

## DPS Series digital display pressure switch



### Symbol



### User interface Instruction

No.	Item
A	Value up button
B	Setting button
C	Value Down button
D	Pressure display area
E	Set pressure display area
F	Output 1 indicator light
G	Output 2 indicator light
H	Power and signal connector
J	Pressure input

### Specification

Input power	Voltage	12~24 VDC ± 10% Ripple(p-p) < 10%
	Current consumption	Under 45mA Max (No load)
Pressure range	Pressure type	Non-corrosive gas
	Measurement range	DPSN1(P1)-01: -100kpa~100kpa DPSN1(P1)-10: -100kpa~1,000kpa
	Withstand pressure	DPSN1(P1)-01: 200kpa DPSN1(P1)-10: 1500kpa
	Measurement error	± 0.2%F.S. ± 1digit(Temperature:25 ± 3°C)
	Repetitive accuracy	± 0.2%F.S.
	Temperature error	± 3%F.S.(Base 25°C, Range 0 to 50°C)
Display	Type	Double row LCD display,4-digit measurement, 3.5-digit setting
	Output	Double output LCD display
	Color	2-color LCD (Red/Green)
	Display period	100ms、250ms、500ms、1,000ms
Output	Output group	DPSN1:Built-in two sets of NPN output DPSP1:Built-in two sets of PNP output
	Transistor output	NPN:Maximum applied voltage 30V/100mA,Retained voltage < 1.5V PNP:Maximum applied voltage 30V/100mA,Retained voltage < 1.5V
	Response time	2ms、20ms、50ms、100ms、250ms、500ms、1,000ms、2,500ms、5,000ms
	Hysteresis	1ms、2ms、3ms、4ms、5ms、6ms、7ms、8ms
	Output mode	Basic mode, Hysteresis mode, Window comparator mode
	Pressure Unit	MPa, kPa, kgf/cm <sup>2</sup> , bar, psi, mmHg, cmHg(Not available for ±100kPa type)
Vibration resistance	10 to 500Hz with 10mm Amplitude in X, Y, Z directions for 2hrs	
Impact resistance	Maximum 100m/s <sup>2</sup> , X, Y, Z directions 3 times each	
Operating Temp. range	0~50°C	
Stored Temp. range	-20~65°C	
Humidity range	35%~80% RH(No condensation)	

### Ordering code

**DPS N1 □ 01 020 □**

- Model**  
DPS: Digital Display Pressure Switch
- Output type**  
N1: NPN  
P1: PNP
- Electrical entry**  
Space: Plug-in connector  
I: Pre-wired type
- Piping specifications**  
Space: PT 1/8 with M5 female thread  
G: Male thread G1/8; female thread: M5  
T: Male thread NPT1/8; female thread: 10-32UNF  
N: Male thread free with M5 female thread
- Lead wire length**  
020: Length 2m  
030: Length 3m
- Measurement range**  
01: -100kPa~100kPa  
10: -100kPa~1,000kPa

### Dimensions/Assembly Instruction

**Panel mount adapter + Front protective cover**  
Order the Install accessories (Ordering code: F-DPSEB)

**Panel frame dimension**  
31<sup>+0.5</sup> (height), 31<sup>+0.5</sup> (width)

**Bracket**  
Order the Install accessories (Ordering code: F-DPSLB)

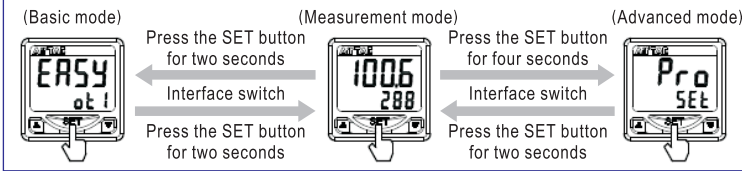
### Dimensions

**Piping specifications:**  
Space: PT 1/8 with M5 female thread  
T: Male thread NPT1/8; female thread: 10-32UNF  
G: Male thread G1/8; female thread: M5  
N: Male thread free with M5 female thread

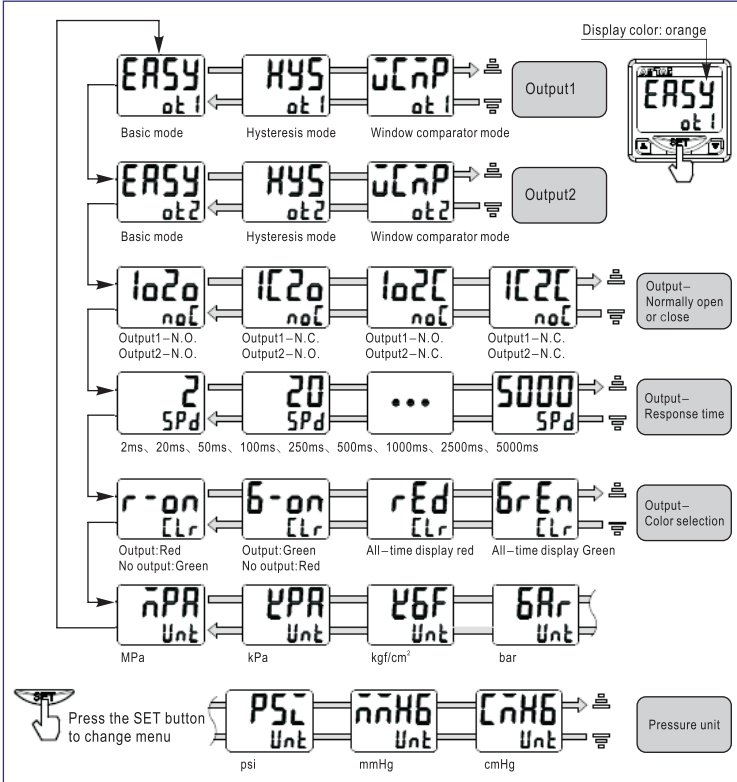
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### User Interface Instructions

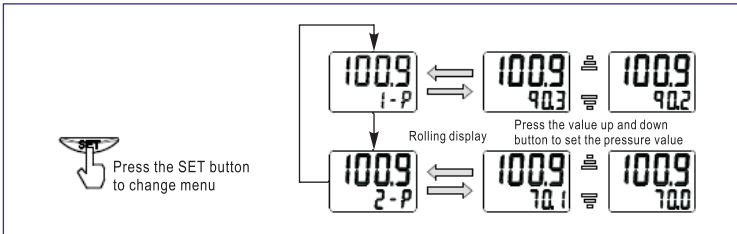
#### 1. Mode switch



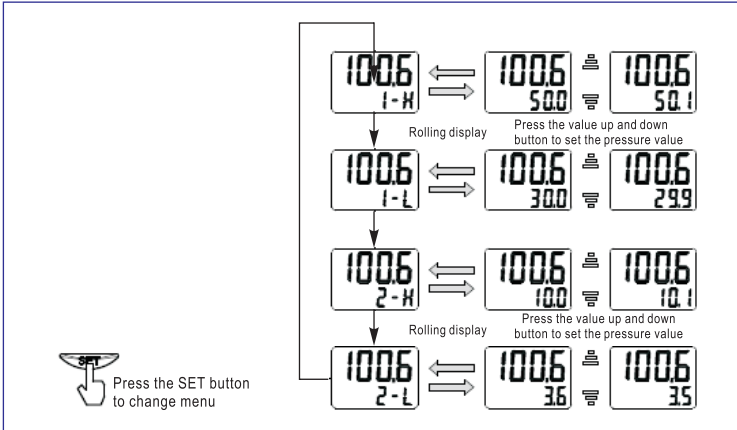
#### 2. Basic mode



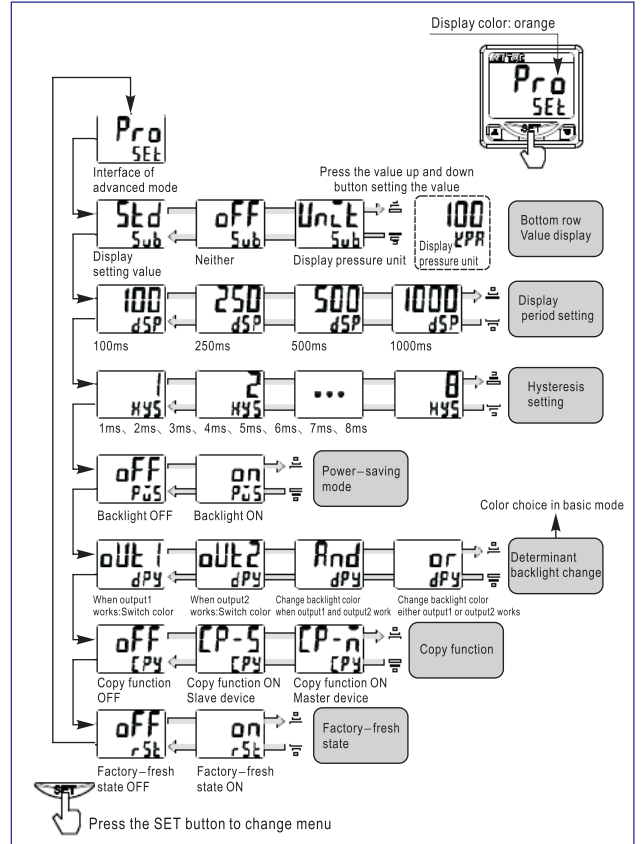
#### 3. Base mode pressure setting



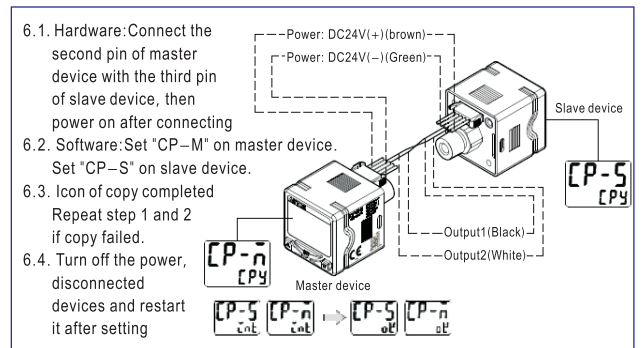
#### 4. Hysteresis /window comparator mode



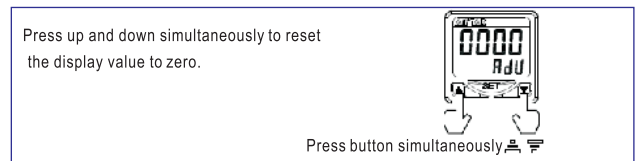
#### 5. Interface of advanced mode



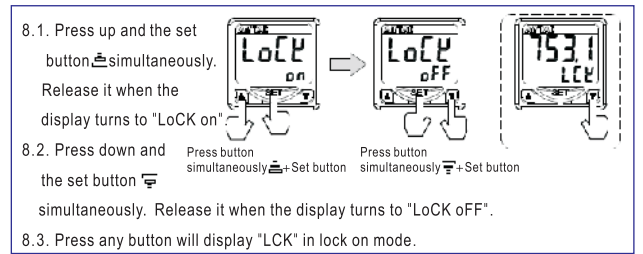
#### 6. Copy function



#### 7. Zero—Clear Function



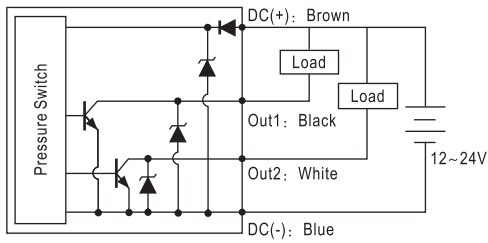
#### 8. Key lock Function



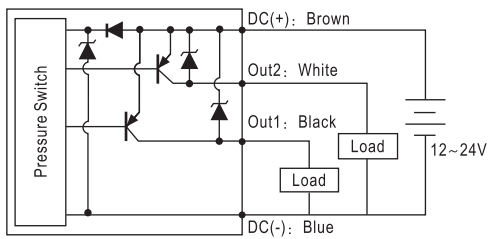
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### Connection Example

#### NPN Output



#### PNP Output



### Notes

1. Do not drop, knock or apply excessive impact while handling. Otherwise could cause damage and a malfunction.
2. The tensile strength of the cord is 60N. Applying a greater pulling force on it can cause a malfunction.
3. Do not exceed the screw-in torque of 7N.m when installing piping. Exceeding this value may cause malfunctioning of the sensor.
4. Do not use it with corrosive and/or flammable gases or liquids.
5. Please use it within rated pressure range.
6. Turn off the power before connecting the wires.
7. Don't use in an environment with spattering liquid of oil or solvent.
8. Separate power lines from high voltage lines, avoiding wiring in the same conduit with these lines.