

### DESCRIPTION

MK20/1 sensors are magnetically operated Reed proximity switches in a cylindrical module, fitted 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.



### FEATURES

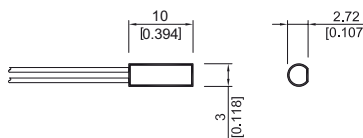
- Flat side indicates maximum sensitivity
- Small size
- Other cables, connectors and colors available
- Three operate sensitivities available
- A choice of cable terminations and lengths are available

### APPLICATIONS

- **Position and limit switch**  
Pneumatic or hydraulic actuator position  
Indication and end travel limit switch
- **Door and window contacts**  
Security system applications
- **Level sensor**  
Use with magnetic floats for water level detection in coffee makers, washing machines or dishwashers

### DIMENSIONS

All dimensions in mm [inch]



MK20/1

## Cylindrical Reed Sensors

### ORDER INFORMATION

| Series                          | Magnetic Sensitivity | Cable Length (mm) | Termination |
|---------------------------------|----------------------|-------------------|-------------|
| MK20/1 -                        | X -                  | XXX               | X           |
| Options                         | B, C, D              | 100 *             | W           |
| * Other cable length available. |                      |                   |             |

#### Part Number Example

MK20/1 - C - 100 W

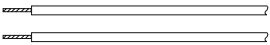
**C** is the magnetic sensitivity  
**100** is the cable length (mm)  
**W** is the termination

### MAGNETIC SENSITIVITY

| Sensitivity class | Pull In At Range |
|-------------------|------------------|
| B                 | 10 - 15          |
| C                 | 15 - 20          |
| D                 | 20 - 25          |

### TERMINATION

For wire and termination details please consult factory.

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

**CONTACT DATA**

| <b>All Data at 20° C</b>   | <b>Contact Form</b> →   | <b>Form A</b>   |             |             |              |
|--|---|-----------------|-------------|-------------|--------------|
| <b>Contact Ratings</b>   | <b>Conditions</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 |                 |             | 5           | W            |
| Switching Voltage  | DC or peak AC   |                 |             | 175         | V            |
| Switching Current  | DC or peak AC   |                 |             | 0.25        | A            |
| Carry Current  | DC or peak AC   |                 |             | 0.5         | 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               |                 |             | 300         | mΩ           |
| Insulation Resistance across Contacts  | 100 volts applied   | 10 <sup>9</sup> |             |             | Ω            |
| Breakdown Voltage across Contact   | Voltage applied for 60 sec. min.                                  | 200             |             |             | VDC          |
| Operation Time incl. Bounce  | Measured w/ 100 % overdrive                                       |                 |             | 0.4         | ms           |
| Release Time   | Measured w/ no coil suppression                                   |                 |             | 0.1         | ms           |
| Capacitance  | at 10 kHz cross contact   |                 | 0.3         |             | pF           |
| <b>Contact Operation *</b>   |   |                 |             |             |              |
| Must Operate Condition   | Steady state field  | 10              |             | 25          | AT           |
| Must Release Condition   | Steady state field  | 4               |             | 22          | AT           |
| <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             |             | 70          | °C           |
| Stock Temperature  | 10°C/ minute max. allowable                                       | -20             |             | 70          | °C           |
| Soldering Temperature  | 5 sec. dwell  |                 |             | 260         | °C           |
| Please note: The indicated electrical data are maximum values and can vary downwards when using a more sensitive switch.<br>* These ranges refer to the uncut / unmodified Reed Switches described in our Reed Switch section. Consult factory if more detail is required. |   |                 |             |             |              |