Reed Sensors for Screw Fastening

## **DESCRIPTION**

MK4 sensors are magnetically operated Reed proximity switches designed for screw mounting. 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**

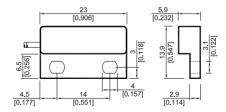
- Position and limit switch
   Pneumatic or hydraulic actuator position indication and end travel limit switch
- Door and window contacts
   Security system applications
- Level sensor
   Use with magnetic floats for water level detection in coffee makers, washing machines or dishwashers

# **FEATURES**

- Form A, B, and C available
- · High power switches available
- · Other cables, connectors and colors available
- Various case sizes available
- · Five operate sensitivities available
- A choice of switch terminations and cable lengths are available

# **DIMENSIONS**

All dimensions in mm [inches]



Reed Sensors for Screw Fastening

# **ORDER INFORMATION**

SERIES	CONTACT FORM	SWITCH MODEL	MAGNETIC SENSITIVITY	CABLE LENGTH (mm)	TERMINATION		
MK4 -	xx	xx	X -	xxx	X		
	1 Form A	71	B, C, D, E				
		81	А				
OPTIONS		84		500 *	W, X, Y		
	1 Form B	90	C, D, E				
* Other cable lengths available.							

Part Number Example

MK4 - 1A71 C - 500 W

1A is the contact form 71 is the switch model C is the magnetic sensitivity 500 is the cable length (mm) W is the termination

# **MAGNETIC SENSITIVITY**

SENSITIVITY CLASS	PULL IN AT RANGE
А	5 - 10
В	10 - 15
С	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: 5mm of wire stripped and tinned
X	=======================================	The cable cut length includes: individual crimped terminals
Υ		The cable cut length includes: individual spade terminals

Reed Sensors for Screw Fastening

# **CONTACT DATA**

All data at 20 °C	Switch Model> Contact Form>	Contact 71 Form A		Contact 81 Form A				
Contact Ratings	Conditions	Min.	Тур.	Max.	Min.	Тур.	Max.	Units
Contact Rating	Any DC combination of V & A not to exceed their individual max.'s			10			5	W
Switching Voltage	DC or peak AC			200			90	V
Switching Current	DC or peak AC			0.5			0.5	Α
Carry Current	DC or peak AC			1.25			1.0	Α
Static Contact Resistance	w/ 0.5V & 10mA			150			200	mΩ
Dynamic Contact Resistance	Measured w/ 0.5V & 50mA 1.5 ms after closure			200			200	mΩ
Insulation Resistance across Contacts	100 Volts applied	10 <sup>10</sup> *			10 <sup>9</sup>			Ω
Breakdown Voltage across Contacts	Voltage applied for 60 sec. min.	225 *			100			VDC
Operate Time, incl. Bounce	Measured w/ 100% overdrive			0.5			0.5	ms
Release Time	Measured w/ no coil suppression			0.1			0.1	ms
Capacitance	@ 10kHz across contact		0.2			0.2		pF
Contact Operation **								
Must Operate Condition	Steady state field	10		30	5		10	AT
Must Release Condition	Steady state field	4		27	2		9	AT
Environmental Data								
Shock Resistance	1/2 sine wave duration 11ms			50			30	g
Vibration Resistance	From 10 - 2000 Hz			20			10	g
Ambient Temperature	10 °C/ minute max. allowable	-20		85	-20		85	°C
Storage 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<sup>12</sup> and breakdown voltage of 480 VDC is available.

<sup>\*\*</sup> These ranges refer to the uncut / unmodified Reed Switches described in our Reed Switch section. Consult factory if more detail is required.

Reed Sensors for Screw Fastening

# **CONTACT DATA**

All data at 20 °C	Switch Model> Contact Form>		ntact Form A	act 84 Contact 90 m A Form B / C				
Contact Ratings	Conditions	Min.	Тур.	Max.	Min.	Тур.	Max.	Units
Contact Rating	Any DC combination of V & A not to exceed their individual max.'s			10			3	W
Switching Voltage	DC or peak AC			400			175	٧
Switching Current	DC or peak AC			0.5			0.25	Α
Carry Current	DC or peak AC			1.0			1.2	Α
Static Contact Resistance	w/ 0.5V & 10mA			150			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5V & 50mA 1.5 ms after closure			200			250	mΩ
Insulation Resistance across Contacts	100 Volts applied	1011			10 <sup>9</sup>			Ω
Breakdown Voltage across Contacts	Voltage applied for 60 sec. min.	700			200			VDC
Operate Time, incl. Bounce	Measured w/ 100% overdrive			2.0			0.7	ms
Reset Time	Measured w/ no coil suppression			0.1			1.5	ms
Capacitance	@ 10kHz across contact		0.7			1.0		pF
Contact Operation **								
Must Operate Condition	Steady state field	15		30	10		35	AT
Must Reset Condition	Steady state field	6		27	4		30	AT
Environmental Data								
Shock Resistance	1/2 sine wave duration 11ms			50			50	g
Vibration Resistance	From 10 - 2000 Hz			20			20	g
Ambient Temperature	10 °C/ minute max. allowable	-20		85	-20		85	°C
Storage 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.

\*\* These ranges refer to the uncut / unmodified Reed Switches described in our Reed Switch section. Consult factory if more detail is required.