

## SAFETY & OPERATING DEVICES



The demands for the operator's handling are different for every system. Whether normal push-buttons or special control elements, key switches or all remote control components for automatic operation – DICTATOR always has the right accessories in its product range.

The safety of people and material is of utmost importance. A variety of different safety devices can be used for this purpose.

If you are not sure which devices are suitable for your system, please contact our technical department. We will be happy to advise you and help you select the right products.

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 Emergency stop, limit switch & pull switch

Subject to technical changes. No claim for compensation in case of errors.

# Contact edge

Safety contact strips on door edges protect people and goods



Website

## CHARACTERISTICS

- As soon as the contact strip is actuated, the gate either stops immediately or opens again
- Consists of an aluminum C-support profile and a rubber profile with built-in switching element
- If 2 contact strips are used on the door, one of them must be a „pass-through strip“ without end resistance
- An electronic evaluation device monitors whether the switching contact is closed or the safety circuit is interrupted, i.e. the contact strip is actuated
- The power supply to the contact edge is provided by a spiral wire or a power supply rail with helical cable system WLS, which is installed either on top of the door or in the vicinity of the door rail
- For the electrical connection, two junction boxes must be installed: one fixed to the wall and one on the door

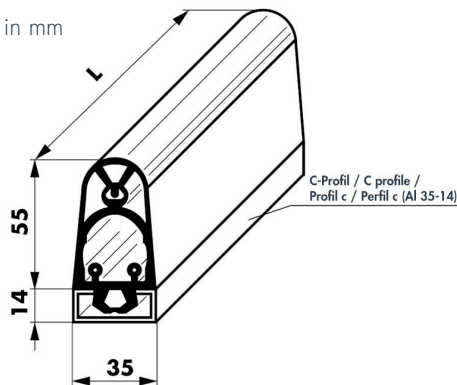


## CONTACT TYPE

- Normally open contact (NO)

## DIMENSIONS

All dimensions in mm



## EVALUATION DEVICE

### DIMENSIONS

All dimensions in mm



## TECHNICAL DATA

Material	TPE
Protection class	IP 67
Switching angle	2x 45°
Operating temperature	-10°C to +50°C
Wire cross-section	2 x 0,34 mm <sup>2</sup>
Electrical capacity	24 V 10 mA

## TECHNICAL DATA

Supply voltage	230 VAC ± 10%, 50Hz, 24 AC/DC ± 10%
Power consumption	3,5 VA/230 V, 1,5 W 24 VDC, 1,2 VA 24 VAC
Protection class	IP 20
Operating temperature	-20°C to +55°C

## Contact type

- Normally open contact (NO)

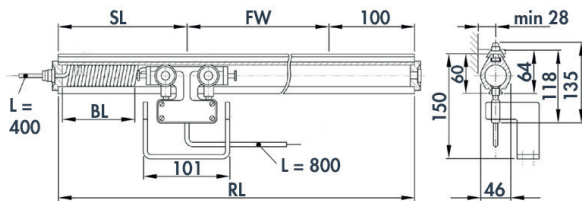
## WLS HELICAL CABLE SYSTEM

### CHARACTERISTICS

- The power is transmitted via the WLS helical cable system
- Consists of the WLS profile tube and an abrasion-resistant and extremely stable helical cable with carriage matched to the profile
- Total length (RL) is calculated as follows:  $RL = FW + SL + 100 \text{ mm}$

### DIMENSIONS

All dimensions in mm



Max. travel distance FW (m)	Profile tube length RL (m)	Space required SL (m)
1,5	2	0,3
1,6 - 2,5	3	0,4
2,6 - 3,5	4	0,4
3,6 - 4,3	5 (2 + 3)	0,6
4,4 - 5,3	6	0,6
5,4 - 6,1	7 (3 + 4)	0,8
6,2 - 7,1	8 (4 + 4)	0,8
7,2 - 8,0	9 (3 + 6)	0,9
8,1 - 9,0	10 (4 + 6)	0,9

### TECHNICAL DATA

Core count / cross section	4x 0,14 mm <sup>2</sup>
Supply voltage	max. 48 V AC/DC
Operating temperature	-20°C to +80°C
Travel speed	40 m/min
Travel distance	1,5 m - 23,5 m
Length	2,0 m - 26,0 m in fixed dimensions: 2, 3, 4 and 6 m
Guide profile	Aluminum, anodized, torsion resistant

## SPIRAL CABLE

### TECHNICAL DATA

Spiral length	up to 3000 mm
Extended length	up to 4 times spiral length
Conductor	plain copper, fine stranded according to VDE 0295 class 5
Nominal voltage	300/500 V
Test voltage	core/core 2000 V
Operating temperature	-5°C to +80°C
Cable cross section	2 x 0,75 mm <sup>2</sup>

### ORDER INFORMATION

Description	Part no.
Spiral cable (2-core), extension length 6,0 m incl. terminal box with glands	700799
Conductor rail helical cable system WLS, length: XXX	700794
Spiral cable (2-core), extension length 3,0 m incl. terminal box with glands	700798
CI-K casing, not ex-proof	040585
Contact edge SKL 35-55, end strip incl. 2,5 m connecting cable and aluminum profile	700785
Safety contact edge SKL 35-55, transit strip incl. 2,5 m connecting cable and aluminum profile	700786
Evaluation device for contact edge SKL 35-55, 230V / 24 V AC/DC, one channel	700788

# Signaler

With built-in siren warning



Website

## CHARACTERISTICS

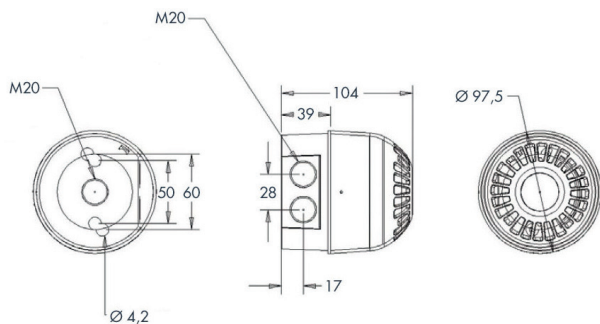
- Used to warn people of the closing or movement of automatic doors
- In almost all control systems, outputs are provided to indicate the movement of doors, sometimes even ahead of time and with delayed start of movement
- The LED flashing light is additionally equipped with a warning siren: 32 different warning sounds can be selected
- The volume can be adjusted by means of a potentiometer
- If required, the siren can also be switched off completely



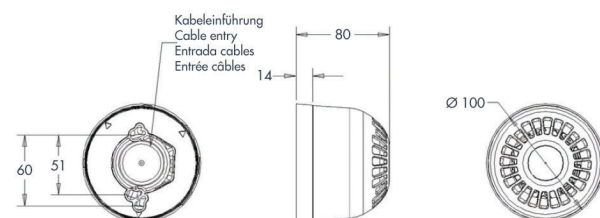
## DIMENSIONS

All dimensions in mm

### Signaler with deep base



### Signaler with flat base



## TECHNICAL DATA

Voltage	24 VDC
Power consumption	approx. 26 mA when siren activated, 6 mA when siren deactivated
Volume	about 100 dBA, can be reduced by the integrated potentiometer
Flashing frequency	1 Hz
Color	red
IP rating	IP 65
Dimensions Ø x h	97.5 x 104 mm

## ORDER INFORMATION

Description	Part no.
Signaler: red LED flashlight with separately switchable warning siren, IP 65	700171

# Safety sensor

For industrial doors



Website

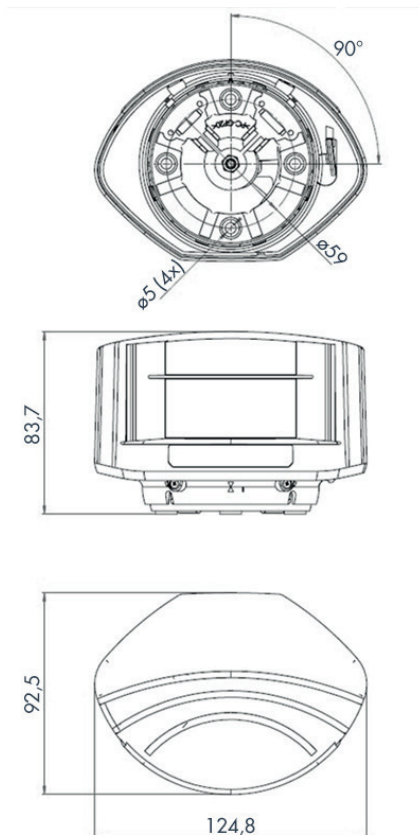
## CHARACTERISTICS

- Perfect solution for securing dangerous areas around doors
- Provides the highest possible safety level as a type E guard according to EN 12453, ensuring that no one can enter the moving door area. This means that no further safety devices are required
- Offers the possibility to set 2 independent detection fields for the entrance, as well as 4 detection levels with variable depth in front of the door
- The adjustment of the detection area is done via infrared remote control
- The display of operating status, errors as well as the status of the relay outputs is carried out using different colored LEDs



## DIMENSIONS

All dimensions in mm



## TECHNICAL DATA

Max. detection range	700384: 5 x 5 m 700385: 9,9 x 9,9 m
Supply voltage	10 - 35 V DC at sensor terminal
Power consumption	<5 W
Response time	Typ. 20 ms; max. 80 ms
Output	2 electronic relays (polarity free) Max. switching voltage 35 V DC/24 V AC Max. switching current 80 mA (resistive)
Dimensions	125 mm (L) x 93 mm (D) x 70 mm (H) (mounting bracket + 14 mm)
Housing material	PC/ASA
Housing color	black
Protection class	IP 65
Temperature range	-30 °C to +60 °C if powered
Technology	Laser scanner, time-of-flight measurement

## ORDER INFORMATION

Description	Part no.
Safety sensor LZR-i110 for industrial doors of max. 5 x 5 m	700384
Safety sensor LZR-i100 for industrial doors of max. 10 x 10 m	700385
Infrared remote control for adjusting safety sensor LZR	700366

# LZR Flatscan

Safety sensor for hinged doors



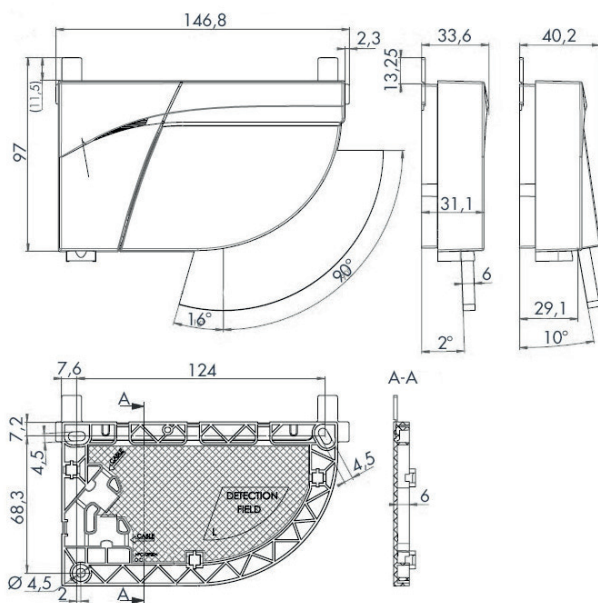
Website

## CHARACTERISTICS

- Uses laser technology (time-of-flight measurement) for use on swing doors
- 170 measuring points guarantee full protection when walking through the door
- A single module per side is enough to protect the entire door leaf, completely independent of its width
- Mechanical angle adjustment from 2° to 10°
- Special functions adjustable via 4 DIP switches
- Automatic teach-in function: direct environment of the door and type of floor

## DIMENSIONS

All dimensions in mm



## TECHNICAL DATA

Max. detection range	4 m (diagonal) with reflectivity of 2% (i.e.: at W = 1,5 m -> max. H = 3,7 m)
Opening angle	Protection door leaf: 86° / Finger protection area: 18°
Angular resolution	Protection door leaf: 1,23° / Finger protection area: 0,18°
Test body	700 mm x 300 mm x 200 mm (test-body CA according to EN 16005 & DIN 18650)
Power supply	12-24 VDC ± 15%
Power consumption	≤ 2 W
Response time	Door wing safety: max. 50 ms / Pinch zone safety: max. 90 ms
Outputs	2 electronic relays (galvanic isolation - polarity free)
Max. switching voltage	42 V AC/DC
Max. switching current	100 mA
LED-signals	1 bi-colored LED: detection / output status
Housing material - color	PC/ASA - black
Tilt angles	+2° to +10° (without mounting bracket)
Protection class	IP 54
Temperature range	-30°C to +60°C if powered

## ORDER INFORMATION

Description	Part no.
Safety sensor for hinged doors LZR-Flatscan SW, KIT BLK, consisting of 2 pcs. Flatscan (for push and pull side)	700393
Infrared remote control for adjusting safety sensor LZR	700366



# Photoelectric barrier

Through-beam sensor up to 30 m



Website

## CHARACTERISTICS

- Range up to 30 m
- Surface-mounted light barrier for installation on walls or pillars
- Plastic front
- Consisting of transmitter and receiver, each installed on the opposite sides of the opening
- Important for proper function is that the transmitter and receiver are exactly aligned
- 2x adapters are required for surface mounting

## DIMENSIONS

All dimensions in mm

- Height = 78,4
- Length = 55,4
- Width = 21,5



## TECHNICAL DATA

Power supply	12-24 V
Protection class	IP 54
Operator temperature	-20° bis +55°
Alignment mode	Automatic
Nominal capacity	30 m
Power consumption	Receiver: 30 mA Transmitter: 20 mA

## ORDER INFORMATION

Description	Part no.
Photoelectric barrier XP30	700361
Surface installation adapter for photoelectric barrier XP30	700362

# Finger protection roller blind

For securing the secondary closing edge of hinged doors



Website

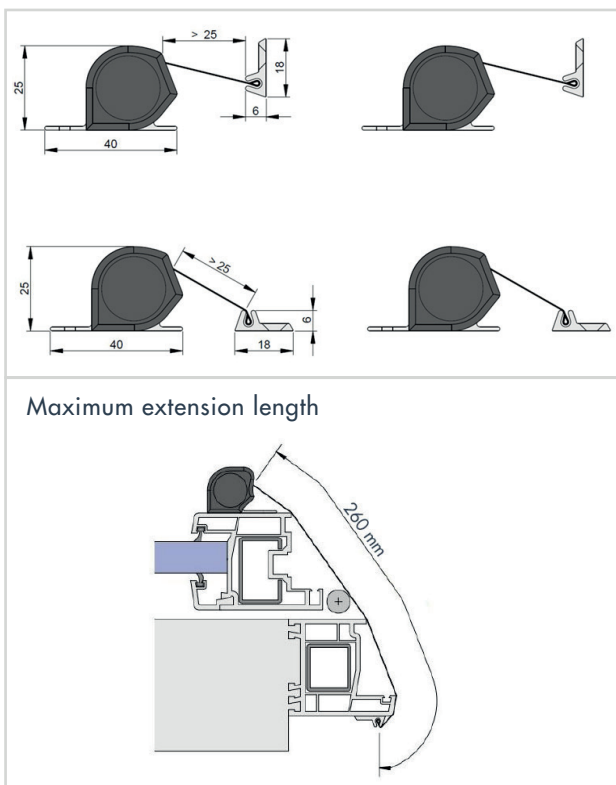
## CHARACTERISTICS

- Prevents fingers from getting caught between door and frame
- Fixed to the door frame as well as to the door leaf
- The roller blind is kept under constant tension by spring force
- When the door is opened, the roller blind is pulled out and covers the secondary closing edge
- Can be pulled out a maximum of 260 mm
- Made of washable black coated linen
- The total length is 1925 mm - shortening is not possible



## DIMENSIONS

All dimensions in mm



## TECHNICAL DATA

Standard delivery length	1925 mm
Max. extension length	260 mm
Material housing	Aluminum AlMgSi 0,5 F22, natural
Material roller blind	Coated linen, washable, black

## ORDER INFORMATION

Description	Part no.
Finger protection roller blind to secure secondary closing edge, length 1925 mm	710132

# Push button

For door & gate operators DICTAMAT



Website

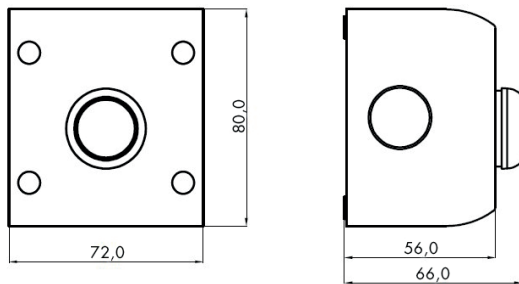
## CHARACTERISTICS

- Usually, either one push button is used for OPEN and CLOSE or for OPEN, STOP and CLOSE
- Other combinations are possible on request
- Contact types
- OPEN: Normally open contact (NO)
- OPEN, CLOSE: 2x normally open contact (NO)
- OPEN, STOP, CLOSE: 2x normally open contact (NO), 1x STOP normally closed contact (NC)

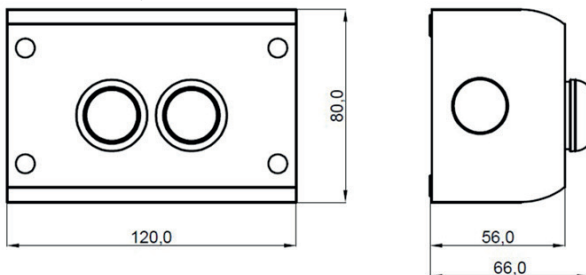
## DIMENSIONS

All dimensions mm

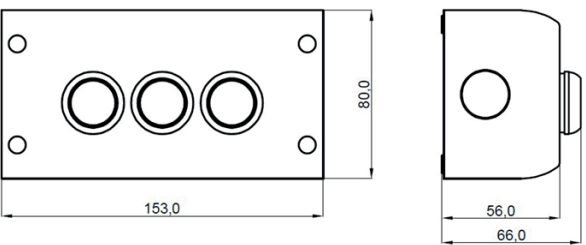
Push button, 1x



Push button, 2x



Push button, 3x



## TECHNICAL DATA

Protection class	IP 67
Operating temperature	-25 °C to +70 °C

## ORDER INFORMATION

Description	Part no.
Push button, simple, surface type	700185
Push button, double, OPEN-CLOSE, surface type	700117
Push button, OPEN-STOP-CLOSE (STOP = break contact, NC)	700142
Contact normally open (NO) for push button, surface type	700760
Contact normally closed (NC) for push button, surface type	700761
Further executions on demand	

# Main switch

With red twist knob and yellow lock ring



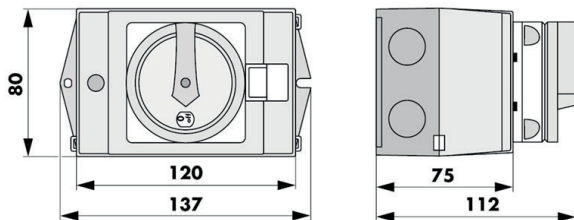
Website

## CHARACTERISTICS

- If possible, a main switch should be installed in the power supply line to the control unit directly at the control unit to completely switch off the power supply to the control unit
- Can be locked in 0-position

## DIMENSIONS

All dimensions in mm



## TECHNICAL DATA

Protection class	IP 65
Operating temperature	-25 °C to +40 °C
Number of poles	3-pole

## ORDER INFORMATION

Description	Part no.
Main switch, lockable	700179

# Emergency stop switch

Push-to-lock



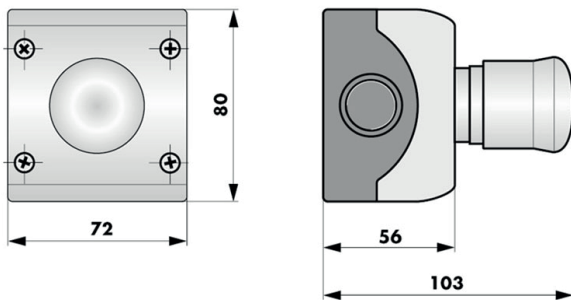
Website

## CHARACTERISTICS

- For large sliding doors, an emergency stop switch should always be provided for safety reasons
- Contact types
- Normally open contact (NO) Normally closed contact (NC)

## DIMENSIONS

All dimensions in mm



## TECHNICAL DATA

Protection class	IP 66
Operating temperature	-25° to +70°
Minimum force for forced opening	20 N

## ORDER INFORMATION

Description	Part no.
Emergency-stop switch (push-to-lock)	700198

# Limit switch

Safety position switch



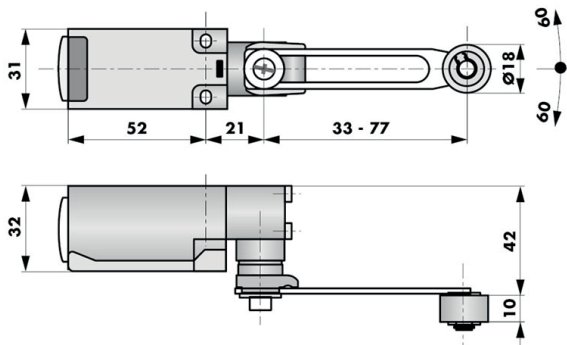
Website

## CHARACTERISTICS

- Limit switches are required for drives that do not have integrated position detection via position encoders
- Contact types
- Normally open contact (NO) Normally closed contact (NC)

## DIMENSIONS

All dimensions in mm



## TECHNICAL DATA

Protection class	IP 66
Operating temperature	-25° to +70°

## ORDER INFORMATION

Description	Part no.
Limit switch	700156

# Large surface switch

Particularly large operating surface



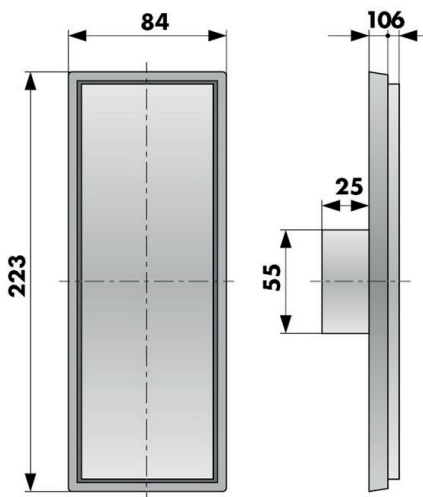
Website

## CHARACTERISTICS

- Comfortable operation thanks to large surface
- Recommended when people who pass through the door do not have their hands free and thus can press the button with their elbow
- Also to ease operation for people with physical disabilities

## DIMENSIONS

All dimensions in mm



## TECHNICAL DATA

Operating temperature	-20 °C to +50 °C
Protection class	IP 30

## ORDER INFORMATION

Description	Part no.
Large surface switch, flush mounting, stainless steel look	700194

# Key switch

For operation of the door only by selected people



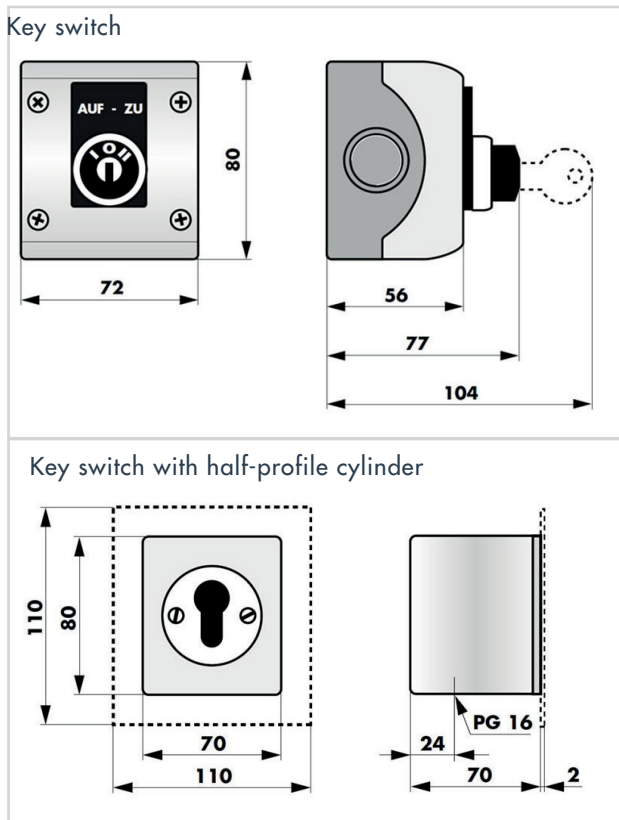
## CHARACTERISTICS

- A key switch is needed when only a selected group of people should be able to handle the door/gate
- Has only two control functions: OPEN and CLOSE
- For key switches within a locking system, the key switches are available with profile half cylinder
- The cylinder supplied with the key switch with half-profile cylinder can easily be replaced by a different cylinder
- Some articles can differ from the representation of the product pictures
- Contact types
- OPEN, CLOSED: normally open contact (NO)



## DIMENSIONS

All dimensions in mm



## TECHNICAL DATA

Protection class key switch	IP 67
Protection class key switch with half-profile cylinder	IP 55
Operating temperature	-25 °C to +70 °C
Switching angle	Key switch: -60° - 0 - 60° Key switch with half-profile cylinder: -30° - 0 - 30°

## ORDER INFORMATION

Description	Part no.
Key switch OPEN-CLOSE, surface type	700113
Key switch OPEN-CLOSE, for half profile cylinder, surface type	700114
Key switch OPEN-CLOSE, for half profile cylinder, flush mounting	700115



# Radar motion sensor

Universal opening sensor for automatic doors



Website

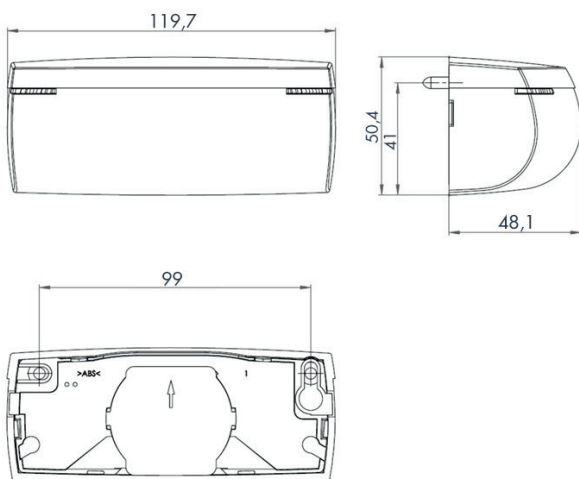
## CHARACTERISTICS

- Motion detectors in combination with an automatic closing system are suitable for triggering the OPEN command for heavily used doors
- The door closes automatically after the set hold-open time has elapsed
- Very wide detection field and very accurate detection of lateral approaching motion
- Detects only the movements approaching the door and disregards the movements moving away from it
- Can be installed up to 4 m high
- Intended for both wall and ceiling installation
- When installed on the hinge side (for hinged doors), the sensor is installed on the pivoting axis
- For an additional charge, an infrared remote control can be supplied, with the help of which it is possible to quickly and very accurately adjust the motion detector



## DIMENSIONS

All dimensions in mm



## TECHNICAL DATA

Supply voltage	12 V to 24 VDC +30 % / -10 % 12 V to 24 VAC ±10 % (50 - 60 Hz)
Max. power consumption	< 1 W
Protection class	IP 54
Cable length	with 2,5 m connection cable
Switching contact (potential-free)	Changeover switch
Temperature range	-20 °C to +55 °C
Max. detection range	Wide: 4 m x 2 m Narrow: 2 m x 2.2 m at 2,2 m high
Housing material / color	ABS / black

## ORDER INFORMATION

Description	Part no.
Radars motion sensor Eagle Artek	700395
Infrared remote control for adjusting safety sensor LZR	700366

# Remote control

2-channel



Website

## CHARACTERISTICS

- For opening and closing doors and gates with DICTAMAT door operators
- Wireless operation is particularly suitable for gates with vehicle traffic
- The simplest and cheapest solution is the wireless remote control
- Consists of a radio receiver and one or more hand-held transmitter
- The antenna for receiving the radio signals is located in the housing of the receiver



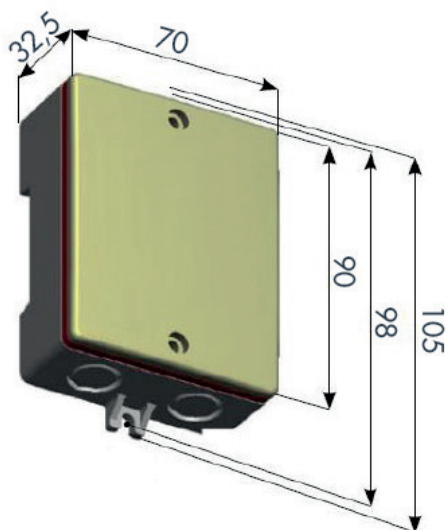
## DIMENSIONS

All dimensions in mm

### Handheld transmitter

6,3 x 4 x 1 cm

### 2-channel receiver



## TECHNICAL DATA

Supply voltage	24 V DC
Power consumption	100 mA
Protection class receiver	IP 44
Relay output	2x contact type NO (1x impulse switch, 1 x impulse or fixed switch (adjustable))
Frequency	868,35 MHz +/-2
Number of codes	250x storable
Operating temperature	-20 °C to +55 °C
Max. range	50 m (in open field)

## ORDER INFORMATION

Description	Part no.
Two channel radio receiver XR2 868C	700386
Handheld transmitter XT2 868 SLH LR white (2-channels)	700387
Handheld transmitter XT2 868 SLH LR black (2 channels)	700388

# Pull switch

For door & gate operators DICTAMAT



Website

## CHARACTERISTICS

- Used in particular for forklift operation in conjunction with the automatic closing mechanism of the door operator

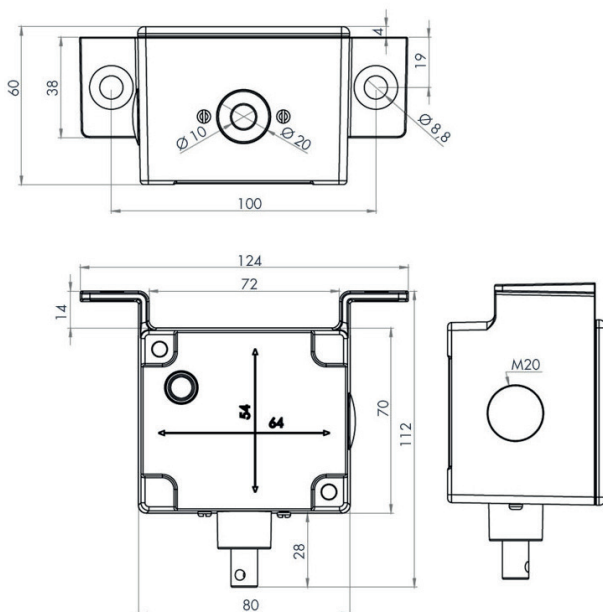
## CONTACT TYPES

- Normally open contact (NO)
- Normally closed contact (NC)



## DIMENSIONS

All dimensions in mm



## TECHNICAL DATA

Operating temperature	-30 °C to +50 °C
Protection class	IP 66
U <sub>max</sub>	400 V AC

## ORDER INFORMATION

Description	Part no.
Pull switch IP 65, 1 NO / 1 NC contact, for ceiling and wall installation, with eyelet and 2 m plastic rope	700164

# ATEX push buttons

For hazardous areas



## CHARACTERISTICS

- The manual push buttons are available as single, double or triple push button elements
- They can be used for different functions: OPEN, CLOSE, STOP
- ATEX test certificate: PTB 01 ATEX 1105

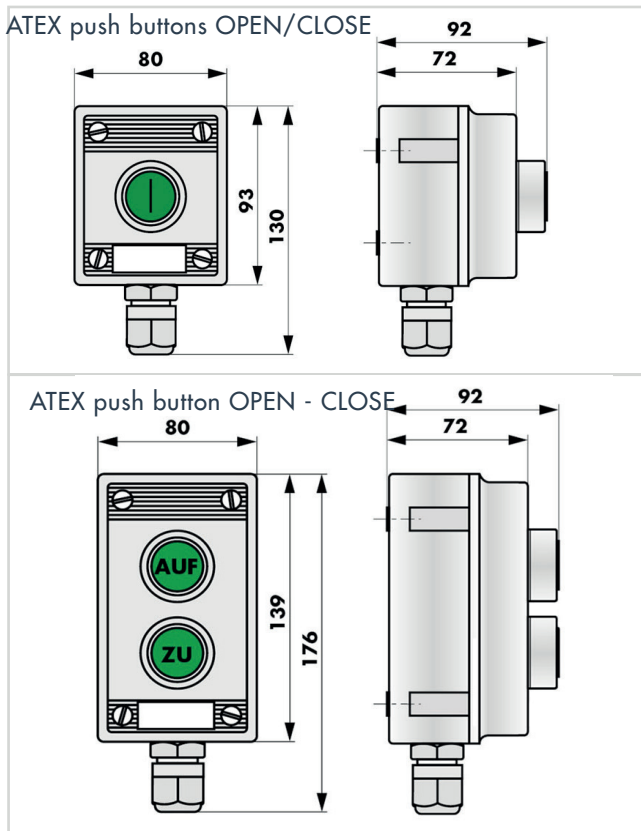
## CONTACT TYPE

- All push buttons have a normally closed (NC) and normally open contact (NO). The usual contact type for use with DICTATOR drives is indicated in the part numbers
- The STOP is to be connected either as normally closed contact (NC) or as normally open contact (NO), depending on the control system



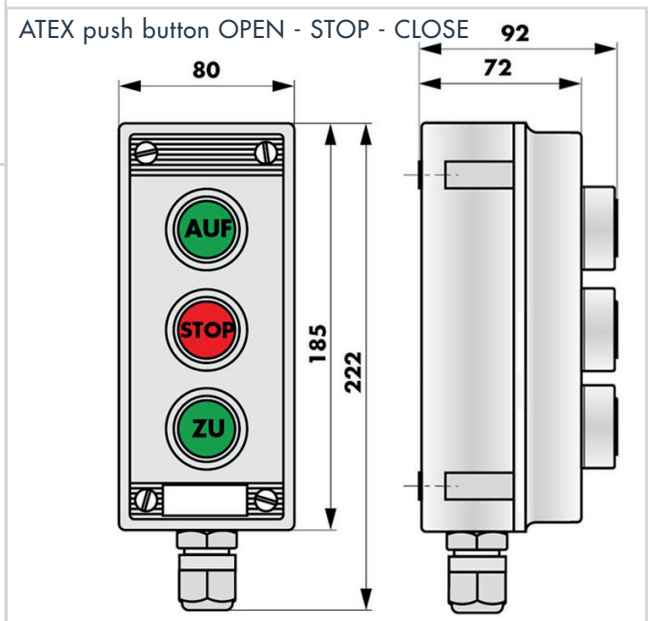
## DIMENSIONS

All dimensions in mm



## TECHNICAL DATA

Protection class	Ex II 2(1) G Ex db eb ia ib [ia Ga] mb q IIA, IIB, IIC, T6, T5, T4 GB Ex II 2 D Ex tb IIIC T80°C, T95°C, T130°C Db
Housing	Glass fiber reinforced polyester resin



## ORDER INFORMATION

Description	Part no.
ATEX push button OPEN or CLOSE (NO and NC contact)	700219
ATEX push button OPEN - CLOSE (per button 1x contact NO and 1x NC)	700217
ATEX push button OPEN-STOP-CLOSE	700247

# Other ATEX push switches

Emergency stop, limit switch, pull switch



Website

## CHARACTERISTICS

### ATEX emergency stop button

- Necessary for large sliding gates for safety reasons
- Contact type: contact block with a NC and a NO contact
- The NC contact is generally the one to be used

### ATEX limit switch

- Generally needed for position detection on drives in hazardous areas
- Contact type: contact block with a NC and a NO contact
- The NC contact is generally the one to be used

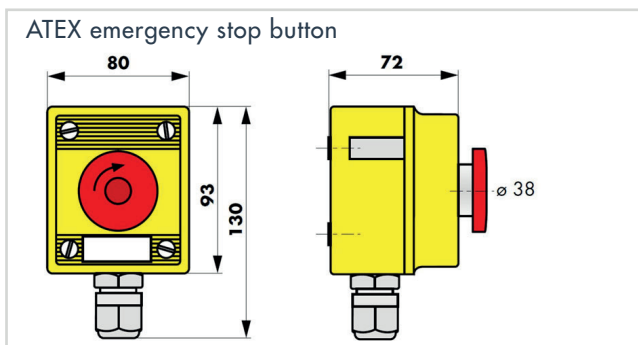
### ATEX pull switch

- Used in particular for forklift operation in conjunction with the automatic closing system of the door operator
- Contact type: contact block with a NC and a NO contact
- The contact used is usually the NO contact

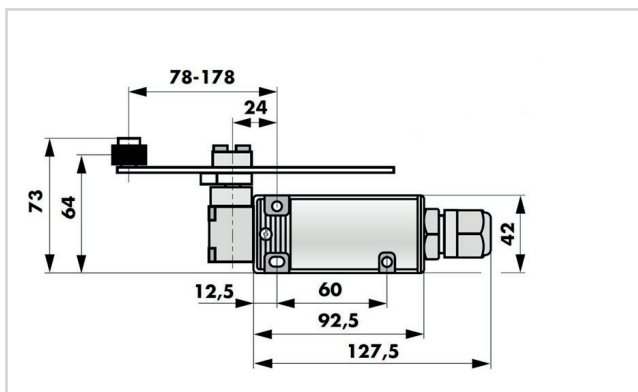


## DIMENSIONS

All dimensions in mm



### ATEX limit switch



## TECHNICAL DATA

### ATEX emergency stop button

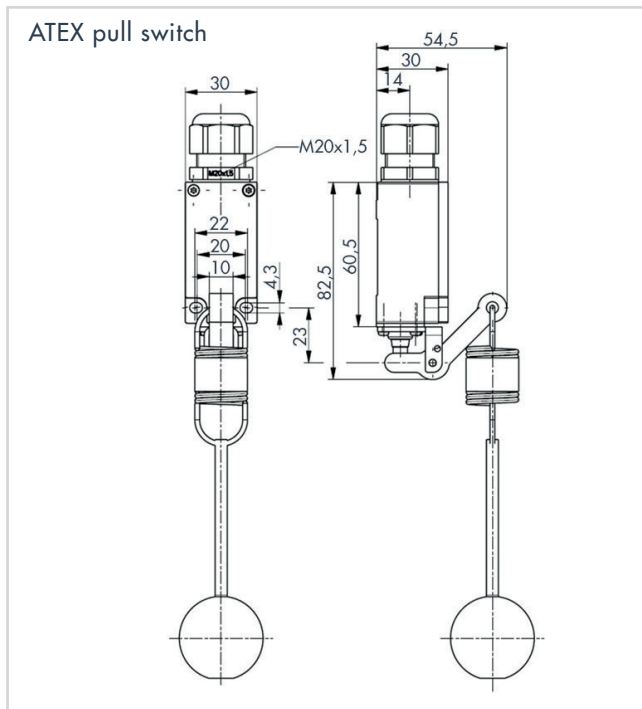
Protection class	PTB 01 ATEX 1105 EX II 2(1) G Ex db eb ia ib [ia Ga] mb q IIA, IIB, IIC, T6, T5, T4 Gb Ex II 2 D Ex tb IIIC T80°C, T95°C, T130°C Db, IP66
Contact types	Closer (NO) Opener (NC)

### ATEX limit switch

Protection class	BVS 17 ATEX E 021X, Ex II 2 G Ex db eb IIC T6 Gb, Ex II 2 D Ex tb IIIC T80°C D, (ATEX zone 1, 2, 21, 22), IP 66
Operating temperature	-60 °C to +55 °C
Contact type	Closer (NO) Opener (NC)

### ATEX pull switch

Protection class	ATEX zone 1 & 21, EX II 2G Ex de IIC T5 Gb, L II 2D Ex tb IIIC T80°C Db IECEx Ex de IIC T5 Gb, Ex tb IIIC T80°C Db+, IP 67
Operating temperature	-20 °C to +60 °C
Contact type	Closer (NO) Opener (NC)



## ORDER INFORMATION

Description	Part no.
Emergency stop ATEX switch (push-to-lock) (NO/NC contacts)	700254
ATEX limit switch (NO/NC contact)	700223
ATEX pull switch (NO/NC contacts)	700239