

Technical Data

Magnetic Switches RS and ES

Electrical Service Life Protective Measures

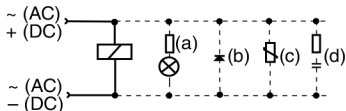
Type RS magnetic switches are sensitive to excessive currents and inductions. With high switching frequencies and inductive loads such as relays, solenoid valves or lifting magnets, service life will be greatly reduced.

With **resistive** and **capacitive** loads with high switch-on current, such as light bulbs, a protective resistor should be fitted. This also applies to long cable lengths and voltages over 100 V.

In the switching of inductive loads such as relays, solenoid valves and lifting magnets, voltage peaks (transients) are generated which must be suppressed by protective diodes, RC loops or varistors.

Connection Examples

- Load with protective circuits
- (a) Protective resistor for light bulb
- (b) Freewheel diode on inductivity
- (c) Varistor on inductivity
- (d) RC element on inductivity



For the type ES, external protective circuits are not normally needed.

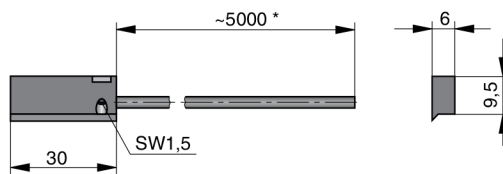
Type RS

In the type RS contact is made by a mechanical reed switch encapsulated in glass.

Type ES

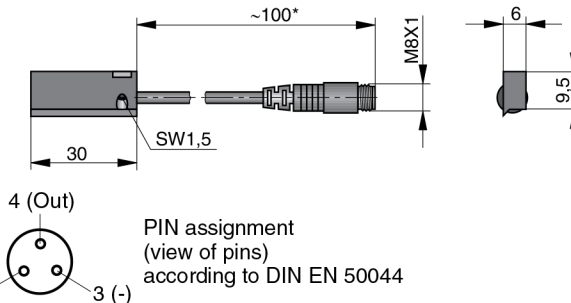
In the type ES contact is made by an electronic switch – without bounce or wear and protected from pole reversal. The output is short circuit proof and insensitive to shocks and vibrations.

Dimensions [mm] –Type RS-K



* Length with possible minus tolerance, see chart below

Dimensions [mm] –Type ES-S /RS-S**



PIN assignment (view of pins) according to DIN EN 50044

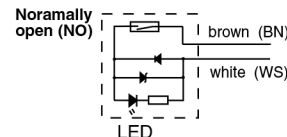
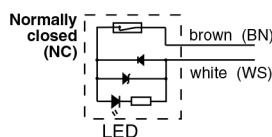
** Length with possible minus tolerance, see table below

**Operating voltage max. 70 V

Length of connection cable with length tolerance

Sensor Order No.	Nominal cable length	max. Length tolerance
KL3087	100 mm	-20 mm
KL3047	100 mm	-20 mm
KL3054	100 mm	-20 mm
KL3060	145 mm	± 5 mm
KL3048	5000 mm	-50 mm
KL3045	5000 mm	-50 mm

Electrical Connection Type RS



Electrical Connection Type ES

