



Model:D520/7DD、D520/7DDK
Differential Pressure Switches

Model:D520/7DD (EX)
Explosion-proof Differential
Pressure Switches



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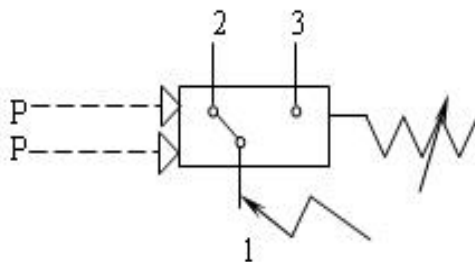
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The sensor is bellows-type, the switches can be suitable for neutral gas such as air,water, refrigerant and liquid medium such as oil. The Set Point is adjustable, and the adjustable range is from 0.02...1.6MPa.

□ Main Technical Performance

	General Type	Explosion-proof Type
Working viscosity	$<1 \times 10^{-3} \text{m}^2/\text{s}$	$<1 \times 10^{-3} \text{m}^2/\text{s}$
Switching element	Micro-switches	Micro-switches
Explosion Class	---	Exde II CT5
Protection class	IP65	IP54
Ambient temperature	$-30^\circ\text{C} \sim +50^\circ\text{C}$	$-20^\circ\text{C} \sim +40^\circ\text{C}$
Fluid temperature	$0 \sim 120^\circ\text{C}$	$0 \sim 95^\circ\text{C}$
Mounting position		Vertical down
Vibrations	D520/7DD: $40\text{m}/\text{s}^2$ D520/7DDK: $20\text{m}/\text{s}^2$	Max: $20\text{m}/\text{s}^2$
Repeatability	$\leq 1\%$	$\leq 1\%$
Electrical rating	AC220V 6A (Resistance)	DC 250V 0.25A (Resistance) 60Wmax DC 250V 5A (Resistance) 1250VAmx

□ 接线示意图



SPDT Switching process:

Terminals 1-3: switching element switch-on
when pressure rises to Increasing set point

Terminals 1-2: switching element switch-off
when pressure rises to Increasing set point



Switch selection and mounting instructions

Selected controller, it is best to use pre-set value in the controller settings.

The middle part of the adjustment range, (usually 20% ~ 80% of adjustable range).

If the controller is set up outdoor, it should be pretended from dramatic changes in ambient temperature, the sun's radiation, corrosive gases or water infiltration.

For the peak pressure and pulse pressure controlled liquid medium, the controller interface can be installed on a pressure shock damper to eliminate the adverse effects.

Off-current can not exceed the rating.

Install (or demolition) controller to pay attention to: Screwed pipe joints within a depth of no more than 12mm sensor.

Specifications

● D520/7DD Switching pressure difference not adjustable

Adjustable Range MPa	Switching pressure difference		Working pressure range *) MPa	Max allowable pressure *) MPa	Number of switching cycles (1/min)	Pressure sensor materials		Connection (female threaded)	Total weight Kg	Dimensional drawing No.		Cat. No.	
	Lower range MPa	Upper range MPa				housing	bellows			General type	Explosion-proof type	General type	Explosion-proof type
0.02...0.1	0.012	0.015	from 0.05 to 1.6	2	10	brass	Stainless steel	G1/4"	1.20	01	02	0819100	0859180
0.02...0.16	0.012	0.017		2	10		G1/4"	1.20	01	02	0819200	0859280	
0.025...0.25	0.015	0.02		2	10		G1/4"	1.20	01	02	0819300	0859380	
0.03...0.4	0.02	0.025		2	10		G1/4"	1.20	01	02	0819400	0859480	
0.05...0.06	0.06	0.07	from 0.1 to 2.5	3	10	brass	Ni14M02 (316L)	G1/4"	1.20	01	02	0819500	0859580
0.05...1	0.07	0.08		3	10		G1/4"	1.20	01	02	0819600	0859680	
0.05...1.6	0.08	0.09		3	10		G1/4"	1.20	01	02	0819700	0859780	

● D520/7DD Switching pressure difference adjustable

Adjustable Range MPa	Switching pressure difference		Working pressure range *) MPa	Max allowable pressure *) MPa	Number of switching cycles (1/min)	Pressure sensor materials		Connection (female threaded)	Total weight Kg	Dimensional drawing No.		Cat. No.	
	Lower range MPa	Upper range MPa				housing	bellows			General type	Explosion-proof type	General type	Explosion-proof type
0.02...0.1	0.035...0.1	0.04...0.1	from 0.05 to 1.6	2	10	brass	Stainless steel	G1/4"	1.20	01	02	0809100	0849180
0.02...0.16	0.035...0.15	0.045...0.25		2	10		G1/4"	1.20	01	02	0809200	0849280	
0.025...0.25	0.04...0.25	0.045...0.25		2	10		G1/4"	1.20	01	02	0809300	0849380	
0.03...0.4	0.045...0.4	0.05...0.4		2	10		G1/4"	1.20	01	02	0809400	0849480	
0.05...0.06	0.16...0.4	0.17...0.4	from 0.1 to 2.5	3	10	brass	Ni14M02 (316L)	G1/4"	1.20	01	02	0809500	0849580
0.05...1	0.17...0.8	0.18...0.8		3	10		G1/4"	1.20	01	02	0809600	0849680	
0.05...1.6	0.18...1.2	0.2...1.2		3	10		G1/4"	1.20	01	02	0809700	0849780	

● D520/7DD Switching pressure difference not adjustable (small switching difference, no explosion-proof type)



Adjustable Range MPa	Switching pressure difference		Working pressure range *) MPa	Max allowable pressure **) MPa	Number of switching cycles (1/min)	Pressure sensor materials		Connection (female threaded)	Total weight Kg	Dimensional drawing No	Cat. No.
	Lower range MPa	Upper range MPa				housing	bellows				
0.02...0.1	0.006	0.0075	from 0.05t o1.6	2	10	brass	Stainless steel 00Cr17Ni14 M02 (316L)	G1/4"	1.20	01	0819107
0.02...0.16	0.006	0.008		2	10			G1/4"	1.20	01	0819207
0.025...0.25	0.008	0.01		2	10			G1/4"	1.20	01	0819307
0.03...0.4	0.009	0.012		2	10			G1/4"	1.20	01	0819407
0.05...0.06	0.03	0.035	from 0.1to 2.5	3	10			G1/4"	1.20	01	0819507
0.05...1	0.035	0.04		3	10			G1/4"	1.20	01	0819607
0.05...1.6	0.04	0.045		3	10			G1/4"	1.20	01	0819707

注：*) High-pressure port medium pressure range. **) Even short pressure peaks must not exceed this value during actual operation(max. value=max. testing pressure).

□ Outline overall and installing dimensions (units:mm)

