

SAFETY PRODUCTS

MKEY 5 Series Safety Switch Data Sheet

MKey 5 is a mechanical 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.

Option for a stainless steel head is also available.



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

“Double wide seal gaskets” enables switches to keep its IP rating for the life of the switch.

Long Mechanical Life

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



Optimum Interface

Small Design

Small footprint makes it easy to install in restricted space.

Industry Footprint

Standard industry footprint for smaller mechanical switches and ½ NPT conduit entry.

Ordering Information

| Description | Material Housing | Material Head | Type | Order code |
|---------------------------------------|------------------|-----------------|---------|-----------------|
| MKEY 5, ½ NPT, No Key | Polyester | Polyester | MKEY 5 | 2TLA050003R1000 |
| MKEY 5 ½ NPT, Standard Key | Polyester | Polyester | MKEY 5 | 2TLA050003R1100 |
| MKEY 5, ½ NPT, Flat Key | Polyester | Polyester | MKEY 5 | 2TLA050003R1200 |
| MKEY 5, ½ NPT, Plastic Flex Key | Polyester | Polyester | MKEY 5 | 2TLA050003R1300 |
| MKEY 5, ½ NPT, Metal Flex Key | Polyester | Polyester | MKEY 5 | 2TLA050003R1400 |
| MKEY 5, ½ NPT, SS Flex Key | Polyester | Polyester | MKEY 5 | 2TLA050003R1500 |
| MKEY 5+, ½ NPT, No Key, 40N | Polyester | Polyester | MKEY 5+ | 2TLA050003R1001 |
| MKEY 5+ ½ NPT, Standard Key, 40N | Polyester | Polyester | MKEY 5+ | 2TLA050003R1101 |
| MKEY 5+, ½ NPT, Flat Key, 40N | Polyester | Polyester | MKEY 5+ | 2TLA050003R1201 |
| MKEY 5+, ½ NPT, Plastic Flex Key, 40N | Polyester | Polyester | MKEY 5+ | 2TLA050003R1301 |
| MKEY 5+, ½ NPT, Metal Flex Key, 40N | Polyester | Polyester | MKEY 5+ | 2TLA050003R1401 |
| MKEY 5+, ½ NPT, SS Flex Key, 40N | Polyester | Polyester | MKEY 5+ | 2TLA050003R1501 |
| MKEY 5, ½ NPT, No Key | Polyester | Stainless Steel | MKEY 5 | 2TLA050003R1010 |
| MKEY 5 ½ NPT, Standard Key | Polyester | Stainless Steel | MKEY 5 | 2TLA050003R1110 |
| MKEY 5, ½ NPT, Flat Key | Polyester | Stainless Steel | MKEY 5 | 2TLA050003R1210 |
| MKEY 5, ½ NPT, Plastic Flex Key | Polyester | Stainless Steel | MKEY 5 | 2TLA050003R1310 |
| MKEY 5, ½ NPT, Metal Flex Key | Polyester | Stainless Steel | MKEY 5 | 2TLA050003R1410 |
| MKEY 5, ½ NPT, SS Flex Key | Polyester | Stainless Steel | MKEY 5 | 2TLA050003R1510 |
| MKEY 5+, ½ NPT, No Key, 40N | Polyester | Stainless Steel | MKEY 5+ | 2TLA050003R1011 |
| MKEY 5+ ½ NPT, Standard Key, 40N | Polyester | Stainless Steel | MKEY 5+ | 2TLA050003R1111 |
| MKEY 5+, ½ NPT, Flat Key, 40N | Polyester | Stainless Steel | MKEY 5+ | 2TLA050003R1211 |
| MKEY 5+, ½ NPT, Plastic Flex Key, 40N | Polyester | Stainless Steel | MKEY 5+ | 2TLA050003R1311 |
| MKEY 5+, ½ NPT, Metal Flex Key, 40N | Polyester | Stainless Steel | MKEY 5+ | 2TLA050003R1411 |
| MKEY 5+, ½ NPT, SS Flex Key, 40N | Polyester | Stainless Steel | MKEY 5+ | 2TLA050003R1511 |

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 |

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| 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 | 500 VAC/2500 VAC |
| Contacts | 2NC + 1NO |
| General | |
| Travel for positive opening | 6 mm |
| Actuator entry minimum radius | 175 mm Standard Key 100 mm Flexible Key |
| Protection class | IP67 |
| Ambient temperature | -25...+80°C |
| Size | 98mm(length) x 68mm(width) x 33.5mm(height) |
| Conduit entries | ½ NPT |
| Material | Polyester (Head Polyester or S/Steel 316) |
| Fixing | Body: 2 x M5 Actuator: 2 x M5 |
| Maximum approach / withdrawal speed | 600 mm/s |
| Holding Force | MKEY 5: 12N MKEY 5+: 40N |
| 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 | |
| B10d | 2,500,000 operations at 100 mA load |
| MTTFd | 356 years (8 cycles per hour / 24 hours per day / 365 days per year) |
| 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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products/machine-motor-control

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