

SAFETY PRODUCTS

MKEY 8ER and 8ERZ Series Safety Switch Data Sheet

MKey 8ER and Mkey 8ERZ 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 spring lock (power to unlock)
Fully 316 stainless steel IP69K model available 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

MKEY 8ER(Z) comes with an integrated emergency escape button 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	Die Cast	Die Cast	MKEY 8ER	2TLA050015R1032
Spring lock, ½ NPT, 115VAC, No Key	Die Cast	Die Cast	MKEY 8ER	2TLA050015R1033
Spring lock, ½ NPT, 230VAC, No Key	Die Cast	Die Cast	MKEY 8ER	2TLA050015R1034
Spring lock, ½ NPT, 24VDC, Standard Key	Die Cast	Die Cast	MKEY 8ER	2TLA050015R1132
Spring lock, ½ NPT, 115VAC, Standard Key	Die Cast	Die Cast	MKEY 8ER	2TLA050015R1133
Spring lock, ½ NPT, 230VAC, Standard Key	Die Cast	Die Cast	MKEY 8ER	2TLA050015R1134
Spring lock, ½ NPT, 24VDC, Flat Key	Die Cast	Die Cast	MKEY 8ER	2TLA050015R1232
Spring lock, ½ NPT, 115VAC, Flat Key	Die Cast	Die Cast	MKEY 8ER	2TLA050015R1233
Spring lock, ½ NPT, 230VAC, Flat Key	Die Cast	Die Cast	MKEY 8ER	2TLA050015R1234
Spring lock, ½ NPT, 24VDC, Metal Flex Key	Die Cast	Die Cast	MKEY 8ER	2TLA050015R1432
Spring lock, ½ NPT, 115VAC, Metal Flex Key	Die Cast	Die Cast	MKEY 8ER	2TLA050015R1433
Spring lock, ½ NPT, 230VAC, Metal Flex Key	Die Cast	Die Cast	MKEY 8ER	2TLA050015R1434
Spring lock, ½ NPT, 24VDC, SS Flex Key	Die Cast	Die Cast	MKEY 8ER	2TLA050015R1532
Spring lock, ½ NPT, 115VAC, SS Flex Key	Die Cast	Die Cast	MKEY 8ER	2TLA050015R1533
Spring lock, ½ NPT, 230VAC, SS Flex Key	Die Cast	Die Cast	MKEY 8ER	2TLA050015R1534
Spring lock, ½ NPT, 24VDC, No Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8ERZ	2TLA050015R1022
Spring lock, ½ NPT, 115VAC, No Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8ERZ	2TLA050015R1023
Spring lock, ½ NPT, 230VAC, No Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8ERZ	2TLA050015R1024
Spring lock, ½ NPT, 24VDC, Standard Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8ERZ	2TLA050015R1122
Spring lock, ½ NPT, 115VAC, Standard Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8ERZ	2TLA050015R1123
Spring lock, ½ NPT, 230VAC, Standard Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8ERZ	2TLA050015R1124
Spring lock, ½ NPT, 24VDC, Flat Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8ERZ	2TLA050015R1222
Spring lock, ½ NPT, 115VAC, Flat Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8ERZ	2TLA050015R1223
Spring lock, ½ NPT, 230VAC, Flat Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8ERZ	2TLA050015R1224
Spring lock, ½ NPT, 24VDC, Metal Flex Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8ERZ	2TLA050015R1422
Spring lock, ½ NPT, 115VAC, Metal Flex Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8ERZ	2TLA050015R1423
Spring lock, ½ NPT, 230VAC, Metal Flex Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8ERZ	2TLA050015R1424
Spring lock, ½ NPT, 24VDC, SS Flex Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8ERZ	2TLA050015R1522
Spring lock, ½ NPT, 115VAC, SS Flex Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8ERZ	2TLA050015R1523
Spring lock, ½ NPT, 230VAC, SS Flex Key, SS Head	Stainless Steel	Stainless Steel	MKEY 8ERZ	2TLA050015R1524

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	MKey8ER: IP67 MKey8ERZ: IP67, IP69K
Ambient temperature	-25...+80°C
Size	See manual
Conduit entries	3 x ½ NPT
Material	MKey8, MKey8M, MKey8ER: Die cast painted red MKey8Z: 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.

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