

# 0240 / 0241

Diaphragm / piston pressure switches, hex 27

- Zinc-plated steel (CrVI-free)
- Overpressure safety up to 4,350 / 8,700 psi (300 / 600 bar)<sup>1)</sup>
- Switching point can also be adjusted during use
- Protection class 2, protective insulation

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

## 0240 Diaphragm pressure switches

4,350 psi <sup>1)</sup> (300 bar) <sup>1)</sup>	4.35 - 21.75 psi (0.3 - 1.5 bar)	± 2.90 psi (± 0.2 bar)	1/4" BSPP	0240 - 457 03 - X - 003
			1/8" NPT	0240 - 457 04 - X - 300
			1/4" NPT	0240 - 457 09 - X - 305
			7/16-20 UNF	0240 - 457 20 - X - 310
			9/16-18 UNF	0240 - 457 21 - X - 315
	14.5 - 145 psi (1 - 10 bar)	± 7.25 psi (± 0.5 bar)	1/4" BSPP	0240 - 458 03 - X - 006
			1/8" NPT	0240 - 458 04 - X - 301
			1/4" NPT	0240 - 458 09 - X - 306
			7/16-20 UNF	0240 - 458 20 - X - 311
			9/16-18 UNF	0240 - 458 21 - X - 316
	145 - 290 psi (10 - 20 bar)	± 14.5 psi (± 1.0 bar)	1/4" BSPP	0240 - 459 03 - X - 009
			1/8" NPT	0240 - 459 04 - X - 302
			1/4" NPT	0240 - 459 09 - X - 307
			7/16-20 UNF	0240 - 459 20 - X - 312
			9/16-18 UNF	0240 - 459 21 - X - 317
	290 - 725 psi (20 - 50 bar)	± 29.0 psi (± 2.0 bar)	1/4" BSPP	0240 - 461 03 - X - 012
1/8" NPT			0240 - 461 04 - X - 303	
1/4" NPT			0240 - 461 09 - X - 308	
7/16-20 UNF			0240 - 461 20 - X - 313	
9/16-18 UNF			0240 - 461 21 - X - 318	

## 0241 Piston pressure switches

8,700 psi <sup>1)</sup> (600 bar) <sup>1)</sup>	725 - 2,175 psi (50 - 150 bar)	± 72.5 psi (± 5.0 bar)	1/4" BSPP	0241 - 460 03 - X - 003
			1/8" NPT	0241 - 460 04 - X - 304
			1/4" NPT	0241 - 460 09 - X - 309
			7/16-20 UNF	0241 - 460 20 - X - 314
			9/16-18 UNF	0241 - 460 21 - X - 319

## Seal material – Application areas

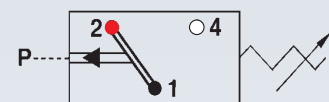
NBR (BunaN)	Hydraulic/machine oil, heating oil, air, nitrogen <sup>2)</sup> , etc.	1
EPDM	EPDM Brake fluid, water, hydrogen, oxygen, acetylene <sup>2)</sup> , etc.	2
FKM (Viton®)	Hydraulic fluids (HFA, HFB, HFD), petrol/gasoline, etc.	3
FFKM	Hot water, chemical acids, diluted alkalis, ketones, esters,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

Refer to page 64 for the temperature range and application thresholds of sealing materials. ↓

Your order number: 024X - XXX XX - X - XXX

# M.5

hex 24 / 27  
Ready-wired



Contact assignment:

- 1 = Black
- 2 = Red
- 4 = White

1) Static value. Dynamic value is 30-50 % lower. Values pertain to the hydraulic/pneumatic part of the pressure switch.  
2) For gas applications below 10 bar (145 PSI) we generally recommend venting the housing for encapsulated pressure switches. Please contact us so we can offer you a suitable solution.



# M.5

hex 24 / 27  
Ready-wired

# 0240 / 0241

Diaphragm / piston pressure switches, hex 27

## Technical data

Refer to page 54 for electrical values

Rated working voltage:	max. 42 V / 250 V depending on connection
Rated working current:	max. 2 A
Protection class:	2, protective insulation
Temperature resistance of sealing materials:	NBR (diaphragm pressure switch) -40 °F...+212 °F (-40 °C...+100 °C)
	NBR (piston pressure switch) -22 °F...+212 °F (-30 °C...+100 °C)
	EPDM -22 °F...+248 °F (-30 °C...+120 °C)
	FKM (Viton®) (in diaphragm pressure switch) +23 °F...+248 °F (-5 °C...+120 °C)
	FKM (Viton®) (in piston pressure switch) +5 °F...+248 °F (-15 °C...+120 °C)
	FFKM +5 °F...+248 °F (-15 °C...+120 °C)
	Silicone -4 °F...+248 °F (-20 °C...+120 °C)
HNBR -22 °F...+248 °F (-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. 725 psi (50 bar))
Pressure rise rate:	≤ 14,500 psi/s (1,000 bar/s)
Differential:	Average value 10 – 20 % (not adjustable)
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 60068-2-6
Materials:	Housing material: zinc-plated steel Protective cap: anodised aluminium
Protection class:	IP67
Cable:	Standard length 6.5 ft (2 m) with wire end sleeves
Weight:	approx. 4.5 oz (120 g)

## Options for 0240 / 0241

- Other cable lengths and plug-in systems
- Fixed switching point, factory-set, set point embossed on housing
- Alternative housing materials and connection threads
- Other sealing materials, such as silicone for diaphragm pressure switches

# hex 24 / 27

## Custom designs

All hex 24 and hex 27 pressure switches can be individually wired according to customer needs.

# M.5

hex 24 / 27  
Ready-wired



### Standard types suitable for ready-wiring

<p>0163 / 0166 0164 0167 0169</p>	<p>0168</p>	<p>0170 / 0171 0180 / 0181 0190 / 0191 0196 / 0197</p>	<p>0140 / 0141</p>
			
<p>Technical details page 41</p>	<p>Technical details page 41</p>	<p>Technical details page 53</p>	<p>Technical details page 53</p>
<p>The switching point is factory preset and cannot be changed subsequently, so please state the switching point when ordering.</p>		<p>The switching point is adjustable even after sealing.</p>	

Please note our detailed information on

- CE marking
- protection class
- custom applications

For gas applications below 10 bar (145 PSI) we generally recommend venting the housing for encapsulated pressure switches.

### A selection from the wide variety of connectors we can supply

<p>Connector to DIN 72585-A1-4.1</p>	
<p>AMP Junior Timer®</p>	
<p>Cannon connector</p>	
<p>AMP Superseal 1.5°</p>	
<p>Packard connector (Weather Pack® 2-wire)</p>	
<p>Packard connector (Weather Pack® 3-wire)</p>	
<p>Deutsch connector (DT 06 - 2S)</p>	
<p>Deutsch connector (DT 04 - 2P)</p>	
<p>Deutsch connector (DT 04 - 3P)</p>	

## M.5

hex 24 / 27  
Ready-wired

# hex 24 / hex 27 ready-wired pressure switches

Custom designs



- Ready-wired pressure switches hex 24 and hex 27, available with all commercial plug-in types and individual cable length.
- The technical details of ready-wired pressure switch types correspond to those of the same standard pressure switch types. Different technical details will be agreed with the customer.
- Pressure switches usually have protection class IP65. Our ready-wired pressure switches attain IP67 or IP6K9K. This is a requirement particularly in commercial vehicle construction, mobile hydraulics and similarly demanding applications.
- Ready-wired pressure switches enable plug connectors to be moved in climatically non-critical and low-vibration areas.
- The modular layout also enables the production of lower volumes.
- The switching point for ready-wired pressure switches is factory-set to a fixed value. Exception: The switching point of the 0240/0241 can be adjusted on site even after the sealing process.