

Reed Technology Solutions

Product Spotlight

REED RELAYS

REED SENSORS

REED SWITCHES

DESCRIPTION

The MK11 Series are threaded Magnetic Reed Sensors used in limit, end position, and proximity sensing. Offered in plastic, stainless steel, and now a more affordable metal - in brass.

FEATURES

- · Mechanically stable enclosure able to withstand higher torque, compression and moisture resistant
- Non-ferromagnetic enclosure eliminates switching interferences
- · Multiple metric & standard thread sizes
- SPST & SPDT
- · Various housing materials
- · Customizable wire termination
- · Exact sensing adjustment
- Operate in high temperatures
- · Hermetically sealed for operation in dirty environments
- · Dynamically tested contacts
- · Millions of reliable operations

APPLICATIONS

Industrial Mechanization systems Position & Limit Switch Safety control Elevator control Machinery safety control Door & Gate sensor Automated satellite antenna

MARKETS

General purpose Instrumentation Machinery & Tools

MK11 Series Threaded Reed Sensors



Even more diversified new brass version M6, 8, 10, 12 & more...

- The MK11 Series is a magnetically actuated Reed Sensor enclosed in a threaded housing. All that is required for mounting the MK11 is a threaded portal conveniently located in the sensing area. The threaded style housing and accompanying hardware allow for easy and exact adjustment in limit switch, end position, and proximity sensing applications. Branching out from the plastic and stainless steel styles, the MK11 Series Threaded Reed Sensors are even more diversified with the addition of a new brass version. The brass housing is structurally robust enabling it to withstand higher torque settings, and resist high temperatures, moisture, and compression. Furthermore, the brass housing's non-ferromagnetic properties also eliminate any potential magnetic switching

- The MK11 Series offer easy mounting and exact sensing adjustment with it's threaded housing and accompanying hardware
- Brass housing is more durable and it's non-ferromagnetic properties eliminate magnetic switching interferences
- High temperature, torque, moisture, and compression resistant
- Choose from a variety of Reed Switches in low and high power
- End position and proximity sensing without physical contact

In addition to the added stability, this MK11 also comes in a large assortment of metric thread sizes that range from M6 to M12.

While the standard MK11 series brass version is equipped with a 500mm long, round PVC cable, many other wire termination and connector options similar to our other sensors series.

A full range of SPST and SPDT power switching options are available using our KSK Series Reed Switches. This affordable brass version of our MK11 is an excellent choice in a variety of end position or proximity sensing applications requiring flexible sensing adjustment, multiple switching options, and diversified mounting and wire termination.

interferences.



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| MK11 SERIES STANDARD MATERIAL OPTIONS | | | | | | | | | | | |
|---------------------------------------|----------------------------|-----------------|---------|-------------------|---|--|--|--|--|--|--|
| Housing Material | Description | | | Housing Length | Mounting Thread | | | | | | |
| Plastic | Dupont Crastin® SK645FR | -30ºC to +80ºC | 1W-10W | 38mm | M8 x 1.25 | | | | | | |
| Stainless Steel | AISI 303 / X 10 CrNiS 18 9 | -30ºC to +105ºC | 1W-10W | 25mm | M5 x 0.5 Fine thread | | | | | | |
| Brass | CuZn37 | -30°C to +120°C | 1W-100W | 38mm | M6 x 1.0, M8 x 1.25, M10 x 1.0 & M12 x 1.0 | | | | | | |

**Contact us for more thread size requirements

Cable Characteristics (Contact us for custom cable requirements, i.e. wire size, termination, connectors, length, UL etc.)

| MK11 SERIES CONTACT DATA | | | | | | | | | | | | |
|--|---|--|------------------|------------------|------------------|-----------------|------------------|-----------------|-----------------|------|--|--|
| | | Switch Model | | | | | | | | | | |
| All Data at 20°C | $\textbf{Contact Form} \rightarrow$ | A | | | | | | | B/C | | | |
| Contact Ratings | Conditions | 35 | 46 | 52 | 66 | 80 | 85 | 87 | 90 | Unit | | |
| Rated Power (max.) | Any DC combination of V & A not to exceed their individual max.'s | 20* | 10* | 50* | 10* | 10* | 100* | 10* | 10* | W | | |
| Switching Voltage (max.) | DC or peak AC | 200 | 200 | 250 | 200 | 170 | 1000 | 200 | 175 | V | | |
| Switching Current (max.) | DC or peak AC | 1.0 | 0.5 | 0.5 | 0.5 | 0.25 | 1.0 | 0.5 | 0.5 | Α | | |
| Carry Current (max.) | DC or peak AC | 1.25 | 1.0 | 2.5 | 1.25 | 0.5 | 2.5 | 0.5 | 1.0 | Α | | |
| Static Contact Resistance (max.) | w/ 0.5V & 10mA | 150 | 150 | 150 | 150 | 200 | 150 | 150 | 150 | mΩ | | |
| Insulation Resistance (max.) | RH 45% | 10 ¹² | 10 ¹² | 10 ¹⁰ | 10 ¹⁰ | 10 ⁹ | 10 ¹⁰ | 10 ⁹ | 10 ⁹ | Ω | | |
| Breakdown Voltage (min.) | Voltage applied for 60 sec. min. | 320 | 225 | 600 | 225 | 210 | 2000 | 230 | 200 | VDC | | |
| Operation Time incl. Bounce (max.) | Measured w/ 100% overdrive | 0.5 | 0.7 | 1.0 | 0.5 | 0.6 | 1.1 | 0.6 | 0.7 | ms | | |
| Release Time (max.) | Measured w/ no coil suppression | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 1.5 | ms | | |
| Capacitance (typ.) | At 10kHz across contact | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.5 | 0.2 | 1.0 | pF | | |
| Contact Operation ** | | | | | | | | | | | | |
| Pull-In | | 10-30 | 10-40 | 15-70 | 10-30 | 10-70 | 15-70 | 7-37 | 10-30 | AT | | |
| Environmental Data | | | | | | | | | | | | |
| Shock Resistance (max.) | ½ sine wave duration 11ms | 30 | 50 | 50 | 50 | 50 | 50 | 50 | 50 | g | | |
| Vibration Resistance (max.) | From 10-2000 Hz | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | g | | |
| Operating Temp. 10 °C/ minute max. allowable | | | -40 up to + 130 | | | | | | | | | |
| Storage Temp. | e Temp. 10 °C/ minute max. allowable -55 up to + 130 | | | | | 0 | | | | | | |
| Soldering Temp. (max.) | 5 sec. dwell | 260 260 260 260 260 260 260 260 260 °C | | | | | | | | | | |

^{*} The indicated electrical data are maximum values and can vary downwards when using a more sensitive switch. Consult factory if more detail is required.

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