

# Preparation unit—Accessories



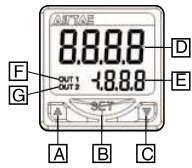
## DPS Series digital display pressure sensor



Symbol

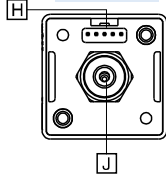


### User interface Instruction

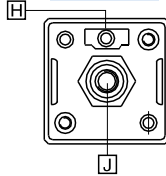


No.	Item
A	Value up button
B	Setting button
C	Value Down button
D	Pressure display area
E	Set pressure display area
F	Output 1 indicator light
G	Output 2 indicator light
H	Power and signal connector
J	Pressure input

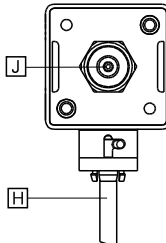
Terminal



Grommet



Output on the bottom



### Specification

Input power	Voltage	12~24 VDC $\pm$ 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	$\pm$ 2%F.S. , $\pm$ 1digit(Temperature:25 $\pm$ 3 $^{\circ}$ C)
	Repetitive accuracy	$\pm$ 0.2%F.S.
Temperature error		$\pm$ 3%F.S.(Base 25 $^{\circ}$ C, Range 0 to 50 $^{\circ}$ 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		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
Output	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)
Pressure Unit	DPSN1(P1)-01	kPa、kgf/cm $^2$ 、bar、psi、mmHg、inHg
	DPSN1(P1)-10	MPa、kPa、kgf/cm $^2$ 、bar、psi、cmHg、inHg
Vibration resistance		10 to 500Hz with 10mm Amplitude in X, Y, Z directions for 2hrs
Impact resistance		Maximum 100m/s $^2$ , X, Y, Z directions 3 times each
Operating Temp. range		0~50 $^{\circ}$ C
Stored Temp. range		-20~65 $^{\circ}$ 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 Sensor	N1: NPN P1: PNP	Space: Plug-in type B: Pre-wired type [Note1] D: Output on the bottom type	01: -100kPa~100kPa 10: -100kPa~1,000kPa	020: Length 2m 030: Length 3m 050: Length 5m M08:300mm with M8 plug connector[Note2]	Blank: Male thread PT1/8; female thread: M5 T: Male thread NPT1/8; female thread: 10-32UNF G: Male thread G1/8; female thread: M5

[Note1] The safety grade of pre-wired type is IP63.

[Note2] There is no plug-in type for M08.

The sockets of M08 need additional order. Please check on the right.

#### Ordering code of Socket F - EC M08 D 020



Catagory code	F: Accessory
Type code	EC: Connecting wire
Socket type	M08:M8 socket
Wire type	D: 4-wire type
Wire length	020: 2 meters 030:3meters 050:5meters 100:10meters



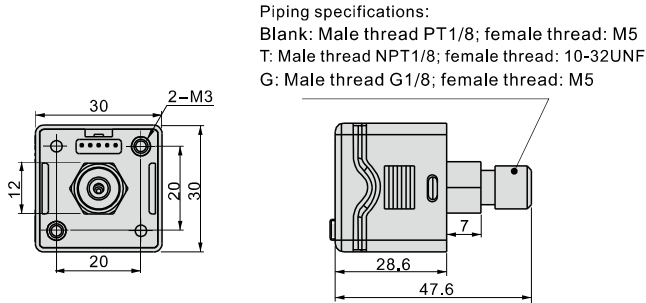
# Preparation unit—Accessories



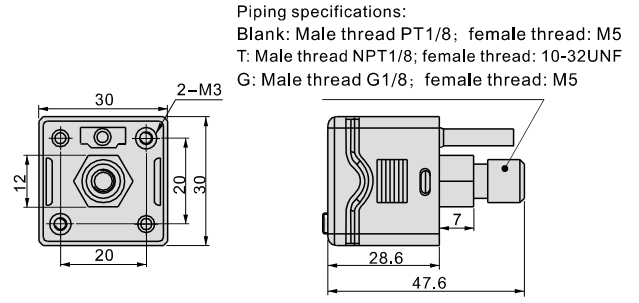
## DPS Series digital display pressure sensor

### Dimensions

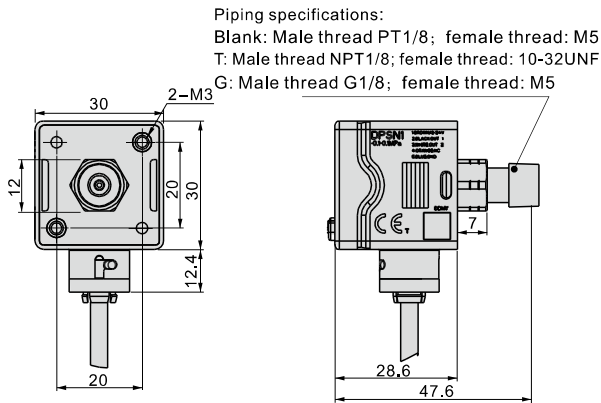
#### Plug-in connector



#### Pre-wired type



#### Output on the bottom type

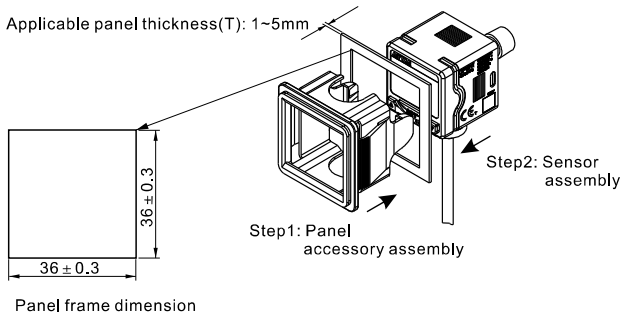


### Dimensions/Assembly Instruction

#### Panel mount adapter + Front protective cover

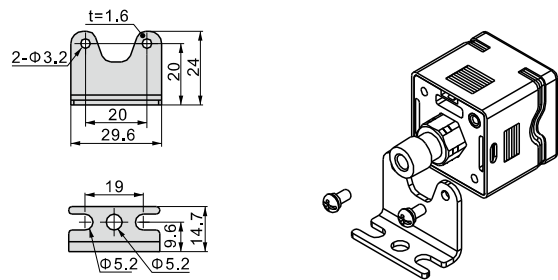
Order the installation accessories (Ordering code: F-DPSEB)

Applicable panel thickness(T): 1~5mm



#### Bracket

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



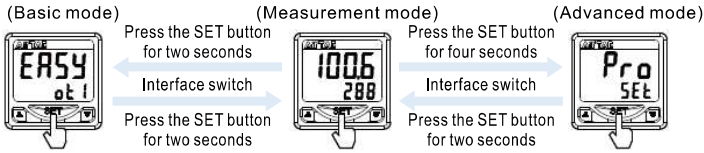
# Preparation unit—Accessories

## DPS Series digital display pressure sensor

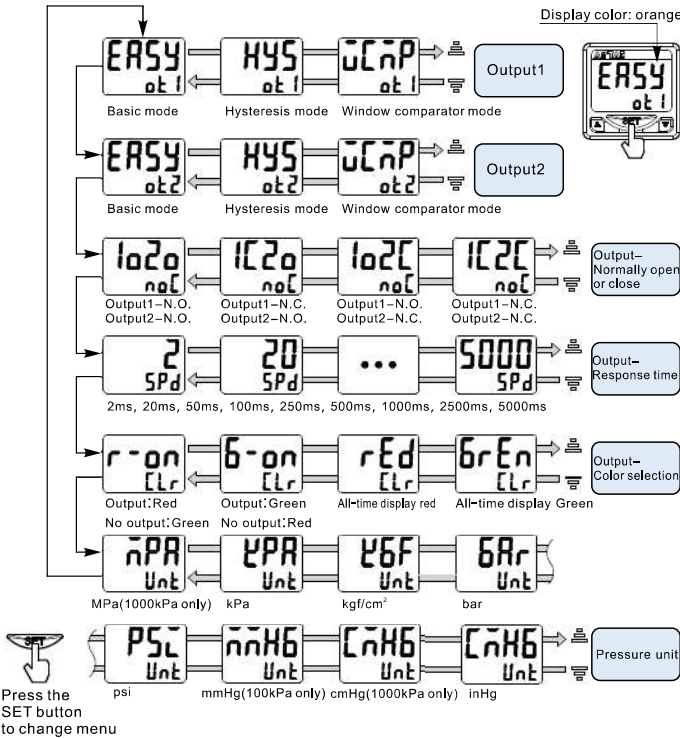


### User Interface Instructions

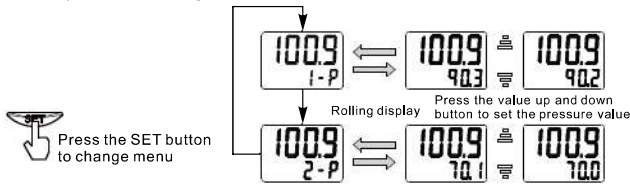
#### 1. Mode switch



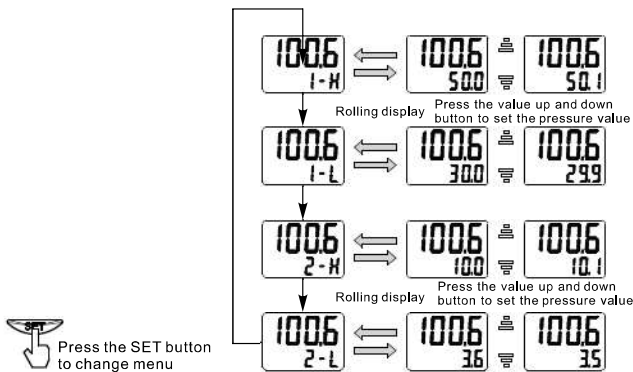
#### 2. Basic mode



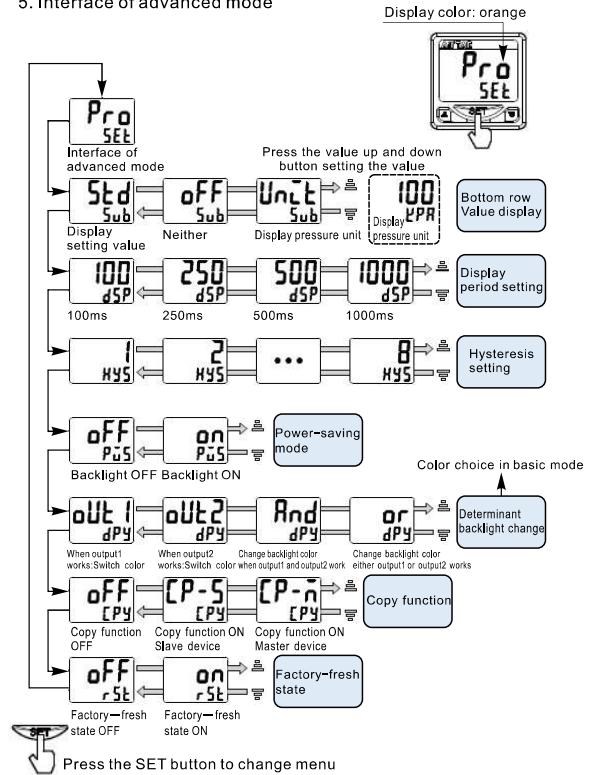
#### 3. Base mode pressure setting



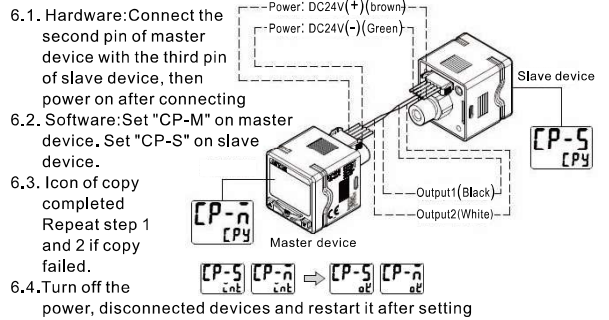
#### 4. Hysteresis /window comparator mode



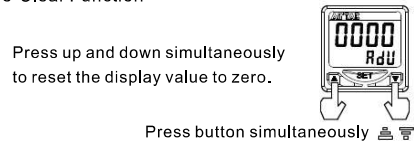
#### 5. Interface of advanced mode



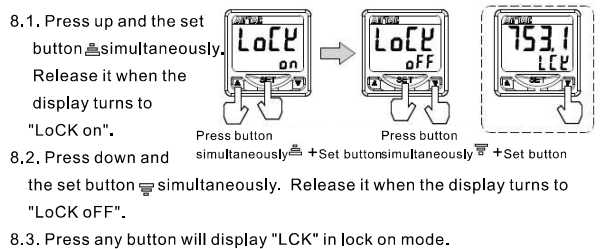
#### 6. Copy function



#### 7. Zero-Clear Function



#### 8. Key lock Function

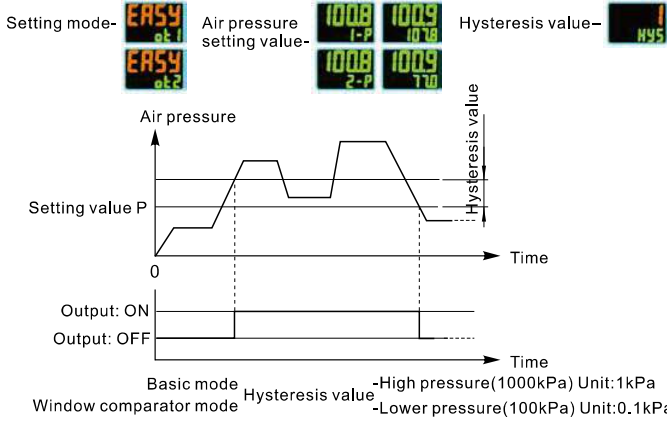


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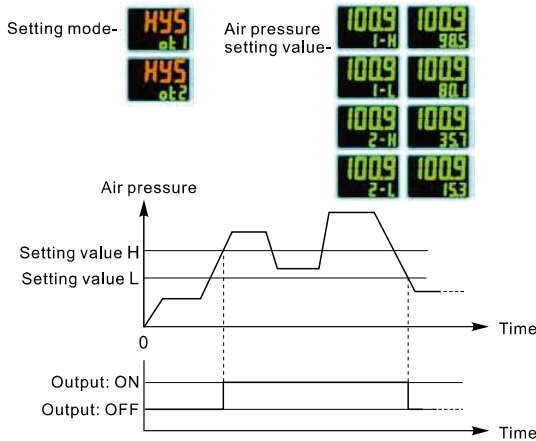
## DPS Series digital display pressure sensor

### Output mode

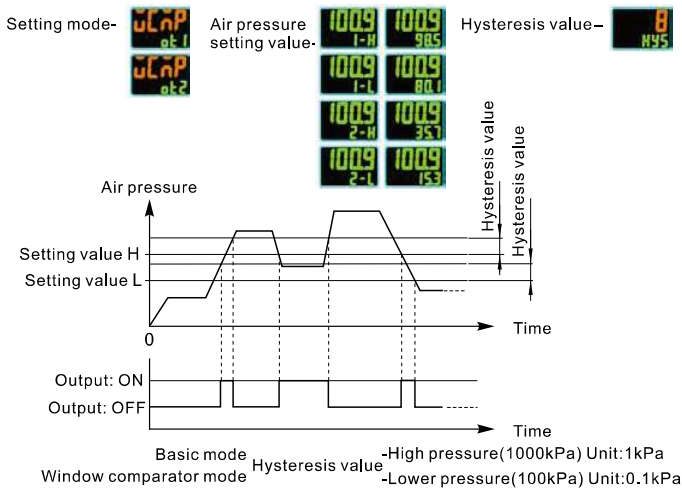
**1. Basic mode:** Air pressure setting value 'P'. When air pressure large then (Setting value P+Hysteresis value), the output is 'NO'; When air pressure less than setting value 'P', the output is 'OFF'.



**2. 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'.

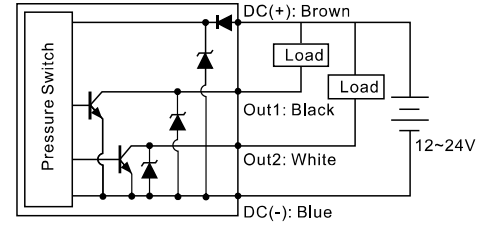


**3. Window comparator mode:** Air pressure setting value 'H/L'. When air pressure large then value 'H' or less then value 'L', the output is 'OFF'; When air pressure large then value 'L' and less than value 'H', the output is 'ON'.

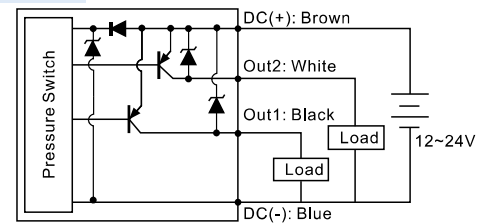


### Connection Example

#### NPN Output



#### PNP Output



### 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.
- When output current exceeds 100mA, circuit protection will be activated. System will resume once reboot.
- Adjust output-response response time can avoid errors caused by sudden change of working pressure.
- There is no copy function for PNP type.