

SAFETY PRODUCTS

MKEY 8Z Series Safety Switch Data Sheet

MKey 8Z is a mechanical solenoid safety switch 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 a spring lock (power to unlock). Fully 316 stainless steel IP69K suited for high pressure and high temperature washdown.



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 2000 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

Auxiliary release on front and side making it is always possible to open the door from inside the dangerous zone.

Safe Locking

Models that use a power to unlock can be used as a safety lock

Ordering Information

Description	Material Housing	Material Head	Type	Order code
Spring lock, ½ NPT, 24VDC, No Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8Z	2TLA050011R1022
Spring lock, ½ NPT, 115VAC, No Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8Z	2TLA050011R1023
Spring lock, ½ NPT, 230VAC, No Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8Z	2TLA050011R1024
Spring lock, ½ NPT, 24VDC, Standard Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8Z	2TLA050011R1122
Spring lock, ½ NPT, 115VAC, Standard Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8Z	2TLA050011R1123
Spring lock, ½ NPT, 230VAC, Standard Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8Z	2TLA050011R1124
Spring lock, ½ NPT, 24VDC, Flat Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8Z	2TLA050011R1222
Spring lock, ½ NPT, 115VAC, Flat Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8Z	2TLA050011R1223
Spring lock, ½ NPT, 230VAC, Flat Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8Z	2TLA050011R1224
Spring lock, ½ NPT, 24VDC, Metal Flex Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8Z	2TLA050011R1422
Spring lock, ½ NPT, 115VAC, Metal Flex Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8Z	2TLA050011R1423
Spring lock, ½ NPT, 230VAC, Metal Flex Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8Z	2TLA050011R1424
Spring lock, ½ NPT, 24VDC, SS Flex Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8Z	2TLA050011R1522
Spring lock, ½ NPT, 115VAC, SS Flex Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8Z	2TLA050011R1523
Spring lock, ½ NPT, 230VAC, SS Flex Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8Z	2TLA050011R1524

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 8 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
Solenoid voltage (by part number)	24VDC +/-10% or 230VAC +/-10%
Auxiliary Contact 33/34 (selectable with LED2)	230VAC/DC 500mA max.
Auxiliary Contact 43/44	230VAC/DC 500mA 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, IP69K
Ambient temperature	-25...+80°C
Size	See manual
Conduit entries	3 x ½ NPT
Material	Stainless steel 316
Fixing	Body: 4 x M5 Actuator: 2 x M5
Maximum approach / withdrawal speed	600 mm/s
Holding force	2000N (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 12100:2010, EN 1088:1995+A2:2008, 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 MKey8 can achieve performance level PL c according to EN ISO 13849 if used correctly with an ABB Jokab Safety safety relay, Pluto safety-PLC or Vital safety module. If two MKey8-switches are used for the same safety function, a performance level up to PL e can be achieved. Refer to EN ISO 13849 for details on how to achieve this if necessary.

—
ABB Inc.
305 Gregson Drive
Cary, North Carolina 27511
United States
electrification.us.abb.com/
products/machine-motor-control

—
We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB AG does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

—
We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of ABB AG.
Copyright© 2022 ABB
All rights reserved