

Air Differential Pressure Switches with on/off Output 930-series May 2021







Duct Fixing Kit DFK 200

Duct fixing kit DFK 200 includes 2 plastic tubes with integrated mounting plate,

2 metres PVC hose and 4 screws



Features

- 9 different pressure ranges
 - 930.80, pressure range 20-200 Pa 930.80N, pressure range 20-300 Pa 930.84, pressure range 30-400 Pa 930.83, pressure range 50-500 Pa 930.85, pressure range 200-1.000 Pa 930.85N, pressure range 100-1.000 Pa 930.86, pressure range 500-2.500 Pa 930.87, pressure range 1.000-4.000 Pa 930.87N, pressure range 1.000-5.000 Pa
- · Electrical rating 250 Vac
- IP54 and IP65 (IP65 is new 2021)



Switching pressure to be adjusted easy on a scaled adjustment knob

Applications

Air differential pressure switch 930-series used for monitoring overpressure, vacuum and differential pressure of air or other non-combustible, non-aggressive gases.

Class of control and regulation function: A

Possible fields of application include:

- · Monitoring air filters and ventilators
- · Monitoring industrial cooling-air circuits
- · Overheating protection for fan heaters
- Monitoring flows in ventilation ducts
- · Controlling air and fire-protection flaps
- · Frost protection for heat exchangers

Can be deliveried in 3 different alternatives

- 1. Only the air differential pressure switch
- 2. The air differential pressure switch separately packed and the duct fixing kit separately packed.
- 3. The air differential pressure switch and the duct fixing kit packed together in one small carton as a set.



Ordering

Type no.	Adjustment range	IP rating	

Air differential pressure switch

930.80 222511	20–200 Pa	IP54
930.80 222511N	20–300 Pa	IP54
930.84 222511	30– 400 Pa	IP54
930.83 222511	50– 500 Pa	IP54
930.85 222511	200–1.000 Pa	IP54
930.85 222511N	100–1.000 Pa	IP54
930.86 222511	500–2.500 Pa	IP54
930.87 222511	1000–4.000 Pa	IP54
930.87 222511N	1000–5.000 Pa	IP54

Above types 930.8x 222511 are without duct fixing kit DFK 200. Duct fixing kit DFK 200 to be ordered separately if required.

Air differential pressure switch with duct fixing kit (DFK 200), packed together into a carton.

930.80 222534	20–200 Pa	IP54
930.80 222534N	20–300 Pa	IP54
930.84 222534	30– 400 Pa	IP54
930.83 222534	50– 500 Pa	IP54
930.85 222534	200–1.000 Pa	IP54
930.85 222534N	100–1.000 Pa	IP54
930.85 222534N	500–2.500 Pa	IP54
930.87 222534	1000–4.000 Pa	IP54
930.87 222534N	1000–5.000 Pa	IP54

Air differential pressure switch

930.80 222711	20–200 Pa	
930.80 222711N	20–300 Pa	
930.84 222711	30– 400 Pa	
930.83 222711	50– 500 Pa	
930.85 222711	200–1.000 Pa	
930.85 222711N	100–1.000 Pa	
930.86 222711	500–2.500 Pa	
930.87 222711	1000–4.000 Pa	
930.87 222711N	1000–5.000 Pa	

	IP65	
	IP65	
	IP65	
	IP65	
а	IP65	
а	IP65	
а	IP65	
Pa	IP65	
Pa	IP65	



Above types 930.8x 222711 are without duct fixing kit DFK 200. Duct fixing kit DFK 200 to be ordered separately if required.

Air differential pressure switch with duct fixing kit (DFK 200), packed together into a carton.

930.80 222734	20–200 Pa	IP65
930.80 222734N	20–300 Pa	IP65
930.84 222734	30– 400 Pa	IP65
930.83 222734	50– 500 Pa	IP65
930.85 222734	200–1.000 Pa	IP65
930.85 222734N	100–1.000 Pa	IP65
930.86 222734	500–2.500 Pa	IP65
930.87 222734	1000–4.000 Pa	IP65
930.87 222734N	1000–5.000 Pa	IP65

I	P65	NEW



Technical data

Output	on/off	
Max. operating pressure	10 kPa	
Medium	Air, non-combustible and non-aggressive gases.	
Temp. range	Medium and ambient temp. from -20°C to +85°C. Storage temperature from -40°C to +85°C.	
Diaphragm material	Silicone, free of gas emissions. Other materials available on request.	
Pressure connections	2 plastic pipe connection pieces (P1 and P2), external diameter 6.0 mm: P1 for connection to higher pressure (marked +) P2 for connection to lower pressure (marked –)	
Housing materials	Switch body and cover of plastic	
Weight	150 g	
Weight Mechanical working life	150 g Over 10.000.000 switching operations	
Mechanical	Over 10.000.000	
Mechanical working life Electrical	Over 10.000.000	
Mechanical working life Electrical rating Standard	Over 10.000.000 switching operations	
Mechanical working life Electrical rating Standard version Low voltage	Over 10.000.000 switching operations max. 1.5 A (0.4 A) / 250 Vac	
Mechanical working life Electrical rating Standard version Low voltage version Electrical	Over 10.000.000 switching operations max. 1.5 A (0.4 A) / 250 Vac max. 0.1 A /24 Vdc (on request) Tab terminal 6.3 mmx 0.8 mm in accordance with DIN 46244 or push-on screw terminals.	
Mechanical working life Electrical rating Standard version Low voltage version Electrical connections	Over 10.000.000 switching operations max. 1.5 A (0.4 A) / 250 Vac max. 0.1 A /24 Vdc (on request) Tab terminal 6.3 mmx 0.8 mm in accordance with DIN 46244 or push-on screw terminals. Cable conduit M16 with cable strain	
Mechanical working life Electrical rating Standard version Low voltage version Electrical connections	Over 10.000.000 switching operations max. 1.5 A (0.4 A) / 250 Vac max. 0.1 A /24 Vdc (on request) Tab terminal 6.3 mmx 0.8 mm in accordance with DIN 46244 or push-on screw terminals. Cable conduit M16 with cable strain IP54 or IP65 AF20	

Cont. Technical data

Protection class	Protection class II (with cover) The pressure switch without cover is provided for installation in equipment. The construction of the equipment and the type of installation determine the protection class.
CE Conformity	Each depending on technical specification: Low Voltage Directive RoHS Directive Gas Directive
Specifications according to EN1854	Deviation: ≤±15 %, min. ±10 Pa Drift: ≤±15 %

Versions

The switching pressure can be adjusted without a pressure gauge using a scaled adjustment knob.

Туре	Adjusti from	ment range to	Switching differential*	Repeatability of the switching pressure
930.80	20	200 Pa	10 Pa	±5 %, min. ±5 Pa
930.80N	20	300 Pa	10 Pa	±5 %, min. ±5 Pa
930.84	30	400 Pa	15 Pa	±5 %, min. ±5 Pa
930.83	50	500 Pa	20 Pa	±2.5 %, min. ±5 Pa
930.85N	100	1000 Pa	50 Pa	±2.5 %, min. ±5 Pa
930.85	200	1000 Pa	100 Pa	±1 %, min. ±5 Pa
930.86	500	2500 Pa	150 Pa	±1 %
930.87	1000	4000 Pa	250 Pa	±1 %
930.87N	1000	5000 Pa	250 Pa	±1 %

* typically, at beginning of setting range

Switching pressure specifications apply to vertical installation which is also the recommended position with pressure-pipe connections pointing downwards. If the switches are installed horizontally with the tab terminals uppermost, the switching values are approx. 20 Pa higher.



May 2021

Description

The 930 differential pressure switch is suitable for low differential pressure switching applications in air-conditioning systems for providing indication of fan status or 'filter dirty'.

With this pressure switch the switching pressure can be adjusted manual by hand or with a screwdriver using a scaled adjustment knob located under the cover.

Tolerance for upper and lower switching pressure is +/-15%.

Switching pressure specifications apply to vertical installation which is also the recommended position with pressure-pipe connections pointing downwards.

If the switches are installed horizontally with AMP connection terminals uppermost, the switching values are approx. 20 Pa higher.

Applications

Adjustable differential pressure switch for monitoring overpressure, vacuum and differential pressure of air or other non-combustible, non-aggressive gases.

Possible fields of application include:

- Monitoring air filters and ventilators
- Monitoring industrial cooling-air circuits
- Overheating protection for fan heaters
- Monitoring flows in ventilation ducts
- Controlling air and fire-protection flaps
- Frost protection for heat exchangers

Arrangement of contacts









-

W

1

ww.onetemp.com.au