## Integrated Resistor

## DESCRIPTION

MK10 sensors are magnetically operated Reed proximity switches in which a small size resistor is integrated into the package. The single-in-line construction is designed for PCB mounting. The magnetic pull-in / drop-out sensitivity is divided into two AT ranges.

## RESISTOR VALUES

- All standard values of $1 / 8$ Watt resistors of the series E96 with 1\% tolerance are available as well.


## FEATURES

- High power switches available
- Small dimensions


## PIN OUT

View from top of component 2.54 mm [0.10"] pitch grid


## DIMENSIONS

All dimensions in mm [inches]


## ORDER INFORMATION

| SENSITIVITY <br> CLASS | PULL IN <br> AT RANGE |
| :---: | :---: |
| B | $10-15$ |
| C | $15-20$ |


| SERIES | MAGNETIC <br> SENSITIVITY | RESISTANCE <br> IN OHM |
| :---: | :---: | :---: |
| MK10 | $X-$ | $X X X$ |
| OPTIONS | B, C | $*$ |

* All standard values of $1 / 8$ Watt resistors of the series E96 with $1 \%$ tolerance can be built in.

Part Number Example -
MK10 B - 390
B is the magnetic sensitivity,
390 is the resistance in Ohm *

## CONTACT DATA

| All data at $20^{\circ} \mathrm{C}$ | Switch Model --> Contact Form --> | Contact 87 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 |  |  | 0.5 | A |
| Static Contact Resistance | $\mathrm{w} / 0.5 \mathrm{~V}$ \& 10 mA |  |  | 150 | $\mathrm{m} \Omega$ |
| Dynamic Contact Resistance | Measured w/ 0.5 V \& 50 mA 1.5 ms after closure |  |  | 200 | $\mathrm{m} \Omega$ |
| Insulation Resistance across Contacts | 100 Volts applied | $10^{9}$ |  |  | $\Omega$ |
| Breakdown Voltage across Contacts | Voltage applied for $60 \mathrm{sec} . \mathrm{min}$. | 230 |  |  | VDC |
| Operate Time, incl. Bounce | Measured w/ 100\% overdrive |  |  | 0.6 | ms |
| Release Time | Measured w/ no coil suppression |  |  | 0.1 | ms |
| Capacitance | @ 10kHz across contact |  | 0.2 |  | pF |
| Contact Operation * |  |  |  |  |  |
| Must Operate Condition | Steady state field | 10 |  | 20 | AT |
| Must Release Condition | Steady state field | 4 |  | 18 | AT |
| Environmental Data |  |  |  |  |  |
| Shock Resistance | $1 / 2$ sine wave duration 11 ms |  |  | 50 | g |
| Vibration Resistance | From $10-2000$ Hz |  |  | 20 | g |
| Ambient Temperature | $10^{\circ} \mathrm{C} /$ minute max. allowable | -20 |  | 130 | ${ }^{\circ} \mathrm{C}$ |
| Storage Temperature | $10^{\circ} \mathrm{C} /$ minute max. allowable | -35 |  | 130 | ${ }^{\circ} \mathrm{C}$ |
| Soldering Temperature | $5 \mathrm{sec} . \mathrm{dwell}$ |  |  | 260 | ${ }^{\circ} \mathrm{C}$ |

Please note: The indicated electrical data are maximum values and can vary downwards when using a more sensitive switch.

* These ranges refer to the uncut / unmodified Reed Switches described in our Reed Switch section. Consult factory if more detail is required.

