

SAFETY PRODUCTS

MKEY 9M Series Safety Switch Data Sheet

MKey 9M are mechanical solenoid safety switches used for monitoring doors and hatches.

The switch is mounted on the frame and the actuator key on the moving part of the guard.

Available in electro-magnetic lock (power to lock). Comes standard with a stainless steel head.



Easy to install

Variety of actuators

Many types of actuators available depending on application.

Easy mounting

Rotating head allows for up to 8 actuating positions allowing for many mounting possibilities.



Continuous operation

Protect against unwanted stops

A strong holding force of up to 1800 N prevents unwanted process stops.

Long Mechanical Life

Cam system in switches all rotate the same direction reducing wear giving long mechanical life and good tolerance to misalignment.



Safety and Protection

Added Safety

Actuator key is designed to prevent tampering with the safety switch by using a tool, magnet or and similar object.

Durability

Stainless Steel head provides durable robust protection of the cam.

Ordering Information

Description	Material Housing	Material Head	Type	Order code
Power to lock, ½ NPT, 24VDC, No Key	Die Cast	Stainless Steel	MKEY 9M	2TLA050009R1012
Power to lock, ½ NPT, 115VAC, No Key	Die Cast	Stainless Steel	MKEY 9M	2TLA050009R1013
Power to lock, ½ NPT, 230VAC, No Key	Die Cast	Stainless Steel	MKEY 9M	2TLA050009R1014
Power to lock, ½ NPT, 24VDC, Standard Key	Die Cast	Stainless Steel	MKEY 9M	2TLA050009R1112
Power to lock, ½ NPT, 115VAC, Standard Key	Die Cast	Stainless Steel	MKEY 9M	2TLA050009R1113
Power to lock, ½ NPT, 230VAC, Standard Key	Die Cast	Stainless Steel	MKEY 9M	2TLA050009R1114
Power to lock, ½ NPT, 24VDC, Flat Key	Die Cast	Stainless Steel	MKEY 9M	2TLA050009R1212
Power to lock, ½ NPT, 115VAC, Flat Key	Die Cast	Stainless Steel	MKEY 9M	2TLA050009R1213
Power to lock, ½ NPT, 230VAC, Flat Key	Die Cast	Stainless Steel	MKEY 9M	2TLA050009R1214
Power to lock, ½ NPT, 24VDC, Metal Flex Key	Die Cast	Stainless Steel	MKEY 9M	2TLA050009R1412
Power to lock, ½ NPT, 115VAC, Metal Flex Key	Die Cast	Stainless Steel	MKEY 9M	2TLA050009R1413
Power to lock, ½ NPT, 230VAC, Metal Flex Key	Die Cast	Stainless Steel	MKEY 9M	2TLA050009R1414
Power to lock, ½ NPT, 24VDC, SS Flex Key	Die Cast	Stainless Steel	MKEY 9M	2TLA050009R1512
Power to lock, ½ NPT, 115VAC, SS Flex Key	Die Cast	Stainless Steel	MKEY 9M	2TLA050009R1513
Power to lock, ½ NPT, 230VAC, SS Flex Key	Die Cast	Stainless Steel	MKEY 9M	2TLA050009R1514

NOTE: Anything in **bold** is typically stocked.

Accessories

Description	Material Housing	Order code
Standard Key	Stainless Steel	2TLA050040R0202
Flex Key with metal housing	Stainless Steel	2TLA050040R0203
Flex Key with stainless steel housing	Stainless Steel	2TLA050040R0204
Flat Key	Stainless Steel	2TLA050040R0220
½ NPT Cable Gland	Stainless Steel	2TLA050040R0001

NOTE: Anything in **bold** is typically stocked.

Additional information can be found in the [MKEY 9 Product Manual](#).

Technical Data	
Manufacturer	
Address	ABB Electrification Sweden AB / JOKAB SAFETY Varlabergsvägen 11 SE-434 39 Kungsbacka Sweden
Electrical characteristics	
Utilization category	AC-15 A300 3A
Thermal current	10A
Rated insulation/withstand voltages	600 VAC/2500 VAC
LED 2 supply voltage	24VDC +/-10%
Solenoid power consumption	12 W (inrush current 1.5A)
Solenoid voltage (by part number)	24VDC +/-10% or 230VAC +/-10%
Auxiliary Contact 43/44	24VDC 200mA max.
General	
Travel for positive opening	10 mm
Actuation Frequency	2 cycle/sec
Actuator entry minimum radius	175 mm Standard Key 100 mm Flexible Key
Protection class	IP67
Ambient temperature	-25...+40°C
Size	See manual
Conduit entries	3 x ½ NPT
Material	Stainless steel 316/Glass filled Polyester
Fixing	Body: 4 x M5 Actuator: 2 x M5
Maximum approach / withdrawal speed	600 mm/s
Holding force	1800N (Max.)
Vibration	IEC 68-2-6, 10-55 Hz+1 Hz, Excursion: 0.35 mm, 1 octave/min
Safety-related characteristic data and Conformity	
Conformity	European Machinery Directive 2006/42/EC EN ISO 12100, EN ISO 14119, EN 60204- 1:2006+A1:2009 EN 60947-1:2007+A1:2011, EN 60947-5-1:2004+A1:2009
EN ISO 13849-1	Up to PL e, Cat. 4 depending on system architecture
EN 62061	Up to SIL3 depending on system architecture
Safety data	2,500,000 operations at 100 mA load
B10d	356 years (8 cycles per hour / 24 hours per day / 365 days per year)
MTTFd	35 years
Proof test interval (Life)	35 years
Certifications	TÜV, cULus
Information with regard to UL 508	Use 12AWG copper conductors only Electrical Rating: A300 48W5 Type 1 Enclosure Max. Switching Current / Volt / Amp: 120V 6A (720VA break) PF 0.38, 240V 3A (720VA break) PF 0.38

NOTE: A single switch can achieve PL c, category 1, according to EN ISO 13849-1 if used correctly with a safety controller. If a fault exclusion is applied according to EN ISO 14119, it is possible to reach PL d, category 3, with e.g. the Slide Lock combined with the MKey switch.

A single switch combined with a second interlocking switch, can reach PL e, category 4, if a fault exclusion is applied meeting the requirements of EN ISO 14119 and EN ISO 13849-1.

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