

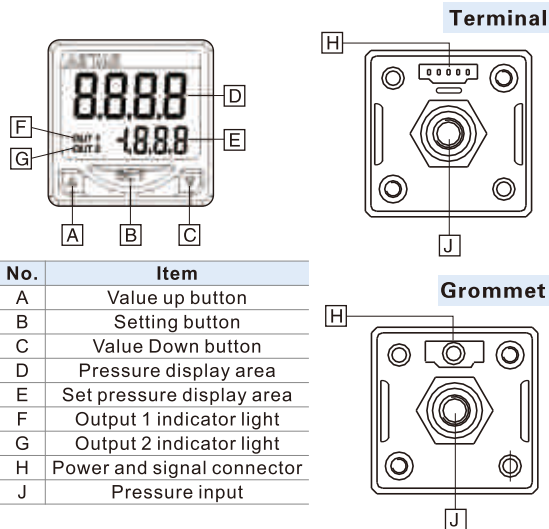
DPS Series digital display pressure switch



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%
	Fluid	Non-corrosive gas
Pressure range	Measurement range	DPSN1(P1)-01: -100kPa~100kPa
		DPSN1(P1)-10: -100kPa~1,000kPa
Pressure range	Withstand pressure	DPSN1(P1)-01: 200kPa
		DPSN1(P1)-10: 1500kPa
Display	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)
	Type	Double row LCD display,4-digit measurement, 3.5-digit setting
Display	Color	2-color LCD (Red/Green)
	Display period	100ms、250ms、500ms、1,000ms
Output group	Output group	DPSN1:Built-in two sets of NPN output
		DPSP1:Built-in two sets of PNP output
Output	Transistor output	NPN:Maximum applied voltage 30V/100mA,Retained voltage <1.5V
		PNP:Maximum applied voltage 30V/100mA,Retained voltage <1.5V
Output	Output delay time	2ms、20ms、50ms、100ms、250ms、500ms
		1,000ms、2,500ms、5,000ms
Output	Hysteresis	DPSN1(P1)-01: 0.1、0.2、0.3..... 0.8(kPa)
		DPSN1(P1)-10: 1、2、3..... 8(kPa)
Pressure Unit	Output mode	Basic mode, Hysteresis mode, Window comparator mode
		DPSN1(P1)-01
Pressure Unit	DPSN1(P1)-10	MPa, kPa, kgf/cm ² , bar, psi, cmHg, inHg
		Vibration resistance
	Impact resistance	Maximum 100m/s ² , 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 □

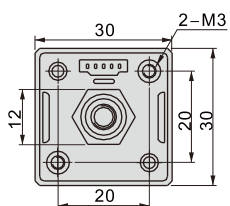
① ② ③ ④ ⑤ ⑥

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	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

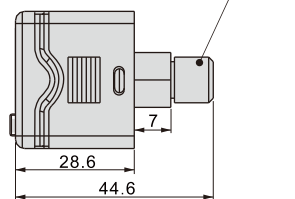
[Note] The safety grade of pre-wired type is IP63.

Dimensions

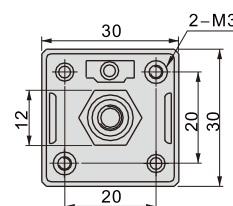
Plug-in connector



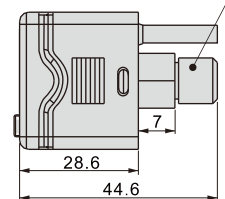
Piping specifications:
Space: PT 1/8 with M5 female thread
T: Male thread NPT1/8; female thread: 10-32UNF
G: Male thread G1/8; female thread: M5



Pre-wired type



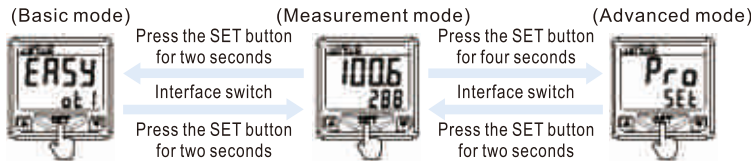
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T: Male thread NPT1/8; female thread: 10-32UNF
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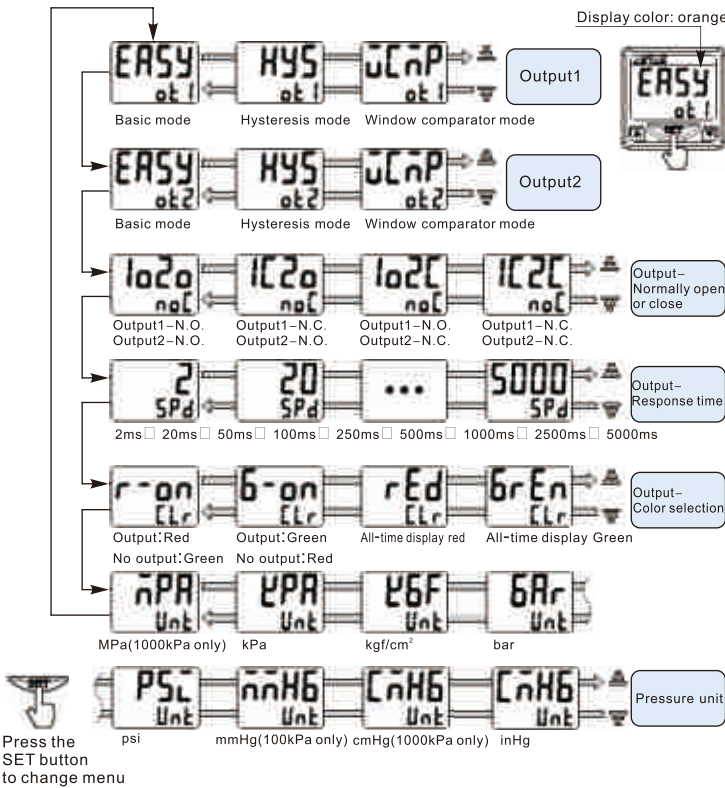
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User Interface Instructions

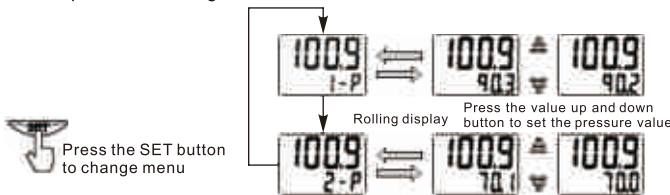
1. Mode switch



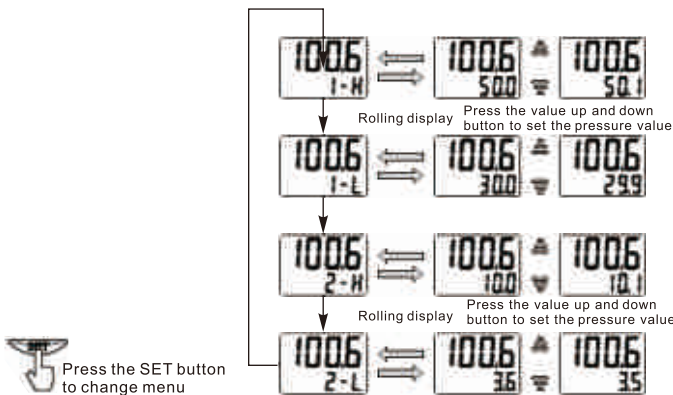
2. Basic mode



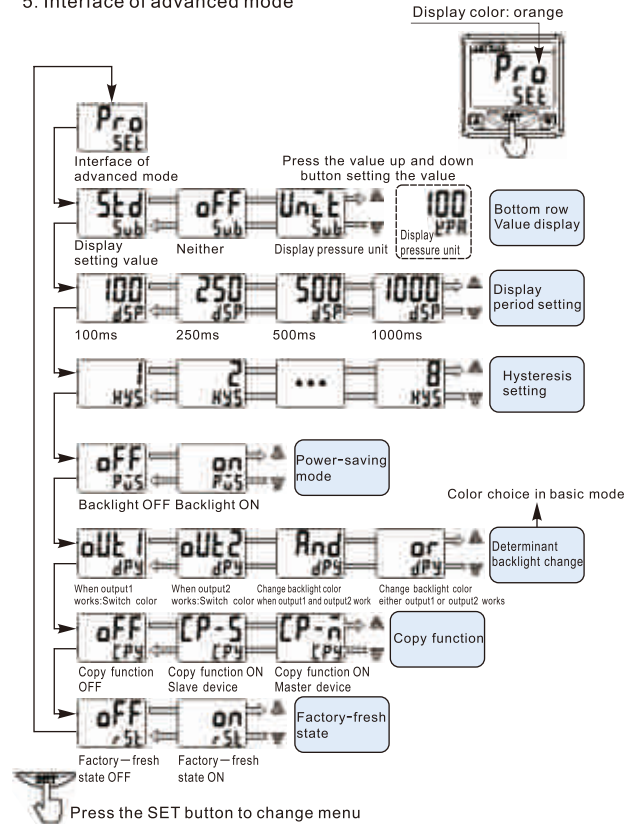
3. Base mode pressure setting



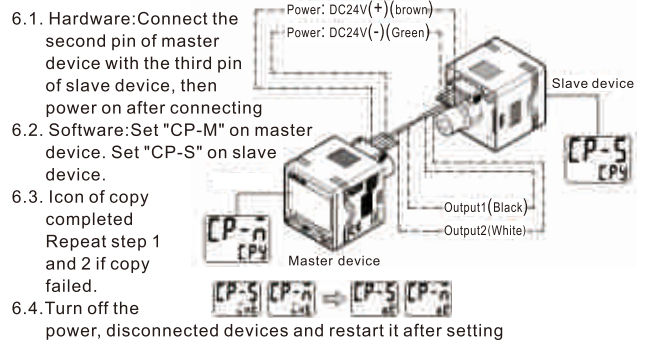
4. Hysteresis /window comparator mode



5. Interface of advanced mode

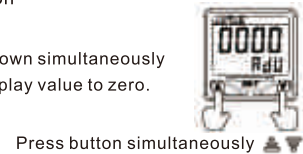


6. Copy function



7. Zero-Clear Function

Press up and down simultaneously to reset the display value to zero.



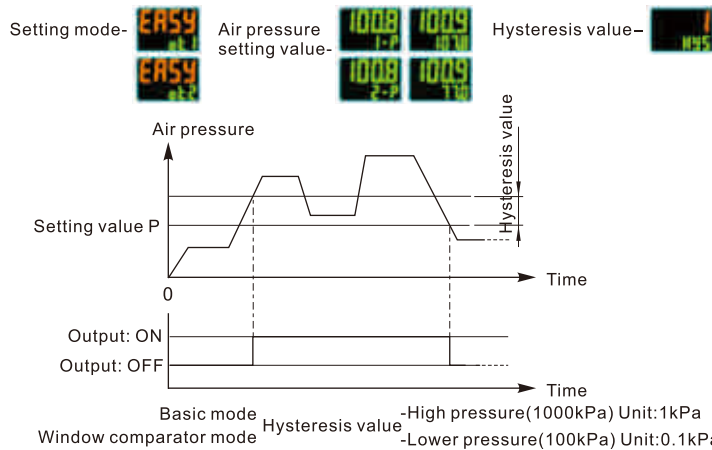
8. Key lock Function

- Press up and the set button simultaneously. Release it when the display turns to "LoCK on".
- Press down and the set button simultaneously. Release it when the display turns to "LoCK off".
- Press any button will display "LCK" in lock on mode.

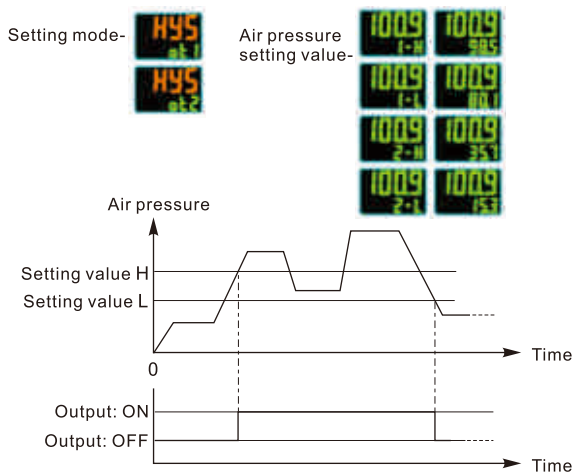
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Output mode

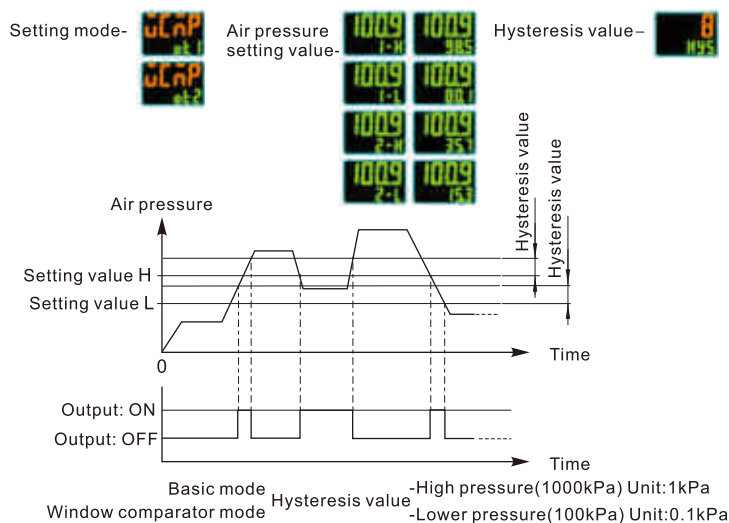
- Basic mode:** Air pressure setting value 'P'. When air pressure large then (Setting value P+Hysteresis value), the output is 'NO' □ When air pressure less than setting value 'P', the output is 'OFF'.



- 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'.

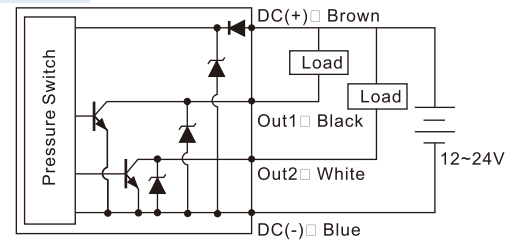


- Window comparator mode:** Air pressure setting value 'H/L'. When air pressure large then value 'H' or less than value 'L', the output is 'OFF' □ When air pressure large then value 'L' and less than value 'H', the output is 'ON'.

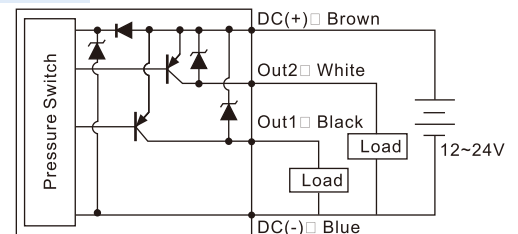


Connection Example

NPN Output



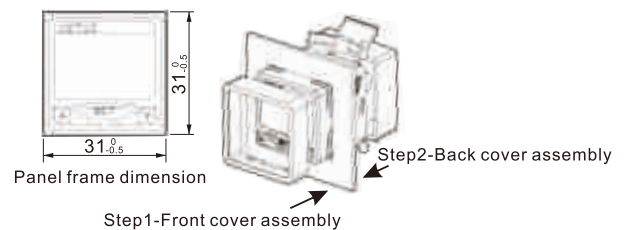
PNP Output



Dimensions/Assembly Instruction

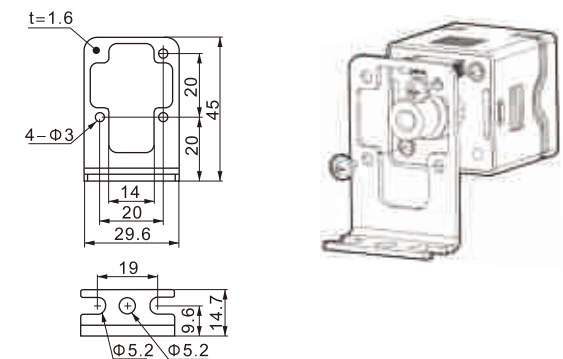
Panel mount adapter + Front protective cover

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.