M.2

hex 27 integrated

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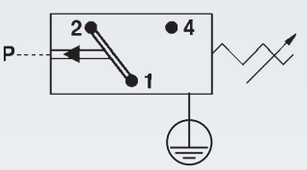
0184

Diaphragm pressure switches up to 250 V

- Made of zinc-plated steel (CrVI-free, other housing materials available as option)
- Socket device similar to DIN EN 175301 (DIN 43650)
- Changeover with silver contacts
- Overpressure safety up to 100 / 300 bar[1)]
- Hysteresis adjustable at factory



Socket device
included in the delivery



$p_{max.}$ in bar	Adjustment range in bar	Tolerance in bar at room temperature	Male thread	Order number
0184 Diaphragm pressure switches				
100[1)]	0.3 – 1.5	± 0.2	G 1/4	0184 – 457 03 – X – 003
			M 10x1 con.	0184 – 457 01 – X – 001
			M 12x1.5 cyl.	0184 – 457 02 – X – 002
			NPT 1/8	0184 – 457 04 – X – 318
			NPT 1/4	0184 – 457 09 – X – 314
			7/16-20 UNF	0184 – 457 20 – X – 301
			9/16-18 UNF	0184 – 457 21 – X – 302
300[1)]	1 – 10	± 0.5	G 1/4	0184 – 458 03 – X – 042
			M 10x1 con.	0184 – 458 01 – X – 040
			M 12x1.5 cyl.	0184 – 458 02 – X – 041
			NPT 1/8	0184 – 458 04 – X – 343
			NPT 1/4	0184 – 458 09 – X – 340
			7/16-20 UNF	0184 – 458 20 – X – 341
			9/16-18 UNF	0184 – 458 21 – X – 342
	10 – 50	± 3.0	G 1/4	0184 – 459 03 – X – 009
			M 10x1 con.	0184 – 459 01 – X – 007
			M 12x1.5 cyl.	0184 – 459 02 – X – 008
			NPT 1/8	0184 – 459 04 – X – 320
			NPT 1/4	0184 – 459 09 – X – 311
			7/16-20 UNF	0184 – 459 20 – X – 305
			9/16-18 UNF	0184 – 459 21 – X – 306
	10 – 100	± 3.0 – 5.0	G 1/4	0184 – 461 03 – X – 012
			M 10x1 con.	0184 – 461 01 – X – 010
			M 12x1.5 cyl.	0184 – 461 02 – X – 011
			NPT 1/8	0184 – 461 04 – X – 321
			NPT 1/4	0184 – 461 09 – X – 312
			7/16-20 UNF	0184 – 461 20 – X – 307
			9/16-18 UNF	0184 – 461 21 – X – 308

Seal material – Application areas

NBR	Hydraulic/machine oil, heating oil, air, nitrogen, etc.	1
EPDM	Brake fluid, hydrogen, oxygen, acetylene, etc.	2
FKM	Hydraulic fluids (HFA, HFB, HFD), petrol/gasoline, etc.	3
HNBR	Hydraulic/machine oil, ester-based bio-oils	9

Refer to page 33 for the temperature range and application thresholds of sealing materials.

Your order number:	0184 – XXX XX – X – XXX

[1)] Static value. Dynamic value is 30-50 % lower. Values pertain to the hydraulic/pneumatic part of the pressure switch.

0185

Piston pressure switches up to 250 V

- Made of zinc-plated steel (CrVI-free, other housing materials available as option)
- Socket device similar to DIN EN 175301 (DIN 43650)
- Changeover with silver contacts
- Overpressure safety up to 600 bar[1)]
- Hysteresis adjustable at factory

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$p_{max.}$ in bar	Adjustment range in bar	Tolerance in bar at room temperature	Male thread	Order number

0185 Piston pressure switches

600[1)]	50 – 200	± 5.0	G 1/4	0185 – 460 03 – X – 003
			M 10x1 con.	0185 – 460 01 – X – 001
			M 12x1.5 cyl.	0185 – 460 02 – X – 002
			NPT 1/8	0185 – 460 04 – X – 304
			NPT 1/4	0185 – 460 09 – X – 303
			7/16-20 UNF	0185 – 460 20 – X – 301
			9/16-18 UNF	0185 – 460 21 – X – 302

Seal material – Application areas

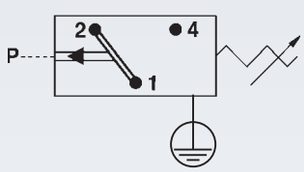
NBR	Hydraulic/machine oil, heating oil, air, nitrogen, etc.	1
EPDM	Brake fluid, hydrogen, oxygen, acetylene, etc.	2
FKM	Hydraulic fluids (HFA, HFB, HFD), petrol/gasoline, etc.	3
HNBR	Hydraulic/machine oil, ester-based bio-oils	9

Refer to page 33 for the temperature range and application thresholds of sealing materials.

Your order number:	0185 – 460 XX – X – XXX



Socket device
included in the delivery



[1)] Static value. Dynamic value is 30-50 % lower. Values pertain to the hydraulic/pneumatic part of the pressure switch.

M.2

hex 27 integrated

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Pressure switches hex 27 with integrated connector

Changeover switch with silver or gold contacts



- Large selection of electrical plug-in types for quick attachment and reliable connection
- Hysteresis adjustable at factory
- High protection class (up to IP67 or IP6K9K)
- Compact and rugged design in industrial environments like construction and agricultural machinery or commercial vehicles
- Switching point can be set on site with adjusting screw [1)]
- Very high overpressure safety
- The corresponding mating plugs are available as accessories (please refer to page 34)

[1)] Pressure switches can also be supplied preset at factory.
The switching point is embossed onto pressure switches preset at factory.

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Technical data

Types:	0132 – 0137	0184 / 0185	0194 / 0195
Rated working voltage:	10 … 48 VAC/DC	10 … 250 VAC/DC	5 … 24 VDC
Rated current: (resistive load, 12 DC and 12 AC)	10 mA … 4 A	10 mA … 4A	3 … 50 mA
Temperature resistance of sealing materials:	NBR (Overpressure safety up to 100 bar)		-30 °C … +100 °C
	NBR (Overpressure safety up to 300 bar)		-40 °C … +100 °C
	EPDM		-30 °C … +120 °C
	FKM (in diaphragm pressure switch)		-5 °C … +120 °C
	FKM (in piston pressure switch)		-15 °C … +120 °C
	Silicone		-40 °C … +120 °C
	HNBR		-30 °C … +120 °C
Switching frequency:	200 / min.		
Mechanical life expectancy:	1,000,000 cycles (for diaphragm pressure switches, life expectancy value only applies for switching pressures to max. 50 bar)		
Pressure rise rate:	≤ 1 bar/ms		
Hysteresis: (can only be set at factory)	Adjustable average value 10 … 30 % depending on type		
Vibration resistance:	10 g; 5 … 200 Hz sine wave; DIN EN 60068-2-6		
Shock resistance:	294 m/s^2; 14 ms half sine wave; DIN EN 60068-2-27		
Weight:	approx. 100 g	approx. 130 g	approx. 130 g

Overview of maximum working voltage and current and contact materials

Type	0132	0133	0134	0135	0136	0137	0184	0185	0194	0195
5 … 24 VDC									●	●
10 … 48 VAC/DC	●	●	●	●	●	●				
10 … 250 VAC/DC							●	●		
3 … 50 mA									●	●
10 mA … 4 A	●	●	●	●	●	●	●	●		
Gold contacts	○	○	○	○	○	○			●	●
Silver contacts	●	●	●	●	●	●	●	●		
Adjustable hysteresis (can only be set at factory)	●	●	●	●	●	●	●	●	●	●
Connector type	AMP Superseal 1.5®		M12x1 DIN EN 61076-2-101-1		Deutsch DT04-3P		DIN EN 175301			
Protection class	IP67		IP67		IP67, IP6K9K		IP65			

○ Available as an option