

ITEM 124468 CTP-L1-AP-U-HA-AZ-SII-124468

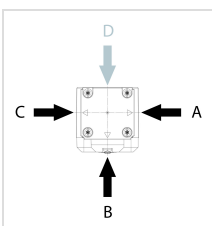
Description	Technical data	Accessories	Downloads
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Features

- › Safety switch with guard locking and integrated evaluation electronics
- › Direct connection to decentralized peripheral systems (e.g. ET200pro)
- › Short circuit monitoring
- › 2 safety outputs (semiconductor outputs)
- › Up to category 4/PL e according to EN ISO 13849-1
- › With 2 plug connectors M12
- › Unicode
- › Approach direction A, B and C (default setting on delivery)

Approach direction



- › Figure
Horizontal
Can be adjusted in 90° steps

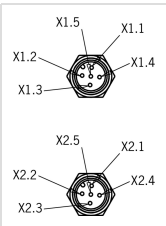


Unicode evaluation

Each actuator is unique. 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 connection cable
	X 1.1	UB	Operating voltage of AP electronics, 24 V DC	BN
	X 1.2	FO1A	Safety output, channel 1 	WH
	X 1.3	0 V UB	Operating voltage of AP electronics, 0 V	BU
	X 1.4	FO1B	Safety output, channel 2 	BK
	X 1.5	-	Not used	GY
	X 2.1	-	Not used	BN
	X 2.2	-	Not used	WH
	X 2.3	IMM	Control input of guard locking solenoid, 0 V	BU
	X 2.4	IMP	Guard locking solenoid control input, 24 V DC	BK
	X 2.5	-	Not used	GY

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	2 plug connectors M12, 5-pin + pin 5 not used
Approach speed	20 m/min
Guard locking principle	Closed-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

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

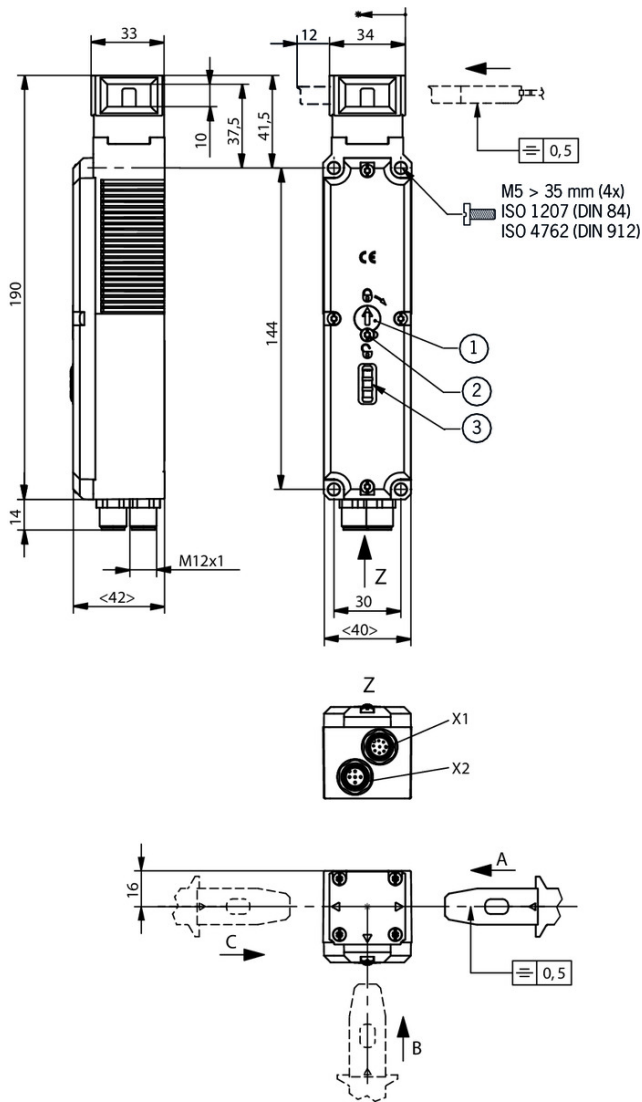
[2] $F_{zh} = F_{max}/1.3$ Depending on the actuator used

[3] Applies for a load with $C \leq 30nF$ and $R \leq 20k\Omega$

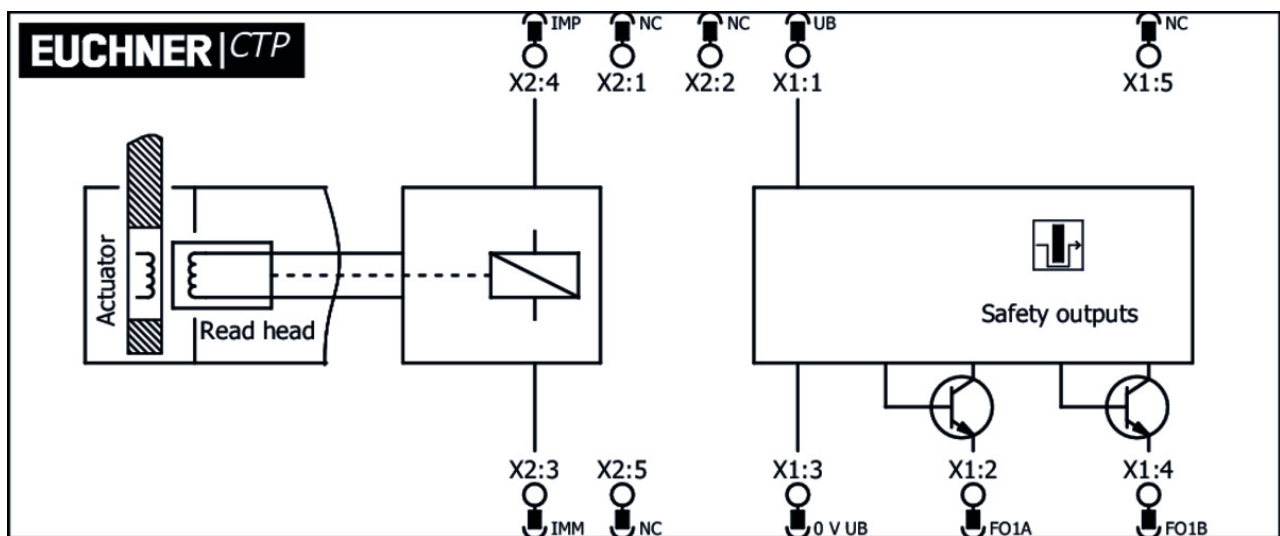
[4] Caution: outputs must be protected with a free-wheeling diode in case of inductive loads

[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



109212 SCHLOSS TP GLEICHSCHLIESSEND C2293

▼ Features

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



084177 SCHLOSS TP VERSCHIEDENSCHLIESSEND

▼ Features

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

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



103110 ENTRIEGELUNG RUECKSTELLEND TP/STP

▼ Emergency unlocking for safety switches CTP/TP/STP



099877 NOTENTSPERRUNG TP/STP

▼ 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

▼ Wire front release



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)



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)



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)



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)



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)



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)



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)

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-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 AM-P for safety switches CTP



126026 AM-P-126026

- ▼ Features

- › For vertical and horizontal mounting of safety switch CTP

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

Connection material

- ▼ Connection cable with 2 plug connectors M12, 5-pin, 20m



119971 C-M12F05-05X034PU20,0-M12M05-119971

- ▼ Features

- › M12 female plug to M12 plug connector, 5-pin
- › Straight female plug and plug connector
- › PUR cable
- › Cable length 20 m



100182 C-M12F05-05X034PV20,0-M12M05-100182

▼ Features

- › M12 female plug to M12 plug connector, 5-pin
- › Straight female plug and plug connector
- › PVC cable
- › Cable length 20 m

▼ Connection cable with 2 plug connectors M12, 5-pin, 10m



119947 C-M12F05-05X034PU10,0-M12M05-119947

▼ Features

- › M12 female plug to M12 plug connector, 5-pin
- › Straight female plug and plug connector
- › PUR cable
- › Cable length 10 m



100181 C-M12F05-05X034PV10,0-M12M05-100181

▼ Features

- › M12 female plug to M12 plug connector, 5-pin
- › Straight female plug and plug connector
- › PVC cable
- › Cable length 10 m

▼ Connection cable with 2 plug connectors M12, 5-pin, 5m



119932 C-M12F05-05X034PU05,0-M12M05-119932

▼ Features

- › M12 female plug to M12 plug connector, 5-pin
- › Straight female plug and plug connector
- › PUR cable
- › Cable length 5 m



100180 C-M12F05-05X034PV05,0-M12M05-100180

▼ Features

- › M12 female plug to M12 plug connector, 5-pin
- › Straight female plug and plug connector
- › PVC cable
- › Cable length 5 m

▼ Connection cable with angled plug connector M12, 5-pin, 10m



113187 C-M12F05-05X025PU10,0-MA-113187

▼ Features

- › M12 female plug, 5-pin
- › Angled plug connector
- › PUR cable
- › Cable length 10 m
- › Cable exit A (right)
- › With flying lead



113190 C-M12F05-05X025PU10,0-MA-113190

▼ Features

- › M12 female plug, 5-pin
 - › Angled plug connector
 - › PUR cable
 - › Cable length 10 m
 - › Cable exit C (left)
 - › With flying lead
-

▼ M12 extension PUR 5-pin, plug connectors at both ends, 10m



115565 C-M12F05-05X025PU10,0-M12M05-115565

▼ Features

- › M12 female plug, 5-pin (angled) to M12 plug connector (straight)
 - › Connectors at both ends
 - › PUR cable
 - › Cable length 10 m
 - › With cable exit A (right)
-



115566 C-M12F05-05X025PU10,0-M12M05-115566

▼ Features

- › M12 female plug, 5-pin (angled) to M12 plug connector (straight)
 - › Connectors at both ends
 - › PUR cable
 - › Cable length 10 m
 - › With cable exit C (left)
-

▼ Connection cable with straight plug connector M12, 5-pin, 20 m



113682 C-M12F05-05X034PU20,0-MA-113682

▼ Features

- › M12 female plug, 5-pin
 - › Straight plug connector
 - › PUR cable
 - › Cable length 20 m
 - › With flying lead
-

▼ Connection cable with straight plug connector M12, 5-pin, 10m



113640 C-M12F05-05X034PU10,0-MA-113640

▼ Features

- › M12 female plug, 5-pin
 - › Straight plug connector
 - › PUR cable
 - › Cable length 10 m
 - › With flying lead
-

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



113620 C-M12F05-05X034PU05,0-MA-113620

▼ Features

- › M12 female plug, 5-pin

- › Straight plug connector
- › PUR cable
- › Cable length 5 m
- › With flying lead



100183 C-M12F05-05X034PV05,0-MA-100183

▼ Features

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

▼ Connection cable with plug connector M12, 5-pin, 10m



100184 C-M12F05-05X034PV10,0-MA-100184

▼ Features

- › M12 female plug, 5-pin
- › Straight plug connector
- › PVC cable
- › Cable length 10 m
- › With flying lead

▼ Connection cable with plug connector M12, 5-pin, 20m



100185 C-M12F05-05X034PV20,0-MA-100185

▼ Features

- › M12 female plug, 5-pin
- › Straight plug connector
- › PVC cable
- › Cable length 20 m
- › With flying lead

▼ Connection cable with straight plug connector M12, 5-pin, 30 m



122784 C-M12F05-05X034PU30,0-MA-122784

▼ Features

- › M12 female plug, 5-pin
- › Straight plug connector
- › PUR cable
- › Cable length 30 m
- › With flying lead

Instructions

▼ Bezpečnostní informace CTP (-AR/-AP)

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 codifi cado por transponder con bloqueo Finecorsa di sicurezza con codifi ca a transponder CTP con meccanismo di ritenuta Kilitli RFID kodlu emniyet salteri CTP Chave de segurança codifi cada por transponder CTP com bloqueio Bezpecnostní spínac CTP s kódovaným transpondérem a jištením ochranného krytu 帶鎖定功能的 CTP应答式編碼 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

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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 EU declaration of conformity Declaración UE de conformidad Déclaration UE de conformité Dichiarazione di conformità	2123042	06-08/18	    	 0.4 MB