

## SAFETY PRODUCTS

# MKEY 4 Series Safety Switch Data Sheet

MKey 4 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 4, ½ NPT, No Key	Polyester	Polyester	MKEY 4	2TLA050001R1000
MKEY 4 ½ NPT, Standard Key	Polyester	Polyester	MKEY 4	2TLA050001R1100
MKEY 4, ½ NPT, Flat Key	Polyester	Polyester	MKEY 4	2TLA050001R1200
MKEY 4, ½ NPT, Plastic Flex Key	Polyester	Polyester	MKEY 4	2TLA050001R1300
MKEY 4, ½ NPT, Metal Flex Key	Polyester	Polyester	MKEY 4	2TLA050001R1400
MKEY 4, ½ NPT, SS Flex Key	Polyester	Polyester	MKEY 4	2TLA050001R1500
MKEY 4+, ½ NPT, No Key, 40N	Polyester	Polyester	MKEY 4+	2TLA050001R1001
MKEY 4+ ½ NPT, Standard Key, 40N	Polyester	Polyester	MKEY 4+	2TLA050001R1101
MKEY 4+, ½ NPT, Flat Key, 40N	Polyester	Polyester	MKEY 4+	2TLA050001R1201
MKEY 4+, ½ NPT, Plastic Flex Key, 40N	Polyester	Polyester	MKEY 4+	2TLA050001R1301
MKEY 4+, ½ NPT, Metal Flex Key, 40N	Polyester	Polyester	MKEY 4+	2TLA050001R1401
MKEY 4+, ½ NPT, SS Flex Key, 40N	Polyester	Polyester	MKEY 4+	2TLA050001R1501
MKEY 4, ½ NPT, No Key	Polyester	Stainless Steel	MKEY 4	2TLA050001R1010
MKEY 4 ½ NPT, Standard Key	Polyester	Stainless Steel	MKEY 4	2TLA050001R1110
MKEY 4, ½ NPT, Flat Key	Polyester	Stainless Steel	MKEY 4	2TLA050001R1210
MKEY 4, ½ NPT, Plastic Flex Key	Polyester	Stainless Steel	MKEY 4	2TLA050001R1310
MKEY 4, ½ NPT, Metal Flex Key	Polyester	Stainless Steel	MKEY 4	2TLA050001R1410
MKEY 4, ½ NPT, SS Flex Key	Polyester	Stainless Steel	MKEY 4	2TLA050001R1510
MKEY 4+, ½ NPT, No Key, 40N	Polyester	Stainless Steel	MKEY 4+	2TLA050001R1011
MKEY 4+ ½ NPT, Standard Key, 40N	Polyester	Stainless Steel	MKEY 4+	2TLA050001R1111
MKEY 4+, ½ NPT, Flat Key, 40N	Polyester	Stainless Steel	MKEY 4+	2TLA050001R1211
MKEY 4+, ½ NPT, Plastic Flex Key, 40N	Polyester	Stainless Steel	MKEY 4+	2TLA050001R1311
MKEY 4+, ½ NPT, Metal Flex Key, 40N	Polyester	Stainless Steel	MKEY 4+	2TLA050001R1411
MKEY 4+, ½ NPT, SS Flex Key, 40N	Polyester	Stainless Steel	MKEY 4+	2TLA050001R1511

**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

<b>Technical Data</b>	
<b>Manufacturer</b>	
Address	ABB Electrification Sweden AB / JOKAB SAFETY Varlabergsvägen 11 SE-434 39 Kungsbacka Sweden
<b>Electrical characteristics</b>	
Utilization category	AC-15 A300 3A
Thermal current	10A
Rated insulation/withstand voltages	600 VAC/2500 VAC
Overload Protection Fuse (fuse externally)	10A (FF)
Contacts	2NC + 1NO
<b>General</b>	
Actuator Travel/Force for positive opening	6 mm/12N
Actuator entry minimum radius	175 mm Standard Key 100 mm Flexible Key
Protection class	IP67
Ambient temperature	-25...+80°C
Size	86mm (length) x 54mm (width) x 33.5mm(height)
Conduit entries	½ NPT
Material	Polyester (Head Polyester or S/Steel 316)
Fixing	2 x M4
Maximum approach / withdrawal speed	600 mm/s
Holding Force	MKEY 4: 12N MKEY 4+: 40N
Vibration	IEC 68-2-6, 10-55 Hz+1 Hz, Excursion: 0.35 mm, 1 octave/min
<b>Safety-related characteristic data and Conformity</b>	
Conformity	ISO 14119, ISO13849-1 EN 60204- 1, UL508 EN 60947-1, EN 60947-5-1
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	
Certifications	TÜV, cULus
Information with regard to UL 508	Type 1 Enclosures. Use 16 - 12AWG stranded copper insulated conductors rated 90°C minimum. (75C. ampacity). Terminal tightening torque 7lbs ins (0.8Nm). Intended for same polarity use and one polymeric conduit connection. Not suitable for connection to a rigid metal conduit system. Electrical Rating: Pilot Duty A300 240V.ac 3A. 6,000 cycles. Maximum ambient temperature 80°C.

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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