



DATA SHEET

RE31-DAC

RE11/RE21/RE31
Non-contact safety switches

SICK

Sensor Intelligence



NON-CONTACT SAFETY SWITCHES

RE31-DAC

ORDERING INFORMATION

Type	part no.
RE31-DAC	6036768

Further device versions and accessories at www.sick.com/RE11_RE21_RE31



DETAILED TECHNICAL DATA

FEATURES

System part	Sensor with actuator
Sensor principle	Magnetic
N/O contacts	1
N/C contacts	1
Assured switch on distance S_{ao}	6 mm
Assured switch off distance S_{ar}	17 mm
Active sensor surfaces	1
Actuation directions	5

SAFETY-RELATED PARAMETERS

B_{10d} parameter	2×10^7 switching cycles (with small load)
Type	Type 4 (EN ISO 14119)
Actuator coding level	Low coding level (EN ISO 14119)
Safe state in the event of a fault	The switch has no internal fault detection and is unable to assume a safe state in the event of a fault. Fault detection is performed by the connected safety-related logic unit.

FUNCTIONS

Safe series connection	None, only individual wiring (with diagnostics)
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INTERFACES

Connection type	Plug connector, M8, 4-pin
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ELECTRONICS

Type of output	Reed contacts
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Switching voltage	$\leq 30 \text{ V DC}$
Switching current	$\leq 400 \text{ mA}$

MECHANICS

Design	Cylindrical
Housing diameter	M30
Weight	+ 0.051 kg
Housing material	Glass-fiber reinforced PPS

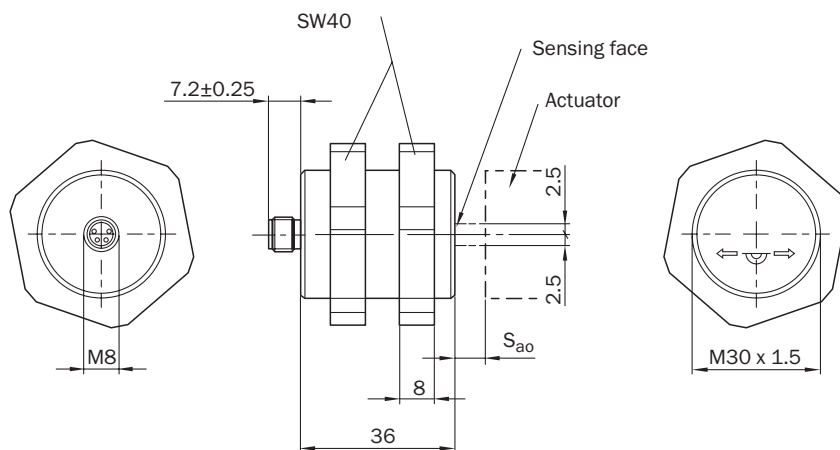
AMBIENT DATA

Enclosure rating	IP67
Ambient operating temperature	-20 °C ... +60 °C
Storage temperature	-20 °C ... +60 °C
Vibration resistance	10 Hz ... 55 Hz, 1 mm (EN 60947-5-3)
Shock resistance	30 g, 11 ms (EN 60947-5-3)

CERTIFICATES

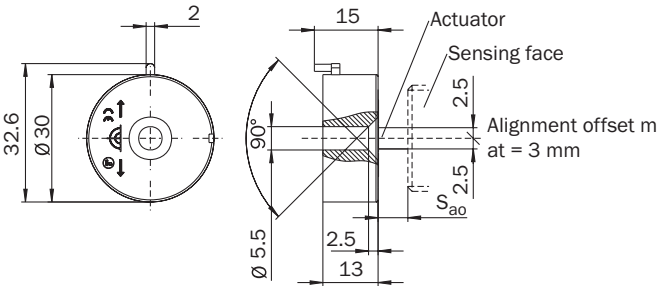
EU declaration of conformity	✓
UK declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cULus certificate	✓
TÜV approval	✓
TÜV approval annex	✓

DIMENSIONAL DRAWING



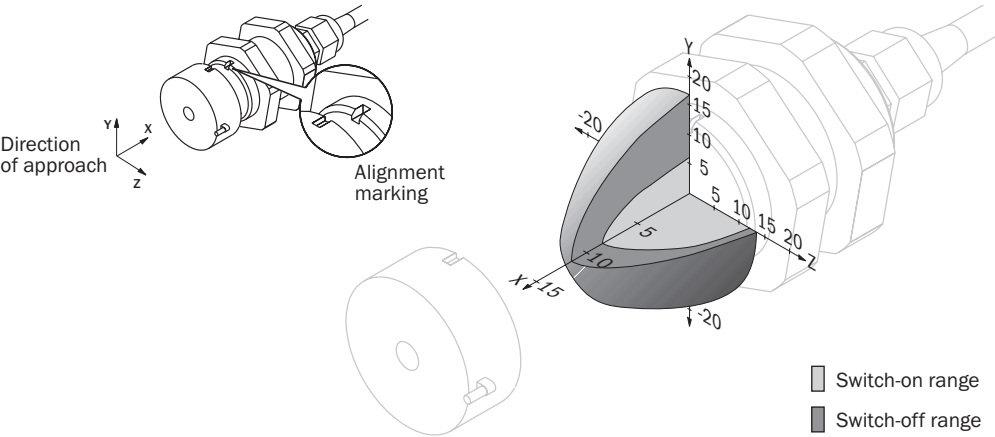
Dimensions in mm (inch)

DIMENSIONAL DRAWING ACTUATOR



Dimensions in mm (inch)

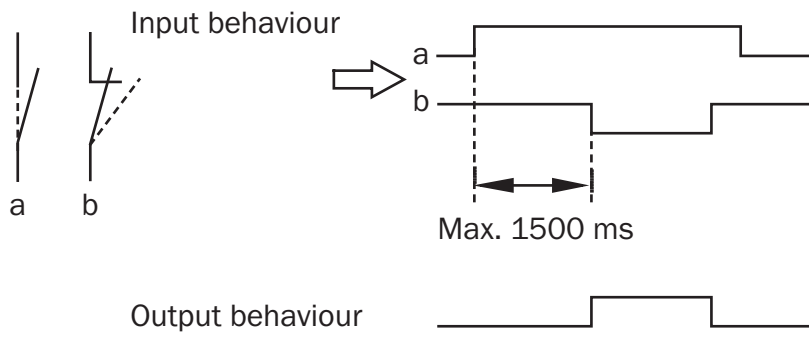
RESPONSE RANGE



PIN ASSIGNMENT



1 BN	N/O contact
2 WH	
3 BU	N/C contact
4 BK	

SENSOR TIMING

Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/6036768



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GERMANY
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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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