

ITEM 124729 CTP-L2-AP-M-HA-AZ-SA-124729

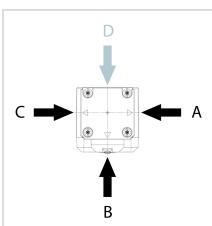
Description	Technical data	Accessories	Downloads
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Features

- › 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
- › Multicode
- › Door monitoring output
- › Approach direction A, B and C (default setting on delivery)

Approach direction



- › Figure
Horizontal
Can be adjusted in 90° steps

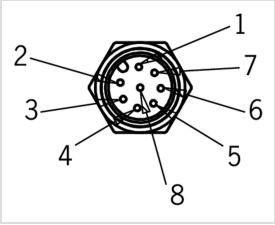


Multicode evaluation

Every suitable actuator is detected by the switch.

Guard locking type

CTP-L2 Guard locking actuated by power-ON applied and spring released (open-circuit current principle).

Connector assignment

Plug connector (view of connection side)	Pin	Designation	Function	Conductor coloring of connection 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	Diagnostics 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

Approvals



Mechanical values and environment

Housing material	Switch head cover	Die-cast zinc
	Safety switch housing	Fiber glass reinforced thermoplastic
Weight		

	Net	0,42 kg
Ambient temperature		
	At $U_B = 24V$ DC	-20 ... +55 °C
Degree of protection		IP67 / IP69 / IP69K [1]
Resilience to vibration		In acc. with EN IEC 60947-5-3
Mechanical life		1×10^6
Installation position		Any
Ready delay		max.1 s
Switching frequency		max.0,5 Hz
Connection		1 plug connector M12, 8-pin
Approach speed		20 m/min
Guard locking principle		Open-circuit current principle
Locking force F_{max}		3900 N
Locking force F_{Zh}		3000 N [2]
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 [3]
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 according to EN 60947-5-2	DC-13	24V 150mA [4]
Solenoid operating voltage DC	U_{IMP}	24 V DC -15% ... +10% Reverse polarity protected, regulated, residual ripple < 5%, PELV
Fusing		
	External (operating voltage U_B)	0,25 ... 2 A
	External (solenoid operating voltage I_{IMP})	0,5 ... 8 A
Rated insulation voltage U_i		max.50 V
Rated impulse withstand voltage U_{imp}		max.0,5 kV
Power consumption		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 [5]
	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
Switch-on time	max.400 ms
Discrepancy time	
Both safety outputs	In acc. with EN IEC 60947-5-3max.10 ms
	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

Operating distance

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

Miscellaneous

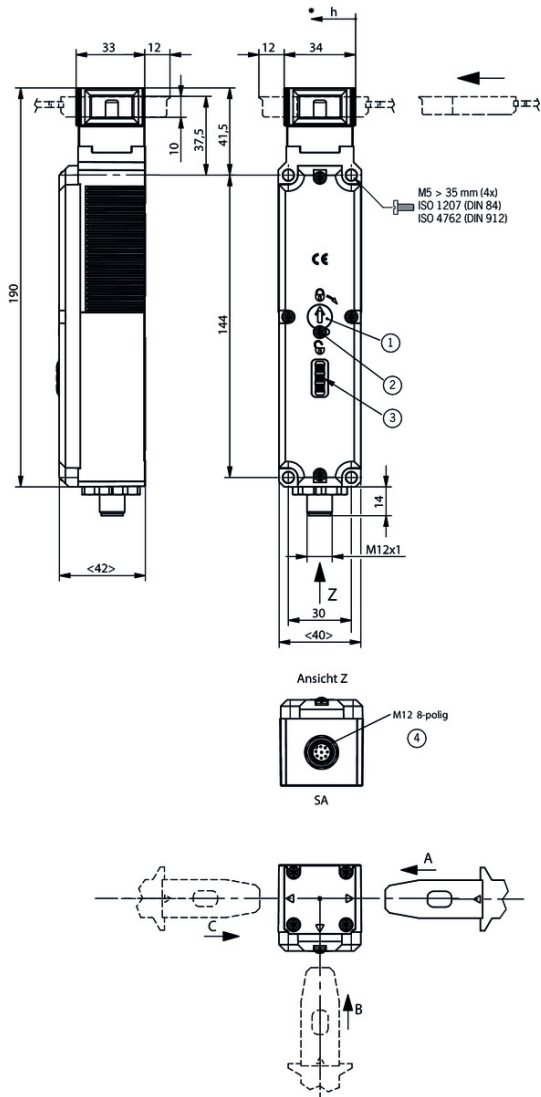
For the approval according to UL the following applies	Operation only with UL class 2 power supply, or equivalent measures see operating instructions
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Reliability values acc. to EN ISO 13849-1

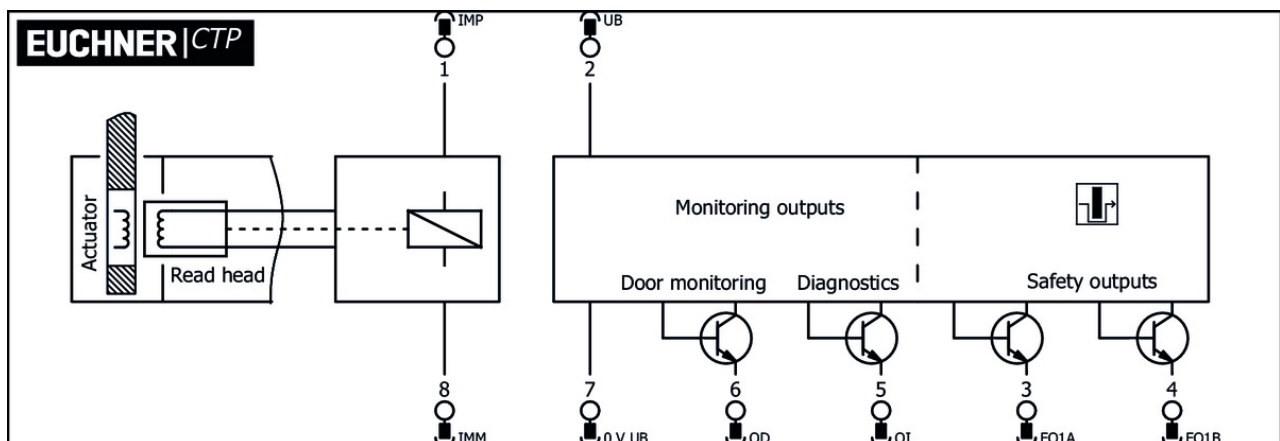
Performance Level	PL e
Category	4
PFH _D	4.1×10^{-9}
Mission time	20 y

- [1] Screwed tight plug connector/mating component
- [2] $F_{zh} = F_{max}/1.3$ Depending on the actuator used
- [3] Applies for a load with $C \leq 30nF$ and $R \leq 20k\Omega$
- [4] Caution: outputs must be protected with a free-wheeling diode in case of inductive loads
- [5] Alternatively see operating instructions

Dimension drawing



Wiring diagram



Actuator

▼ Bent actuator for safety switches CTP



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

▼ Features

- › Actuator bent at top
- › Two safety screws included



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

▼ Features

- › Actuator bent at bottom
- › Two safety screws included

▼ Hinged actuator for safety switch CTP



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

▼ Features

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



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

▼ Features

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



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

▼ Features

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



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

▼ Features

- › 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

▼ Features

- › Straight actuator
- › Two safety screws included

Function expansion

▼ Lockout mechanism CTP



123411 AE-L-C-H-123411

▼ Features

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

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



086236 SCHLOSS TP GLEICHSCHLIESSEND

▼ Features

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



084177 SCHLOSS TP VERSCHIEDENSCHLIESSEND

▼ Features

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



109212 SCHLOSS TP GLEICHSCHLIESSEND C2293

▼ Features

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

▼ Emergency unlocking for safety switches CTP/TP/STP



099877 NOTENTSPERRUNG TP/STP

▼ 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

▼ Features

- › Can be used as escape release or emergency unlocking
 - › No automatic return
 - › Sheath length 2 m (rope length 6 m)
-



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

▼ Features

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



098313 AE-B-A1-03,0-098313

▼ Features

- › Can be used as escape release or emergency unlocking

- › No automatic return
- › Sheath length 3 m (rope length 6 m)



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

✓ Features

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



098314 AE-B-A1-04,0-098314

✓ Features

- › Can be used as escape release or emergency unlocking
- › No automatic return
- › Sheath length 4 m (rope length 6 m)



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

✓ Features

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



125582 AE-B-A1-06,0-125582

✓ Features

- › Can be used as escape release or emergency unlocking
- › No automatic return
- › Rope length 6 m (without sheath)

✓ Handle for wire front release



099795 AY-HDL-099795

✓ Features

- › Suitable for all wire front releases



124204 AY-HDL-124204

✓ Features

- › Suitable for all wire front releases

Mounting accessories

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



093456 EMP-SB

✓ Features

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

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



093458 EMP-B2

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



093457 EMP-B1

▼ Mounting plates AM-P for safety switches CTP



126026 AM-P-126026

▼ Features

- › For vertical and horizontal mounting of safety switch CTP

Connection material

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



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

▼ Features

- › 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

▼ Features

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

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



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

▼ Features

- › 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

▼ Features

- › M12 female plug, 8-pin

- › Angled plug connector
 - › Cable outlet C (left)
 - › PUR cable
 - › Cable length 10 m
 - › With flying lead
-

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



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

▼ Features

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



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

▼ Features

- › 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

▼ Features

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



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

▼ Features

- › 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

▼ Features

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



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

▼ Features

- › 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

▼ Features

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



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

▼ Features

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

Bolt

▼ Bolts for safety switches series CTP



123653 RIEGEL CTP-AC-123653

▼ Features

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

▼ Bolt BTC-CTP-S for safety switch CTP



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

▼ Features

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

▼ Bolt CTP-GFK for safety switch CTP





















123657 RIEGEL CTP-GFK

▼ Features















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

Instructions

▼ Bezpečnostní informace CTP (-AR/-AP)

	Doc. no.	Version	Language	Download
Sicherheitsinformation CTP (-AR/-AP)	2138087	02-11/17		 0.7 MB
Información de seguridad CTP (-AR/-AP)				
Information de sécurité CTP (-AR/-AP)				
Informazioni sulla sicurezza CTP (-AR/-AP)				
Safety Information CTP (-AR/-AP)				
Bezpečnostní informace CTP (-AR/-AP)	2138087	02-11/17		 0.2 MB
安全情報 CTP (-AR/-AP)	2138087	02-11/17		 0.3 MB
Informação de segurança CTP (-AR/-AP)	2138087	02-11/17		 0.2 MB
Информация о безопасности CTP (-AR/-AP)	2138087	02-11/17		 0.3 MB
Güvenlik bilgisi CTP (-AR/-AP)	2138087	02-11/17		 0.3 MB
安全信息 CTP (-AR/-AP)	2138087	02-11/17		 0.3 MB

▼ 操作指示書トランスポンダー型コード化安全スイッチ ガードロック内蔵CTP-AP ユニコード/マルチコード

	Doc. no.	Version	Language	Download
Betriebsanleitung Transpondercodierter Sicherheitsschalter mit Zuhaltung CTP-AP Uni-/Multicode	2124217	05-05/18		 4.2 MB
Mode d'emploi Interrupteur de sécurité à codage par transpondeur avec interverrouillage CTP-AP uni-/multicode	2124217	05-05/18		 4.2 MB
Manual de instrucciones Interruptor de seguridad con codificación por transponder con bloqueo CTP-AP Unicode/Multicode	2124217	05-05/18		 4.2 MB
操作指示書トランスポンダー型コード化安全スイッチ ガードロック内蔵CTP-AP ユニコード/マルチコード	2124217	05-05/18		 4.5 MB
Návod k použití Bezpečnostní spínač s kódovaným transpondérem CTP-AP Unicode/Multicode	2124217	05-05/18		 4.4 MB
Operating instructions Transponder-Coded Safety Switch With Guard Locking CTP-AP Unicode/Multicode	2124217	05-05/18		 4.2 MB
Istruzioni di impiego Finecorsa di sicurezza con codifica a transponder con meccanismo di ritenuta CTP-AP Uni-/Multicode	2124217	05-05/18		 4.2 MB

Catalogs

▼ ガード・ロック付き トランスポンダー・コード化 安全スイッチCTP

	Doc. no.	Version	Language	Download
ガード・ロック付き トランスポンダー・コード化 安全スイッチCTP	136411	09-03/16		1.8 MB

▼ Transpondercodierter Sicherheitsschalter CTP mit Zuhaltung transponder-coded safety switch CTP with guard locking Interrupteur de sécurité à codage par transpondeur CTP avec interverrouillage Interruptor de seguridad CTP codificado por transponder con bloqueo Finecorsa di sicurezza con codifica a transponder CTP con meccanismo di ritenuta Kilitli RFID kodlu emniyet salteri CTP Chave de segurança codificada por transponder CTP com bloqueio Bezpečnostní spínač CTP s kódovaným transpondérem a jištěním ochranného krytu 带锁定功能的 CTP应答式编码 安全开关






	Doc. no.	Version	Language	Download
Transpondercodierter Sicherheitsschalter CTP mit Zuhaltung	123243	12-02/18		2.3 MB
Interrupteur de sécurité à codage par transpondeur CTP avec interverrouillage	123245	12-02/18		2.3 MB
Interruptor de seguridad CTP codificado por transponder con bloqueo	123246	12-02/18		2.3 MB
transponder-coded safety switch CTP with guard locking	123244	12-02/18		2.3 MB
Finecorsa di sicurezza con codifica a transponder CTP con meccanismo di ritenuta	126042	12-02/18		2.3 MB
Kilitli RFID kodlu emniyet salteri CTP	126076	12-02/18		2.4 MB
Chave de segurança codificada por transponder CTP com bloqueio	126214	12-02/18		2.3 MB
Bezpečnostní spínač CTP s kódovaným transpondérem a jištěním ochranného krytu	126604	12-02/18		2.3 MB
带锁定功能的 CTP应答式编码 安全开关	158439	12-02/18		2.4 MB

▼ Transpondercodierte Sicherheitsschalter - Verriegelungseinrichtungen und Zuhaltungen Transponder-coded safety switches - Interlocking devices and guard locking devices Interruptores de seguridad con codificación por transponder - Dispositivos de enclavamiento y bloqueos Interrupteurs de sécurité à codage par transpondeur - Dispositifs de verrouillage et interverrouillages

	Doc. no.	Version	Language	Download
Transpondercodierte Sicherheitsschalter - Verriegelungseinrichtungen und Zuhaltungen	127594	02-01/18		5.2 MB
Interrupteurs de sécurité à codage par transpondeur - Dispositifs de verrouillage et interverrouillages	137558	02-01/18		5.2 MB
Interruptores de seguridad con codificación por transponder - Dispositivos de enclavamiento y bloqueos	137560	02-01/18		5.2 MB
Transponder-coded safety switches - Interlocking devices and guard locking devices	127595	02-01/18		5.1 MB

Declaration of conformity

▼ EU-Konformitätserklärung

	Doc. no.	Version	Language	Download
EU-Konformitätserklärung	2123042	06-08/18		 0.4 MB
EU declaration of conformity				
Declaración UE de conformidad				
Déclaration UE de conformité				
Dichiarazione di conformità			