

## 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 <sup>1)</sup>
- Very high overpressure safety
- The corresponding mating plugs are available as accessories (please refer to page 34)

<sup>1)</sup> Pressure switches can also be supplied preset at factory. The switching point is embossed onto pressure switches preset at factory.

## Technical data

Types:	<b>0132 – 0137</b>	<b>0184 / 0185</b>	<b>0194 / 0195</b>
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 ... 4 A	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 <sup>2</sup> ; 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

# M.2

hex 27 integrated

# 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 ▶

Height without thread ▶

Contact assignments ▶

<sup>1)</sup>Blade of screwdriver max. 2 mm

Circuit diagrams ▶

Accessory ▶

Not included in the delivery.  
Please order separately.

Cable cross-section / IP protection ▶

Order number ▶

	0132 / 0133	0134 / 0135	0136 / 0137
	<b>TE AMP Superseal 1.5°</b> IP67	<b>M12x1 DIN EN 61076-2-101A</b> Contact assignment DIN 60947-5-2 IP67	<b>Deutsch DT04-3P°</b> IP67, IP6K9K
	L ~ 73 mm	L ~ 65 mm	L ~ 71 mm
	<b>TE AMP Superseal 1.5°</b>	<b>M12x1 DIN EN 61076-2-101A</b>	<b>Deutsch DT06-3S°</b>
	3 x 0.5 mm <sup>2</sup> Radox cable / IP65	4 x 0.34 mm <sup>2</sup> PUR cable / IP67	3 x 0.5 mm <sup>2</sup> PUR cable / IP67
	1-1-32-653-158	1-1-00-653-162	1-1-36-653-160

# M.2

hex 27 integrated



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

### 0132 / 0134 / 0136 Diaphragm pressure switches

100 <sup>1)</sup>	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
300 <sup>1)</sup>	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
	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

600 <sup>1)</sup>	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 1/8	013X – 460 04 – X – 304
			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

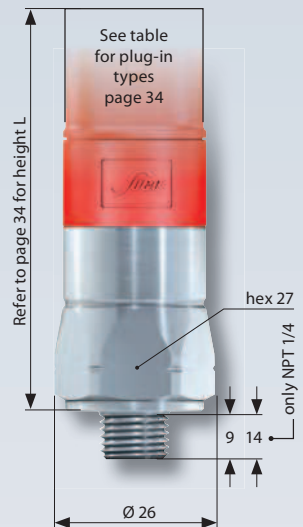
### Seal material – Application areas

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

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



**Your order number:** 013X – XXX XX – X – XXX



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



# M.2

hex 27 integrated

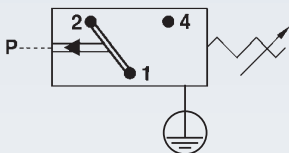
# 0184

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 / 300 bar<sup>1)</sup>
- 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 <sup>1)</sup>	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
	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
300 <sup>1)</sup>	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

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

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



Your order number:

0184 – XXX XX – X – XXX



<sup>1)</sup> 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<sup>1)</sup>
- Hysteresis adjustable at factory

p <sub>max.</sub> in bar	Adjustment range in bar	Tolerance in bar at room temperature	Male thread	Order number
-----------------------------	----------------------------	---	-------------	--------------

### 0185 Piston pressure switches

600 <sup>1)</sup>	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

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

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

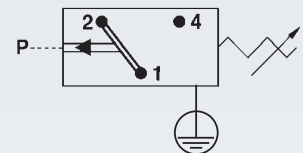
**Your order number:** 0185 – 460 XX – X – XXX

# M.2

hex 27 integrated



Socket device  
included in the delivery



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



# 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 100/300 bar<sup>1)</sup>
- Hysteresis adjustable at factory



Socket device included in the delivery



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

### 0194 Diaphragm pressure switches

100 <sup>1)</sup>	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
	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
300 <sup>1)</sup>	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
	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, 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:

0194 – XXX XX – X – XXX



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

# 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 600 bar<sup>1)</sup>
- Hysteresis adjustable at factory

p <sub>max.</sub> in bar	Adjustment range in bar	Tolerance in bar at room temperature	Male thread	Order number
-----------------------------	----------------------------	---	-------------	--------------

### 0195 Piston pressure switches

600 <sup>1)</sup>	50 – 200	± 5.0	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 1/8	0195 – 460 04 – X – 304
			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, 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:** 0195 – 460 XX – X – XXX

# M.2

hex 27 integrated



Socket device included in the delivery



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

