

Cylindrical Reed Sensors



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**

DESCRIPTION

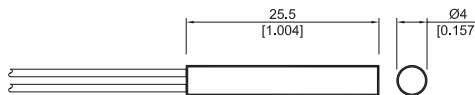
MK14 sensors are magnetically operated Reed proximity switches in a 4.0 mm diameter miniature module, fitted with interconnect cable. The sensor should be mounted on a fixed surface with the actuating magnet on the moving surface. Introduction or removal of the magnetic field determines the closing and opening of the Reed Switch.

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 [inches]



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
		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.



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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.	
Contact Ratings	Conditions							
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 ¹⁰ *			10 ¹¹			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
Contact Operation **								
Must Operate Condition	Steady state field	10		30	15		30	AT
Must Release Condition	Steady state field	4		27	6		27	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. dwell			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

All Data at 20° C	Switch Model → Contact Form →	Switch 90 Form B / C			Units
		Min.	Typ.	Max.	
Contact Ratings	Conditions				
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 ⁹			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
Contact Operation **					
Must Operate Condition	Steady state field	10		35	AT
Must Release Condition	Steady state field	4		30	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.					