Ferromagnetic Metal Detection Sensors

DESCRIPTION

These reed proximity switches operate when in the presence of magnetically conductive material. Instead of an actuating magnet, only a simple piece of iron is required to operate the sensor - from the front or from above. The standard cable is UL listed and is round twin core 2 x 0.35 mm² (AWG22).

FEATURES

- Form A and B are available
- · High power switches available
- · Other cables, connectors and colors available
- A choice of switch terminations and cable lengths are available

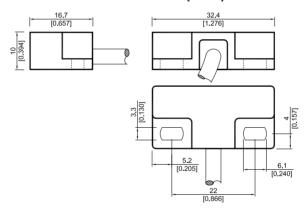


APPLICATIONS

- Industrial applications
- End travel sensing limit switch in pneumatic cylinders
- Position control
- · Control functions in plant and utility vehicles
- Security applications
- · Door and window control
- Opening recognition contact
- · Fire protection doors

DIMENSIONS

All dimensions in mm [inches]



ORDER INFORMATION

Part Number Example

MK2/0 - 1A71 - 500 W

MK2/0 is the front operation series
1A is the contact form
71 is the switch model
500 is the cable length (mm)
W is the termination

	SERIES	CONTACT FORM	SWITCH MODEL	CABLE LENGTH (mm)	TERMINATION	
	MKX/X -	XX	XX -	xxx	Х	
OPTIONS	2/0, 2/1 2/2*, 2/3*	1 Form A	71		W, X, Y, S*	
		1 Fom B	90	500 **		

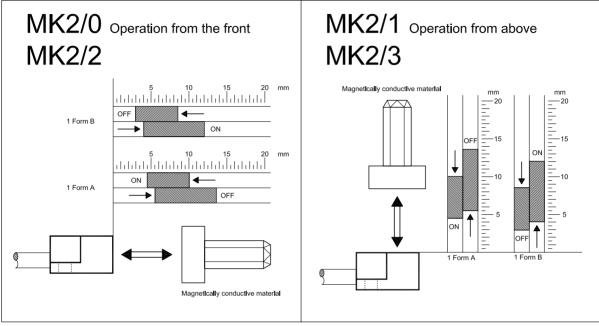
 $^{^{\}star}$ S option only available with 2/2 and 2/3 .

** Other cable lengths are available

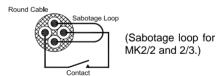
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OPERATION EXAMPLE

For best operation it is recommended that you **DO NOT** mount these sensors on any ferromagnetic material **OR** use any ferromagnetic screws.



The MK2/2 and 2/3 are available as Form A and Form B sensors. The standard cable is a 4-wire round - core 4 x 0.14 mm² (cable sheath and wires are white) forming a sabotage loop. See example of this loop to the right.



TERMINATION

For wire and termination details please consult factory.

S		The cable cut length includes: 30 mm of exposed insulated wire with 5mm of wire stripped and tinned
W	5000	The cable cut length includes: 30 mm of exposed insulated wire with 5mm of wire stripped and tinned
X		The cable cut length includes: 30 mm of exposed insulated wire with individual crimped terminals
Υ		The cable cut length includes: 30 mm of exposed insulated wire with individual spade terminals

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CONTACT DATA

All data at 20 °C	Switch Model> Contact Form>	Contact 71 Form A		Contact 90 Form B				
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			200			175	V
Switching Current	DC or peak AC			0.5			0.25	Α
Carry Current	DC or peak AC			1.25			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	1010 *			10 ⁹			Ω
Breakdown Voltage across Contacts	Voltage applied for 60 sec. min.	225 *			200			VDC
Operate Time, incl. Bounce	Measured w/ 100% overdrive			0.5			0.7	ms
Reset Time	Measured w/ no coil suppression			0.1			1.5	ms
Capacitance	@ 10kHz across contact		0.2			1.0		pF
Contact Operation **								
Must Operate Condition	Steady state field	4.5		10	3.0		8.5	mm
Must Reset Condition	Steady state field	5.5		13.5	4.0		12	mm
Environmental Data								
Shock Resistance	1/2 sine wave duration 11ms			30			30	g
Vibration Resistance	From 10 - 2000 Hz			10			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 10¹² 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.