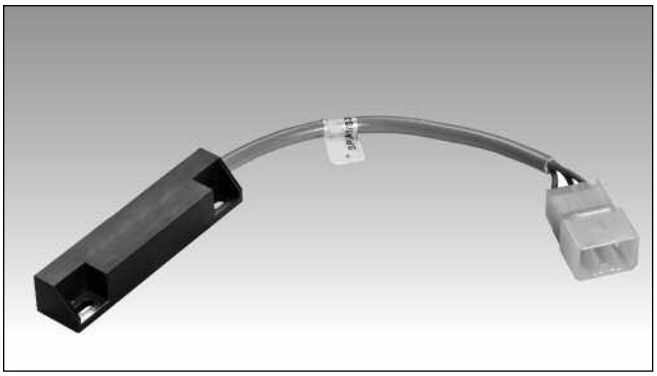
Proximity Magnetic Sensors
Rectangular Housing
Relay output SPA1 Series



- **Rectangular plastic housing**
- **1 NC high power output**
- **1 NC signalling contact**
- **Relay output**
- **24 VDC power supply**
- **Long life contacts**

Product Description

The SPA1 magnetic sensors Series allow to use two different normally closed contacts: the first one has low power (5 VA) and can be used as a signal contact; the second one has high power (100 VA) and can be used to drive hard loads. The cable output (ended by a connector) may be 3 x 0.75 mm^2, with the ground connection fixed on the case of the sensors by a thin plate, or 4 x 0.75 mm^2, with the ground signal output within the cable.

Ordering Key

SP A 1 S2

Type
Output function
Reed contact type
Special version

Type Selection

Housing dimensions	Connection	Output function	Reference
90 x 20 x 16	PVC cable L= 0.1m	NC	**SP A 1 S2**
90 x 20 x 16	PVC cable L= 0.1m	NC	**SP A 1 S3**

Dimensions are specified in millimeters (mm)

Output Specifications

Output	NC
Contact ratings	
Max Supply Voltage	
Output 1	24 VDC
Output 2	24 VDC
Max Supply Current	
Output 1	0.5 A
Output 2	2 A
Max Supply Power	
Output 1	5 VA
Output 2	100 VA
E1 and E2 contacts	
Life expectancy	> 10^6 cycles without load
Electrical life expectancy	> 10^5 cycles (E1) > 5 x 10^5 cycles (E2) maximum allowable load

General Specifications

Operating distance	See Operating Distance table
Suitable magnetic unit	See Operating Distance table
Operating temperature	-25 to +80 °C
Degree of protection	IP 67
Housing	
Dimensions	90 x 20 x 16 mm
Material	ABS class V0
GND Connection	
SPA1S2	Within the output cable
SPA1S3	Thin plate fixed on the case
Weight	65 g
CE-marking	Yes

Operating Distance

Nominal operating point H	12
Max operating point Hmax	14
Switching OFF distance D1*	45 ± 7
Switching ON distance D2**	77 ± 7
Hysteresis of the switching points	8 ± 5

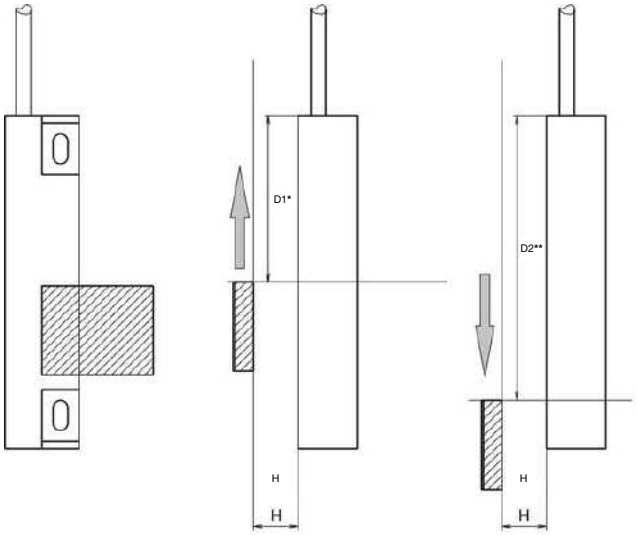
Distances are specified in millimeters (mm)

* point at which the outputs open when magnet moves in the arrow direction.

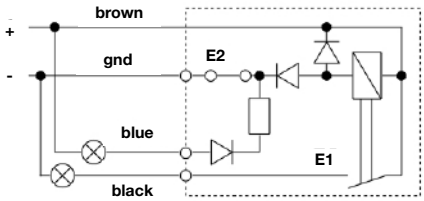
** point at which the outputs close when magnet moves in the arrow direction.

Operating distance is specified under following conditions:

1. Driving Magnet: plastoferrite 30 x 25 4.5 mm mounted on Fe37 plate (0.5 mm thickness)
2. Polarity NORTH to drive magnet towards sensor
3. Magnet approaching as shown in the following drawing



Wiring Diagrams



Relay output function: E1-> 24V, 100W
E2-> 24V, 5W

Dimensions