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DATA SHEET

i110-M0454

i110 Lock
Safety locking devices

SICK Sensor Intelligence



actuator not supplied with delivery

SAFETY LOCKING DEVICES

i110-M0454

ORDERING INFORMATION

Type	part no.
i110-M0454	6051602

Further device versions and accessories at www.sick.com/i110_Lock

DETAILED TECHNICAL DATA

FEATURES

Sensor principle	Electro-mechanical
Locking principle	Power to release
Positive action N/C solenoid monitoring contacts	2
N/O solenoid monitoring contacts	0
Positive action N/C door monitoring contacts	1
N/O door monitoring contacts	0
N/C contact for door monitoring	0
Locking force F_{max}	2,500 N (EN ISO 14119) [1]
Locking force F_{Zh}	2,000 N (EN ISO 14119) [2]
Actuation force	≥ 35 N
Retaining force	≤ 30 N
Actuation frequency	≤ 1,200 /h
Actuation directions	5
Approach speed	≤ 20 m/min

[1] 1500 N with angled actuator.

[2] 1150 N with angled actuator.

SAFETY-RELATED PARAMETERS

B_{10d} parameter	5×10^6 switching cycles (with small load)
Type	Type 2 (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	With Flexi Loop (with diagnostics)

INTERFACES

Connection type	Plug connector, M12, 8-pin
Coupling nut material	Brass

ELECTRONICS

Contamination rating	3
Switching principle	Slow action switching element
Usage category	AC-15/DC-13 (IEC 60947-5-1)
Rated operating current (voltage)	1 A (24 V AC) 1 A (24 V DC)
Rated insulation voltage U_i	30 V
Rated impulse withstand voltage U_{imp}	1,500 V AC
Type of output	Electro-mechanical contacts
Power consumption	≤ 8 W
Short-circuit protection	1 A gG
Switching voltage	≥ 12 V DC
Switching current (switching voltage)	1 mA (24 V DC)
Switch-on time of magnet	100 %
Locking principle	Power to release

MECHANICS

Weight	0.5 kg
Material	
Housing	Glass-fiber reinforced thermoplastic
Actuator head	Metal
Mechanical life	1×10^6 switching cycles

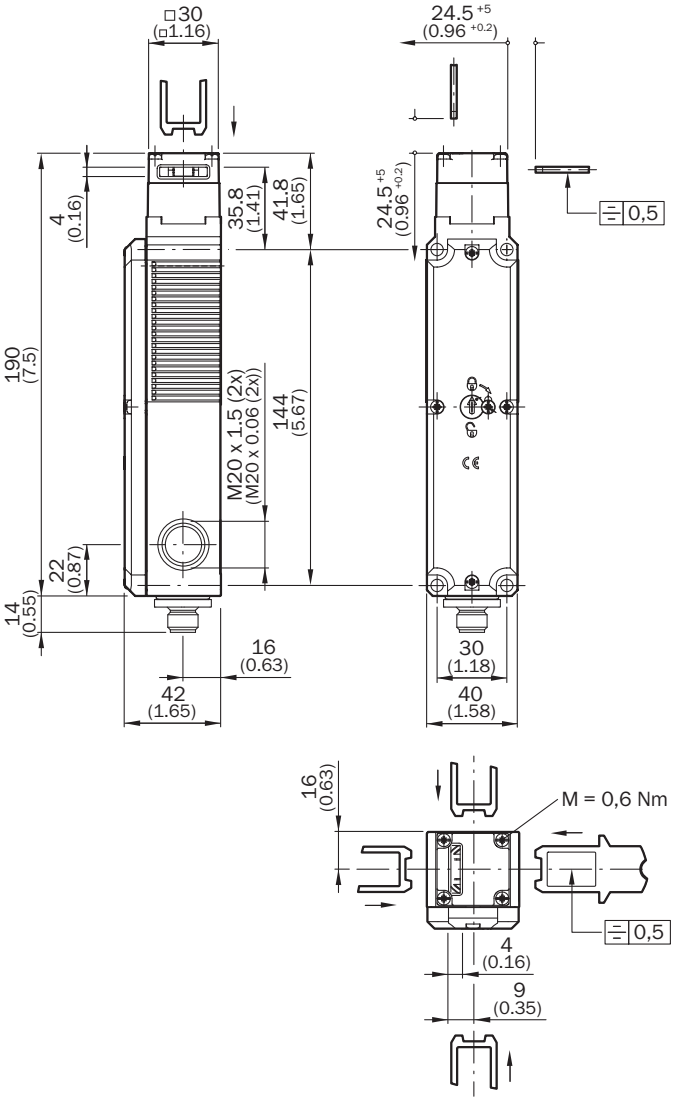
AMBIENT DATA

Enclosure rating	IP67 (IEC 60529)
Ambient operating temperature	–20 °C ... +55 °C
Storage temperature	–20 °C ... +55 °C

CERTIFICATES

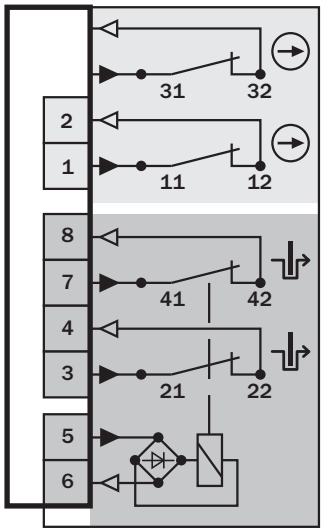
EU declaration of conformity	✓
UK declaration of conformity	✓
China RoHS	✓
cULus certificate	✓

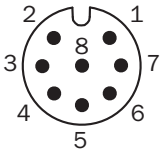
DIMENSIONAL DRAWING



Dimensions in mm (inch)

PINOUTS





Door monitoring

Locking monitoring

Positive action N/C locking monitoring contact

Positive action N/C door monitoring contact

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/6051602

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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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