

## Cylindrical Reed Sensors



### DESCRIPTION

MK14 sensors are magnetically operated Reed proximity switches in a 4.0 mm diameter miniature module, fitted 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.

### APPLICATIONS

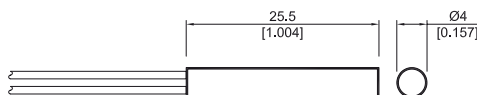
- **Position and limit switch**  
Pneumatic or hydraulic actuator position
- **End motion detection for linear drive**  
Indication and end travel limit switch
- **Limit and motion detection for machine industry**

### FEATURES

- 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

### DIMENSIONS

All dimensions in mm [inch]



**ORDER INFORMATION**

**Part Number Example**

MK14 - 1A66 C - 200 W

**1A** is the contact form  
**66** is the switch model  
**C** is the magnetic sensitivity  
**200** is the cable length (mm)  
**W** is the termination

Series	Contact Form	Switch Model	Magnetic Sensitivity	Cable length (mm)	Termination
<b>MK14 -</b>	<b>XX</b>	<b>XX</b>	<b>X -</b>	<b>XXX</b>	<b>X</b>
<b>Options</b>	1 Form A	66	B, C, D, E	200 *	W
		84	C, D, E		
	1 Form B 1 Form C	90			
* Other cable lengths available					

**MAGNETIC SENSITIVITY**

Sensitivity Class	Pull-in At Range
B	10 - 15
C	15 - 20
D	20 - 25
E	25 - 30

**TERMINATION**

For wire and termination details please consult factory.  
 Form C version requires 3 conductors.

<b>W</b>		The cable cut length includes: 5 mm of wire stripped and tinned
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### CONTACT DATA

All Data at 20° C	Switch Model → Contact Form →	Switch 66 Form A			Switch 84 Form A			Units
		Min.	Typ.	Max.	Min.	Typ.	Max.	
<b>Contact Ratings</b>	<b>Conditions</b>							
Switching Power	Any DC combination of V & A not to exceed their individual max.'s			10			10	W
Switching Voltage	DC or peak AC			200			400	V
Switching Current	DC or peak AC			0.5			0.5	A
Carry Current	DC or peak AC			1.25			1.0	A
Static Contact Resistance	w/ 0.5 V & 10 mA			150			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5 V & 50 mA , 1.5 ms after closure			200			200	mΩ
Insulation Resistance across Contacts	100 volts applied	10 <sup>10</sup> *			10 <sup>11</sup>			Ω
Breakdown Voltage across Contact	Voltage applied for 60 sec. min.	225 *			700			VDC
Operation Time incl. Bounce	Measured w/ 100 % overdrive			0.5			2.0	ms
Release Time	Measured w/ no coil suppression			0.1			0.1	ms
Capacitance	at 10 kHz cross contact		0.2			0.7		pF
<b>Contact Operation **</b>								
Must Operate Condition	Steady state field	10		30	15		30	AT
Must Release Condition	Steady state field	4		27	6		27	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. dwell			260			260	°C
<p>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.</p>								

CONTACT DATA

All Data at 20° C	Switch Model → Contact Form →	Switch 90 Form B / C			Units
		Min.	Typ.	Max.	
<b>Contact Ratings</b>	<b>Conditions</b>				
Switching Power	Any DC combination of V & A not to exceed their individual max.'s			3	W
Switching Voltage	DC or peak AC			175	V
Switching Current	DC or peak AC			0.25	A
Carry Current	DC or peak AC			1.2	A
Static Contact Resistance	w/ 0.5 V & 10 mA			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5 V & 50 mA , 1.5 ms after closure			250	mΩ
Insulation Resistance across Contacts	100 volts applied	10 <sup>9</sup>			Ω
Breakdown Voltage across Contact	Voltage applied for 60 sec. min.	200			VDC
Operation Time incl. Bounce	Measured w/ 100 % overdrive			0.7	ms
Release Time	Measured w/ no coil suppression			1.5	ms
Capacitance	at 10 kHz cross contact		1.0		pF
<b>Contact Operation **</b>					
Must Operate Condition	Steady state field	10		35	AT
Must Release Condition	Steady state field	4		30	AT
<b>Environmental Data</b>					
Shock Resistance	1/2 sinus wave duration 11 ms			50	g
Vibration Resistance	From 10 - 2000 Hz			20	g
Ambient Temperature	10°C/ minute max. allowable	-20		85	°C
Stock Temperature	10°C/ minute max. allowable	-35		85	°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. ** These ranges refer to the uncut / unmodified Reed Switches described in our Reed Switch section. Consult factory if more detail is required.					