

**DESCRIPTION**

The MK1 sensor offers a selection of magnetically operated Reed proximity switches with J-lead connections for SMD mounting. The sensors are provided in the standard 32 mm tape according to IEC 286 / part 3. Several AT ranges for the Pull-in / Drop-out sensitivities are available. Low profile packaging with a height of only 3.25 mm.



**APPLICATIONS**

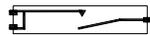
- **Telecommunications**  
Hook switch sensor in mobile phones
- **Microphones**  
On/off control switch
- **Electronic PCB's where all components are surface mounted**
- **Connection detection in battery chargers**
- **Position detection**

**FEATURES**

- Surface Mount Design
- Form C available
- High power switches available
- Four operate sensitivities available

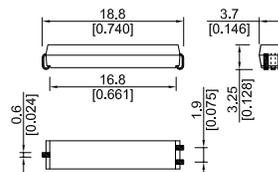
**SCHEMATIC DRAWING**

View from top of component



**DIMENSIONS**

All dimensions in mm [inches]



**ORDER INFORMATION**

| SENSITIVITY CLASS | PULL IN AT RANGE |
|-------------------|------------------|
| B                 | 10 - 15          |
| C                 | 15 - 20          |
| D                 | 20 - 25          |
| E                 | 25 - 30          |

| SERIES  | MAGNETIC SENSITIVITY |
|---------|----------------------|
| MK1 -   | X                    |
| OPTIONS | B, C, D, E           |

Part Number Example

MK1 - B

**B** is the magnetic sensitivity class

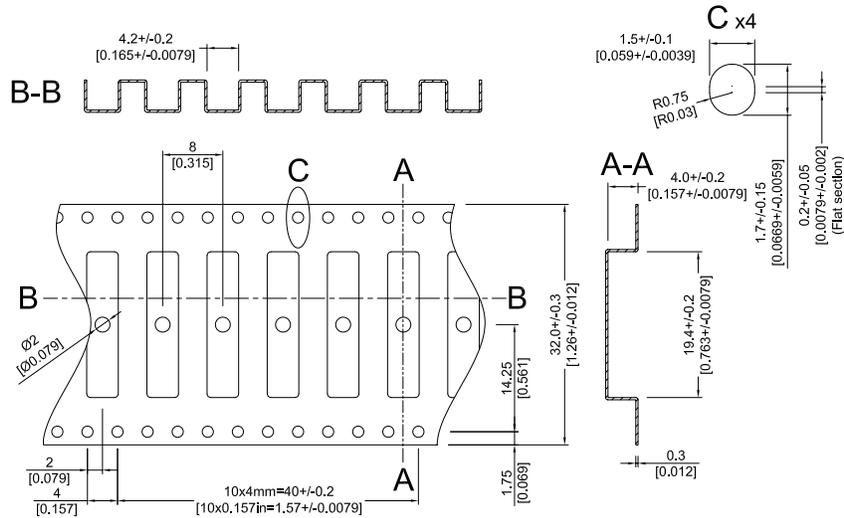
# MK1 Series

# MEDER electronic

Surface Mount  
Reed Sensors

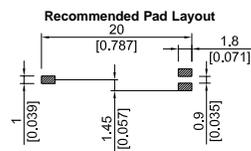
## TAPE & REEL

All dimensions in mm [inches]



## SOLDERING INFORMATION

All dimensions in mm [inches]



[www.meder.com](http://www.meder.com)

Germany # ++49-(0)7733-94870, USA # 800-870-5385

**CONTACT DATA**

| All data at 20 °C                                                                                                                                                                                                                                                                                                                                                                   | Contact Form -->                                                  | Form A             |      |      |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|--------------------|------|------|-------|
| Contact Ratings                                                                                                                                                                                                                                                                                                                                                                     | Conditions                                                        | Min.               | Typ. | Max. | Units |
| Contact Rating                                                                                                                                                                                                                                                                                                                                                                      | 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/ 0.5V & 10mA                                                    |                    |      | 150  | mΩ    |
| Dynamic Contact Resistance                                                                                                                                                                                                                                                                                                                                                          | Measured w/ 0.5V & 50mA<br>1.5 ms after closure                   |                    |      | 200  | mΩ    |
| Insulation Resistance across Contacts                                                                                                                                                                                                                                                                                                                                               | 100 Volts applied                                                 | 10 <sup>10</sup> * |      |      | Ω     |
| Breakdown Voltage across Contacts                                                                                                                                                                                                                                                                                                                                                   | Voltage applied for 60 sec.<br>min.                               | 225 *              |      |      | VDC   |
| Operate Time, incl. Bounce                                                                                                                                                                                                                                                                                                                                                          | Measured w/ 100% overdrive                                        |                    |      | 0.5  | ms    |
| Release Time                                                                                                                                                                                                                                                                                                                                                                        | Measured w/ no coil<br>suppression                                |                    |      | 0.1  | ms    |
| Capacitance                                                                                                                                                                                                                                                                                                                                                                         | @ 10kHz across contact                                            |                    | 0.2  |      | pF    |
| <b>Contact Operation **</b>                                                                                                                                                                                                                                                                                                                                                         |                                                                   |                    |      |      |       |
| Must Operate Condition                                                                                                                                                                                                                                                                                                                                                              | Steady state field                                                | 10                 |      | 30   | AT    |
| Must Release Condition                                                                                                                                                                                                                                                                                                                                                              | Steady state field                                                | 04                 |      | 27   | AT    |
| <b>Environmental Data</b>                                                                                                                                                                                                                                                                                                                                                           |                                                                   |                    |      |      |       |
| Shock Resistance                                                                                                                                                                                                                                                                                                                                                                    | 1/2 sine wave duration 11ms                                       |                    |      | 50   | g     |
| Vibration Resistance                                                                                                                                                                                                                                                                                                                                                                | From 10 - 2000 Hz                                                 |                    |      | 20   | g     |
| Ambient Temperature                                                                                                                                                                                                                                                                                                                                                                 | 10 °C/ minute max. allowable                                      | -40                |      | 130  | °C    |
| Storage Temperature                                                                                                                                                                                                                                                                                                                                                                 | 10 °C/ minute max. allowable                                      | -50                |      | 130  | °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>* Insulation Resistance of 10 <sup>12</sup> and a Breakdown voltage of 480 VDC version 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. |                                                                   |                    |      |      |       |