



# Coded Non-Contact Safety Switches

## With European Industry Standard Fitting

### LMC and LPC Series



LMC-133006 switch and actuator.



LPC-110006 switch and actuator.



All models shown smaller than actual size.

- ✓ Coded Magnetic Actuation
- ✓ Wide Sensing at 14 mm with High Tolerance to Misalignment
- ✓ Will Operate with Most Safety Relays
- ✓ Popular European Fitting Suitable for all Industry Applications
- ✓ LED Indication
- ✓ Can be High Pressure Hosed at High Temperature Due to NEMA PW12 (IP69K) Rating
- ✓ Up to: PLe ISO13849-1
- ✓ 2 NC 1 NO Circuits—High Switching Life—No Moving Parts
- ✓ LMC Series: 316 SS Body Mirror Polished to Ra4—Specifically Designed for Food Processing and Pharmaceutical Applications
- ✓ LPC Series: High Specification Polyester Housing with Integral Back Plate

The LMC and LPC Series coded non-contact safety switches with European industry standard fitting have been designed to enable the conformance to EN60947-5-3 and be used as directed by ISO12100, ISO14121 and EN60204-1. They have coded magnetic sensing which provides a wide sensing distance and provides a high tolerance to misalignment after sensing. They can be fitted behind stainless steel fittings and can operate from 4 directions even in extreme environments of temperature and moisture. When used in combination with most dual channel safety monitoring relays they can be used to provide up to PLe to ISO13849-1.

LMC and LPC Series safety switches are designed to interlock hinged, sliding or removable guard doors. The LMC Series stainless steel safety switches have been developed for pharmaceutical and food processing applications. LPC Series switches have been designed for general factory automation, packaging and some food processing applications.

They are specifically advantageous when:

- Poor guard alignment exists
- Anti tamper sensing is required
- High hygiene requirements exist, e.g. food industry hose down
- Long life is required (no moving or touching parts)
- LED status indication is desirable



## Specifications

**Standards:** ISO14119, EN60947-5-1, EN60204-1, ISO13849-1, EN62061, UL508

### Safety Classification and Reliability Data:

**ISO13849-1:** Up to PLe Category 4

**EN62061:** Up to SIL3

**PFHd:**  $8.71 \times 10^{-11}$

**Proof Test Interval (Life):** 20 years

**MTTFd:** 866 years

**Safety Channel 1:** NC 24 Vdc, 0.2 A max rating

**Safety Channel 2:** NC 24 Vdc, 0.2 A max rating

**Safety Channel 3:** NO 24 Vdc, 0.2 A max rating

**Minimum Switched Current:** 10 Vdc, 1 mA

**Dielectric:** Withstand 250 Vac

**Insulation Resistance:** 100 MΩ

**Recommended Setting Gap:** 5 mm (0.2")

**Switching Distance:** Sao 10 mm (0.4") close

**(Target to Target):** Sar 20 mm (0.8") open

**Tolerance to Misalignment:** 5 mm (0.2") in any direction from 5 mm (0.2") setting gap

**Switching Frequency:** 1.0 Hz maximum

**Approach Speed:** 200 mm/min to 1000 mm/sec

### Body Material:

**LMC Series:** 316 SS mirror polished to Ra4

**LPC Series:** UL approved polyester

### Operating Temperature:

**LMC Series (CIP SIP Cleaning):** -25 to 105°C (-13 to 221°F)

**LPC Series:** -25 to 80°C (-13 to 176°F)

**Enclosure Protection:** NEMA PW12 (IP69K), NEMA 6 (IP67)

**Shock Resistance:** IEC68-2-27; 11 ms, 30 g

**Vibration Resistance:** IEC68-2-6; 10 to 55 Hz, 1 mm (0.04")

**Cable Type:** PVC 6 or 8 core, 6 mm (0.23") OD; conductors, 0.25 mm<sup>2</sup>

**Mounting Bolts:** 2 x M4; tightening torque, 1.0 Nm

**Mounting Position:** Any

**Dimensions:** See diagram below

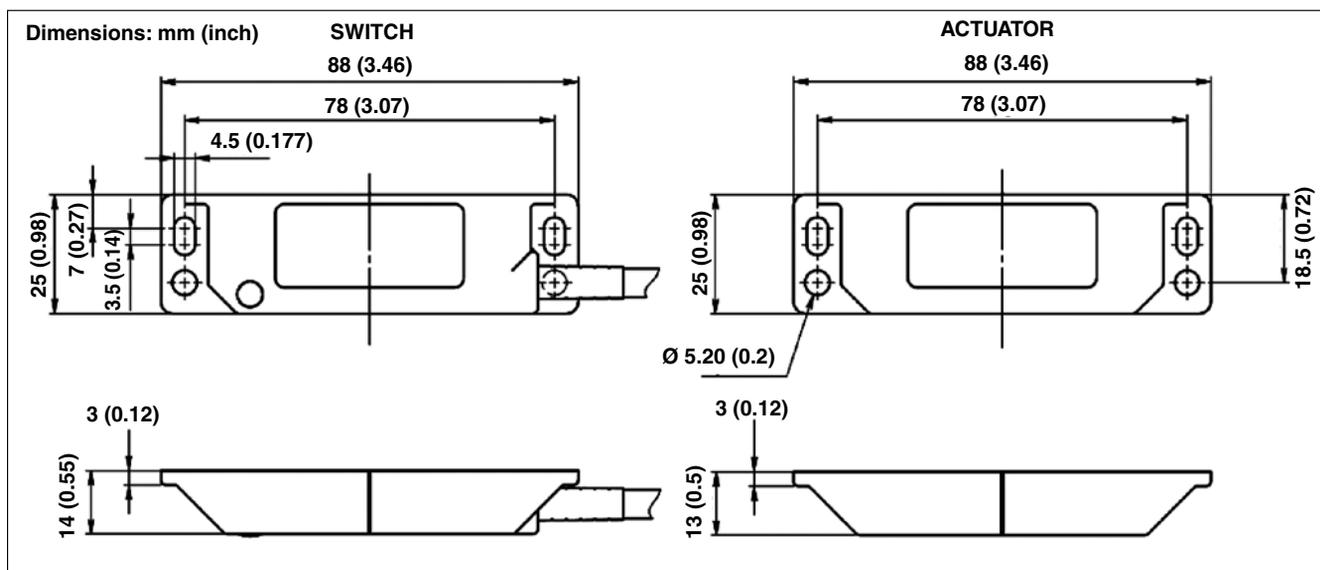
### Weight (of Switch, Actuator and Cable):

**LMC Series:** 430 g (0.95 lb) with 5 m (16.4') cable;

680 g (1.50 lb) with 10 m (32.8') cable

**LPC Series:** 325 g (0.72 lb) with 5 m (16.4') cable;

575 g (1.27 lb) with 10 m (32.8') cable



## To Order

Model No.	Description	Circuits	Cable Length
LMC-133006	Coded non-contact stainless steel safety switch with European fitting	2 NC (safety) 1 NO (auxiliary)	5 m (16.4')
LMC-133007	Coded non-contact stainless steel safety switch with European fitting	2 NC (safety) 1 NO (auxiliary)	10 m (32.8')
LPC-110006	Coded non-contact safety switch with European fitting	2 NC (safety) 1 NO (auxiliary)	5 m (16.4')
LPC-110007	Coded non-contact safety switch with European fitting	2 NC (safety) 1 NO (auxiliary)	10 m (32.8')

All switches include actuator.

**Ordering Example:** LPC-110006 coded non-contact safety switch with 2 NC (safety) and 1 NO (auxiliary) circuits and 5 m (16.4') cable.