

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

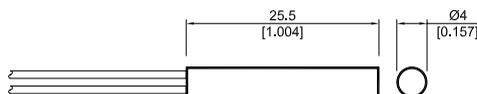
- **Position and limit switch**
Pneumatic or hydraulic actuator position
- **End motion detection for linear drive**
Indication and end travel limit switch
- **Limit and motion detection for machine industry**

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

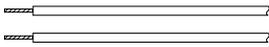
Series	Contact Form	Switch Model	Magnetic Sensitivity	Cable length (mm)	Termination
MK14 -	xx	xx	x -	xxx	x
Options	1 Form A	66	B, C, D, E	200 *	W
	1 Form B	90			
	1 Form C				
* Other cable lengths available					

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.

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

Cylindrical Reed Sensors

CONTACT DATA

All Data at 20° C	Switch Model → Contact Form →	Switch 66 Form A			
Contact Ratings	Conditions	Min.	Typ.	Max.	Unit
Switching Power	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			1.25	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			200	mΩ
Insulation Resistance across Contacts	100 volts applied	10 ¹⁰ *			Ω
Breakdown Voltage across Contact	Voltage applied for 60 sec. min.	225 *			VDC
Operate Time incl. Bounce	Measured w/ 100 % overdrive			0.5	ms
Release Time	Measured w/ no coil suppression			0.1	ms
Capacitance	at 10 kHz cross contact		0.2		pF
Contact Operation **					
Must Operate Condition	Steady state field	10		30	AT
Must Release Condition	Steady state field	4		27	AT
Environmental Data					
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.					
* 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

All Data at 20° C	Switch Model → Contact Form →	Switch 90 Form B / C			Unit
		Min.	Typ.	Max.	
Contact Ratings	Conditions				
Switching Power	Any DC combination of V & A not to exceed their individual max.'s			20	W
Switching Voltage	DC or peak AC			175	V
Switching Current	DC or peak AC			0.5	A
Carry Current	DC or peak AC			1.0	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 ⁹			Ω
Breakdown Voltage across Contact	Voltage applied for 60 sec. min.	200			VDC
Operate 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
Contact Operation **					
Must Operate Condition	Steady state field	15		40	AT
Must Release Condition	Steady state field				AT
Environmental Data					
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.					

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Standex Electronics:

[MK14-1A66B-500W](#) [MK14-1A66C-500W](#) [MK14-1A66D-500W](#) [MK14-1B90D-500W](#) [MK14-1A66E-500W](#) [MK14-1B90C-500W](#) [MK14-1B90E-500W](#)