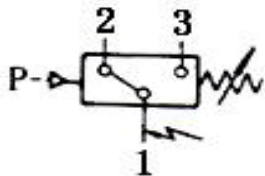




Pressure Switches (Explosion-proof type)

Model: D505/7D D505/7DK (EX)

The sensor is Diaphragm-piston type. The switch is suitable for air, steam, Oil mist of gas and hydraulic oil which is non-corrosive, Water-oil emulsion and Neutral liquid medium of Good lubricity. The setting of switch is adjustable, and the range is from 0.3 to 23MPa. The process of using the phenomenon of leakage does not appear.



Switching Function:

Micro-switch SPDT

Terminals 1-3: Contacts close on rising pressure

Terminals 1-2: Contacts open on rising pressure



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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	—	Exed II CT5 Certificate No: 2073002X
Protection Class:	IP65 (in line with DIN40050, appropriate on IP65 of GB4208)	IP54 (in line with DIN40050, appropriate on IP54 of GB4208)
Ambient temperature:	-40°C ~ +50°C	-40°C ~ +50°C
Fluid temperature:	0 ~ 120°C	0 ~ 120°C
Mounting position		Vertical down
Vibrations:	D505/7D: 40m/s ² D505/7DK: 20m/s ²	Max: 20m/s ²
Repeatability:	≤1%	≤1%
Electrical rating:	AC220V 6A (Resistance)	DC 250V 0.25A (Resistance) 60Wmax DC 250V 5A (Resistance) 1250VAmx

Features

Particularly applicable Hydraulic Equipment

Characteristic date

- Switching pressure difference no adjustable



Type	Adjustable Range MPa	Switching pressure difference		Max. Allowable Pressure *MPa	Number of switching cycles Z(1/min)	Pressure sensor materials		Connection (internal thread)	Weight kg	Drawing No.		Cat No.	
		Lower range MPa	Upper Range MPa			Housing	piston			General Type	Explosion proof type	General Type	Explosion proof type
D505/7D	0.3...4	0.5	0.9	30	20	Stainless steel	Stainless steel	G1/4"	0.8	01	02	0816500	0856580
	0.5...6.3	0.6	1.3	30				G1/4"	0.8			0816600	0856680
	0.5...10	0.6	1.6	30				G1/4"	0.8	0816700	0856780		
	0.5...16	0.7	1.9	30				G1/4"	0.8	0816800	0856880		
	1...23	1	2.5	30				G1/4"	0.8	0816900	0856980		
	1...40	2	4	60	G1/4"	0.8	0817000	0857080					

● Switching pressure difference adjustable

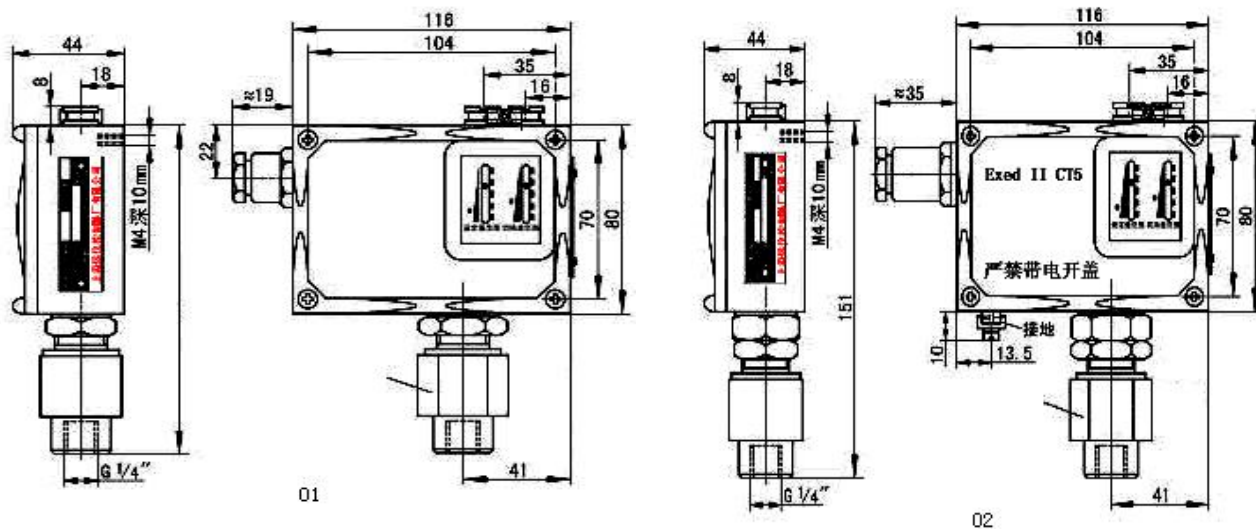
Type	Adjustable Range MPa	Switching pressure difference		Max. Allowable Pressure *MPa	Number of switching cycles Z(1/min)	Pressure sensor materials		Connection (internal thread)	Weight kg	Drawing No.		Cat No.	
		Lower range MPa	Upper Range MPa			housing	piston			General Type	Explosion proof type	General Type	Explosion proof type
D505/7D	0.3...4	0.8...2	1.3...2.5	30	20	Stainless steel	Stainless steel	G1/4"	0.95	01	02	0806500	0846580
	0.5...6.3	5 1...4	1.6...4	30				G1/4"	0.95			0806600	0846680
	0.5...10	1.1...8	1.6...8	30				G1/4"	0.95	0806700	0846780		
	0.5...16	1.3...12	2.2...12	30				G1/4"	0.95	0806800	0846880		
	1...23	1.4...12	2.8...12	30				G1/4"	0.95	0806900	0846980		
	1...40	2...24	3...24	60	G1/4"	0.95	0807000	0847080					

● Switching pressure difference no adjustable -Small switching difference (No Explosion-proof Type)

Type	Adjustable Range MPa	Switching pressure difference		Max. Allowable Pressure *MPa	Number of switching cycles Z(1/min)	Pressure sensor materials		Connection (internal thread)	Weight kg	Drawing No.	Cat No.
		Lower range MPa	Upper Range MPa			housing	piston				
D505/7DK	0.3...4	0.3	0.8	30	20	Stainless steel	Stainless steel	G1/4"	0.9	01	0817207
	0.5...6.3	0.4	1.2	30				G1/4"	0.9		0817307
	0.5...10	0.4	1.4	30				G1/4"	0.9	0817407	
	0.5...16	0.5	1.6	30				G1/4"	0.9	0817507	
	1...25	0.5	1.2	30				G1/4"	0.9	0817607	
	1...40	0.8	1.8	60				G1/4"	0.9	0817707	

Remark: Even short pressure peaks must not exceed this value (=max.test pressure)

Dimensional drawing Units: mm



Switch selection and mounting instructions

Setting of the switching points (see pressure switches)



1. Pressure difference is non-adjustable

Choose Cat. No.0816700

Use Range spindle to set the upper or lower switching point on design with fixed switching pressure difference. The opposite one is determined by the fixed switching pressure difference.

On designs with adjustable switching pressure difference . Use Range spindle to set the lower switching point, then use Differential spindle to set the upper switching point by adding the desired switching pressure difference.

Turning the range spindle anticlockwise shifts both switching points upwards. Turning the differential spindle anticlockwise shifts only the upper switching point upwards, i.e. the switching pressure difference (distance between the upper and lower switching points) increases.

Example1:

Desired: Lower switching point 4.4MPa

Upper switching point 5MPa

(Switching pressure difference=0.6Mpa)

Setting: 5MPa (with **Range spindle**)

0.6MPa (with **Differential spindle**)

To set precise switching points a pressure gauge is required.(The pressure switch is a switching and regulating device and not a measuring instrument even if has a scale to assist in the setting.). Switches can be adjusted even during operation. Range- and differential spindle are provided with a releasable detent; switch can also be lead-sealed.

Example2:

Choose Cat. No.0816800

Desired: Lower switching point 8MPa

Upper switching point 8.9MPa

(Switching pressure difference=0.9Mpa)

Setting: 8MPa (with **Range spindle**)

0.9MPa (with **Differential spindle**)

Use Range spindle to set the upper or lower switching point on design with fixed switching pressure difference. The opposite one is determined by the fixed switching pressure difference.

On designs with adjustable switching pressure difference . Use Range spindle to set the lower switching point, then use Differential spindle to set the upper switching point by adding the desired switching pressure difference.

Turning the range spindle anticlockwise shifts both switching points upwards. Turning the differential spindle anticlockwise shifts only the upper switching point upwards, i.e. the switching pressure difference (distance between the upper and lower switching points) increases.

To set precise switching points a pressure gauge is required.(The pressure switch is a switching and regulating device and not a measuring instrument even if has a scale to assist in the setting.). Switches can be adjusted even during operation. Range- and differential spindle are provided with a releasable detent; switch can also be lead-sealed.

2. Pressure difference is adjustable



Example3:

Choose Cat. No.0806700

Desired: Lower switching point 5MPa

Upper switching point 8MPa

(Switching pressure difference=3Mpa)

Setting: 5MPa (with **Range spindle**)

3MPa (with **Differential spindle**)

Use Range spindle to set the upper or lower switching point on design with fixed switching pressure difference. The opposite one is determined by the fixed switching pressure difference.

On designs with adjustable switching pressure difference . Use Range spindle to set the lower switching point, then use Differential spindle to set the upper switching point by adding the desired switching pressure difference.

Turning the range spindle anticlockwise shifts both switching points upwards. Turning the differential spindle anticlockwise shifts only the upper switching point upwards, i.e. the switching pressure difference (distance between the upper and lower switching points) increases.

To set precise switching points a pressure gauge is required.(The pressure switch is a switching and regulating device and not a measuring instrument even if has a scale to assist in the setting.). Switches can be adjusted even during operation. Range- and differential spindle are provided with a releasable detent; switch can also be lead-sealed.

