<table>
<thead>
<tr>
<th>Magnetic Sensor</th>
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</tr>
</thead>
<tbody>
<tr>
<td>N.O. (normally open)</td>
<td>N.C. (normally closed)</td>
<td>Changing contact</td>
</tr>
</tbody>
</table>

### Connection diagram

- **Magnetic Sensor N.O. (normally open)**
  - Connection diagram: [Diagram]
  - Black
  - Blue

- **Magnetic Sensor N.C. (normally closed)**
  - Connection diagram: [Diagram]
  - Black
  - Blue

- **Magnetic Sensor Changing contact**
  - Connection diagram: [Diagram]
  - Black
  - Blue
  - Brown

### Mechanical dimensions

- **Magnetic Sensor N.O. (normally open)**
  - 25.4 x 20.2 x 6.5

- **Magnetic Sensor N.C. (normally closed)**
  - 19.8 x 3000 x 63.5

- **Magnetic Sensor Changing contact**
  - M3 x 0.5 (2 x)

### Mechanical data

- **Housing material**: PA 6.6
- **Cable**: 3 m PUR 2(3) x 0.14 mm²
- **Mechanical life**: 3 x 10⁶ operations at resistive load

### Operating temperature

- **Operating temperature**: -25°C – +65°C
- **Protection class**: IP 67

### Electrical data

- **Max. power**: 10 VA
- **Max. voltage**: 100 Vdc
- **Max. current**: 0.5 A
- **Max. contact resistance**: 0.2 ohm

### Graph for resistive load

<table>
<thead>
<tr>
<th>U (V)</th>
<th>I (A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>0.50</td>
</tr>
<tr>
<td>24</td>
<td>0.417</td>
</tr>
<tr>
<td>48</td>
<td>0.208</td>
</tr>
<tr>
<td>100</td>
<td>0.10</td>
</tr>
</tbody>
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### Contact protection

Very often the load has an inductive or capacitive character. In these cases it is important to protect the contact against spikes and high power. There is no general solution for all the different applications, but the following information gives some important guidelines.

#### Inductive load

- **Diagram**: [Diagram]
- **Diode**: Connect a diode (eg. 1N4006) in parallel to the load.

#### Capacitive load

- **Diagram**: [Diagram]
- **Resistor**: Connect a resistor in series to the sensor, the resistor should be as large as possible.

### General application information

The duration of the signal from the sensor when the magnet passes depends mainly upon two factors. The first is the length of the magnet and the second is the speed of the magnet. The length of the magnet can be found in the manuals for each product while the speed must be calculated by the customer. If the duration of the signal becomes too short the input device for the signal (relay, PLC input, etc.) may not be able to detect it. Note that the response time for different input devices differ very much. The duration of the signal from the sensor will also vary depending on the temperature, current, supply voltage etc. and vibrations. The type of contact protection will also affect the duration of the signal. If there is a problem to detect a signal or if the function becomes erratic, try the following operations:

1. Select an input device with better (shorter) response time.
2. Reduce the speed (if possible).
3. Reduce the current or the supply voltage.

### Version History

<table>
<thead>
<tr>
<th>Edition</th>
<th>Reason for revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-02</td>
<td>Added D535073 and change of layout</td>
</tr>
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