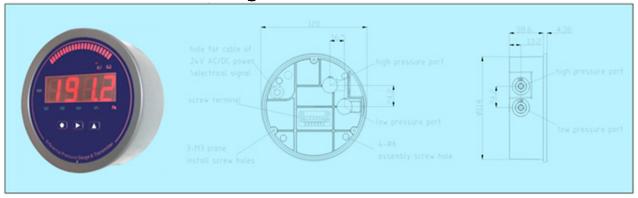# RSA-TPDG Multifunctional Digital Differential Pressure Transmitter

Applications & Features

● Apply high accuracy MEMS sensor and digital technologies, can measure positive, negative or differential pressure
● It combines the gauge, two relays and transmitter in one unit, can supply measurement, digital display, on/off control and transmitter output simultaneously
● 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.
● Suitable for surface, panel or flush mount
● Multiple ranges, outputs and engineering units selectable
● No any movable parts, no any effect on vibration
● The accuracy is up to ±1%
● Function keys: zero/range calibrate, units select, relay set, output calibrate, etc.
● Optional arch LED display for output and alarm

Specifications

Medium: non-combustible, non-corrosive air, not sensitive to moisture, dust, condensation and oil
Medium Temp.: 0-60°C
Materials: cast aluminum housing and PC plate
Work Environment: -20~70°C
Compensated Temp.: 0-50°C
Work pressure: 1, 2, 5 or 10Kpa for different ranges
overload 5xFS，burst 10xFS
Dimension: see diagram
Connection: 1/8" ID tubing, two pairs (on left side and back)
Display: 4 bits 0.8" red LED
Output: 0-10V & 4-20mA (3 wires), RS485/Modbus

Output Load: ≤500Ω (current), ≥2KΩ (voltage)
Digital output: RS485-Modbus RTU (9600-n-8-1)
Relay output: 2×SPST, 3A×30VDC/250VAC or 1×Buzzer
Electrical wiring: cable or screw terminals
Accuracy: ±1.0%FS(±2.0%FS@25Pa range)
Long term stability: ±0.5%FS /Year
Thermal effect: ＜0.05%FS/°C(Zero),＜0.08%FS/°C(FS)
Response time: 0.5-30s
Power: 16-28V AC or 16-35V DC
Key: 3 touch buttons
Protection: IP65
Weight: 340g
Approval: CE
Accessory: A-S0 is standard including 2m/5mm ID tube, 3 pairs of screws and brackets. 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	RSA-TPDG				DPGT transmitter
Range		X			Range selection
Arch LED			0		N/A
			1		Arch LED
Relay				0	N/A
				1	2×SPST
				2	1×Buzzer
Output					0	0-10V&4-20mA
					1	RS485/Modbus

The stardard electrical connection is cable from the back of the enclosure. If 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	25.00	0.025	0.100	2.500	0.250
1	0-60	60.00	0.060	0.250	6.000	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 key and then the related LED will be on.

2. For zero center models, add "Z" at the end of the model. For example, RSA-TPDG1***Z, means -30-0-30pa. Only ranges 1~6 have this selection.