

## Reed Sensor with Screw Thread Enclosure



### DESCRIPTION

MK11 sensors are magnetically operated Reed Sensors with screw thread enclosure supplied with interconnect cable. The sensor should be mounted on a fixed surface with the actuating magnet on the moving surface. Introduction or removal of the magnetic field determines the closing and opening of the Reed Switch.

### APPLICATIONS

- Piston end travel and position detection
- End motion detection for linear drives
- Machine industry

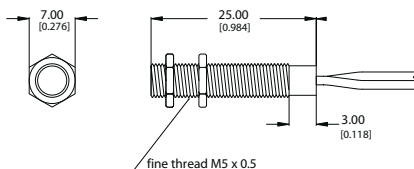
### FEATURES

- Stainless steel and plastics designs with thread for space adjustment
- High power switches available
- Other cables, connectors and colors available
- Various case sizes available
- Five operate sensitivities available
- A choice of cable terminations and lengths are available

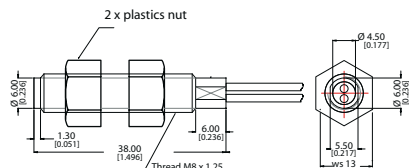
### DIMENSIONS

All dimensions in mm [inches]

MK11 (Stainless Steel)



MK11/M8 (Plastics)



**ORDER INFORMATION**

**Part Number Example**

MK11 - 1A66 C - 500 W  
 MK11/M8 - 1A66 C - 500 W

**66** is the switch model  
**C** is the magnetic sensitivity  
**500** is the cable length (mm)  
**W** is the termination

| Series         | Contact-form | Switch-model | Magnetic Sensitivity | Cable Length (mm) | Termination |
|----------------|--------------|--------------|----------------------|-------------------|-------------|
| <b>MK11 -</b>  | <b>1A</b>    | <b>XX</b>    | <b>X</b>             | <b>XXX</b>        | <b>X</b>    |
| <b>Options</b> | 1A           | 66           | B, C, D, E           | 500*              | W           |
|                |              | 84**         | B, C, D, E           |                   |             |
|                | 1C           | 90**         | C, D, E              |                   |             |

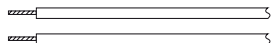
\* Other cable lengths available.  
 \*\* Only for MK11/M8 (plastics).

**MAGNETIC SENSITIVITY**

| Sensitivity Class | Pull In At Range |
|-------------------|------------------|
| B                 | 10 - 15          |
| C                 | 15 - 25          |
| D                 | 20 - 25          |
| E                 | 25 - 30          |

**TERMINATION**

For wire and termination details please consult factory.

|          |   |   |
|----------|---|---|
| <b>W</b> |  | The cable cut length includes:<br>5 mm of wire stripped and tinned. |
|----------|---|---|

## Reed Sensor with Screw Thread Enclosure

### CONTACT DATA (Stainless Steel + Plastics)

| All Data at 20° C   | Switch Model →<br>Contact Form →                                  | Switch 66<br>Form A   |      |      | Units |
|---|---|-----------------------|------|------|-------|
|   |   | Min.                  | Typ. | Max. |       |
| Switching Power   | Any DC combination of V & A not to exceed their individual max.'s |                       |      | 10   | W     |
| Switching Voltage   | DC or peak AC   |                       |      | 200  | V     |
| Switching Current   | DC or peak AC   |                       |      | 0.5  | A     |
| Carry Current   | DC or peak AC   |                       |      | 1.25 | A     |
| Static Contact Resistance   | w/ 0.5 V & 10 mA  |                       |      | 150  | mΩ    |
| Dynamic Contact Resistance  | Measured w/ 0.5 V & 50 mA ,<br>1.5 ms after closure               |                       |      | 200  | mΩ    |
| Insulation Resistance across Contacts   | 100 volts applied   | 10 <sup>10</sup><br>* |      |      | Ω     |
| Breakdown Voltage across Contact  | Voltage applied for 60 sec. min.                                  | 225*                  |      |      | VDC   |
| Operation Time incl. Bounce   | Measured w/ 100 % overdrive                                       |                       |      | 0.5  | ms    |
| Release Time  | Measured w/ no coil suppression                                   |                       |      | 0.1  | ms    |
| Capacitance   | at 10 kHz cross contact   |                       | 0.2  |      | pF    |
| <b>Environmental Data</b>   |   |                       |      |      |       |
| Shock Resistance  | 1/2 sinus wave duration 11 ms                                     |                       |      | 50   | g     |
| Vibration Resistance  | From 10 - 2000 Hz   |                       |      | 20   | g     |
| Ambient Temperature   | 10°C/ minute max. allowable                                       | -20                   |      | 85   | °C    |
| Stock Temperature   | 10°C/ minute max. allowable                                       | -35                   |      | 85   | °C    |
| Soldering Temperature   | 5 sec.  |                       |      | 260  | °C    |
| Please note: The indicated electrical data are maximum values and can vary downwards when using a more sensitive switch.                        |   |                       |      |      |       |
| * Insulation resistance of 10 <sup>12</sup> and breakdown voltage of 480 VDC is available.  |   |                       |      |      |       |
| ** These ranges refer to the uncut / unmodified Reed Switches described in our Reed Switch section. Consult factory if more detail is required. |   |                       |      |      |       |

**CONTACT DATA (only Plastics)**

| <b>All Data at 20° C</b>  | <b>Switch Model →<br/>Contact Form →</b>                          | <b>Switch 84<br/>Form A</b> |             |             | <b>Switch 90<br/>Form A</b> |             |             |              |
|---|---|-----------------------------|-------------|-------------|-----------------------------|-------------|-------------|--------------|
| <b>Contact Ratings</b>  | <b>Conditions</b>   | <b>Min.</b>                 | <b>Typ.</b> | <b>Max.</b> | <b>Min.</b>                 | <b>Typ.</b> | <b>Max.</b> | <b>Units</b> |
| Switching Power   | Any DC combination of V & A not to exceed their individual max.'s |                             |             | 10          |                             |             | 10          | W            |
| Switching Voltage   | DC or peak AC   |                             |             | 180         |                             |             | 175         | V            |
| Switching Current   | DC or peak AC   |                             |             | 0.5         |                             |             | 0.5         | A            |
| Carry Current   | DC or peak AC   |                             |             | 1.5         |                             |             | 1.0         | A            |
| Static Contact Resistance   | w/ 0.5 V & 10 mA  |                             |             | 150         |                             |             | 150         | mΩ           |
| Dynamic Contact Resistance  | Measured w/ 0.5 V & 50 mA ,<br>1.5 ms after closure               |                             |             |             |                             |             |             | mΩ           |
| Insulation Resistance across Contacts   | 100 volts applied   | 10 <sup>12</sup>            |             |             | 10 <sup>9</sup>             |             |             | Ω            |
| Breakdown Voltage across Contact  | Voltage applied for 60 sec. min.                                  | 200                         |             |             | 200                         |             |             | VDC          |
| Operation Time incl. Bounce   | Measured w/ 100 % overdrive                                       |                             |             | 0.5         |                             |             | 0.7         | ms           |
| Release Time  | Measured w/ no coil suppression                                   |                             |             | 0.1         |                             |             | 1.5         | ms           |
| Capacitance   | at 10 kHz cross contact   |                             | 0.3         |             |                             | 1.0         |             | pF           |
| <b>Environmental Data</b>   |   |                             |             |             |                             |             |             |              |
| Shock Resistance  | 1/2 sinus wave duration 11 ms                                     |                             |             | 50          |                             |             | 30          | g            |
| Vibration Resistance  | From 10 - 2000 Hz   |                             |             | 20          |                             |             | 20          | g            |
| Ambient Temperature   | 10°C/ minute max. allowable                                       | -20                         |             | 105         | -20                         |             | 70          | °C           |
| Stock Temperature   | 10°C/ minute max. allowable                                       | -35                         |             | 105         | -35                         |             | 70          | °C           |
| Soldering Temperature   | 5 sec.  |                             |             | 250         |                             |             | 260         | °C           |
| Please note: The indicated electrical data are maximum values and can vary downwards when using a more sensitive switch.<br>* Insulation resistance of 10 <sup>12</sup> and breakdown voltage of 480 VDC is available.<br>** These ranges refer to the uncut / unmodified Reed Switches described in our Reed Switch section. Consult factory if more detail is required. |   |                             |             |             |                             |             |             |              |