

MK38 Recessed Reed Sensor



Key Features:

- ☑ Noncontact activation between sensor and actuator
- ☑ Designed to press into a $\varnothing 9.5\text{mm}$ [0.375"] hole
- ☑ Adapter Options Available for Installation in Steel

Key Markets/Applications:

- ☑ Industrial Equipment, Building Security and Monitor, Appliance
- ☑ Door and Access control, Window Monitoring, Equipment Door Detection, Appliance Door Detection



Electrical Specifications:

Contact Data	Switch Model			Unit
	1A66B	1A85C	1B90C / 1C90C	
Rated Power (max.) Any DC combo of V&A not to exceed individual max.'s	10	100	3	W
Switching Voltage (max.) DC or peak AC	180	300	30	V
Switching Current (max.) DC or peak AC	0.5	1.0	0.2	A
Carry Current (max.) DC or peak AC	1.0	2.5	0.5	A
Contact Resistance (max.) @ 0.5V & 50mA	200	200	200	mOhm
Breakdown Voltage (min.) According to EN60255-5	0.25	1.5	0.15	kVDC
Operating Time (max.) Incl. Bounce; Measured with w/ Nominal Voltage	0.7	1.1	1.0	ms
Release Time (max.) Measured with no Coil Excitation	0.05	0.05	0.5	ms
Insulation Resistance (typ.) Rh<45%, 100V Test Voltage	10^{10}	10^{10}	10^9	Ohm
Capacitance (typ.) @ 10kHz across open Switch	0.3	0.5	1.5	pF
Typical Lifetime Resistive Load 12V at 5mA	10^8	10^8	10^7	Operating Cycles

*Load increase reduces life expectancy of Reed Switches

Customer Options:



Part Number Example:

M K 3 8 / 0 - 1 A 6 6 B - 3 0 0 W - W H T

SERIES	1	2	3	4	5
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CUSTOMER OPTIONS

- ADAPTER OPTIONS [0, 1, 2]
 - 0 = No Adapter
 - 1 = Adapter 1
 - 2 = Adapter 2
- CONTACT QUANTITY AND SWITCH MODEL [1A, 1B, 1C]
 - 1A = Normally Open
 - 1B = Normally Closed
 - 1C = Single Pole – Double Throw
- SWITCH and SENSITIVITY OPTIONS [66, 85, 90]
 - 66 SWITCH with B SENSITIVITY
 - 85 SWITCH with C SENSITIVITY
 - 90 Switch with C SENSITIVITY
- CABLE LENGTH and Type [300W = 300mm UL1569]
- HOUSING COLOR [BLK, WHT]

Additional Options

- + UL Cable Version comes as sensor and magnet pair
- + VdS Cable Version sensor and magnet sold separately
- + Adapter options are optional for steel installation
- + Custom cable lengths available on request

Contact Form Glossary :

Form A

NO = Normally Open Contacts
SPST = Single Pole Single Throw



Form B

NC = Normally Closed Contacts
SPST = Single Pole Single Throw



Form C

Changeover
SPDT = Single Pole Double Throw



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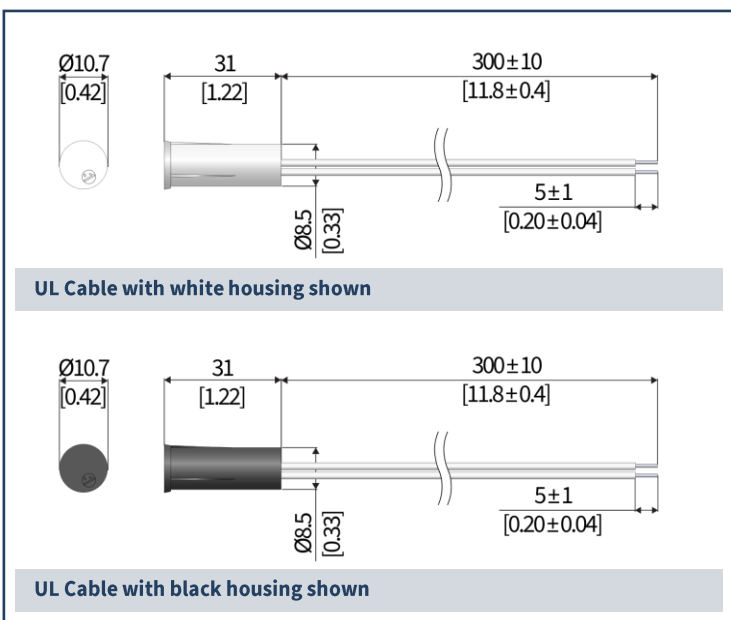
DATA SHEET

Mechanical/Environmental Specifications:

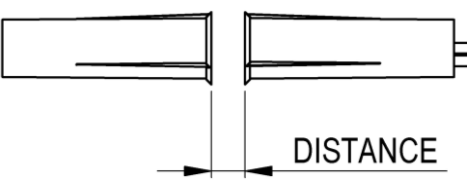
Housing	PBT
Case Color	White or Black
Sealing Compound	Polyurethane
Cable Type	UL1569
Cable Material	PVC
Wire Awg	22 awg
Normally Open / Normally Closed	White
SPDT	NO: Black NC: Brown Com: White
	Unit
Shock Resistance ½ sine wave duration 11ms	50 g
Vibration Resistance (max.)	20 g
Operating Temperature Cable not moved	-40 to 75 °C
*Higher temperature rated magnets available upon request	

Dimensions (mm):

Tolerances acc. to DIN ISO 2768-m



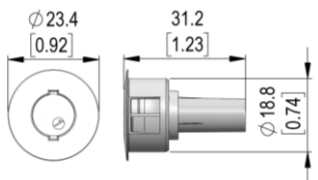
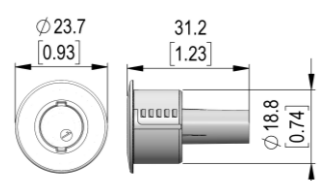
Activation Distances



Switch	Actuator	Min Activation	Max Release
1A66B	M38-N42	21mm [0.83"]	36mm [1.47"]
1A85C	M38-N42	20mm [0.79"]	36mm [1.47"]
1B90C 1C90C	M38-N42	17mm [0.67"]	28mm [1.10"]

- Distances are guidelines and can change by environment
- M36 and M37 magnets can be used to decrease switching distance

Adapter Options – Available in White and Black

Adapter 1	Snap in Holders	
Hole Size	19mm [0.75"]	
Material Thickness	3mm [0.13"] or less	
Adapter 2	Rib Holders	
Hole Size	19mm [0.75"]	
Material Thickness	3mm [0.13"] or more	

Handling/ Assembly Instructions:

- Crushed ribs good for single installation
- Holes under 9.53mm [0.375"] will prevent installation
- Cable bending-radius is diameter x 15
- Min. bending distance to housing is 5mm
- Series resistor recommended for > 5m cable length
- Cable length will affect sensor contact resistance