

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 1,450 / 5,800 psi (100 / 400 bar)¹⁾
- Hysteresis adjustable at factory



Socket device included in the delivery



p _{max} in bar	Adjustment range in bar	Tolerance at room temperature in bar	Male thread	Article number
-------------------------	-------------------------	--------------------------------------	-------------	----------------

0194 Diaphragm pressure switches

1,450 psi ¹⁾ (100 bar)	0.3 - 1.5	± 0.2	1/4" BSP	0194 - 457 03 - X - 003
			M 10x1 con.	0194 - 457 01 - X - 001
			M 12x1.5 cyl.	0194 - 457 02 - X - 002
			1/4" NPT	0194 - 457 09 - X - 314
			1/8" NPT	0194 - 457 04 - X - 318
			7/16-20 UNF	0194 - 457 20 - X - 301
1,450 psi ¹⁾ (100 bar)	0.3 - 1.5	± 0.2	9/16-18 UNF	0194 - 457 21 - X - 302
			1/4" BSP	0194 - 458 03 - X - 042
			M 10x1 con.	0194 - 458 01 - X - 040
			M 12x1.5 cyl.	0194 - 458 02 - X - 041
			1/4" NPT	0194 - 458 09 - X - 340
			1/8" NPT	0194 - 458 04 - X - 343
5,800 psi ¹⁾ (400 bar)	10 - 50	± 0.5	7/16-20 UNF	0194 - 458 20 - X - 341
			9/16-18 UNF	0194 - 458 21 - X - 342
			1/4" BSP	0194 - 459 03 - X - 009
			M 10x1 con.	0194 - 459 01 - X - 007
			M 12x1.5 cyl.	0194 - 459 02 - X - 008
			1/4" NPT	0194 - 459 09 - X - 311
5,800 psi ¹⁾ (400 bar)	10 - 50	± 3.0	1/8" NPT	0194 - 459 04 - X - 320
			7/16-20 UNF	0194 - 459 20 - X - 305
			9/16-18 UNF	0194 - 459 21 - X - 306
			1/4" BSP	0194 - 461 03 - X - 012
			M 10x1 con.	0194 - 461 01 - X - 010
			M 12x1.5 cyl.	0194 - 461 02 - X - 011
5,800 psi ¹⁾ (400 bar)	10 - 100	± 3.0 - 5.0	1/4" NPT	0194 - 461 09 - X - 312
			1/8" NPT	0194 - 461 04 - X - 321
			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.

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} = 5,800 psi / 400 bar)	-22 °F ... +212 °F (-40 °C ... +100 °C)	
	NBR (diaphragm pressure switch, p _{max} = 1,450 psi / 100 bar) (piston pressure switch)	-40 °F ... +212 °F (-30 °C ... +100 °C)	
	EPDM	-22 °F ... +248 °F (-30 °C ... +120 °C)	
	FKM (diaphragm pressure switch)	+23 °F ... +248 °F (-5 °C ... +120 °C)	
	FKM (piston pressure switch)	+5 °F ... +248 °F (-15 °C ... +120 °C)	
	FFKM	-4 °F ... +248 °F (-20 °C ... +120 °C)	
	Silicone	-40 °F ... +248 °F (-40 °C ... +120 °C)	
	HNBR	-22 °F ... +248 °F (-30 °C ... +120 °C)	
Burst pressure (diaphragm pressure switch, overpressure resistance 1,450 psi)	2,900 psi (200 bar)		
Burst Pressure (diaphragm pressure switch, overpressure resistance 5,800 psi)	10,153 psi (700 bar) for threads M10, G 1/8, R 1/8 and NPT 1/8 up to max. 8,700 psi (600 bar)		
Burst pressure (Piston pressure switch)	14,500 psi (1,000 bar) for threads M10, G 1/8, R 1/8 and NPT 1/8 up to max. 8,700 psi (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. 725 psi (50 bar)		
Pressure rise rate:	≤ 1 bar/ms		
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)

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 ►

Circuit diagrams ►

Accessory ►

Not included in the delivery.

Please order separately.

Cable cross-section / IP protection ►

Article number ►

	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
			¹⁾ Blade of screwdriver max. 2 mm
	Mating plug with 2 m cable ²⁾		
	TE AMP Superseal 1.5°	M12x1 DIN 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

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

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.