

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).



APPLICATIONS

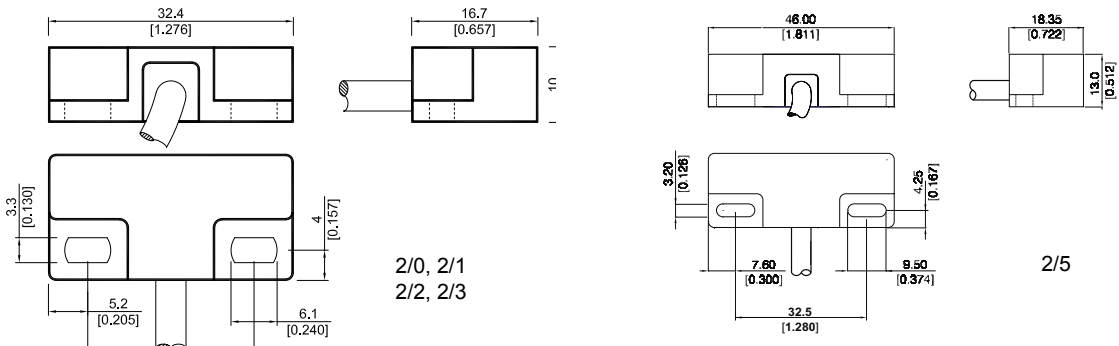
- Industrial applications
- End travel sensing limit switch in pneumatic cylinders
- Position control
- Control functions in plant and utility vehicles
- Security applications
- Door and window control
- Opening recognition contact
- Fire protection doors

FEATURES

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

DIMENSIONS

All dimensions in mm [inches]



2/0, 2/1
2/2, 2/3

2/5

ORDER INFORMATION

Part Number Example

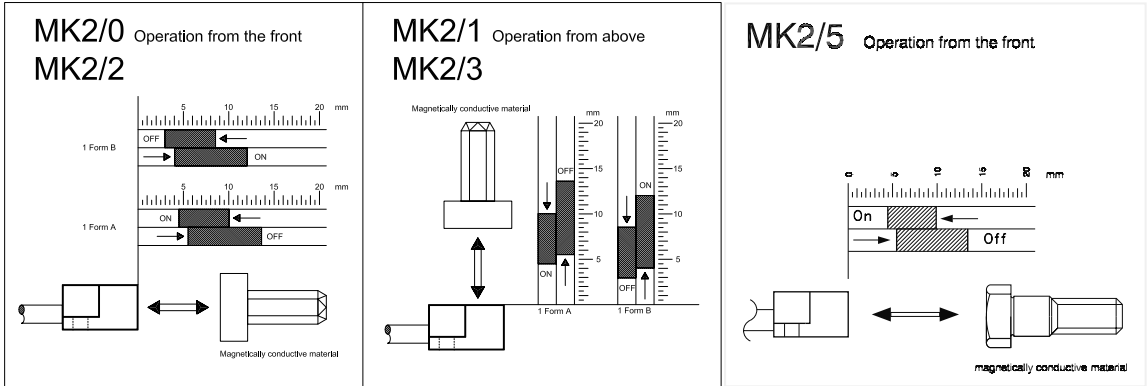
MK2/0 - 1A66 - 500 W

MK2/0 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

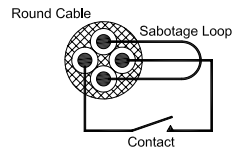
	Series	Contact form	Switch Model	Cable Length (mm)	Termination
	MKX/X -	XX	XX -	XXX	X
Options	2/0,2/1, 2/2, 2/3	1 Form A	66	500*	W
		1 Form B	90		
	2/5	1 Form A	41		
* Other cable lengths are available.					

OPERATION EXAMPLE

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



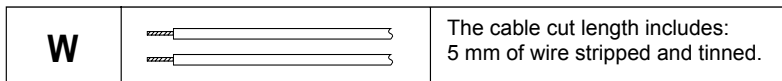
The MK2/2 and 2/3 are available as Form A and Form B sensors. The standard cable is a 4-wire round - core 4 x 0.14 mm² (cable sheath and wires are white) forming a sabotage loop. See example of this loop to the right.



(Sabotage loop for MK2/2 and 2/3.)

TERMINATION

For wire and termination details please consult factory.



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CONTACT DATA

All Data at 20° C	Switch Model --> Contact Form -->	Switch 41 Form A			Switch 66 Form A			Switch 90 Form B			Units
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
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	A
Carry Current	DC or peak AC			0.7			1.25			1.2	A
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			10 ^{10*}			10 ⁹			Ω
Breakdown Voltage across Contact	Voltage applied for 60 sec. min.	150			225*						VDC
Operation 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
Contact Operation**											
Must Operation Condition		8		12	4.5		10	3.0		8.5	mm
Must Release Condition		10		16	5.5		13.5	4.0		12	mm
Environmental Data											
Shock Resistance	1/2 sinus wave duration 11 ms			50			30			30	g
Vibration Resistance	From 10 - 2000 Hz			20			10			10	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 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.											