

The following data are provided for general information. If anything seems unclear or in case of any question please get in contact with masetec.

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SWITCHING CURRENT

The maximum amount of current that the contacts of a reed sensor can withstand on closure even for nano seconds

SWITCHING VOLTAGE

The maximum peak value (1.4 times the RMS-value at a sinusoidal shaped supply) should be always lower than the appropriate value given in the datasheet.

POWER RATING

The maximum allowed switched power is the switching voltage used multiplied by the switching current and may not exceed the limit given in the datasheet.

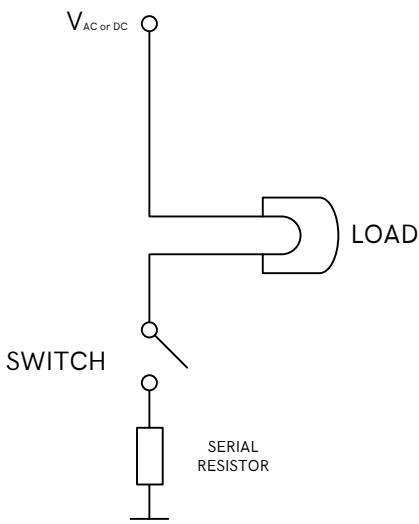
OPERATING TEMPERATURE

The maximum or minimum temperature at which a device can be operated without performance degradation. If the working temperature of a specific application exceeds the values of the related sensor we recommend to check this with our technical team in advance.

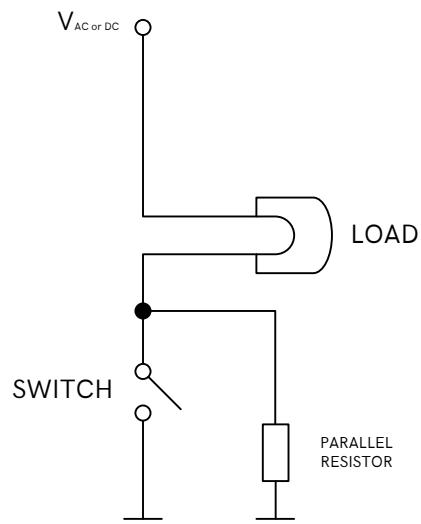
LAMP LOADS

Loads which consist of a lamp containing a tungsten or similar type of filament. The filament will have a high inrush current due to its initial low resistance when cold. Use one of the following, or similar contact protection circuits when using a reed sensor with a lamp load.

Current limiting resistor to protect against currents too high



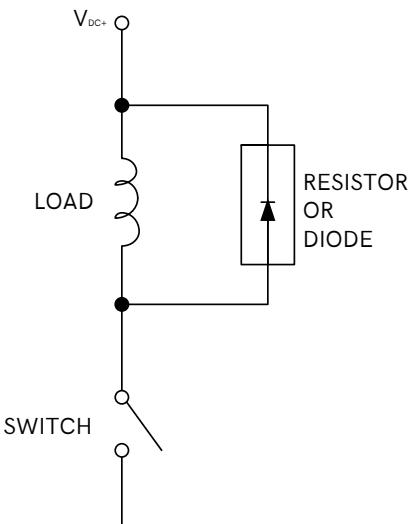
Parallel resistor used to heat up filament



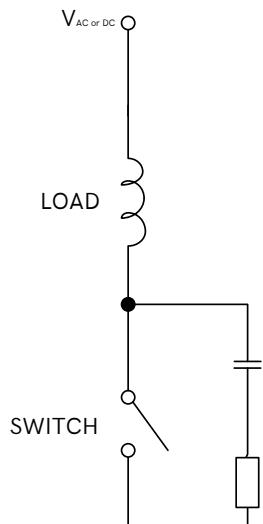
INDUCTIVE LOADS

Loads which consist of an inductive component such as the coil from an electromagnetic counter, relay, or solenoid. The inductance of the coils stores energy which results in a high arc voltage when the contacts of the relay open. Depending on the value of the inductance, the voltage induced by the coil can be upwards of several hundred volts. Use one of the following, or similar contact protection circuits when using a reed sensor with an inductive load. The use of varistors is generally not recommended due to their high capacitance.

Parallel resistor or diode to protect against inductive loads.
Note: Diodes should be used with DC voltage only.

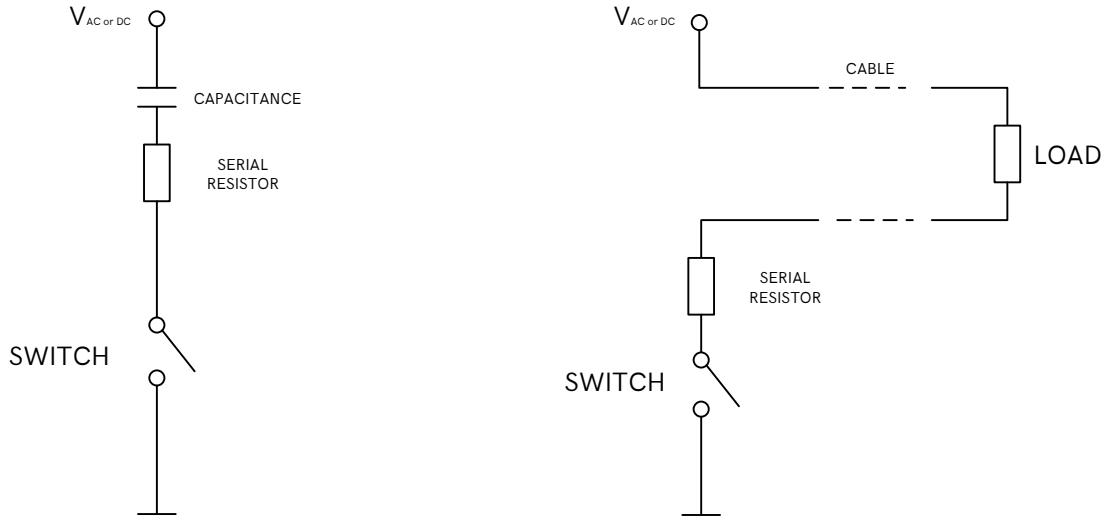


Paralell, series capacitors and resistors used to protect against inductive loads. They can be used for AC or DC sources.



CAPACITIVE LOADS

Loads which consist of a capacitor either in series or in parallel with the contacts of a reed sensor. There is a high capacitive current when the sensor contacts close. Without any current limiting device, the peak current can reach up to tens of amps. Cables having lengths of at least several meters can also behave as capacitive loads. Use one of the following, or similar contact protection circuits when using a reed sensor with capacitive loads.



DROPPING REED BASED PRODUCTS

Dropping a reed based product on a hard object can induce a damaging shock to the inbuild Reed Switch. Generally shocks should be avoided at all costs. Those shocks can lead to several quality problems like a change of sensitivity due to de-adjusted leads or even a damaged glass. Items which have experienced a shock should be separated from production.

