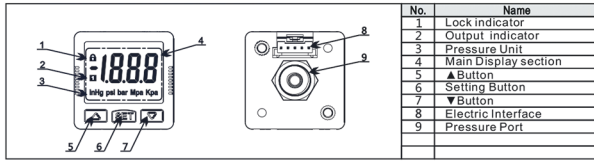


DIGITAL PRESSURE SWITCH

DPS-3 Series

Panel



Specifications

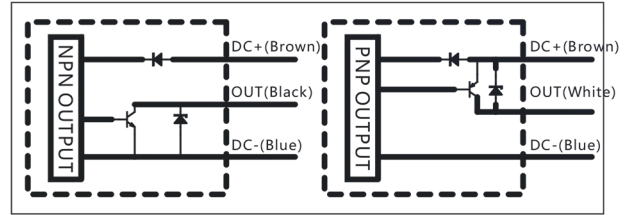
Model	DPS-301 (Compound)	DPS-310 (Positive)
Pressure Measure		
Range of measure	-100kPa~100kPa	-0.100MPa~1.000MPa
Setting range	-100kPa~100kPa	-0.100MPa~1.000MPa
Withstand pressure	500kPa	1.500MPa
Pressure type	Non-flammable, non-corrosive gas, gauge pressure measurement	
Measure accuracy	±2%F.S. (Ambient temperature 25°C)	
Temperature error	±3%F.S. (Temperature range 0~50°C)	
Measure pattern	Easy mode Hysteresis mode Compare mode of upper and lower bounds	
Display		
Port size	External R1/8, NPT1/8, G1/8 option, internal thread M5	
Status display	4-digit measurement value, unit display, output status display	
Display model	Adjustable backlight, 4 groups of display models	
Voltage range	12~24VDC ±10%	
power consumption	40mA Max(non-load)	
Output signal		
Transistor output	NPN open-collector output Output current:80mA MAX Voltage drop:≤1V	PNP open-collector output Output current:80mA MAX Voltage drop:≤1V
Response time	Adjustable:2.5ms,20ms,100ms,500ms,1000ms,2000ms	
Short-circuit protection	Yes	
IP level	IP40	
Environmental resistance		
Ambient temperature	Operating temperature 0~50°C, storage temperature -20~60°C	
Ambient humidity	Operating humidity 35~80%RH	
Insulation voltage	1000VAC 1min	
Insulation resistance	≥50MΩ(500VDC)	
Shock	Max 100m/s ² , 3 times each in 6 directions of X, Y and Z	
vibration	Amplitude 1.5mm, 10HZ~500HZ, 2 hours each direction of X, Y and Z	

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DIGITAL PRESSURE SWITCH

DPS-3 Series

Output circuit wiring diagrams



Quick setting

● Zero point setting



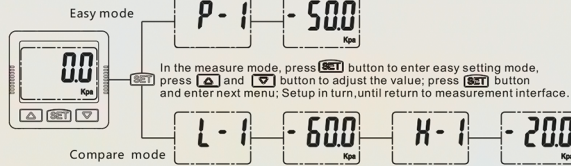
In the measure mode, press [▲] + [▼] button at the same time, until display "0", release the button;
PS: reset range: +/-10%F.S.

● Key lock and unlock



Lock: in the measure mode, press [▲] + [SET] + [▼] button at the same time until "LOCK ON" shown, release the buttons;
Unlock: in the measure mode, press [▲] + [SET] + [▼] button at the same time until "LOCK OFF" shown, release the buttons.

● Easy setting function

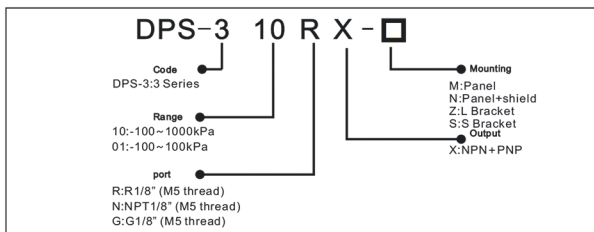


2

DIGITAL PRESSURE SWITCH

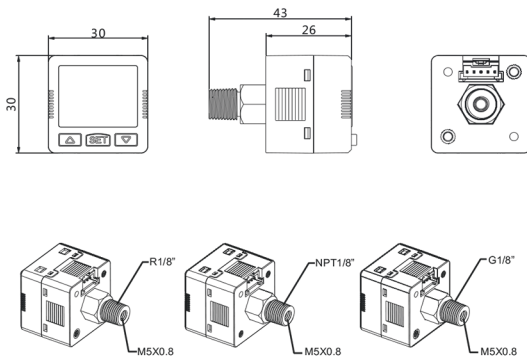
DPS-3 Series

Ordering code



Mounting dimensions (unit:mm)

● Overall dimensions & connection port



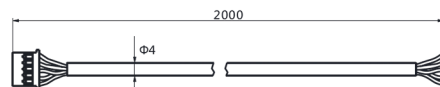
3

DIGITAL PRESSURE SWITCH

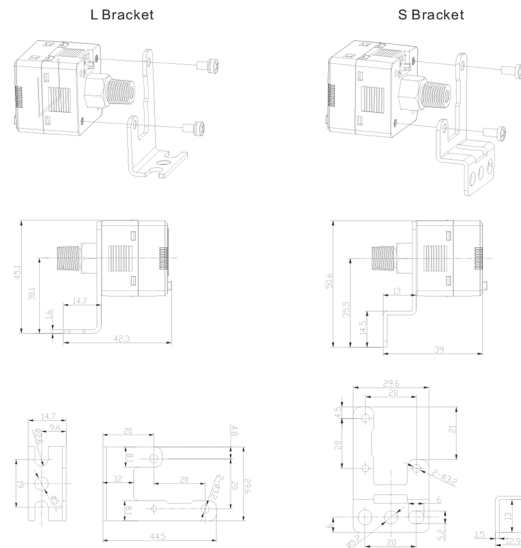
DPS-3 Series

Mounting dimensions (unit:mm)

● Wire dimensions



● Mounting bracket

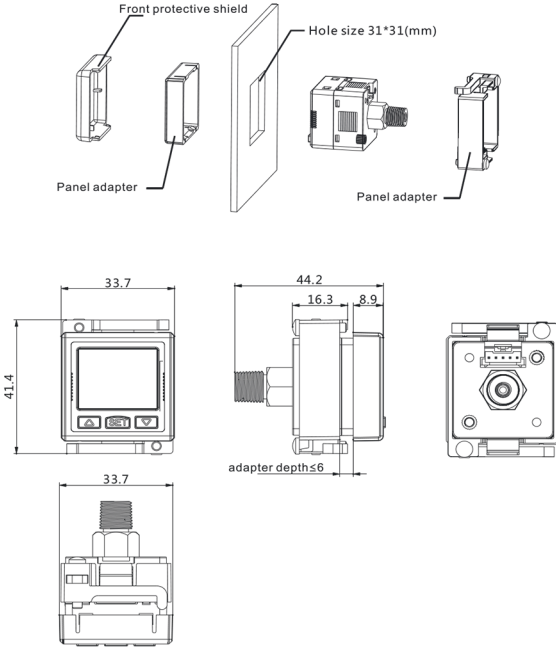


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DIGITAL PRESSURE SWITCH
DPS-3 Series

Mounting dimensions (unit:mm)

● Panel mounting:M



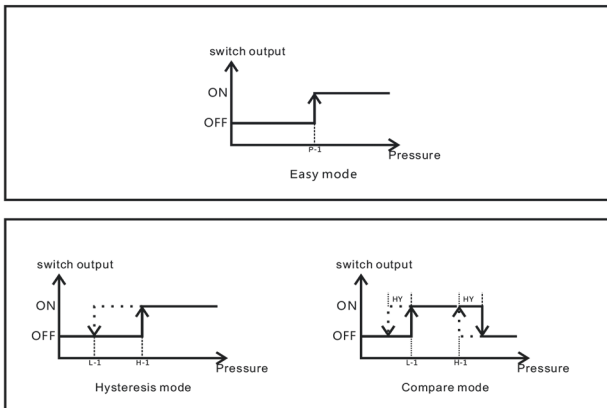
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DIGITAL PRESSURE SWITCH
DPS-3 Series

Error code description

Error code	Problem	Solution
E-1	Exceed zero point reset range	Zero point reset range: +/-10%F.S do not over value setting
E-2	Large output current	Please check the output wire short circuit,over load or others
E-4	Incorrect pressure setting	L-1 < H-1
E-5	Storage data error	Chip error need maintain
XXX	Exceed pressure measure	adjust the pressure to the range

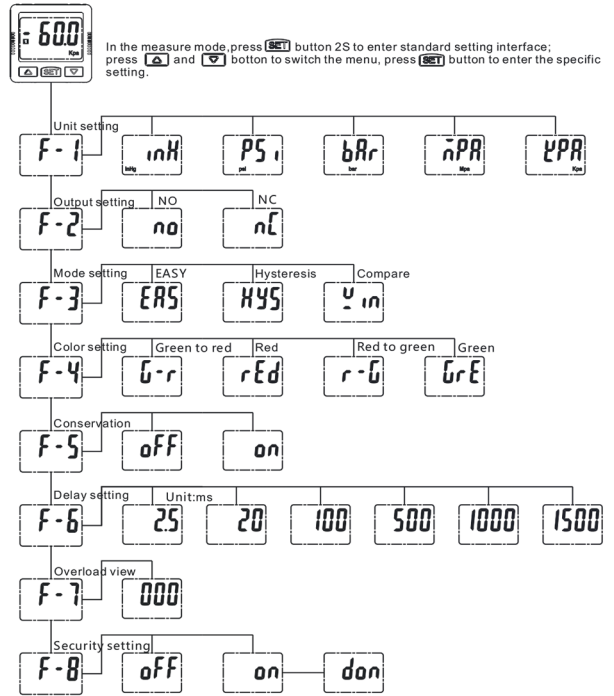
Output function diagram



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DIGITAL PRESSURE SWITCH
DPS-3 Series

Operation instruction (Standard setting)



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DIGITAL PRESSURE SWITCH
DPS-3 Series

Pressure unit conversion table

From	To	Pa	kPa	MPa	kgf/cm ²	mmHg	psi	bar	inHg
1Pa		1	0.001	0.000001					
1kPa		1000	1	0.001	0.010197	7.500616	0.145038	0.01	0.2953
1MPa		1000000	1000	1	10.197	7500.616	145.038	10	295.2998
1kgf/cm ²		98066.5	98.0665	0.098066	1	735.559	14.2233	0.980665	28.95979
1mmHg		133.32	0.13332	0.000133	0.001359	1	0.019336	0.001333	0.03937
1psi		6895	6.895	0.006895	0.07031	51.7157	1	0.06895	2.036074
1bar		100000	100	0.1	1.01972	750.062	14.5038	1	29.52998
1inHg		3386.388	3.386388	0.003386	0.034530	25.4	0.491141	0.033863	1

Caution

1. Only used for air pressure measurement, do not use corrosive or flammable gas.
2. Avoid to be used in high temperature and high humidity.
3. Before installation or removal, please make sure pressure source has been stopped, the output wire is disconnected with controller, to ensure safety.
4. When installation please use the part that meet the pressure connection port and sealing is good, to avoid measure error or gas leakage and other issues.
5. Before connecting to the power, make sure the wiring is correct, higher voltage input will damage the pressure switch

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