

## 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.

## FEATURES

- **Stainless steel, plastic and brass** 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

## MAGNETIC SENSITIVITY

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

## APPLICATIONS

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

## ORDER INFORMATION

### Part Number Example

MK11 - 1A66 C - 500 W  
 MK11/M8 - 1A66 C - 500 W  
 MK11/B6 - 1A66 C - 500 W

**M8** is the thread  
**B6** is the brass with M6 thread  
**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
	1C	52, 85	C, D, E		
	1A, 1B 1C, 1E	90**	C, D, E		
		MK11 (brass)	B, C, D, E		

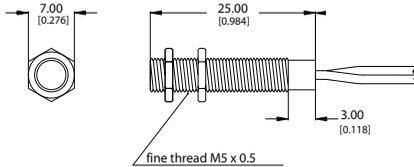
\* Other cable lengths available.

\*\* Only for MK11/M8 (plastic).

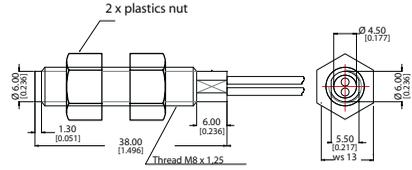
**DIMENSIONS**

All dimensions in mm [inch]

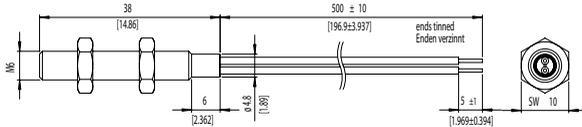
**MK11 (Stainless Steel)**



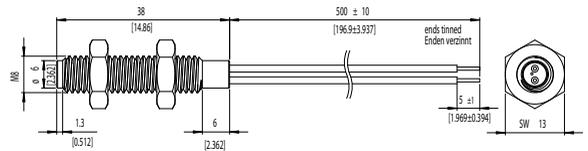
**MK11/M8 (Plastic)**



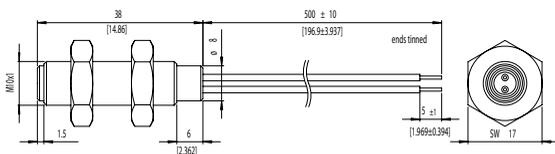
**MK11/B6 (Brass)**



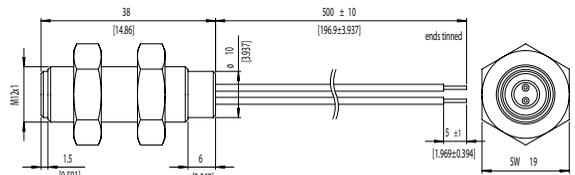
**MK11/B8 (Brass)**



**MK11/B10 (Brass)**



**MK11/B12 (Brass)**



**TERMINATION**

For wire and termination details please consult factory.

<b>W</b>		<p>The cable cut length includes: 5 mm of wire stripped and tinned.</p>
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### CONTACT DATA (Stainless Steel + Plastic)

All Data at 20° C	Switch Model → Contact Form →	Switch 52 Form A			Switch 66 Form A			Units
		Min.	Typ.	Max.	Min.	Typ.	Max.	
Switching Power	Any DC combination of V & A not to exceed their individual max.'s			50 70 (VA)			10	W
Switching Voltage	DC or peak AC			250			200	V
Switching Current	DC or peak AC			0.5			0.5	A
Carry Current	DC or peak AC			2.5			1.25	A
Static Contact Resistance	w/ 0.5 V & 10 mA			200			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5 V & 50 mA , 1.5 ms after closure						200	mΩ
Insulation Resistance across Contacts	100 volts applied	10 <sup>10</sup>			10 <sup>10</sup> *			Ω
Breakdown Voltage across Contact	Voltage applied for 60 sec. min.	600			225*			VDC
Operate Time incl. Bounce	Measured w/ 100 % overdrive			1.0			0.5	ms
Release Time	Measured w/ no coil suppression			0.1			0.1	ms
Capacitance	at 10 kHz cross contact		0.2			0.2		pF
<b>Contact Operation **</b>								
Must Operate Condition	Steady state field	10		30	10		60	AT
Must Release condition	Steady state field	4		27	4		54	AT
<b>Environmental Data</b>								
Shock Resistance	1/2 sinus wave duration 11 ms			50			50	g
Vibration Resistance	From 10 - 2000 Hz			20			20	g
Ambient Temperature	10°C/ minute max. allowable	-20		85	-20		85	°C
Stock Temperature	10°C/ minute max. allowable	-35		85	-35		85	°C
Soldering Temperature	5 sec.			260			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 (Plastic only)**

<b>All Data at 20° C</b>	<b>Switch Model → Contact Form →</b>	<b>Switch 85 Form A</b>			<b>Switch 90 Form B/C</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			100			20	W
Switching Voltage	DC or peak AC			400			175	V
Switching Current	DC or peak AC			1.0			0.5	A
Carry Current	DC or peak AC			2.5			1.0	A
Static Contact Resistance	w/ 0.5 V & 10 mA			150			250	mΩ
Dynamic Contact Resistance	Measured w/ 0.5 V & 50 mA , 1.5 ms after closure			200				mΩ
Insulation Resistance across Contacts	100 volts applied	10 <sup>10</sup>			10 <sup>9</sup>			Ω
Breakdown Voltage across Contact	Voltage applied for 60 sec. min.	4000			200			VDC
Operate Time incl. Bounce	Measured w/ 100 % overdrive			1.0			0.7	ms
Release Time	Measured w/ no coil suppression			0.1			1.5	ms
Capacitance	at 10 kHz cross contact		0.2			1.0		pF
<b>Contact Operation **</b>								
Must Operate Condition	Steady state field	20		60	15		40	AT
Must Release condition	Steady state field	12		54	6			AT
<b>Environmental Data</b>								
Shock Resistance	1/2 sinus wave duration 11 ms			50			50	g
Vibration Resistance	From 10 - 2000 Hz			20			20	g
Ambient Temperature	10°C/ minute max. allowable	-20		85	-20		85	°C
Stock Temperature	10°C/ minute max. allowable	-35		85	-35		85	°C
Soldering Temperature	5 sec.			260			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.								

## Reed Sensor with Screw Thread Enclosure

### CONTACT DATA (Brass)

All Data at 20° C	Contact Form →	Form A/E								B/C	
Contact Ratings	Conditions	35	46	52	66	80	85	87	90	Ein.	
Switching 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	A	
Carry Current (Max.)	DC or peak AC	1.25	1.0	2.5	1.25	0.5	2.5	0.5	1.0	A	
Static Contact Resistance (Max.)	w/ 0.5 V & 10 mA	150	150	150	150	200	150	150	150	mΩ	
Insulation Resistance across Contacts (Max.)	RH 45%	10 <sup>12</sup>	10 <sup>12</sup>	10 <sup>10</sup>	10 <sup>10</sup>	10 <sup>9</sup>	10 <sup>10</sup>	10 <sup>9</sup>	10 <sup>9</sup>	Ω	
Breakdown Voltage across Contact (Min.)	Voltage applied for 60 sec. min.	320	225	600	225	210	2000	230	200	VDC	
Operate 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 10 kHz cross contact	0.2	0.2	0.2	0.2	0.2	0.5	0.2	1.0	pF	
<b>Contact Operation **</b>											
Pull-in		10-30	10-40	15-70	10-30	10-70	15-70	7-37	10-30	AT	
<b>Environmental Data</b>											
Shock Resistance	1/2 sinus wave duration 11 ms	30	50							g	
Vibration Resistance	From 10 - 2000 Hz	20								g	
Ambient Temperature	10°C/ minute max. allowable	-40 up to +130								°C	
Stock Temperature	10°C/ minute max. allowable	-55 up to +130								°C	
Soldering Temperature	5 sec.	260								°C	
* 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.											