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 posibilities.

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

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.

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
Overload Protection Fuse (fuse externally)	10A (FF)
Contacts	2NC + 1NO
General	
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	See manual
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
Safety-related characteristic data and Conformity	
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 B10d MTTFd	2,500,000 operations at 100 mA load 356 years (8 cycles per hour / 24 hours per day / 365 days per year)
Certifications	TÜV, cULus
Information with regard to UL 508	Type 1 Enclosures. Use 16 - 12AWG stranded copper insulated conductors rated 90ºC minimum. (75C. ampacity). Terminal tightening torque 7ibs 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 80ºC.

NOTE: A single MKey4 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 MKey1-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