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 10,150 psi (700 bar)[1)]
- Hysteresis adjustable at factory

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hex 27 integrated

p_{max} in bar	Adjustment range in bar	Tolerance at room temperature in bar	Male thread	Article number
0195 Piston pressure switches				
10,152 psi[1) 2)] (700 bar)[1) 2)]	50 - 200	± 5.0	1/4 BSP	0195 - 460 03 - X - 003
			M 10x1 con.	0195 - 460 01 - X - 001
			M 12x1.5 cyl.	0195 - 460 02 - X - 002
			1/4 NPT	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

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.

Pressure switches hex 27 with integrated connector

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			

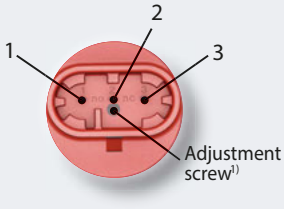
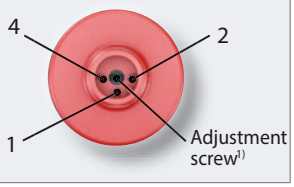
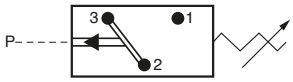
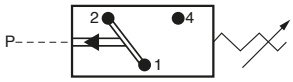
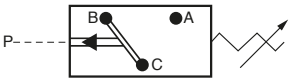
[1] see notes on hysteresis in the technical explanations (page 15-16)

○ Available as an option

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
Height without thread	H ≈ 73 mm	H ≈ 65 mm	H ≈ 71 mm
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 ®	M12x1 DIN EN 61076-2-101-LF	Deutsch DT06-3S ®
			
Cable cross-section / IP protection	3 x 0,5 mm² Radox cable / IP65	4 x 0,34 mm² PUR cable / IP67	3 x 0,5 mm² PUR cable / IP67
Article number	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)

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hex 27 integrated

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 screw[1)]
- 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.