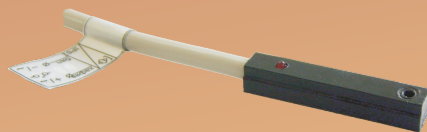


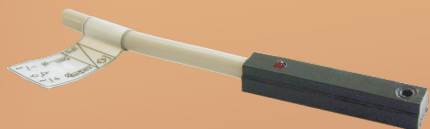
"ESA Control" Ltd



**MAGNETIC**

**PROXIMITY SENSORS**

**AC / DC**



Bulgaria  
5300 Gabrovo  
3, Stancionna str.  
Tel./fax: +359 66 860543  
E-mail: [office@esa-control.com](mailto:office@esa-control.com)  
Site: <http://www.esa-control.com>



fig.1

### Application and operating principle

The magnetic proximity sensor MD-2 is made on the base of reed-contact and serves to commute direct current and alternating current electric circuits. It is specialized for groove montage on pneumatic aluminum cylinders. It can also be used on other facilities. The principle of operation is to bring a permanent magnet closer to its active part, whereby the electrical circuit in the sensor closes and current flows. If there is a magnet in front of the active part of the sensor, the output indicator is on.

### Technical parameters

Operating distance, $S_n$	10,0 mm
Hysteresis, $h$	15%
Output function	NO
Supply voltage, $U_s$	8...110V AC/DC
Residual voltage, $U_{res}$	2,5V (100mA); 2,8V (200mA)
Load current (max), $I_{out}$	200mA
Protection of output, $I_{prot}$	No
Switching frequency (max), $f_o$	600 Hz
Fall time and Rise time, $t_f / t_r$	0.8 ms / 0.8 ms
Operating temperature range, $T_{amb}$	-20...+70°C
Degree of protection	IP67 (IEC144)
Output light indicator	LED
Connection cable	2x0.25 mm <sup>2</sup> , L=2 m, PVC
Overall dimensions	30x6,4x5 mm
Housing	PA6 (Polyamide)

### Scheme of connection

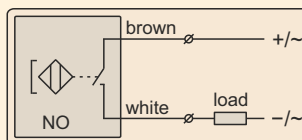




fig.1

Application and operating principle

The magnetic proximity sensor series MP4-30 is made on the base of reed-contact and serves to commutate direct current electric circuits. It is specialized for groove montage on pneumatic aluminum cylinders. It can also be used on other facilities. The principle of operation is to bring a permanent magnet closer to its active part, whereby the electrical circuit in the sensor closes and current flows. If there is a magnet in front of the active part of the sensor, the output indicator is on.

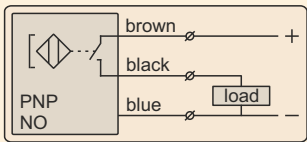
Technical parameters

Operating distance, <i>Sn</i>	10,0 mm
Hysteresis, <i>h</i>	15%
Output function	PNP/NO; NPN/NO
Supply voltage, <i>Us</i>	5...35V DC
Residual voltage, <i>Ures</i>	0 V
Load current (max), <i>Iout</i>	200 mA
Protection of output, <i>Iprot</i>	No
Switching frequency (max), <i>f<sub>o</sub></i>	600 Hz
Fall time and Rise time, <i>tr</i> / <i>tf</i>	0.8 ms / 0.8 ms
Operating temperature range, <i>Tamb</i>	-20...+70°C
Degree of protection	IP67 (IEC144)
Output light indicator	LED
Connection cable	3x0.25 mm², L=2 m, PVC
Overall dimensions	30x6,4x5 mm
Housing	PA6 (Polyamide)

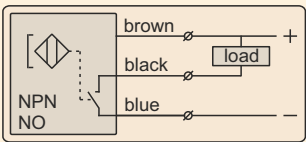
Type parameters

Type	Output function	Scheme of connection
MP4-30.11.R	PNP / NO	11
MP4-30.21.R	NPN / NO	21

Schemes of connection



Scheme 11



Scheme 21

Overall sizes

