

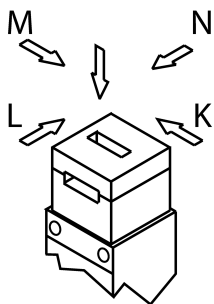
TP4-2131K024M (Order no. 084266)

Safety switch TP, cable entry M20 x 1.5, contacts for the door position, increased vertical overtravel

- 3 x cable entry M20 x 1.5
- Contacts for the door position
- Auxiliary release
- Additional increased overtravel for vertical approach direction
- Open-circuit current principle



Approach direction



Horizontal and vertical

Can be adjusted in 90° steps

Increased overtravel for horizontal and vertical approach directions

If increased play is required when the door is closed, an actuator with overtravel is available. With this actuator the door can move slightly in the actuating direction when closed. This is important, for example, if safety doors have a rubber end stop. Using an actuator with overtravel, the continuous pressure from the compressed rubber can be reduced. In this way the load is reduced on the switch head and the door mechanism.

Guard locking principle

Open-circuit current (power on to lock): On a guard with guard locking based on the open-circuit current principle, the guard is locked until the power supply to the guard locking solenoid is interrupted. Unlocking is by spring force. The term electrical guard locking is also used.

Switching element

2131 Slow-action switching contact

Contacts for guard locking: 2 positively driven contacts  1 NO contact

Contacts for door monitoring: 1 NC contact

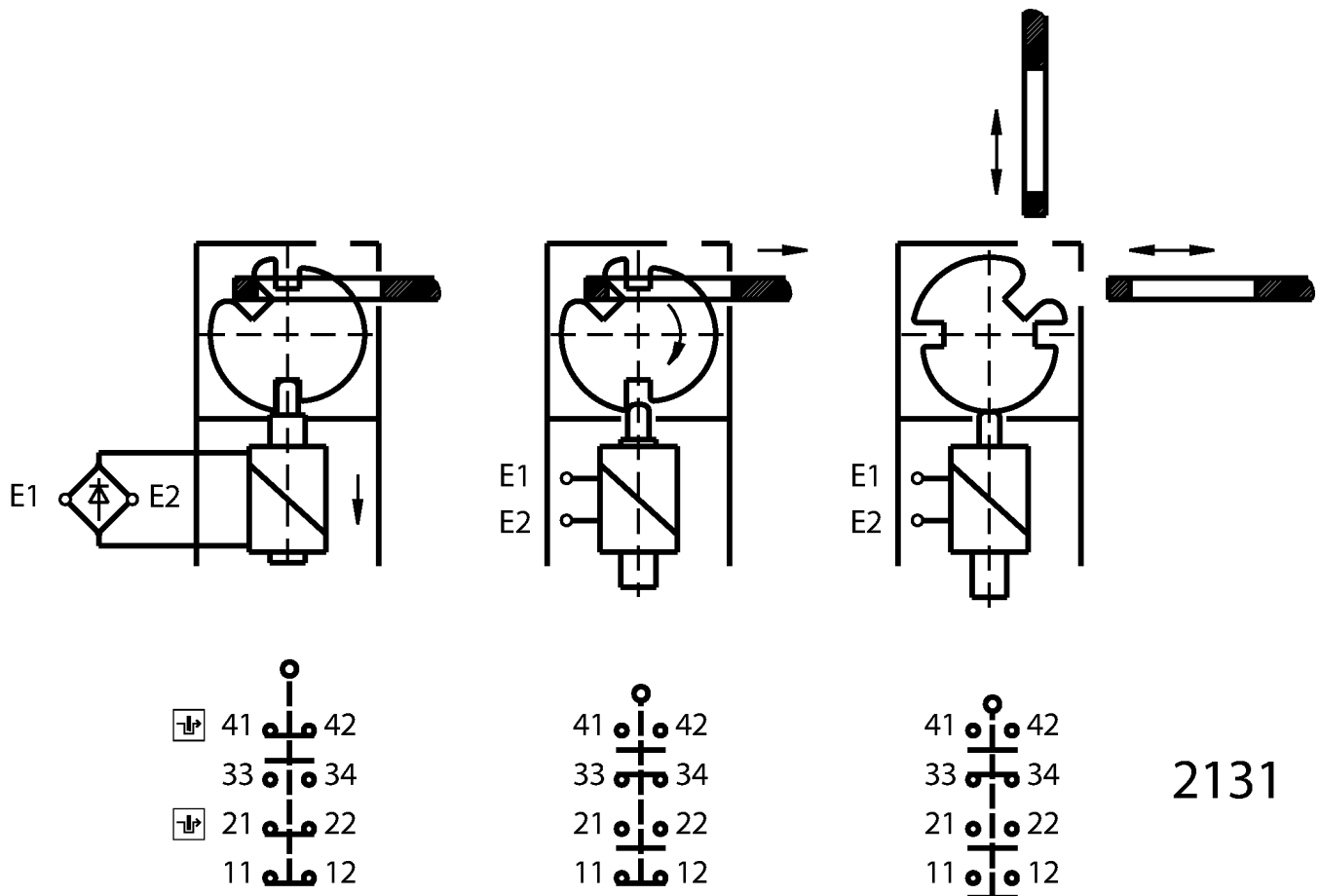
Auxiliary release

The auxiliary release on the front makes it possible to access the machine if there is a malfunction, e.g. a power failure. Unlocking is performed using a tool or a key. The auxiliary release must be protected against misuse (sealing, lacquer).

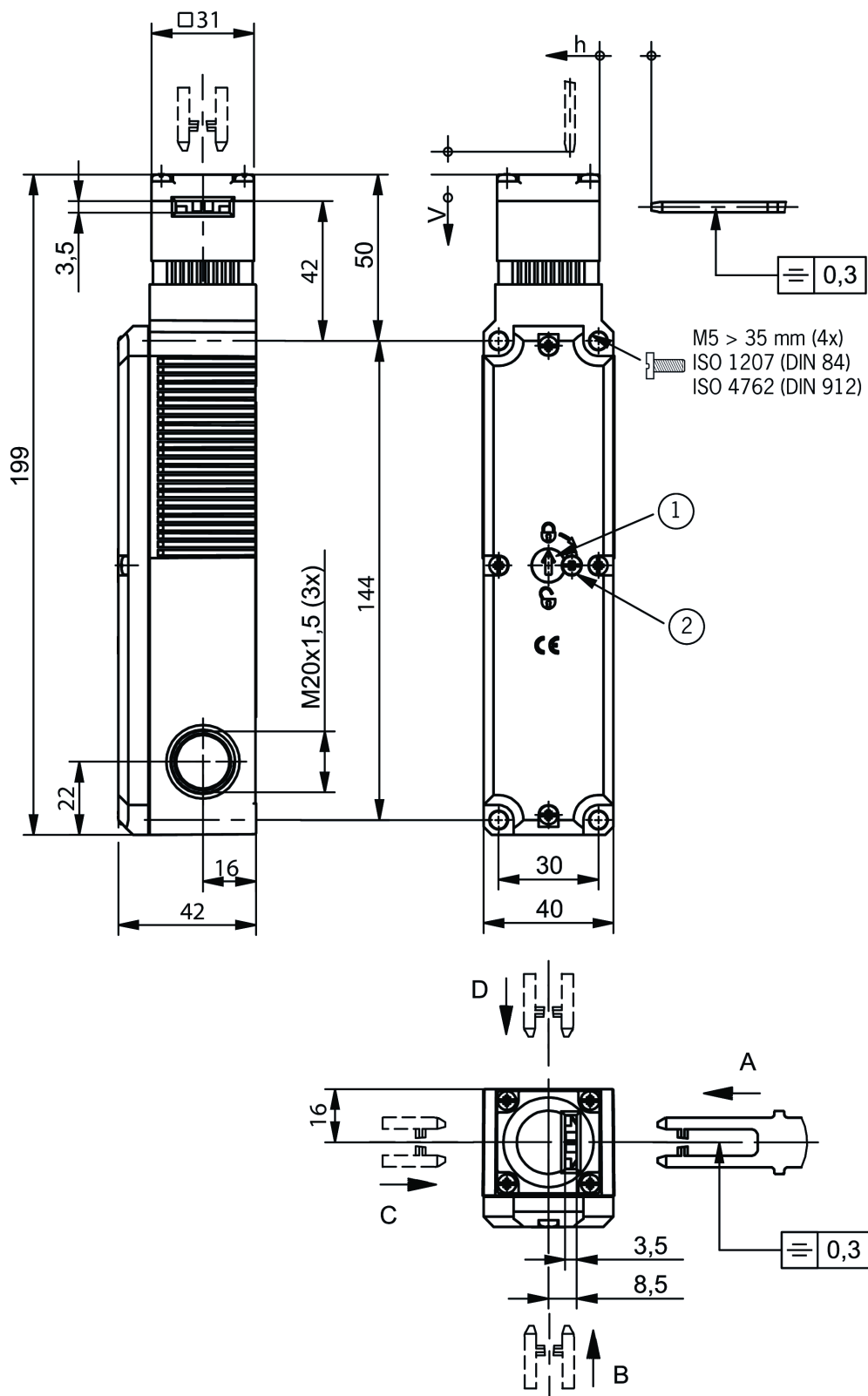
Accessories required

Actuator is not included.

Functional drawings



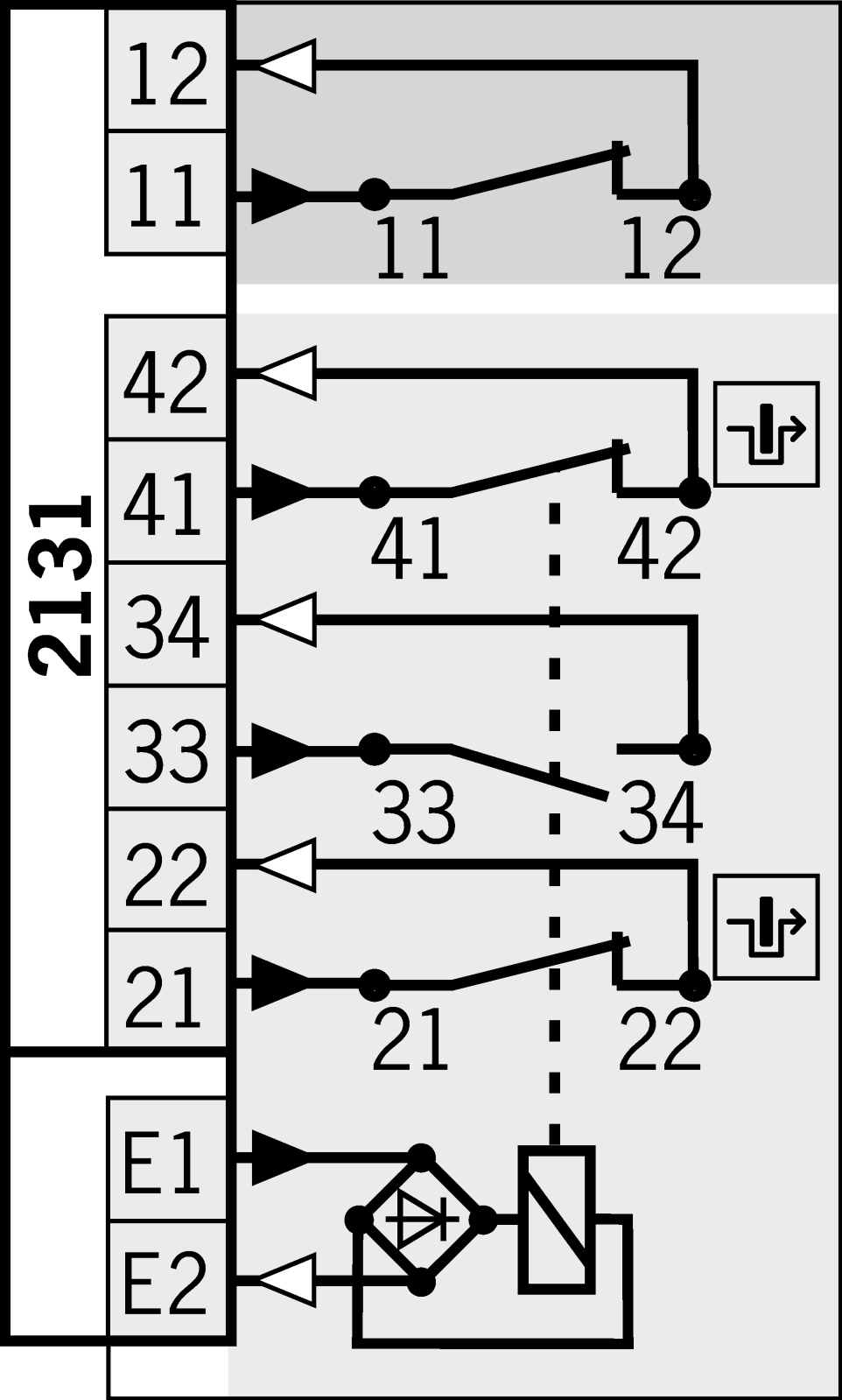
Dimensional drawings



1 Auxiliary release

2 Locking screw

Connection examples



Technical data

Approvals



Electrical connection values

Fuse	max. 4 A gG	
Power consumption	8 W	
Connection cross section	0.34 ... 1.5 mm ²	
Rated insulation voltage U_i	250 V	
Rated impulse voltage U_{imp}	2.5 kV	
Utilization category		
	AC-15	4 A 230 V
	DC-13	4 A 24 V
Solenoid operating voltage		
	AC/DC	24 V -15% ... +10%
Solenoid duty cycle	100 %	
Switching voltage		
	min. at 10 mA	12 V
Switching current		
	min. at 24 V	1 mA
thermal rated current I_{th}	4 A	

Mechanical values and environment

Anfahrsgeschwindigkeit	max. 20 m/min	
Connection type		
	3 x	M20 x 1.5
Number of door position NC contacts	1	
Number of guard lock monitoring NO contacts	1	
Number of guard lock monitoring positively driven contacts	2	

Extraction force	20 N
Actuation frequency	max. 1200 1/h
Actuating force	10 N
Installation orientation	any
Storage temperature	-25 ... 70 °C
Mechanical life	1 x 10 ⁶
Retention force	10 N
Switching principle	Slow-action switching contact
Degree of protection	IP67
Ambient temperature	-20 ... 55 °C
Material	
	Contact Silver alloy, gold flashed
	Housing Reinforced thermoplastic
Locking force F _{max}	1300 N
Locking force F _{Zh}	1000 N
Guard locking principle	Open-circuit current principle

Characteristic values according to EN ISO 13849-1 and EN IEC 62061

	B10 _D	Mission time
Guard lock monitoring	3x10 ⁶	20 y
	Important! Values valid at DC-13 100 mA/24V	

In combination with actuator ACTUATOR-P-GT

Horizontal overtravel	2 mm
Vertical overtravel	1.5 mm

In combination with actuator ACTUATOR-P-GNT

Horizontal overtravel	7 mm
Vertical overtravel	7 mm

Downloads

All documentation for this material can be found on our website:

<https://www.euchner-usa.com/en-us/a/084266/?#downloads-tab>

Ordering data

Ordernumber	084266
Item designation	TP4-2131K024M
Gross weight	0,458kg
Customs tariff number	85365019000
ECLASS 11.0	27-27-26-03 Safety switch with guard control

Accessories

Actuator

Actuator for safety switch NP/GP/TP, increased overtravel



074570
BETAETIGER-P-GN

Actuator made of stainless steel
Two stainless-steel safety screws per actuator



074576
BETAETIGER-P-GNT

Actuator made of stainless steel
Two stainless-steel safety screws per actuator
Actuator with rubber bush

Actuators for safety switches NP/GP/TP



059226
BETAETIGER-P-G

Actuator made of stainless steel
Two stainless-steel safety screws per actuator



070046
BETAETIGER-P-GT

Actuator made of stainless steel
Two stainless-steel safety screws per actuator
Actuator with rubber bush

Bent actuator for safety switch NP/GP/TP



059227
BETAETIGER-P-W

Actuator made of stainless steel
Two stainless-steel safety screws per actuator



070038
BETAETIGER-P-WT

Actuator made of stainless steel
Two stainless-steel safety screws per actuator
Actuator with rubber bush

Bent actuator for safety switch NP/GP/TP, increased overtravel



074571
BETAETIGER-P-WN

Actuator made of stainless steel
Two stainless-steel safety screws per actuator



074577
BETAETIGER-P-WNT

Actuator made of stainless steel
Two stainless-steel safety screws per actuator
Actuator with rubber bush

Hinged actuator, left/right, for safety switch NP/GP/TP



059440
RADIUSBETAETIGER-P-LR

Actuator made of stainless steel
Two stainless-steel safety screws per actuator
For doors hinged on the right and left



175439
A-P-RLR-SS-175439

Actuator made of stainless steel
Two stainless-steel safety screws per actuator
For doors hinged on the right and left

Hinged actuator, left/right, for safety switch NP/GP/TP, increased overtravel



074573

RADIUSBETAETIGER-P-LRN

Actuator made of stainless steel
Two stainless-steel safety screws per actuator
For doors hinged on the right and left



175746

A-P-RLR-LN-175746

Actuator made of stainless steel
Two stainless-steel safety screws per actuator
For doors hinged on the right and left

Hinged actuator, top/bottom, for safety switch NP/GP/TP



070050

RADIUSBETAETIGER-P-OU

Actuator made of stainless steel
Two stainless-steel safety screws per actuator
For top-hinged and bottom-hinged doors



176043

A-P-ROU-SS-176043

Actuator made of stainless steel
Two stainless-steel safety screws per actuator
For top-hinged and bottom-hinged doors

Hinged actuator, top/bottom, for safety switch NP/GP/TP, increased overtravel



074572

RADIUSBETAETIGER-P-OUN

Actuator made of stainless steel
Two stainless-steel safety screws per actuator
For top-hinged and bottom-hinged doors



176044

A-P-ROU-LN-176044

Actuator made of stainless steel
Two stainless-steel safety screws per actuator
For top-hinged and bottom-hinged doors

Connection material

Cable glands M20x1.5, cable Ø 6-12 mm



086233

EKPM20/06 086233

Function expansion

Built-in LED, light shines to front



095510

EINBAULEUCHTE LED-F M20X1,5



171343

AY-LED-024-GR/RD-T-171343

Color: transparent



171344

AY-LED-024-GR/RD-M-171344

Color: milky

Built-in LED, light shines to side



087423

EINBAULEUCHTE LED M20X1,5

Emergency release for safety switch CTP/CTA/TP/STP/MGB2



099877

AE-M-A1-99877

Handle for escape release for safety switch TP/STP/STA



105329

FE-GRIFF

Handle for wire front release (bowden)



099795

AY-HDL-099795

suitable for all wire front releases

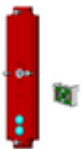
Insertion funnel for safety switch NP..A/GP/TP..A



086237

AM-F-P-086237

LED set



093752

TP LED SET

LED set

Latch spring for increased retention force

076501

RASTFEDER NP/TP

Lock for auxiliary release for safety switch CTP/CTA/TP/STP



084177

AE-K-A1-DULK1-84177

Lock unique locking

Key removable in "unlocked" and "locked" positions



086236

AE-K-A1-IULK1-86236

Identical locking

Key removable in "unlocked" and "locked" positions



109212

AE-K-A1-IUK2-109212

Identical locking

Key can be removed only in "unlocked" position



121917

AE-K-A1-ILK1-121917

Identical locking
Key removable in "locked" position

Lockout bar NP/GP/TP



096105

SPERREINSATZ TP

Prevents unintentional closing of the door
Can be secured with padlocks

Release with automatic reset for safety switch CTP/CTA/TP/STP/MGB2/MGBS



103110

AE-R-A1-103110

Wire front release (bowden)



096230

AE-B-A1-02,0-096230

Can be used as escape release or emergency release
no automatic return
Sheath length 2 m (rope length 6 m)



097747

AE-B-A1-02,0-F-097747

Can be used as escape release or emergency release
automatic return
Sheath length 2 m (rope length 6 m)



098313

AE-B-A1-03,0-098313

Can be used as escape release or emergency release
no automatic return
Sheath length 3 m (rope length 6 m)



098314

AE-B-A1-04,0-098314

Can be used as escape release or emergency release
no automatic return
Sheath length 4 m (rope length 6 m)



111233

AE-B-A1-03,0-F-111233

Can be used as escape release or emergency release
automatic return
Sheath length 3 m (rope length 6 m)



125582

AE-B-A1-06,0-125582

Can be used as escape release or emergency release
no automatic return
Rope length 6 m (without sheath)



124770

AE-B-A1-06,0-F-124770

Can be used as escape release or emergency release
automatic return
Rope length 6 m (without sheath)

Mounting accessories

Mounting plates EMP-B1 for actuators for safety switches CTP, CTA, TP...A, STA, STP, TX and TZ



093457

EMP-B1

Mounting plates EMP-B2 for actuators for safety switches CTP, CTA, TP...A, STA, STP, TX and TZ



093458

EMP-B2

Mounting plates EMP-SB for safety switches CTP, CTA, TP...A, STA, STP and TX



093456

EMP-SB

For vertical and horizontal mounting of safety switches CTP, CTA, TP...A, STA, STP and TX

Switch bracket CTP/TP/STP GFK



096613

SCHALTERAUFNAHME TP/STP GFK

Switch bracket made of fiber glass reinforced plastic
For doors hinged on the left or right

Switch bracket for bolt NP/TP



073539

SCHALTERAUFNAHME TP

Switch bracket made of steel
For doors hinged on the left or right