CTP-L1-AP-U-HA-AZ-SA-124225 (ORDER NO. 124225)

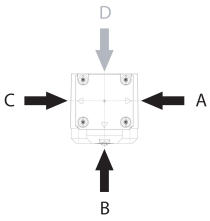
Transponder-coded safety switch CTP-AP, M12

- Safety switch with guard locking and integrated evaluation electronics
- Short circuit monitoring
- 2 safety outputs (semiconductor outputs)
- Up to category 4/PL e according to EN ISO 13849-1
- With plug connector M12
- Unicode
- Door monitoring output
- Approach directions A, B and C (delivery state)



Description

Approach direction



Figure

Horizontal

Can be adjusted in 90° steps

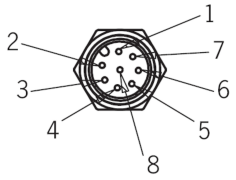
Unicode evaluation

Each actuator is highly coded (unicode). The switch detects only taught-in actuators. Additional actuators can be taught-in. Only the last actuator taught-in is detected.

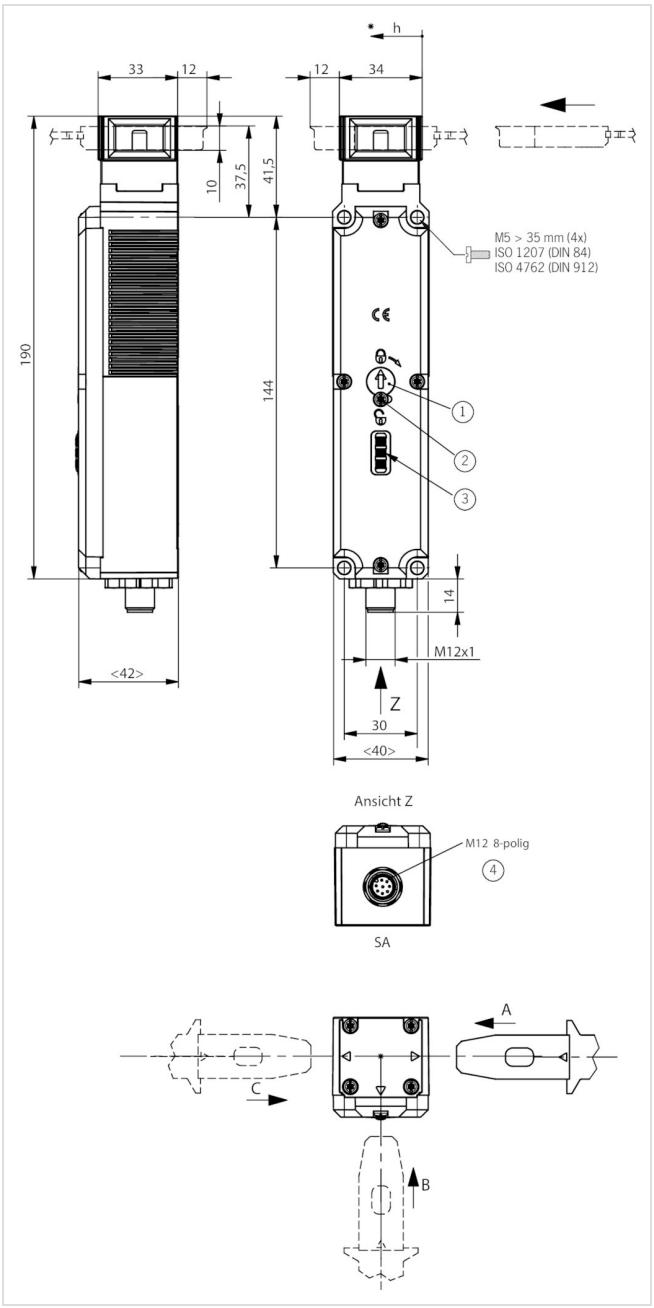
Guard locking type

CTP-L1 Guard locking actuated by spring force applied and power-ON released (closed-circuit current principle)

Connector assignment

Plug connector (view of connection side)	Pin	Designation	Function	Conductor coloring of connecting cable
	1	IMP	Operating voltage of guard locking solenoid, 24 V DC	WH
	2	UB	Operating voltage of AP electronics, 24 V DC	BN
	3	FO1A	Safety output, channel 1	GN
	4	FO1B	Safety output, channel 2	YE
	5	OI	Diagnostic output	GY
	6	OD	Door monitoring output	PK
	7	0 V UB	Operating voltage of AP electronics, 0 V	BU
	8	IMM	Operating voltage of guard locking solenoid, 0 V	RD

Dimension drawing



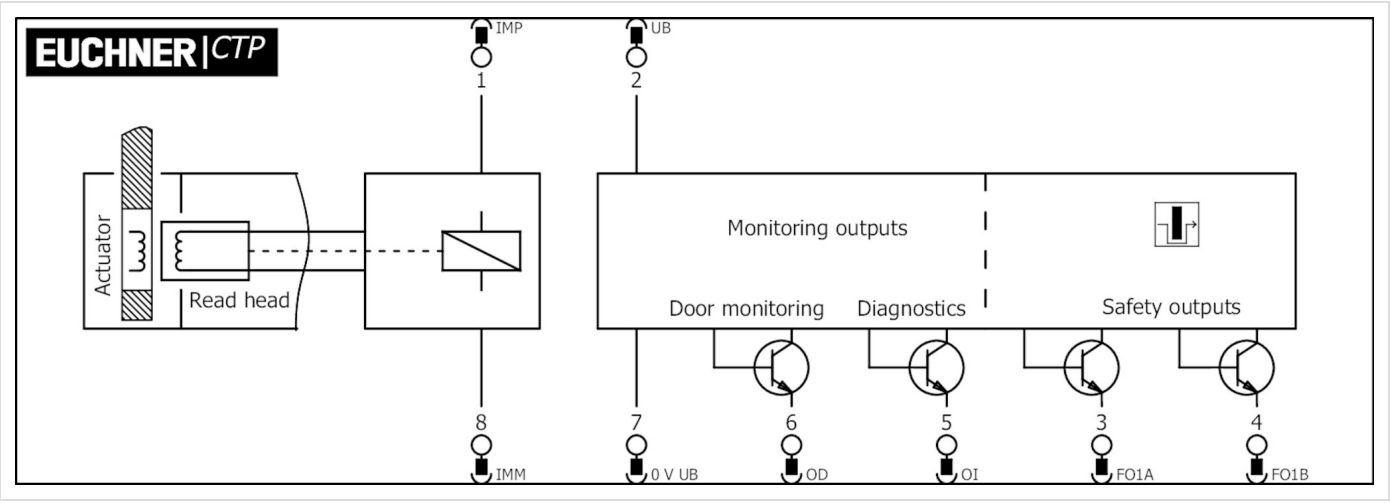
1 Auxiliary release

2 Locking screw

3 LEDs

4 Plug connector aligned

Wiring diagram



Technical data

Approvals

Mechanical values and environment

Shock and vibration resistance	In acc. with EN 60947-5-3
Housing material	
Safety switch housing	Fiber glass reinforced thermoplastic
Switch head cover	Die-cast zinc
Weight	
Net	0,42 kg
Ambient temperature	
At U_B = 24V DC	-20 ... +55 °C
Degree of protection	IP67/IP69/IP69K (Screwed tight plug connector/mating component)
Mechanical life	1 x 10^6
Installation orientation	Any
Ready delay	max.1 s
Switching frequency	max.0,5 Hz
Connection	1 plug connector M12, 8-pin
Approach speed	max.20 m/min
Guard locking principle	Closed-circuit current principle
Locking force F_{max}	3900 N
Locking force F_{Zh}	3000 N (Fzh = Fmax/1.3 Depending on the actuator used)
Retention force	20 N
Extraction force	20 N
Actuating force	10 N
Overtravel	5 mm

Electrical connection ratings

Test-pulse interval	min.100 ms
Test pulses	max.0,3 ms (Applies for a load with C ≤ 30nF and R ≤ 20kOhm)
Operating voltage DC	

U_{UB}	24 V DC -15% ... 15% Reverse polarity protected, regulated, residual ripple < 5%, PELV
Current consumption	
I_{UB}	40 mA
I_{IMP}	400 mA
Utilization category acc. to EN 60947-5-2	
DC-13	24V 150mA (Caution: outputs must be protected with a free-wheeling diode in case of inductive loads)
Solenoid operating voltage DC	
U_{IMP}	24 V DC -15% ... +10% Reverse polarity protected, regulated, residual ripple < 5%, PELV
Fusing	
External (solenoid operating voltage IMP)	0,5 ... 8 A
External (operating voltage UB)	0,25 ... 8 A
Rated insulation voltage U_i	50 V
Rated impulse withstand voltage U_{imp}	0,5 kV
Connection rating	6 W
EMC protection requirements	In acc. with EN IEC 60947-5-3
Solenoid duty cycle	100 %
Degree of contamination (external, according to EN 60947-1)	3
Safety class	
EN IEC 61140	III
Switching load	
According to UL	24V DC, class 2 (Alternatively see operating instructions)
	Safety outputs FO1A / FO1B
Type of output	2 semiconductor outputs, p-switching, short circuit-proof
Switching current	
Per safety output FO1A / FO1B	1 ... 150 mA
Output voltage	
HIGH U(FO1A) / U(FO1B)	UB-1,5 ... UB V DC
LOW U(FO1A) / U(FO1B)	0 ... 1 V DC
Off-state current I_r	max.0,25 mA
Turn-on time	max.400 ms
Discrepancy time	
Both safety outputs	max.10 ms In acc. with EN IEC 60947-5-3
	Monitoring output OD
Type of output	p-switching, short circuit-proof
Switching current	1 ... 50 mA
Output voltage	0,8xUB ... UB V DC
	Monitoring output OI
Type of output	p-switching, short circuit-proof
Switching current	1 ... 50 mA
Output voltage	0,8xUB ... UB V DC

Work area

Repeat accuracy R		
	According to EN 60947-5-2	10 %

Other

For the approval acc. to UL the following applies	Operation only with UL class 2 power supply, or equivalent measures see operating instructions

Reliability values according to EN ISO 13849-1

Performance Level	PL e
Category	4
PFH_D	4.1×10^{-9}
Mission time	20 y

Accessories

Actuator

Bent actuator for safety switches CTP



122667
A-C-H-W-SST-122667

- Actuator bent at top
- Two safety screws included



122668
A-C-H-W-SST-122668

- Actuator bent at bottom
- Two safety screws included

Hinged actuator for safety switch CTP



122675
A-C-H-RO-LS-122675

- Hinged actuator for doors hinged at the top
- Two safety screws included



122676
A-C-H-RU-LS-122676

- Hinged actuator for doors hinged at the bottom
- Two safety screws included



122671
A-C-H-RL-LS-122671

- Hinged actuator for doors hinged on the left
- Two safety screws included



122672
A-C-H-RR-LS-122672

- Hinged actuator for doors hinged on the right
- Two safety screws included

Straight actuator for safety switch CTP



126015
A-C-H-G-SST-126015

- Straight actuator
- Two safety screws included

Bolt

Bolt BTC-CTP-S for safety switch CTP



123659
BTC-CTP-S-TH-00-X

- Aluminum bolt
- For doors hinged on the left or right
- Can be locked in open position with padlocks
- Actuator included

Bolt BTM-UNIP-S... for safety switches TP, STP, STA and CTP



159951
BTM-UNIP-S-TH-00-X-159951

- Steel bolt
- For doors hinged on the left or right
- Can be locked in open position with padlocks
- Actuator not included

Bolt CTP-GFK for safety switch CTP



123657
RIEGEL CTP-GFK

- Fiber glass reinforced plastic bolt
- For doors hinged on the left or right
- Can be locked in open position with padlocks
- Actuator included

Bolts for safety switches series CTP



123653
RIEGEL CTP-AC-123653

- Steel bolt
- For doors hinged on the right or left
- Can be locked in open position with padlocks
- Actuator included

Connection material

Connection cable with angled plug connector M12, 8-pin, 10m



113188
C-M12F08-08X025PU10,0-MA-113188

- M12 female plug, 8-pin
- Angled plug connector
- Cable outlet A (right)
- PUR cable
- Cable length 10 m
- With flying lead



113189
C-M12F08-08X025PU10,0-MA-113189

- M12 female plug, 8-pin
- Angled plug connector
- Cable outlet C (left)
- PUR cable
- Cable length 10 m
- With flying lead

Connection cable with angled plug connector M12, 8-pin, 20m



120998
C-M12F08-08X025PU20,0-MA-120998

- M12 female plug, 8-pin
- Angled plug connector
- Cable outlet A (right)
- PUR cable
- Cable length 20 m
- With flying lead



120999
C-M12F08-08X025PU20,0-MA-120999

- M12 female plug, 8-pin
- Angled plug connector
- Cable outlet C (left)

- Cable outlet 0 (left)
- PUR cable
- Cable length 20 m
- With flying lead

Connection cable with plug connector M12, 8-pin, 5m



115112
C-M12F08-08X025PU05,0-MA-115112

- M12 female plug, 8-pin
- Straight plug connector
- PUR cable
- Cable length 5 m
- With flying lead



100177
C-M12F08-08X025PV05,0-MA-100177

- M12 female plug, 8-pin
- Straight plug connector
- PVC cable
- Cable length 5 m
- With flying lead

Connection cable with plug connector M12, 8-pin, 10m



115113
C-M12F08-08X025PU10,0-MA-115113

- M12 female plug, 8-pin
- Straight plug connector
- PUR cable
- Cable length 10 m
- With flying lead



100178
C-M12F08-08X025PV10,0-MA-100178

- M12 female plug, 8-pin
- Straight plug connector
- PVC cable
- Cable length 10 m
- With flying lead

Connection cable with plug connector M12, 8-pin, 20m



115114
C-M12F08-08X025PU20,0-MA-115114

- M12 female plug, 8-pin
- Straight plug connector
- PUR cable
- Cable length 20 m
- With flying lead



100179
C-M12F08-08X025PV20,0-MA-100179

- M12 female plug, 8-pin
- Straight plug connector
- PVC cable
- Cable length 20 m
- With flying lead

Connection cable with plug connector M12, 8-pin, 30m



115257
C-M12F08-08X025PU30,0-MA-115257

- M12 female plug, 8-pin
- Straight plug connector
- PUR cable
- Cable length 30 m
- With flying lead



115116
C-M12F08-08X025PV30,0-MA-115116

- M12 female plug, 8-pin
- Straight plug connector
- PVC cable
- Cable length 30 m
- With flying lead

Function expansion

Emergency unlocking for safety switches CTP/TP/STP



099877
NOTENTSPERRUNG TP/STP

Handle for wire front release



099795
AY-HDL-099795

- Suitable for all wire front releases



124204
AY-HDL-124204

- Suitable for all wire front releases

Lock for auxiliary release for safety switches CTP/TP/STP



084177
SCHLOSS TP
VERSCHIEDENSCHLIESSEND

- Lock unique locking
- Key removable in “unlocked” and “locked” positions



086236
SCHLOSS TP GLEICHSCHLIESSEND

- Identical locking
- Key removable in “unlocked” and “locked” positions



109212
SCHLOSS TP GLEICHSCHLIESSEND
C2293

- Identical locking
- Key can be removed only in “unlocked” position



121917
SCHLOSS TP GLEICHSCHLIESSEND
C2416

- Identical locking
- Key removable in “locked” position

Lockout mechanism CTP



123411
AE-L-C-H-123411

- Prevents unintentional closing of the door
- Can be secured with padlocks

Release with automatic reset for safety switches CTP/TP/STP



103110
ENTRIEGELUNG RUECKSTELLEND
TP/STP

Wire front release



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)



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)



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)



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

Efficient protection against tampering for safety switch mounting



161344
AM-C-SW4-V3-161344

- Plastic inserts for hexagon socket screws a/f 4
- Efficient protection against tampering for safety switch mounting
- The packaging includes inserts for 18 screws



161348
AM-C-SW5-V3-161348

- Plastic inserts for hexagon socket screws a/f 5
- Efficient protection against tampering for safety switch mounting
- The packaging includes inserts for 18 screws

Mounting plates AM-P for safety switches CTP



126026
AM-P-126026

- For vertical and horizontal mounting of safety switch CTP

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



093457
EMP-B1

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



093458
EMP-B2

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



093456
EMP-SB

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

Contacts

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