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Digital Pressure Switch

Product description :

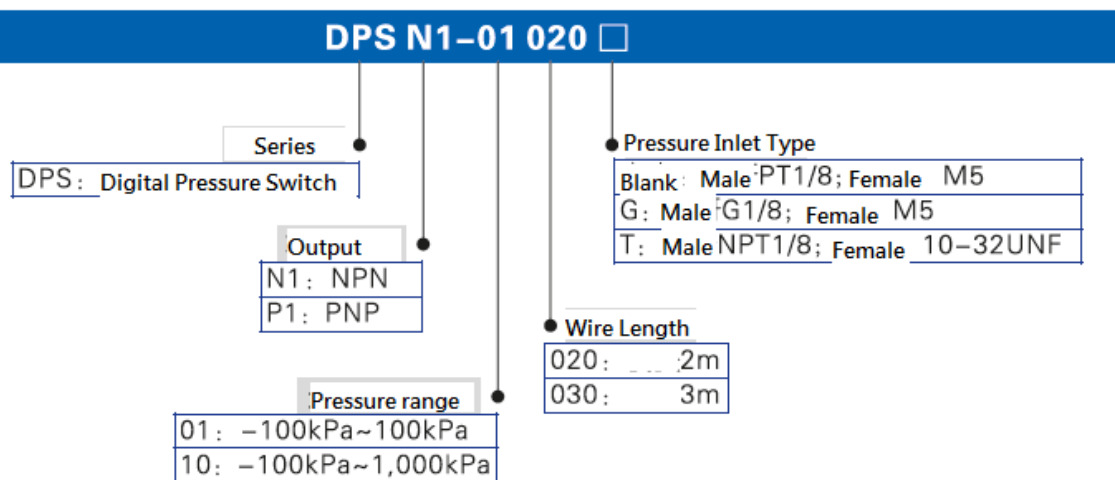
- Two options for NPN or PNP output and +/-100kPa or -100kPa~1000kPa
- Apply Chip setting pressure adjustment and have high precision
- 3-color display (2-color digit display + 1-color setting status display)
- Special power signal plug-in, excellent operability and durability

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— 、 Ordering Code

✖ Ordering Code



二、Specification

Model		DPSN1-01, DPSN1-10, DPSP1-01, DPSP1-10
Power Input	Voltage range	12 to 24VDC $\pm 10\%$, ripple peak $< 10\%$
	Power consumption	$< 45\text{mA}$ max. (unloaded)
Measuring Range	Fluid	Non-corrosive gas
	Pressure range	DPSN1(P1)-01: -100kPa to 100kPa DPSN1(P1)-10: -100kPa to 1000kPa
	Max pressure	DPSN1(P1)-01: 200kPa DPSN1(P1)-10: 1500kPa
	Measurement deviation	$\pm 2\%$ full scale, ± 1 digit (Surrendering temperature $25 \pm 3^\circ\text{C}$)
	Repeat accuracy	$\pm 0.2\%$ full scale
	Temperature deviation	$\pm 3\%$ full scale (25°C -basis, 0 to 50°C -Range)
Display	Display type	Two roll LCD display, 4 digits measurement, 3.5 digits setting
	Output display	LCD Two digital outputs
	Display color	Two colors (red/green)
Output	Display cycle	100ms, 250ms, 500ms, 1000ms
	Output Type	DPSN1: 2 NPN output
		DPSP1: 2 PNP output
	Current	NPN : maximum current $30\text{V}/100\text{mA}$, retained voltage $< 1.5\text{V}$
		PNP : maximum current $30\text{V}/100\text{mA}$, retained voltage $< 1.5\text{V}$
	Response Time	2ms, 20ms, 50ms, 100ms, 250ms, 500ms, 1000ms, 2500ms, 5000ms
Pressure Unit	Delay	minimum 1 digit (changeable), unit: kPa
	Display mode	simplify mode, delay mode, window mode
Vibration	DPSN1(P1)-01: kPa, kgf/cm ² , bar, psi, mmHg, inHg DPSN1(P1)-10: MPa, kPa, kgf/cm ² , bar, psi, cmHg, inHg (no MPa in low pressure)	
	10 to 500Hz, 10mm, 3 axes for 2 hours	
Shock	Max. 100m/s^2 , axes 6 directions, 3 times each	
Operating Temperature	0°C to $+50^\circ\text{C}$	
Storage Temperature	-20°C to $+65^\circ\text{C}$	
Ambient Humidity	35% to 80% RH (non-condensing)	

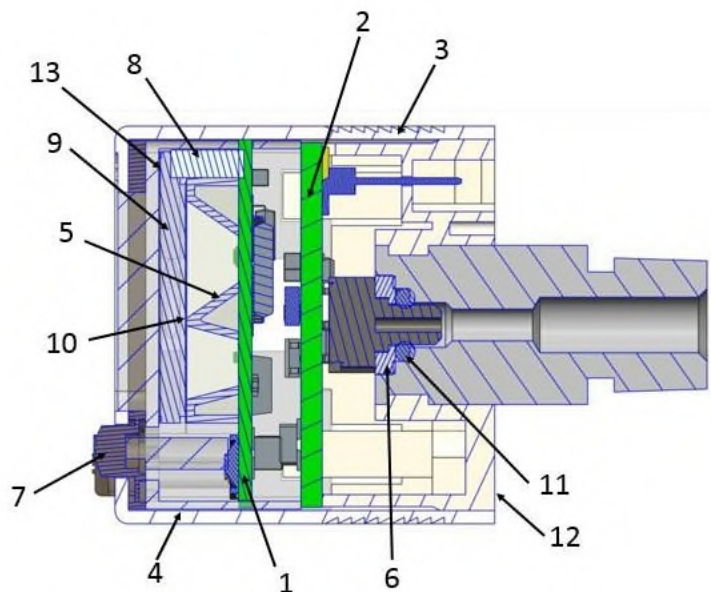
≡ 、 CE Certificate

The product has been tested and meets all requirements

Immunity				
Test Standard	Test Item	Performance Criteria	Observed Result Class	Test Result
IEC61000-4-2	Electrostatic Discharge	B	A	Pass
IEC61000-4-3	Radiated Susceptibility	A	A	Pass
IEC61000-4-4	Electrical Fast Transient	B	N/A	N/A
IEC61000-4-5	Surge	B	N/A	N/A
IEC61000-4-6	Conducted Susceptibility	A	N/A	N/A
IEC61000-4-8	Magnetic Field	A	A	Pass
IEC61000-4-11	Voltage Dips and Interruption	Dips>95% B	N/A	N/A
		Dips 30% C	N/A	N/A
		Interruptions > 95% C	N/A	N/A

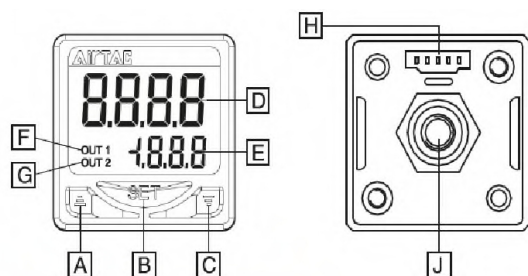
Emission		
Test Standard	Test Item	Test Result
EN55011 EN61000-6-3	Conducted Emission	N/A
EN55011 EN61000-6-3	Radiated Emission	Pass
EN61000-3-2	Harmonic	N/A
EN61000-3-3	Flicker	N/A

四、 Inner Structure

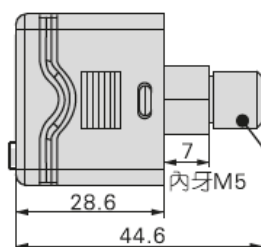
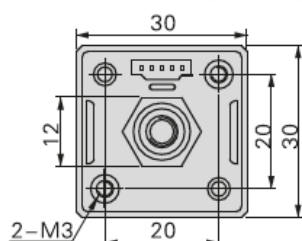


No.	Item	Material
1	Lower PCBA	
2	Upper PCBA	
3	Hull	PC+ABS
4	Frame	PC
5	Backlight support	ABS
6	Seal block	POM
7	Rubber bottom	Silicone
8	Conductive rubber	Rubber
9	LCD display monitor	VARITRONIX TN LCD
10	Diffuser film	KIMOTO 75PWX
11	O-ring	NBR
12	Pedestal	PC+ABS
13	Lens hood	

五、Dimension and Panel Description



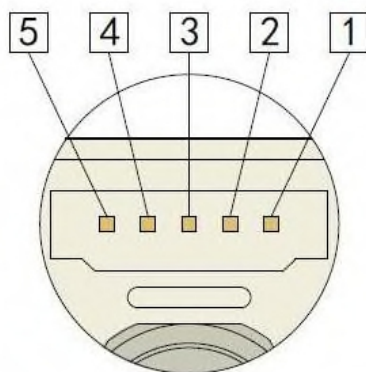
序號	名稱
A	Value Up
B	Set, Confirm
C	Value Down
D	Pressure Value Display
E	Set Pressure Value
F	Output 1 Indicator
G	Output 2 Indicator
H	Power & Output Signal Terminal
J	Pressure Inlet Port



Thread Type

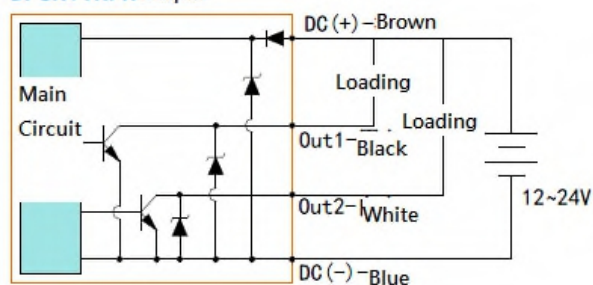
Blank : Male PT1/8; Female M5
 T : Male NPT1/8; Female 10-32UNF
 G : Male G1/8; Female M5

六、Interface and wiring

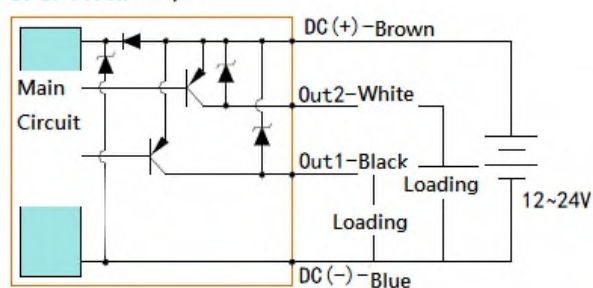


1. Power Positive Input (Brown)
2. First Switch Output Signal (black)
3. Second Switch Output Signal
4. Reserve (Orange)
5. Power Negative Input (blue)

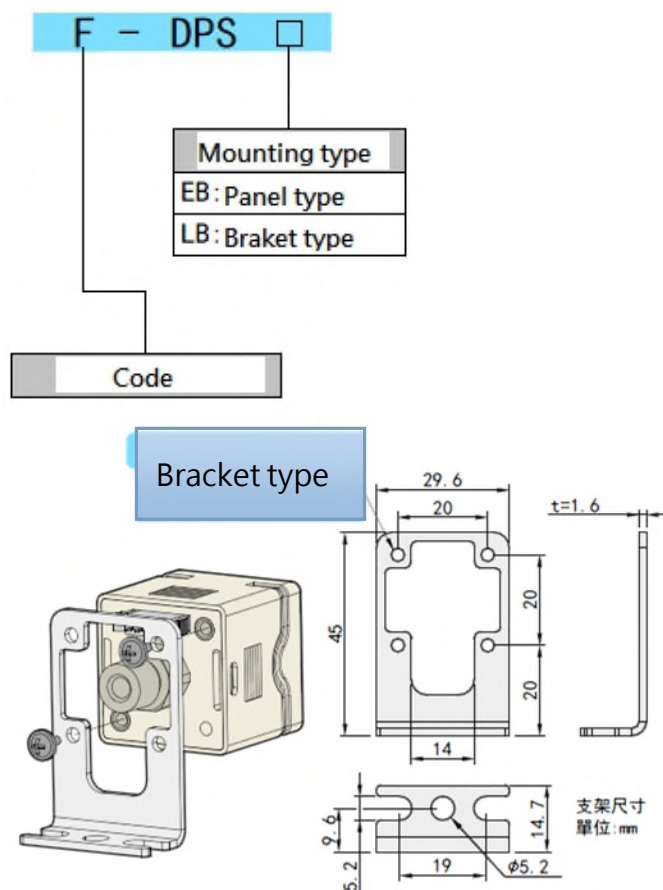
DPSN1 : NPN Output



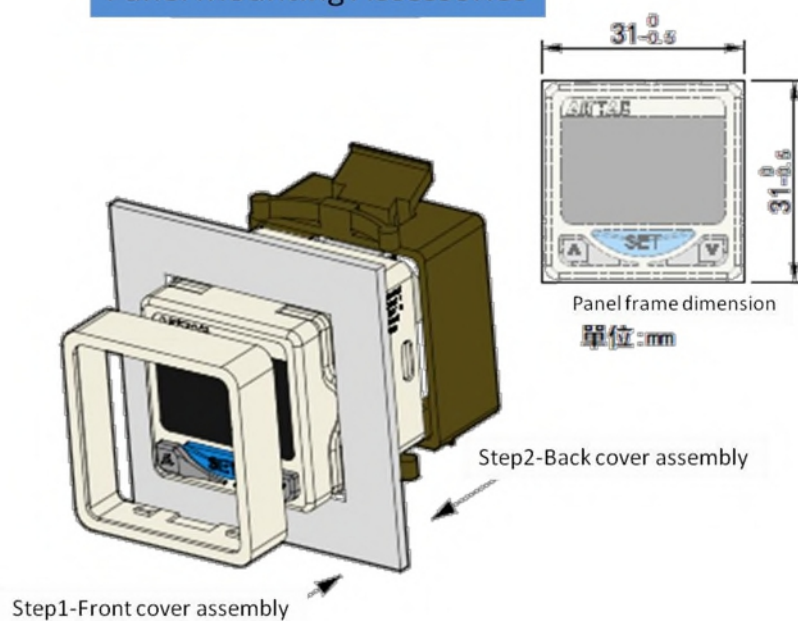
DPSP1 : PNP Output



七、 Ordering Code of Mounting Bracket/ Other Accessories



Panel Mounting Accessories



八、Product Picture



The picture is only for reference; please make the object as the standard.

九、 Pocket Manual



AirTAC DPS Series Digital Display Pressure Switch

Precautions

- 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.

Specifications

Model		DPSN1-01, DPSN1-10, DPSP1-01, DPSP1-10
Input power	Voltage	12 to 24VDC $\pm 10\%$, Ripple (p-p) $\leq 10\%$
	Current	45 mA or less

A. Value up button E. Set button
 B. Setting button F. Output 1
 C. Value Down button G. Output 2
 D. Pressure display area

Model Descr

DPS	Output type	Measurement range
N1:NPN		01:-100 to 100

表單流程:申請者→系統管制室編號→主管審核→研發中心主管核准