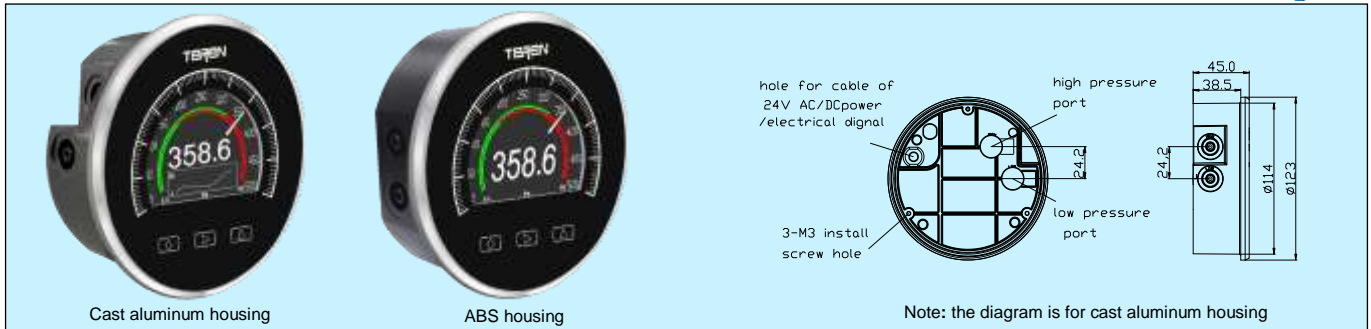


SDP Smart DP Monitor

TEREN



Applications & Features

- Unique design with color TFT-LCD as dial display. It integrates the traditional pointer and digital display, switch control and transmitter output functions, which can realize the integrated functions of differential pressure detection, display, output and alarm control in the protected environment, and has a rich and beautiful display interface
- Apply high accuracy MEMS sensor and digital technologies, can measure positive, negative or differential pressure
- It can measure and control system pressure of fan, blower, filter, furnace draft and orifice plate and can apply to various clean room, biological safety cabinet, clean bench, ducts collection, medical or pharmaceutical machine, etc.
- Optional 2 individual SPST relays for alarm setting
- Fashionable, super slim design. Suitable for surface, panel or flush mount
- Multiple ranges, outputs, alarm, engineering units selectable
- No movable parts, no effect on vibration
- The accuracy is up to $\pm 0.5\%$ FS and the range can be 25Pa
- Function keys: zero calibrate, units select, relay set, etc.
- High brightness color display, can display analog pointer, trend chart, measured value, alarm color, alarm status, alarm set point, etc., set by the buttons, refers to attached pictures

Specifications

Sensor: high accuracy MEMS sensor

Medium: non-combustible, non-corrosive air, not sensitive to moisture, dust, condensation and oil

Medium Temp.: 0-60°C

Material: ABS or Cast aluminum housing, PC plate and Chrome plated bezel

Size: $\Phi 115\text{mm}$ opening, 38.5mm(cast aluminum) or 33mm(ABS) thick for flush mount

Work Environment: -20-70°C

Compensated Temp.: 0-50°C

Work Pressure: overload $10 \times \text{FS} (\leq 1\text{kPa}) / 8 \times \text{FS} (\geq 1\text{kPa})$
burst $20 \times \text{FS} (\leq 1\text{kPa}) / 10 \times \text{FS} (\geq 1\text{kPa})$

Performance:

Accuracy %FS	$\pm 1.0\%$	$\pm 0.5\%$
Thermal Effect %FS/°C(Zero/FS)	$\pm 0.05/0.08$	$\pm 0.03/0.04$
Stability %FS/Year	± 0.5	± 0.3

note: $\pm 2\%$ FS and $\pm 1\%$ FS@25Pa range

Response time: 0.5/1/2/5s, can be set by keys

Display: high contrast 3.5" TFT color LCD, resolution 320x480

Output: 0-10V & 4-20mA (3 wires), RS485/Modbus

Output Load: $\leq 500\Omega$ (current), $\geq 2\text{k}\Omega$ (voltage)

Relay output: 2xSPST, 2Ax30VDC/250VAC or 1xBuzzer

Key: 3 touch buttons

Electrical wiring: 0.5m cable from back or screw terminal on back (only for Cast aluminum housing)

Power: 16-28VAC, 9-28VDC

Connection: 1/8" ID tubing, two pairs (on left side and back)

Weight: 515g (cast aluminum)/400g (ABS)

Protection: IP65

Approval: CE, meet EN61326-1 for industrial equipment

Accessory: Standard accessories include 1002(5mm ID PVC tube 2m) and A-S0 (including 3 brackets and screws). Options are A-S1, A-S2 and A-S7-X. They can be used for surface, panel or flush mount and should be ordered separately. See details in Accessories.

Models

Model	SDP					Smart DP Monitor
Accuracy		0				1%FS
		1				0.5%FS
Range			x			Range selection
Relay				0		N/A
				1		2xSPST
				2		1xBuzzer
				3		1xBuzzer+2xSPST
Output				0		N/A
				1		0-10V&4-20mA
				8		RS485/Modbus
Housing				0		ABS
				1		Casting aluminum

The standard electrical connection is cable from the back. Cast aluminum housing can be select screw terminals instead, add suffix -T after the model number.

Measuring Ranges

Code	UNIT & Range & Display Resolution					
	Pa	Pa	kPa	in w.c.	mm w.c.	mbar
0	0-25	25.0	0.025	0.100	2.50	0.250
1	0-60	60.0	0.060	0.250	6.00	0.600
2	0-125	125.0	0.125	0.500	12.00	1.250
3	0-250	250.0	0.250	1.000	25.00	2.500
4	0-500	500.0	0.500	2.000	50.00	5.000
5	0-1000	1000	1.000	4.000	100.0	10.00
6	0-2500	2500	2.500	10.00	250.0	25.00
7	0-5000	5000	5.000	20.00	500.0	50.00
8	0-10000	10000	10.000	40.00	1000.0	100.00

1. 5 engineering units can be set by the keys.

2. For zero center models, add "Z" at the end of the model. For example, SDPx1xxxxZ, means -30.0-30.0Pa. Only ranges 1~6 have this selection.

