MEDER electronic

MK02 Series

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
- · Other cables, connectors and colors available
- · Activation from the front or from above
- · Sabotage loop 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 [inch]

10 [0.394] <u>Series</u> MK02/5











TERMINATION



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

For wire and termination details please consult factory.

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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.



* Dimension (mm): 3 x 12 x 32

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.



(Sabotage loop for MK02/2, MK02/3.)

Series	Contact Form	Switch Model	Cable Length (mm)	Termination	Sabotage Loop	Operation			
MKX/X -	XX	XX -	ххх	x					
02/0	1 A 1 B	66 90			No	Front			
02/1	1 A 1 B	66 90		w	No	Above			
02/2	1 A 1 B	66 90	500*		Yes	Front			
02/3	1 A 1 B	66 90			Yes	Above			
02/5	1 A	41			No	Front			
02/6	1 A	41			Yes	Front			
* other cable lengths available.									

ORDER INFORMATION

Part Number Example

MK02/0 - 1A66 - 500 W

MK02/0 is the front operation series 1A is the contact form 66 is the switch model 500 is the cable length (mm) W is the termination

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CONTACT DATA

All Data at 20° C	Switch Model \rightarrow Contact Form \rightarrow	Switch 41		41 A	Switch 66 Form A			Switch 90 Form B			
Contact Ratings	Conditions	Min.	Тур.	Max.	Min.	Тур.	Max.	Min.	Тур.	Max.	Units
Switching Power	Any DC combination of V & A not to exceed their individual max.'s			16			10			3	w
Switching Voltage	DC or peak AC			40			200			175	V
Switching Current	DC or peak AC			0.4			0.5			0.25	А
Carry Current	DC or peak AC			0.7			1.25			1.2	А
Static Contact Resistance	w/ 0.5 V & 10 mA			100			150			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5 V & 50 mA , 1.5 ms after closure			150			200			250	mΩ
Insulation Resistance across Contacts	100 volts applied	10 ⁹			1010*			10 ⁹			Ω
Breakdown Voltage across Contact	Voltage applied for 60 sec. min.	150			225*						VDC
Operate Time incl. Bounce	Measured w/ 100 % overdrive			0.7			0.5			0.7	ms
Release Time	Measured w/ no coil suppression			0.05			0.1			1.5	ms
Capacitance	at 10 kHz cross contact		0.3			0.2			1.0		pF
Environmental Data											
Shock Resistance	1/2 sinus wave duration 11 ms			50			30			50	g
Vibration Resistance	From 10 - 2000 Hz			20			10			20	g
Ambient Temperature	10°C/ minute max. allowable	-20		85	-20		85	-20		85	°C
Stock Temperature	10°C/ minute max. allowable	-35		85	-35		85	-35		85	°C
Soldering Temperature	5 sec.			260			260			260	°C
Please note: The indicated e	electrical data are maximum value	es and o	can vary	downw	ards wh	en usin	g a more	e sensiti	ve swite	h.	

Insulation resistance of 10¹² and breakdown voltage of 480 VDC is available.