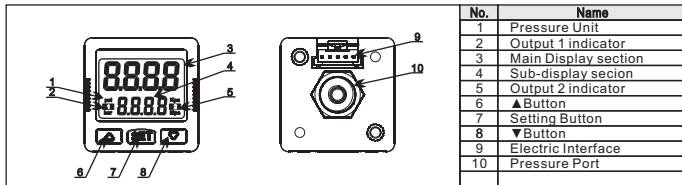


# DIGITAL PRESSURE SWITCH

## DPS-2 Series

### Panel



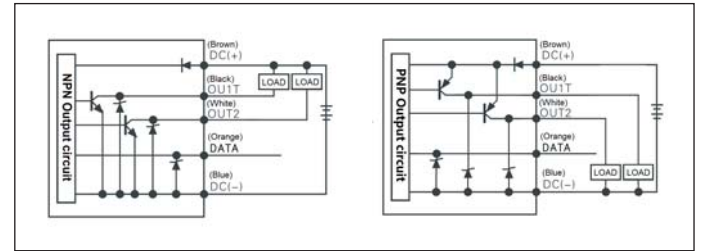
### Technical specifications

Model	DPS-201 (Compound)	DPS-210 (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	Hysteresis mode	
Display	Port size	External R1/8, NPT1/8, G1/8 option, internal thread M5	
	Brief description	Double LCD display	
	Status display	4-digital measurement value, unit display, output status display	
	Display model	Adjustable backlight, 4 groups of display models	
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
	Analog output	Voltage output Singal amplitude:1~5V Load resistance:≥1KΩ	Current output Singal amplitude:4~20mA Load resistance:≤400Ω
Environmental resistance	Response time	Adjustable:2.5ms,20ms,100ms,500ms,1000ms,2000ms	
	Short-circuit protection	Yes	
	IP level	IP40	
	Ambient temperature	Operating temperature 0~50°C, storage temperature -20~60°C	
	Ambient humidity	Operating humidity35~80%RH	
	Insulation voltage	1000VAC 1min	
	Insulation resistance	≥50MΩ(500VDC)	
Shock	Max 100m/s <sup>2</sup> , 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		

# DIGITAL PRESSURE SWITCH

## DPS-2 Series

### Output circuit wiring diagrams



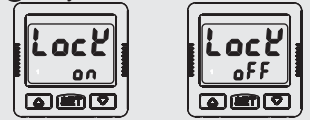
### Quick setting

#### ● Zero point setting



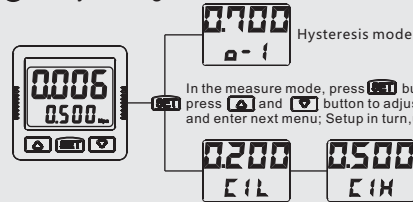
In the measure mode, press ▲ + ▼ button at the same time, until display "0", release the button;  
PS: reset range: +/- 10%F.S.

#### ● Key lock and unlock



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

#### ● Easy setting function

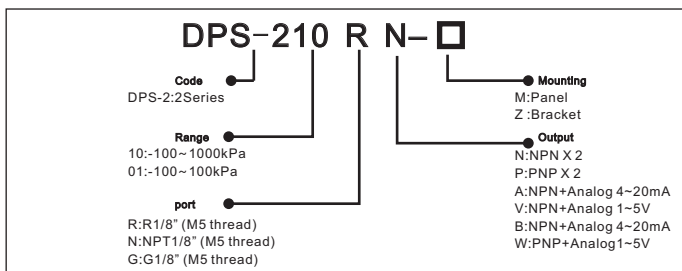


In the measure mode, press (Easy) button to enter easy setting mode, press ▲ and ▼ button to adjust the value; press (Easy) button and enter next menu; Setup in turn, until return to measurement interface.

# DIGITAL PRESSURE SWITCH

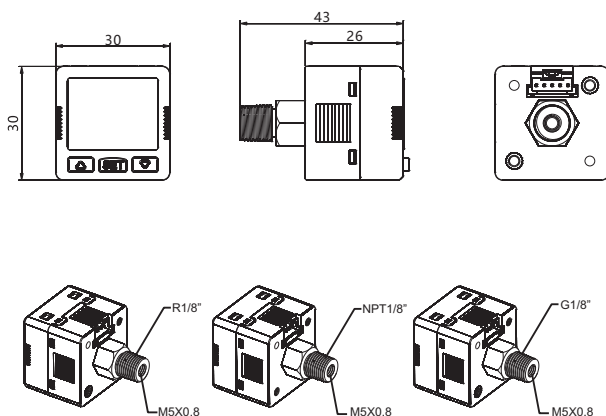
## DPS-2 Series

### Ordering code



### Mounting dimensions (unit:mm)

#### ● Overall dimensions & connection port

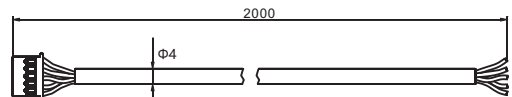


# DIGITAL PRESSURE SWITCH

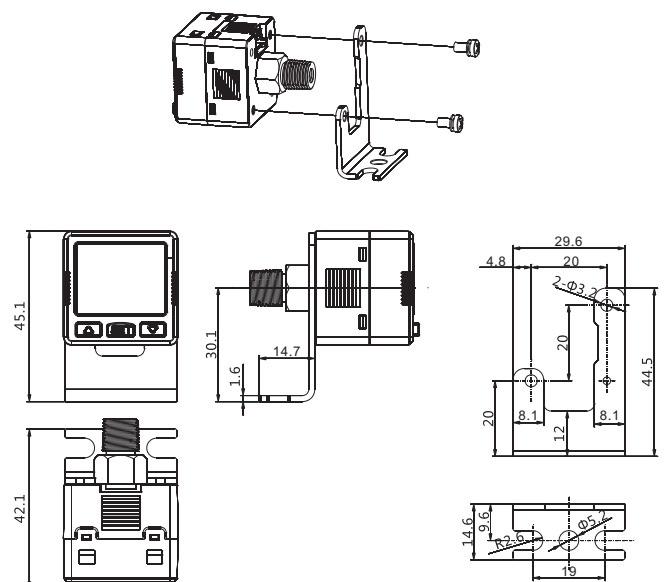
## DPS-2 Series

### Mounting dimensions (unit:mm)

#### ● Wire dimensions



#### ● Mounting bracket:Z

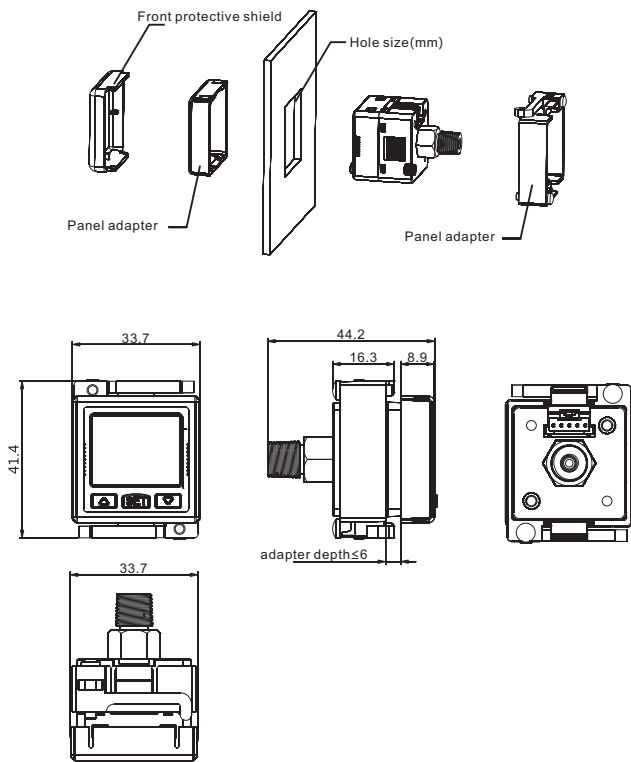


# DIGITAL PRESSURE SWITCH

DPS-2 Series

## Mounting dimensions (unit:mm)

### ● Panel mounting:M



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# DIGITAL PRESSURE SWITCH

DPS-2 Series

## Operation instruction ( Standard setting )

In the measure mode, press **ENT** button 2S to enter standard setting interface; press **←** and **→** button to switch the menu, press **ENT** button to enter the specific setting, when data is setting, **←** button to move the command, **→** button to add the command.

Unit setting: KPa, MPa, psi, bar

Output 1 setting: NO, Hysteresis, Backlash, setting value

Output 2 setting: NC, Compare, Backlash, Low voltage, High voltage

Delay setting: Unit:ms

Division value setting

Color setting: Red, Red to green, Green, Green to red

Conservation: OFF, ON

Security setting

PS: Outout 2 setting is same as output 1 setting, it can be on or off;

PS: If 1000 division, the fourth digit can be changed; if 100 division, the third digit can be changed, the fourth digit is zero.

PS: Background color related with output 1;

PS: Security to be used with key lock. Key unlock need enter the password. One time password enter from PIN ON to PIN OFF; Two times password enter from PIN OFF to PIN ON;

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# DIGITAL PRESSURE SWITCH

DPS-2 Series

## Advanced setting mode

In the measurement mode, press **ENT** button 4s to enter advanced function interface; use **←** and **→** button to switch the menu, press **ENT** button to specific setting;

Copy function setting: COPY SEt, RASE CoP, SLAB CoP

PS: When Copy, slave switch screen shows SLAV COP, and master switch screen shows MAST COP, then press **ENT** button to copy.

Overload view: oVer Lad, 0002 MXX

PS: View the overload condition of master switch when working, and the number of overload;

Restore factory: rEFs, OFF rFS, on rFS, done rFS

## Error code description

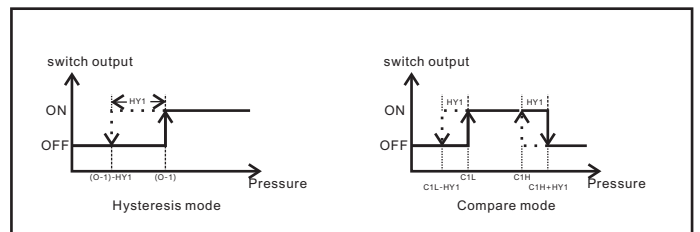
Error code	Problem	Solution
Err 1	Exceed zero point reset range	Zero point reset range: +/-10%FS do not over value setting
Err 2	Large output current	Please check the output wire short circuit, over load or others
Err 4	Incorrect pressure setting	Heysteresis mode: HYS<0-1 Compare mode: HYS< 1L<C1H
Err 5	Storage data error	Chip error need maintain
Err 6	Wrong password	enter the correct password
Err 7	Copy data Error	Data check error, please re-copy
XXXX	Exceed pressure measure	adjust the pressure to the range

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# DIGITAL PRESSURE SWITCH

DPS-2 Series

## Output function diagram



## Pressure unit conversion table

From	To	Pa	kPa	MPa	kgf/cm <sup>2</sup>	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 <sup>2</sup>		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	6.985	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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