

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 (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 screw¹⁾
- Very high overpressure safety
- 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.

Pressure switches hex 27 with integrated connector

M.2
hex 27 integrated



Technical details

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, DC12 / AC12)	10 mA ... 4 A	10 mA ... 4 A	3 ... 50 mA
Temperature resistance of sealing materials:	NBR (diaphragm pressure switch, p _{max} = 400 bar)	-40 °C ... +100 °C	
	NBR (diaphragm pressure switch, p _{max} = 100 bar) (piston pressure switch)	-30 °C ... +100 °C	
	EPDM	-30 °C ... +120 °C	
	FKM (diaphragm pressure switch)	-5 °C ... +120 °C	
	FKM (piston pressure switch)	-15 °C ... +120 °C	
	FFKM	-20 °C ... +120 °C	
	Silicone	-40 °C ... +120 °C	
	HNBR	-30 °C ... +120 °C	
Burst pressure (diaphragm pressure switch, overpressure resistance 100 bar)	200 bar		
Burst Pressure (diaphragm pressure switch, overpressure resistance 400 bar)	700 bar (for threads M10, G 1/8, R 1/8 and NPT 1/8 up to max. 600 bar)		
Burst pressure (Piston pressure switch)	1,000 bar (for threads M10, G 1/8, R 1/8 and NPT 1/8 up to max. 600 bar)		
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:	≤ 1,000 bar/s		
Hysteresis: (can only be set at factory) ¹⁾ :	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-A		Deutsch DT04-3P		DIN EN 175301			
Protection class	IP67		IP67		IP67, IP6K9K		IP65			

○ Available as an option

¹⁾ see notes on hysteresis in the technical explanations (page 15-16)



0132 / 0133 / 0134 / 0135 / 0136 / 0137

Diaphragm/piston pressure switches with integrated connector, maximum operating voltage up to 48 V

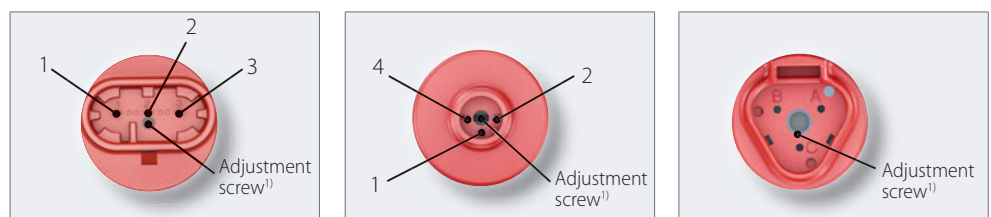
- Simple, quick and reliable electrical connection with easy-to-fit connectors
- Quick fitting with socket wrench (spanner)
- Changeover with silver contacts (gold contacts available as option)
- Hysteresis adjustable at factory
- Made of zinc-plated steel (CrVI-free, other housing materials available as option)

Model / type ►

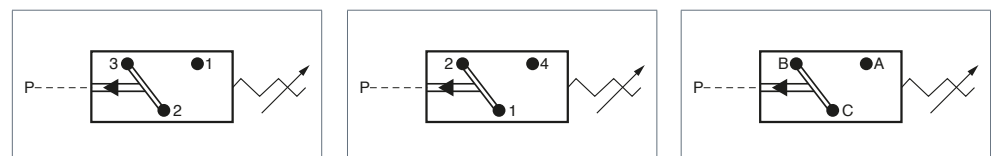
	0132 / 0133	0134 / 0135	0136 / 0137
	TE AMP Superseal 1.5® IP67	M12x1 EN 61076-2-101-A Contact assignment DIN 60947-5-2 IP67	Deutsch DT04-3P® IP67, IP6K9K
	H ≈ 73 mm	H ≈ 65 mm	H ≈ 71 mm

Height without thread ►

Contact assignments ►



Circuit diagrams ►



¹⁾ Blade of screwdriver max. 2 mm

Accessory ►

Not included
in the delivery.

Please order separately.

Mating plug with 2 m cable ²⁾

	TE AMP Superseal 1.5®	M 12x1 EN 61076-2-101-LF	Deutsch DT06-3S®
	3 x 0,5 mm ² Radox cable / IP65	4 x 0,34 mm ² PUR cable / IP67	3 x 0,5 mm ² PUR cable / IP67
	1-1-32-653-158	1-1-00-653-162	1-1-36-653-160

Cable cross-section /
IP protection ►

Article number ►

²⁾ For the pin assignment of the wires please refer to chapter M.10 Accessories (page 91)

0132 / 0133 / 0134 / 0135 / 0136 / 0137

Diaphragm/piston pressure switches with integrated connector, maximum operating voltage up to 48 V

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P_{max} in bar	Adjustment range in bar	Tolerance at room temperature in bar	Thread	Article number
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0132 / 0134 / 0136 Diaphragm pressure switches

100 ¹⁾	0.3 - 1.5	± 0.2	G 1/4	013X - 457 03 - X - 003
			M 10x1 con.	013X - 457 01 - X - 001
			M 12x1.5 cyl.	013X - 457 02 - X - 002
			NPT 1/8	013X - 457 04 - X - 318
			NPT 1/4	013X - 457 09 - X - 314
			7/16-20 UNF	013X - 457 20 - X - 301
			9/16-18 UNF	013X - 457 21 - X - 302

	1 - 10	± 0.5	G 1/4	013X - 458 03 - X - 042
			M 10x1 con.	013X - 458 01 - X - 040
			M 12x1.5 cyl.	013X - 458 02 - X - 041
			NPT 1/8	013X - 458 04 - X - 343
			NPT 1/4	013X - 458 09 - X - 340
			7/16-20 UNF	013X - 458 20 - X - 341
			9/16-18 UNF	013X - 458 21 - X - 342

400 ¹⁾	10 - 50	± 3.0	G 1/4	013X - 459 03 - X - 009
			M 10x1 con.	013X - 459 01 - X - 007
			M 12x1.5 cyl.	013X - 459 02 - X - 008
			NPT 1/8	013X - 459 04 - X - 320
			NPT 1/4	013X - 459 09 - X - 316
			7/16-20 UNF	013X - 459 20 - X - 305
			9/16-18 UNF	013X - 459 21 - X - 306

	10 - 100	± 3.0 - 5.0	G 1/4	013X - 461 03 - X - 012
			M 10x1 con.	013X - 461 01 - X - 010
			M 12x1.5 cyl.	013X - 461 02 - X - 011
			NPT 1/8	013X - 461 04 - X - 321
			NPT 1/4	013X - 461 09 - X - 317
			7/16-20 UNF	013X - 461 20 - X - 307
			9/16-18 UNF	013X - 461 21 - X - 308

0133 / 0135 / 0137 Piston pressure switches

700 ¹⁾²⁾	50 - 200	5.0	G 1/4	013X - 460 03 - X - 003
			M 10x1 con.	013X - 460 01 - X - 001
			M 12x1.5 cyl.	013X - 460 02 - X - 002
			NPT 1/4	013X - 460 09 - X - 303
			7/16-20 UNF	013X - 460 20 - X - 301
			9/16-18 UNF	013X - 460 21 - X - 302

Seal material – Application areas

NBR	Hydraulic/machine oil, air, nitrogen, etc.	1
EPDM	Brake fluid, hydrogen, oxygen, acetylene, etc.	2
FKM	Hydraulic fluids (HFA, HFB, HFD), petrol/gasoline, etc.	3
FFKM	Hot water, chemical acids, diluted alkalis, ketones, esters, alcohols	6
HNBR ³⁾	Hydraulic/machine oil, ester-based bio-oils	9

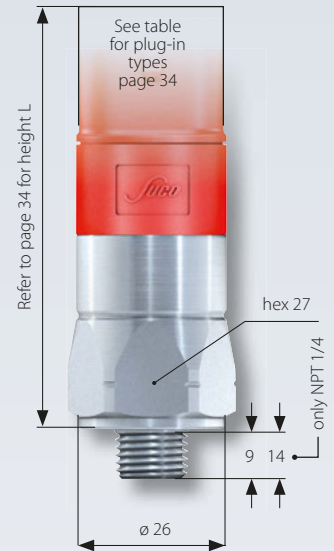
Refer to page 33 for the temperature range and application thresholds of sealing materials.

Article number: **013X - XXX XX - X - XXX**

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

²⁾ Excluding the thread sizes G 1/8, R 1/8, NPT 1/8 and M 10x1 cylindrical/conical.

³⁾ HNBR diaphragm not available for pressure ranges 0.3 - 1.5 bar.



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hex 27 integrated

0184

Diaphragm pressure switches up to 250 V

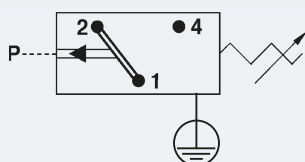
- Made of zinc-plated steel (CrVI-free, other housing materials available as option)
- Socket device similar to DIN EN 175301 (DIN 43650)
- Changeover with silver contacts
- Overpressure safety up to 100 / 400 bar¹⁾
- Hysteresis adjustable at factory

p _{max} in bar	Adjustment range in bar	Tolerance at room temperature in bar	Male thread	Article number
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0184 Diaphragm pressure switches



Socket device
included in the delivery



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
400 ¹⁾	10 - 50	± 0.5	9/16-18 UNF	0184 - 457 21 - X - 302
			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
400 ¹⁾	10 - 50	± 3.0	7/16-20 UNF	0184 - 458 20 - X - 341
			9/16-18 UNF	0184 - 458 21 - X - 342
			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
400 ¹⁾	10 - 50	± 3.0	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
			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
400 ¹⁾	10 - 100	± 3.0 - 5.0	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, air, nitrogen, etc.	1
EPDM	Brake fluid, hydrogen, oxygen, acetylene, etc.	2
FKM	Hydraulic fluids (HFA, HFB, HFD), petrol/gasoline, etc.	3
FFKM	Hot water, chemical acids, diluted alkalis, ketones, esters, alcohols	6
HNBR ²⁾	Hydraulic/machine oil, ester-based bio-oils	9

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



Article 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.

²⁾ HNBR diaphragm not available for pressure ranges 0.3 - 1.5 bar.

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 700 bar ¹⁾
- Hysteresis adjustable at factory

p _{max} in bar	Adjustment range in bar	Tolerance at room temperature in bar	Male thread	Article number
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0185 Piston pressure switches

700 ^{1) 2)}	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 1/4	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, 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

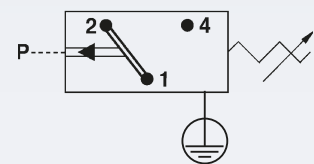
Refer to page 33 for the temperature range and application thresholds of sealing materials.

Article number: **0185 - 460 XX - X - XXX**

M.2
hex 27 integrated



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.

²⁾ Excluding the thread sizes G 1/8, R 1/8, NPT 1/8 and M 10x1 cylindrical/conical.



M.2

hex 27 integrated

0194

Diaphragm pressure switches up to 24 V with gold contacts

- Made of zinc-plated steel (CrVI-free)
- Socket device similar to DIN EN 175301 (DIN 43650)
- Changeover with gold contacts
- Overpressure safety up to 100 / 400 bar¹⁾
- Hysteresis adjustable at factory

p_{max} in bar	Adjustment range in bar	Tolerance at room temperature in bar	Male thread	Article number
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0194 Diaphragm pressure switches



Socket device
included in the delivery



p_{max} in bar	Adjustment range in bar	Tolerance at room temperature in bar	Male thread	Article number
100 ¹⁾	0.3 - 1.5	± 0.2	G 1/4	0194 - 457 03 - X - 003
			M 10x1 con.	0194 - 457 01 - X - 001
			M 12x1.5 cyl.	0194 - 457 02 - X - 002
			NPT 1/8	0194 - 457 04 - X - 318
			NPT 1/4	0194 - 457 09 - X - 314
			7/16-20 UNF	0194 - 457 20 - X - 301
			9/16-18 UNF	0194 - 457 21 - X - 302
400 ¹⁾	1 - 10	± 0.5	G 1/4	0194 - 458 03 - X - 042
			M 10x1 con.	0194 - 458 01 - X - 040
			M 12x1.5 cyl.	0194 - 458 02 - X - 041
			NPT 1/8	0194 - 458 04 - X - 343
			NPT 1/4	0194 - 458 09 - X - 340
			7/16-20 UNF	0194 - 458 20 - X - 341
			9/16-18 UNF	0194 - 458 21 - X - 342
400 ¹⁾	10 - 50	± 3.0	G 1/4	0194 - 459 03 - X - 009
			M 10x1 con.	0194 - 459 01 - X - 007
			M 12x1.5 cyl.	0194 - 459 02 - X - 008
			NPT 1/8	0194 - 459 04 - X - 320
			NPT 1/4	0194 - 459 09 - X - 311
			7/16-20 UNF	0194 - 459 20 - X - 305
			9/16-18 UNF	0194 - 459 21 - X - 306
400 ¹⁾	10 - 100	± 3.0 - 5.0	G 1/4	0194 - 461 03 - X - 012
			M 10x1 con.	0194 - 461 01 - X - 010
			M 12x1.5 cyl.	0194 - 461 02 - X - 011
			NPT 1/8	0194 - 461 04 - X - 321
			NPT 1/4	0194 - 461 09 - X - 312
			7/16-20 UNF	0194 - 461 20 - X - 307
			9/16-18 UNF	0194 - 461 21 - X - 308

Seal material – Application areas

NBR	Hydraulic/machine oil, air, nitrogen, etc.	1
EPDM	Brake fluid, hydrogen, oxygen, acetylene, etc.	2
FKM	Hydraulic fluids (HFA, HFB, HFD), petrol/gasoline, etc.	3
FFKM	Hot water, chemical acids, diluted alkalis, ketones, esters, alcohols	6
HNBR ²⁾	Hydraulic/machine oil, ester-based bio-oils	9

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



Article number: **0194 - XXX XX - X - XXX**



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

²⁾ HNBR diaphragm not available for pressure ranges 0.3 - 1.5 bar.

0195

Piston pressure switches up to 24 V with gold contacts

- Made of zinc-plated steel (CrVI-free)
- Socket device similar to DIN EN 175301 (DIN 43650)
- Changeover with gold contacts
- Overpressure safety up to 700 bar ¹⁾
- Hysteresis adjustable at factory

p_{max} in bar	Adjustment range in bar	Tolerance at room temperature in bar	Male thread	Article number
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0195 Piston pressure switches

p_{max} 700 ¹⁾²⁾	Adjustment range in bar 50 - 200	Tolerance at room temperature in bar ± 5.0	Male thread	Article number
			G 1/4	0195 - 460 03 - X - 003
			M 10x1 con.	0195 - 460 01 - X - 001
			M 12x1.5 cyl.	0195 - 460 02 - X - 002
			NPT 1/4	0195 - 460 09 - X - 303
			7/16-20 UNF	0195 - 460 20 - X - 301
			9/16-18 UNF	0195 - 460 21 - X - 302

Seal material – Application areas

NBR	Hydraulic/machine 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.

Article number: **0195 - 460 XX - X - XXX**

M.2 hex 27 integrated



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.

²⁾ Excluding the thread sizes G 1/8, R 1/8, NPT 1/8 and M 10x1 cylindrical/conical.

