

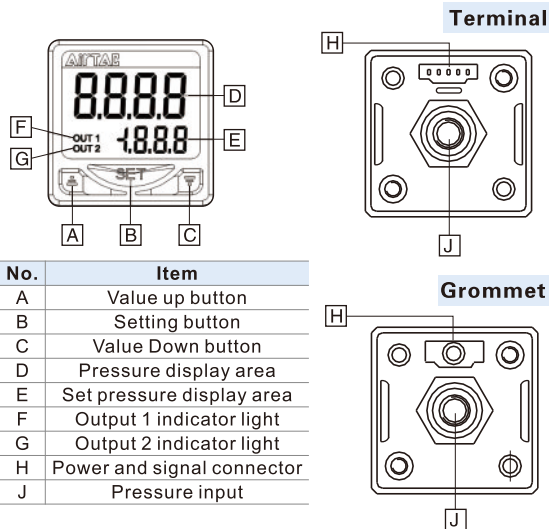
## DPS Series digital display pressure switch



### Symbol



### User interface Instruction



### Specification

Input power	Voltage	12~24 VDC ± 10% Ripple(p-p) < 10%
	Fluid	Non-corrosive gas
Pressure range	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	± 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
	Color	2-color LCD (Red/Green)
	Display period	100ms、250ms、500ms、1,000ms
Output group	DPSN1:Built-in two sets of NPN output	
	DPS1: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	
Output delay time	2ms、20ms、50ms、100ms、250ms、500ms	
	1,000ms、2,500ms、5,000ms	
Hysteresis	DPSN1(P1)-01: 0.1、0.2、0.3..... 0.8(kPa)	
	DPSN1(P1)-10: 1、2、3..... 8(kPa)	
Output mode	Basic mode, Hysteresis mode, Window comparator mode	
	DPSN1(P1)-01	kPa, kgf/cm <sup>2</sup> , bar, psi, mmHg, inHg
		MPa, kPa, kgf/cm <sup>2</sup> , bar, psi, cmHg, inHg
DPSN1(P1)-10	MPa, kPa, kgf/cm <sup>2</sup> , bar, psi, cmHg, inHg	
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 G

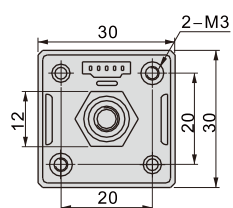
① ② ③ ④ ⑤ ⑥

① Model	② Output type	③ Electrical entry	④ Measurement range	⑤ Lead wire length	⑥ Piping specifications
DPS: Digital Display Pressure Switch	N1: NPN P1: PNP	Space: Plug-in connector B: Pre-wired type [Note]	01: -100kPa~100kPa 10: -100kPa~1,000kPa	020: Length 2m 030: Length 3m 050: Length 5m	G: Male thread G1/8; female thread: M5

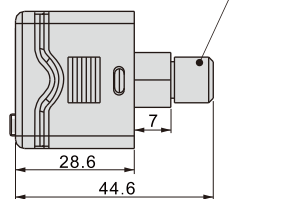
[Note] The safety grade of pre-wired type is IP63.

### Dimensions

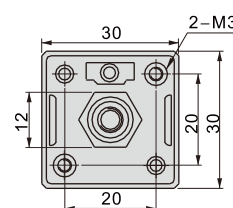
#### Plug-in connector



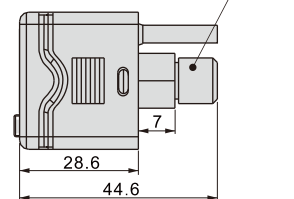
Piping specifications:  
G: Male thread G1/8; female thread: M5



#### Pre-wired type



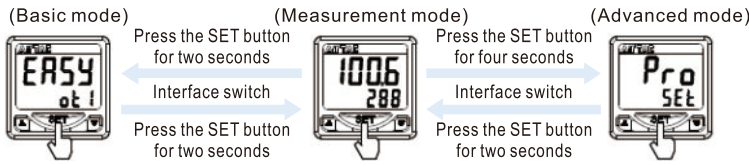
Piping specifications:  
G: Male thread G1/8; female thread: M5



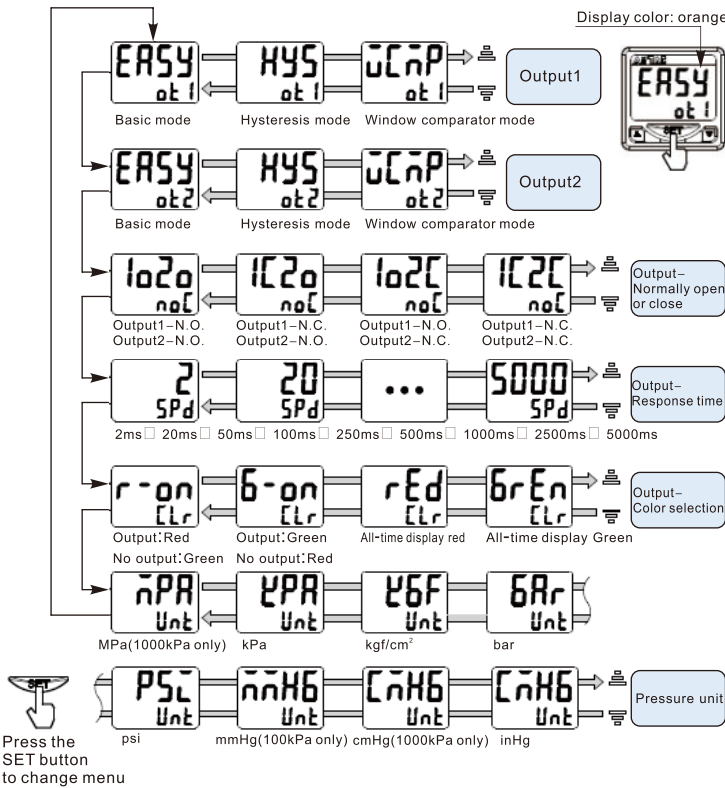
## DPS Series digital display pressure switch

### User Interface Instructions

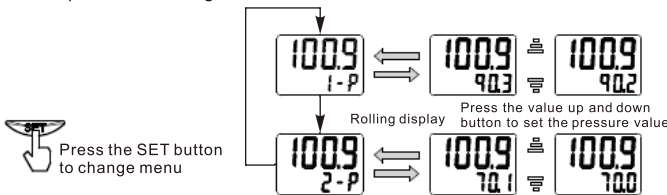
#### 1. Mode switch



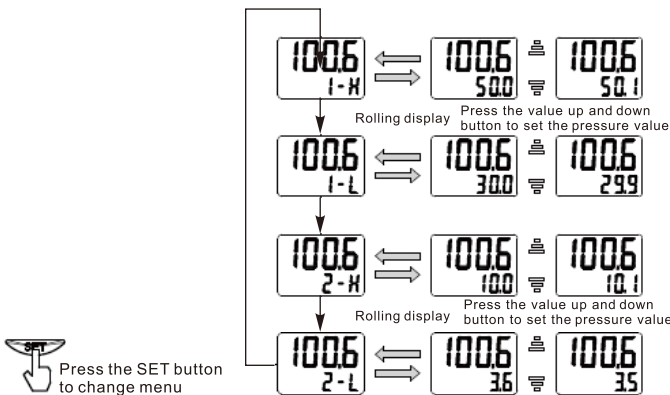
#### 2. Basic mode



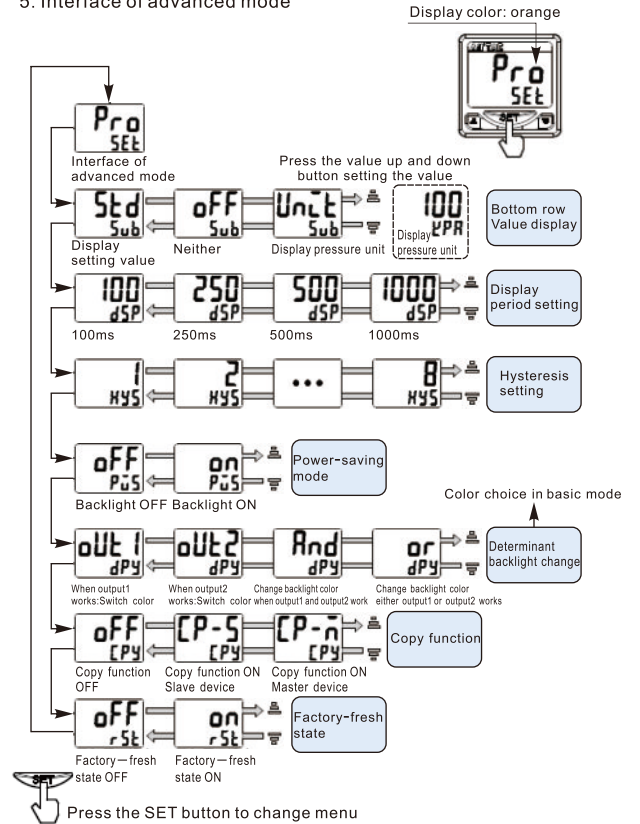
#### 3. Base mode pressure setting



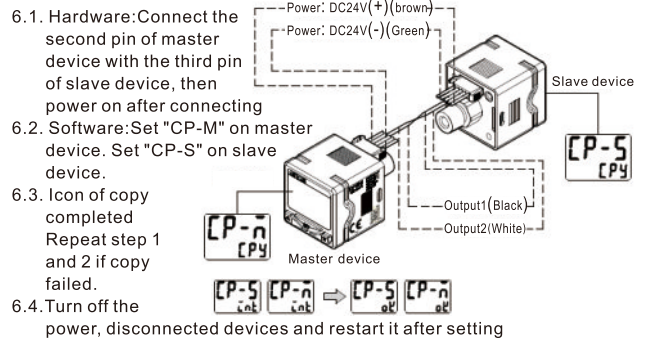
#### 4. Hysteresis /window comparator mode



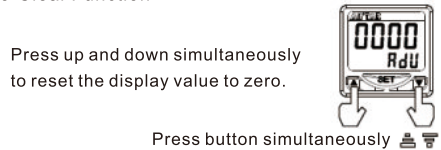
#### 5. Interface of advanced mode



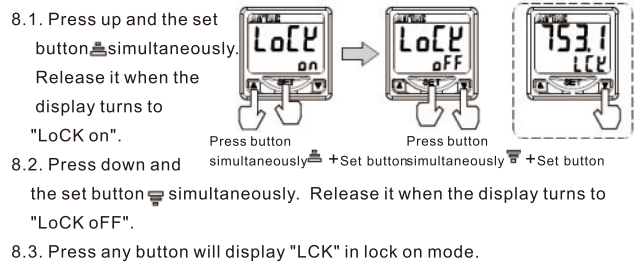
#### 6. Copy function



#### 7. Zero-Clear Function



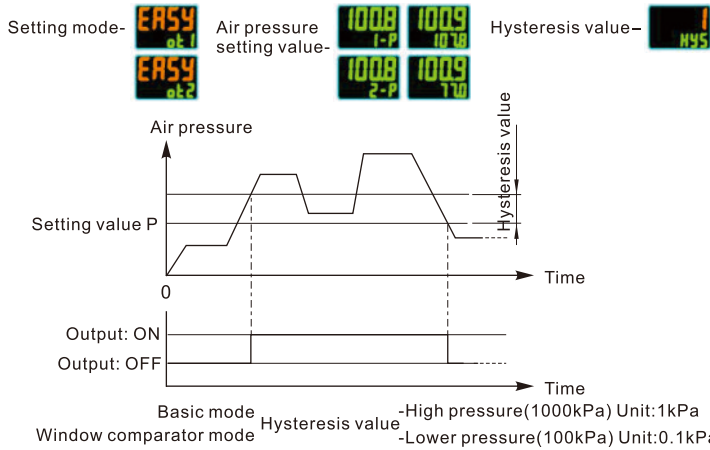
#### 8. Key lock Function



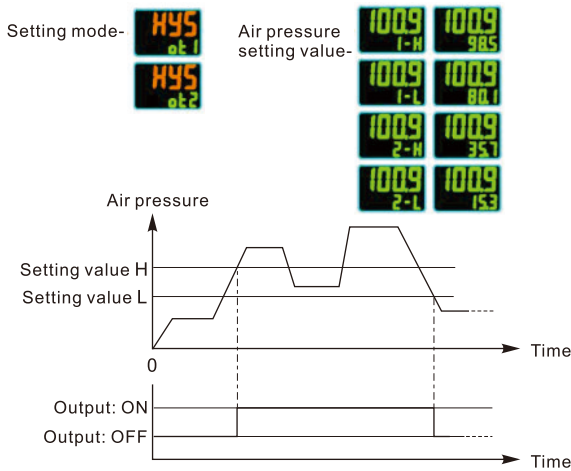
## DPS Series digital display pressure switch

### Output mode

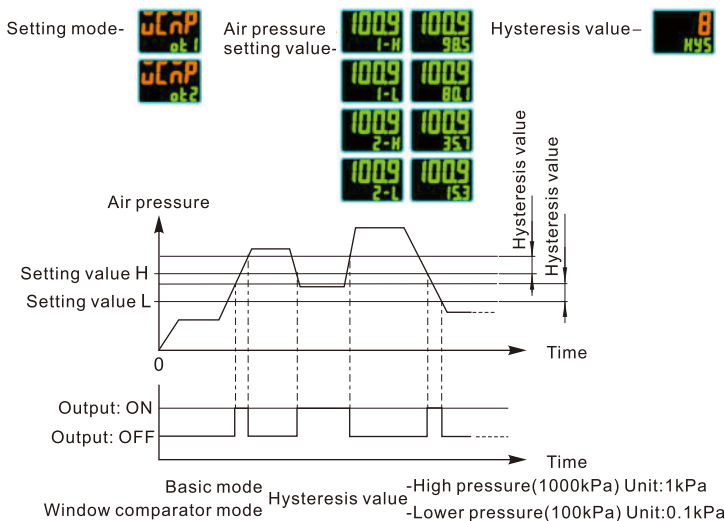
- Basic mode:** Air pressure setting value 'P'. When air pressure large then (Setting value P+Hysteresis value), the output is 'NO' □ When air pressure less than setting value 'P', the output is 'OFF'.



- Hysteresis mode:** Air pressure setting value 'H/L'. When air pressure large then setting value 'H', the output is 'NO' □ When air pressure less than setting value 'L', the output is 'OFF'.

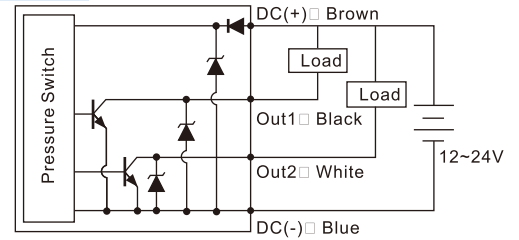


- Window comparator mode:** Air pressure setting value 'H/L'. When air pressure large then value 'H' or less than value 'L', the output is 'OFF' □ When air pressure large then value 'L' and less than value 'H', the output is 'ON'.

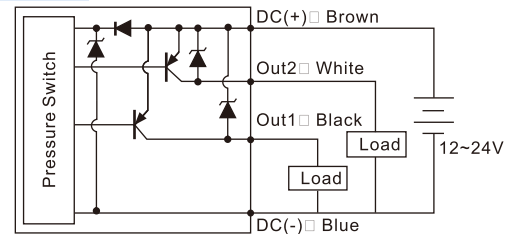


### Connection Example

#### NPN Output



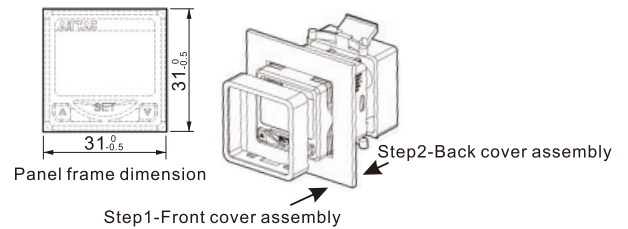
#### PNP Output



### Dimensions/Assembly Instruction

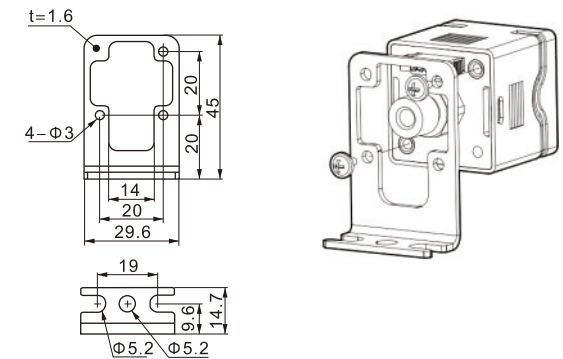
#### Panel mount adapter + Front protective cover

Order the Install accessories (Ordering code: F-DPSEB)



#### Bracket

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



### Notes

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