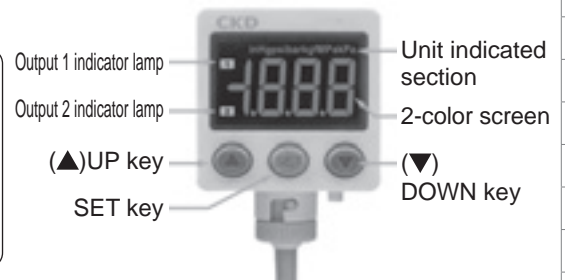
● Panel adapter + Front protective cover PPG-D-KHS, PPG-D-KHSCB



● Protector (IP65)

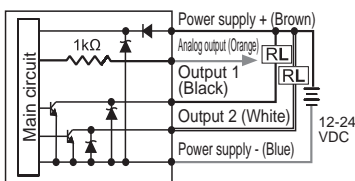


Display description

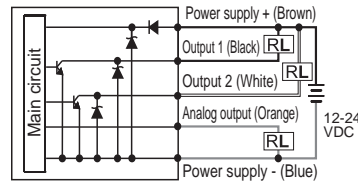


Internal circuit / connection method

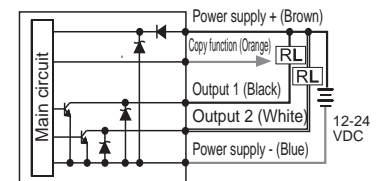
● PPG-D-□NV 2NPN + Analog output (1 to 5 V)



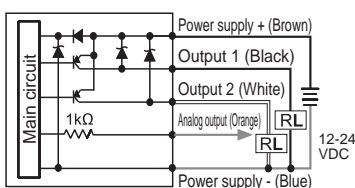
● PPG-D-□NA 2NPN + Analog output (4 to 20 mA)



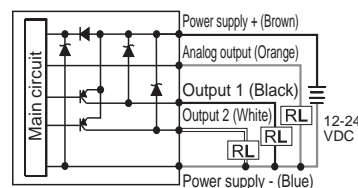
● PPG-D-□NC 2NPN + Copy function



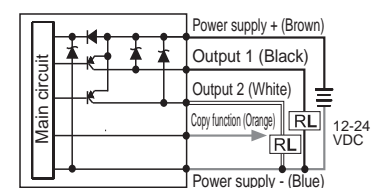
● PPG-D-□PV 2PNP + Analog output (1 to 5 V)



● PPG-D-□PA 2PNP + Analog output (4 to 20 mA)



● PPG-D-□PC 2PNP + copy function



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
ElecPneuR
AirBoost
Speed Ctrl
Silncr
CheckV/ other
Fit/Tube
Nozzle
Air Unit
PrecsCompn
Electro Press SW
ContactSW
AirSens
PresSW Cool
Air Flo Sens/Ctrl
WaterRISens
TotAirSys (Total Air)
TotAirSys (Gamma)
Gas generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending