Reed Sensor with Screw Thread Enclosure



Stainless Steel

Plastic



Brass

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

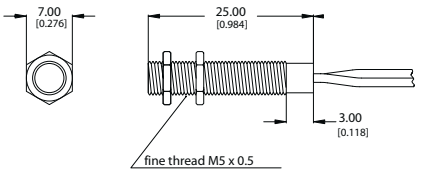
Series	Contact-form	Switch-model	Magnetic Sensitivity	Cable Length (mm)	Termination
MK11 -	**1A**	**XX**	**X**	**XXX**	**X**
Options	1A	66	B, C, D, E	500*	W
		52, 85	C, D, E		
	1C	90**	C, D, E		
	1A, 1B 1C, 1E	MK11 (brass)	B, C, D, E		

* Other cable lengths available.
** Only for MK11/M8 (plastic).

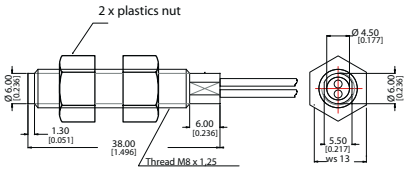
DIMENSIONS

All dimensions in mm [inch]

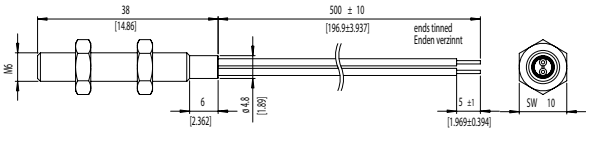
MK11 (Stainless Steel)



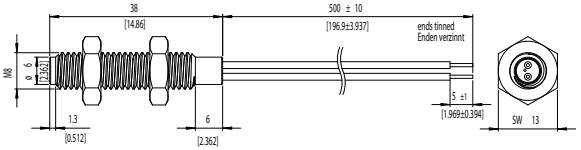
MK11/M8 (Plastic)



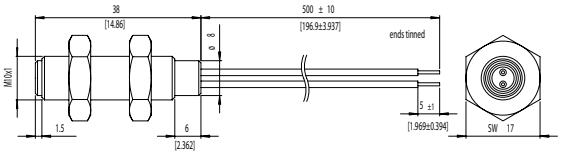
MK11/B6 (Brass)



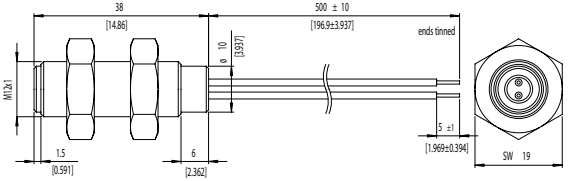
MK11/B8 (Brass)



MK11/B10 (Brass)

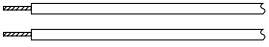


MK11/B12 (Brass)



TERMINATION

For wire and termination details please consult factory.

W		The cable cut length includes: 5 mm of wire stripped and tinned.

Reed Sensor with Screw Thread Enclosure

CONTACT DATA (Stainless Steel + Plastic)

All Data at 20° C	Switch Model → Contact Form →	Switch 52 Form A			Switch 66 Form A			
Contact Ratings	**Conditions**	**Min.**	**Typ.**	**Max.**	**Min.**	**Typ.**	**Max.**	**Units**
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^{10}			10^{10} *			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
Contact Operation **								
Must Operate Condition	Steady state field	10		30	10		60	AT
Must Release condition	Steady state field	4		27	4		54	AT
Environmental Data								
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^{12} 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)

All Data at 20° C	Switch Model → Contact Form →	Switch 85 Form A			Switch 90 Form B/C			
Contact Ratings	**Conditions**	**Min.**	**Typ.**	**Max.**	**Min.**	**Typ.**	**Max.**	**Units**
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^{10}			10^{9}			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
Contact Operation **								
Must Operate Condition	Steady state field	20		60	15		40	AT
Must Release condition	Steady state field	12		54	6			AT
Environmental Data								
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^{12} and breakdown voltage of 480 VDC is available.
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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^{12}	10^{12}	10^{10}	10^{10}	10^{9}	10^{10}	10^{9}	10^{9}	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
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	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.