

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)¹⁾
- Switching point can also be adjusted during use
- Protection class 2, protective insulation \square

| p _{max.} 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 ¹⁾ (300 bar) ¹⁾ | 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 ¹⁾ (600 bar) ¹⁾ | 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, etc. | 1 |
| EPDM | Brake fluid, hydrogen, oxygen, acetylene, etc. | 2 |
| FKM (Viton®) | Hydraulic fluids (HFA, HFB, HFD), petrol/gasoline, etc. | 3 |
| HNBR | Hydraulic/machine oil, ester-based bio-oils | 9 |

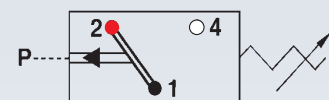
Refer to page 64 for the temperature range and application thresholds of sealing materials.



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.

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 (BunaN) -40 °F...+212 °F (-40 °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) |
| | Silicone -40 °F...+248 °F (-40 °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: | ≤ 14.5 psi/ms (1 bar/ms) |
| 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 ² ; 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

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.

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

in the general technical explanations on page 14, and the technical explanations on mechanical pressure switches on page 17.

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> |  |