

0151

Vacuum switch up to 42 V, NO or NC

- Brass housing
- Spade or M3 screw terminal
- Operating voltage up to 42 V
- Overpressure safety up to 500 psi (35 bar)¹⁾

P _{max.} in psi (bar)	Adjustment range in HG (mbar) (relative)	Tolerance in HG (mbar) at room temperature	Thread	Order number
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0151 Vacuum switches with M3 screw terminal

500 psi ¹⁾ (35 bar) ¹⁾	6" - 29" (200 - 950 mbar)	± 3" (± 100 mbar)	1/8" BSPP female	NO → : 0151 - 452 15 - 3 - 001
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NO → |:

NC → |:

0151 - 453 15 - 3 - 001

0151 Vacuum switches with spade terminal

500 psi ¹⁾ (35 bar) ¹⁾	6" - 29" (200 - 950 mbar)	± 3" (± 100 mbar)	1/8" BSPP female	NO → : 0151 - 454 15 - 3 - 001
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NO → |:

NC → |:

0151 - 455 15 - 3 - 001

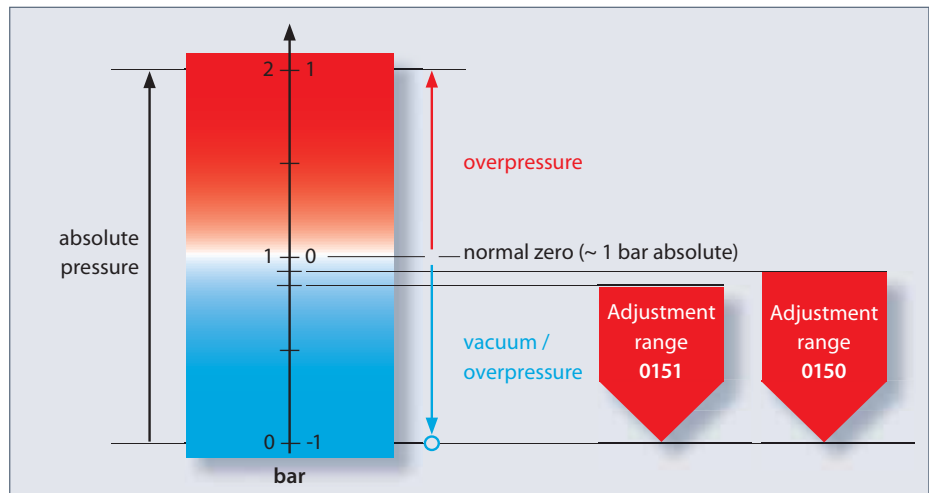
Seal material – Application areas

FKM (Viton®)	Air, oils, greases, fuel/gasoline	3
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Temperature resistance: +5 °F...+248 °F (-15 °C...+120 °C)

Your order number: 0151 - XXX 15 - 3 - 001

Comparison of absolute/relative pressures



Note: Required set points in the vacuum range must be specified relative to atmospheric pressure (normal pressure) in the ordering process.

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

M.9

Vacuum



Switches are also available on request with outer thread or integrated connector.



Vacuum switches

Technical data

M.9

Vacuum



Type:	0150	0151
Operating voltage:	10 ... 250 VAC/DC	10 ... 42 VAC/DC
Rated current (resistive load):	Refer to electrical values below	10 mA ... 4 A
Switching power:	Refer to electrical values below	100 VA
Temperature resistance of sealing materials:	-4 °F ... +212 °F (-20 °C ... +100 °C)	+5 °F ... +248 °F (-15 °C ... +120 °C)
Switching frequency:	200 / min.	
Mechanical life expectancy:	1,000,000 cycles	
Pressure rise rate:	≤ 14.5 psi/ms (≤ 1 bar/ms)	
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	
Housing material:	Aluminium	Brass
Protection class:	IP65 with socket device	IP65, terminals IP00
Weight:	approx. 9.5 oz (270 g)	approx. 5 oz (140 g)

0150 Electrical values (also refer to page 14 for technical explanations)

Rated working voltage U_e	Rated working current I_e (usage category)
250 VAC 50 / 60 Hz	5 A (AC 12)
250 VAC 50 / 60 Hz	1 A (AC 14)
24 VDC	3.5 / 3.5 A (DC 12 / DC 13)
50 VDC	2 / 1 A (DC 12 / DC 13)
75 VDC	1 / 0.5 A (DC 12 / DC 13)
125 VDC	0.3 / 0.2 A (DC 12 / DC 13)
250 VDC	0.25 / 0.2 A (DC 12 / DC 13)
Rated insulation voltage U_i :	300 V
Rated impulse withstand voltage U_{imp} :	2.5 kV
Conventional thermal current I_{the} :	6 A
Switching overvoltage:	< 2.5 kV
Rated frequency:	DC and 50 / 60 Hz
Nominal current of short-circuit mechanism:	up to 6.3 A
Conditional short-circuit current:	< 350 A
Tightening torque of terminal screws:	< 0.35 Nm
Connector cross-section:	0.5 ... 1.5 mm ²

M

Socket devices and protective caps

- IP65 socket devices or IP54 rubber protective caps for increased protection
- Simple installation with plug-in socket devices

 <p>60 Ø 28</p>	 <p>46 Ø 28</p>	 <p>55 Ø 31</p>	 <p>~ 54 45 Ø 34</p>
<p>Rubber protective cap</p> <p>With central cable feed-through for 1.5 – 5 mm cable diameter</p> <p>With rubber protective cap fitted: IP54</p> <p>Suitable for voltages up to 42 V</p>	<p>Rubber protective cap</p> <p>With two cable feed-throughs for 1.7 – 2.2 mm cable diameter</p> <p>With rubber protective cap fitted: IP54</p> <p>Suitable for voltages up to 42 V</p>	<p>Rubber protective cap</p> <p>With two cable feed-throughs for 1.7 – 2.3 mm cable diameter</p> <p>With rubber protective cap fitted: IP54</p> <p>Suitable for voltages up to 42 V</p>	<p>Socket device</p> <p>PG9 screw fitting (tightening range 6 – 9 mm)</p>  <p>With socket device fitted: IP65</p> <p>Suitable for voltages up to 250 V</p>
<p>suitable for series</p> <p>0151 / 0163 / 0164 / 0166 0167 / 0168 / 0169</p>	<p>suitable for series</p> <p>0151 / 0163 / 0164 / 0166 0167 / 0168 / 0169</p>	<p>suitable for series</p> <p>0170 / 0171 / 0180* / 0181* 0183* / 0186* / 0187* 0190 / 0191 / 0196 / 0197</p> <p>(*up to 42 V)</p>	<p>suitable for series</p> <p>0170 / 0171 / 0180 / 0181 0183 / 0186 / 0187 0190 / 0191 / 0196 / 0197</p>
<p>Order number:</p> <p>1-1-66-621-010</p>	<p>Order number:</p> <p>1-1-66-621-003</p>	<p>Order number:</p> <p>1-1-70-621-007</p>	<p>Order number:</p> <p>1-1-80-652-002</p>

Vacuum switches



- Switching point can be adjusted when fitted on site ¹⁾
- High overpressure resistance
- Long service life even under harsh conditions
- 0150 series available as a snap action switch, up to 250 V
- 0151 series available as NC or NO up to 42 V

¹⁾ Pressure switches can also be supplied preset at factory.
Our preset switches are sealed with lacquer paint, set points are embossed on the housing.