

FEATURES

- Ideal for high temperatures (150°C) - for use in extreme environments
- Dimensions: H19 x L26.6mm x W6.35mm
- Screw mounting on fixed surface
- Teflon coated wire leads
- Cable length 500mm

RS PRO Reed Switch Flat 180V, NO, 500mA

RS Stock No.: 530-8949



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Product Description

RS PRO flat sensor are magnetically operated reed proximity switches which have been designed for high temperatures (150°C) and feature mounting holes for screw fastening. The sensor should be mounted on a fixed surface with the actuating magnet on the moving surface. By presenting or removing the magnetic field determines the closing and opening of the reed switch.

General Specifications

Switch Type	Magnetic
Switch Shape	Flat
Pole and Throw Configuration	SPST
Normal State Configuration	NO
Contact Position	NO
Material	Epoxy Resin (Case), Radox (Cable)
Applications	Instrumentation, Process control, Robotics, Assembly lines, Factory automation, Industrial automation

Electrical Specifications

Output Type	SPST-NO
Terminal Type	Screw
Cable	5 mm of wire stripped and tinned

Contact Data	Conditions at 20°C	Min.	Typ.	Max.
Maximum Current				0.5A
Maximum Carry Current				1.25A
Maximum AC Voltage	AC			180V
Maximum DC Voltage	DC			180V
Contact Resistance				150mOhm

Mechanical Specifications

Dimensions	28.5mm x 19mm x 6.25mm
Length	28.6mm
Depth	6.25mm
Width	6.35mm
Cable Length	800mm
Total Length	28.5mm

Operation Environment Specifications

Maximum Operating Temperature	-40°C
Minimum Operating Temperature	150°C
Shock	50g (½ sine wave, duration 11ms)
Vibration	20g (from 10 - 2000 Hz)
Soldering Temperature	260°C for 5sec

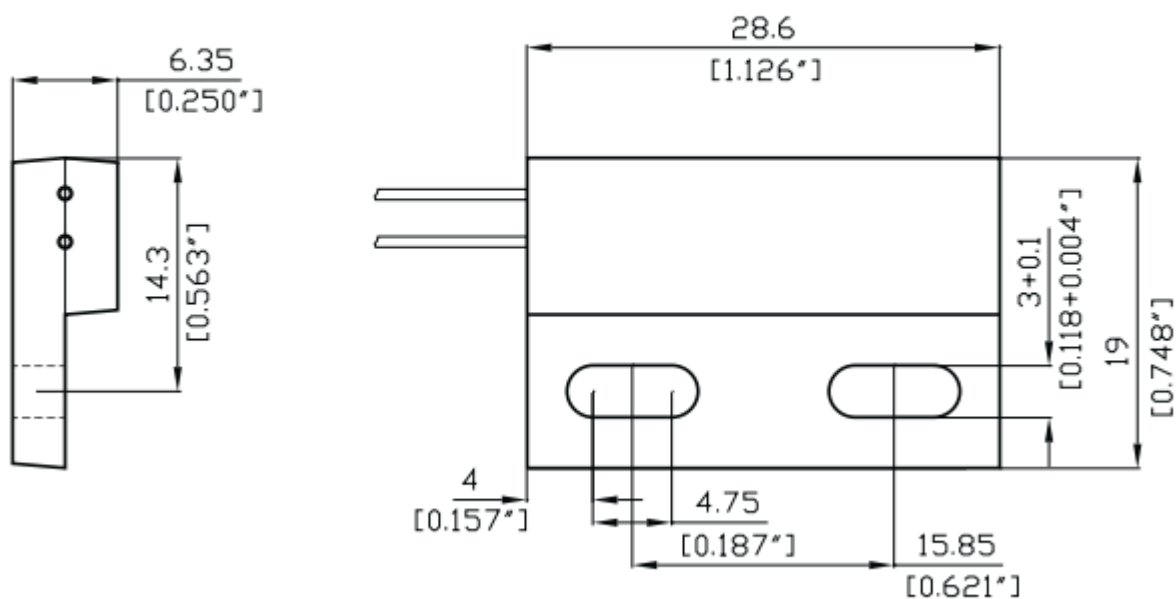
Approvals

Compliance/Certifications	RoHS
---------------------------	------



DIMENSIONS

All dimensions in mm [inch]



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

ORDER INFORMATION

Part Number Example

MK21M - 1A66 C - 500 W
MK21P - 1A66 C - 500 W

M = molded
P = potted

66 is the switch model
C is the magnetic sensitivity
500 is the cable length (mm)

Series	Contact-form	Switch Model	Magnetic Sensitivity	Cable Length (mm)	Termination
MK21x-	xx	xx	x -	xxx	W
Options	1 Form A	66	B, C, D, E	500*	
	1 Form B** 1 Form C**	52, 85 90	C, D, E C, D, E		

* Other cable lengths available
** Potted version

MAGNETIC SENSITIVITY

Sensitivity Class	Pull In AT Range
B	10 - 15
C	15 - 20
D	20 - 25
E	25 - 30

All Data at 20° C	Switch Model → Contact Form →	Switch 52 Form A			Switch 66 Form A			Unit
		Min.	Typ.	Max.	Min.	Typ.	Max.	
Switching Power	Any DC combination of V & A not to exceed their individual max.'s			50 70 (VA)			10	W
Switching Voltage	DC or peak AC			250			200	V
Switching Current	DC or peak AC			0.5			0.5	A
Carry Current	DC or peak AC			2.5			1.25	A
Static Contact Resistance	w/ 0.5 V & 10 mA			200			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5 V & 50 mA, 1.5 ms after closure						200	mΩ
Insulation Resistance across Contact	100 volts applied	10 ¹⁰			10 ^{10*}			Ω
Breakdown Voltage across Contact	Voltage applied for 60 sec. min.	600			225*			VDC
Operate Time incl. Bounce	Measured w/ 100 % overdrive			1.0			0.5	ms
Release Time	Measured w/ no coil suppression			0.1			0.1	ms
Capacitance	at 10 kHz cross contact		0.2			0.2		pF
Contact Operation **								
Must Operate Condition	Steady state field	10		30	10		60	AT
Must Release Condition	Steady state field	4		27	4		54	AT
Environmental Data								
Shock Resistance	1/2 sinus wave duration 11 ms			50			50	g
Vibration Resistance	From 10 - 2000 Hz			20			20	g
Ambient Temperature	M 10°C/ minute max. allowable	-20		85	-30		150	°C
Ambient Temperature	P 10°C/ minute max. allowable	-35		85	-20		85	°C
Stock Temperature	10°C/ minute max. allowable			260	-40		160	°C
Soldering Temperature	5 sec.			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.

All Data at 20° C	Switch Model → Contact Form →	Switch 52 Form A			Switch 66 Form A			Unit
		Min.	Typ.	Max.	Min.	Typ.	Max.	
Contact Ratings	Conditions							
Switching Power	Any DC combination of V & A not to exceed their individual max.'s			50 70 (VA)			10	W
Switching Voltage	DC or peak AC			250			200	V
Switching Current	DC or peak AC			0.5			0.5	A
Carry Current	DC or peak AC			2.5			1.25	A
Static Contact Resistance	w/ 0.5 V & 10 mA			200			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5 V & 50 mA, 1.5 ms after closure						200	mΩ
Insulation Resistance across Contact	100 volts applied	10 ¹⁰			10 ^{10*}			Ω
Breakdown Voltage across Contact	Voltage applied for 60 sec. min.	600			225*			VDC
Operate Time Incl. Bounce	Measured w/ 100 % overdrive			1.0			0.5	ms
Release Time	Measured w/ no coil suppression			0.1			0.1	ms
Capacitance	at 10 kHz cross contact		0.2			0.2		pF
Contact Operation **								
Must Operate Condition	Steady state field	10		30	10		60	AT
Must Release Condition	Steady state field	4		27	4		54	AT
Environmental Data								
Shock Resistance	1/2 sinus wave duration 11 ms			50			50	g
Vibration Resistance	From 10 - 2000 Hz			20			20	g
Ambient Temperature	M 10°C/ minute max. allowable	-20		85	-30		150	°C
Ambient Temperature	P 10°C/ minute max. allowable	-35		85	-20		85	°C
Stock Temperature	10°C/ minute max. allowable			260	-40		160	°C
Soldering Temperature	5 sec.			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.								

All Data at 20° C	Switch Model → Contact Form →	Switch 85 Form A			Switch 90 Form B/C, potted			Unit
		Min.	Typ.	Max.	Min.	Typ.	Max.	
Switching Power	Any DC combination of V & A not to exceed their individual max.'s			100			20	W
Switching Voltage	DC or peak AC			400			175	V
Switching Current	DC or peak AC			1.0			0.5	A
Carry Current	DC or peak AC			2.5			1.0	A
Static Contact Resistance	w/ 0.5 V & 10 mA			150			150	mΩ
Dynamic Contact Resistance	Measured w/ 0.5 V & 50 mA, 1.5 ms after closure			200			250	mΩ
Insulation Resistance across Contact	100 volts applied	10 ¹⁰			10 ⁹			Ω
Breakdown Voltage across Contact	Voltage applied for 60 sec. min.	4000			200			VDC
Operate Time incl. Bounce	Measured w/ 100 % overdrive			1.0			0.7	ms
Release Time	Measured w/ no coil suppression			0.1			1.5	ms
Capacitance	at 10 kHz cross contact		0.2			1.0		pF
Contact Operation **								
Must Operate Condition	Steady state field	20		60	15		40	AT
Must Release Condition	Steady state field	12		54				AT
Environmental Data								
Shock Resistance	1/2 sinus wave duration 11 ms			50			50	g
Vibration Resistance	From 10 - 2000 Hz			20			20	g
Ambient Temperature	M 10°C/ minute max. allowable	-20		85	-20		85	°C
Ambient Temperature	P 10°C/ minute max. allowable	-35		85	-35		85	°C
Stock Temperature	10°C/ minute max. allowable			260			260	°C
Soldering Temperature	5 sec.			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.								