

ITEM 110206 CET2-AR-CRA-CH-50X-SH-110206

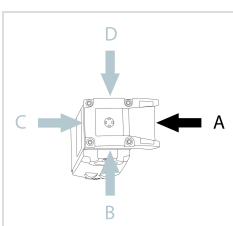
| Description | Technical data | Accessories | Downloads |
|-------------|----------------|-------------|-----------|
|-------------|----------------|-------------|-----------|



Features

- › Safety switch with guard locking and integrated evaluation electronics
- › Locking force up to 6500 N
- › Up to 20 switches in series
- › Short circuit monitoring
- › 2 safety outputs (semiconductor outputs)
- › Up to category 4/PL e according to EN ISO 13849-1
- › With plug connector M23 (RC18)
- › Multicode
- › Approach direction A (default setting on delivery)

Approach direction



- › Figure
Horizontal
Can be adjusted in 90° steps

Safety switch

The device may be operated only in conjunction with the actuator CET-A-....

Important: The actuator must be ordered separately.

Multicode evaluation unit

Every suitable actuator is detected by the switch.

Solenoid operating voltage

› DC 24 V +10% -15%

Guard locking type

CET2 Open-circuit current principle guard locking by solenoid force.

Activation of the guard locking by applying voltage to the guard locking solenoid.

LED function display

LED State Status LED

LED DIA Diagnostic LED

LED 1 rd freely configurable

LED 2 gn freely configurable

Additional connections

OUT Monitoring output (semiconductor)

RST Reset input

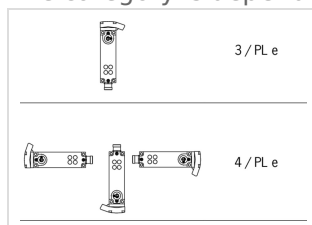
Category according to EN ISO 13849-1

Due to two redundantly designed semiconductor outputs (safety outputs) with internal monitoring suitable for:

› Category 4/PL e according to EN ISO 13849-1

Important: To achieve the stated category in accordance with EN ISO 13849-1, both safety outputs (OA and OB) must be evaluated.

The category is dependent on the installation position of the safety switch:



› Figure

Approvals

Mechanical values and environment

| | | |
|-------------------------|-----------------------|------------------------------------|
| Housing material | | |
| | Slide | Stainless steel |
| | Safety switch housing | Die-cast aluminum |
| Weight | | |
| | Net | 1 kg |
| Ambient temperature | | |
| | At $U_B = 24V$ DC | -20 ... 55 °C |
| Degree of protection | | IP65/IP67 [1] |
| Mechanical life | | 1×10^6 |
| Installation position | | Any [2] |
| Degree of freedom | | |
| | X | ± 5 mm |
| | Y | ± 5 mm |
| | Z | ± 4 mm |
| Ready delay | | 10 s |
| Switching frequency | | max.0,5 Hz |
| Connection | | 1 plug connector M23, 19-pin, RC18 |
| Approach speed | | 20 m/min |
| Guard locking principle | | Open-circuit current principle |
| Locking force F_{max} | | 6500 N |
| Locking force F_{Zh} | | 5000 N |

Electrical connection ratings

| | | |
|--|--|---|
| Operating voltage DC | | |
| | U_B | 24 V DC -15% ... 15% Reverse polarity protected, regulated, residual ripple < 5%, PELV |
| | LED1 , LED2 | 24 V DC -15% ... 10% |
| Current consumption | | |
| | I_B | 80 mA |
| | I_{CM} | 480 mA |
| Utilization category according to EN 60947-5-2 | | |
| | DC-13 | 24V 200mA [3] |
| Solenoid operating voltage DC | | |
| | U_{CM} | 24 V DC -15% ... +10% Reverse polarity protected, regulated, residual ripple < 5%, PELV |
| Fusing | | |
| | External (operating voltage U_B) | 0,25 ... 2 A |
| | External (operating voltage U_{CM}) | 0,5 ... 8 A |
| Power consumption | | |
| | Solenoid | max.14 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 ^[4] |
| Safety outputs OA/OB | |
| Type of output | Semiconductor outputs, p-switching, short circuit-proof |
| Output voltage | High U(OA,OB) UB-1,5V ... UB V DC ^[5] Low U(OA,OB) 0 ... 1 V DC |
| Output current | per safety output 1 ... 200 mA |
| Off-state current I _r | max.0,25 mA |
| Risk time according to EN 60947-5-3 | Single device max.400 ms Delay per device 5 ms |
| Switch-on time | Safety outputs 400 ms |
| Discrepancy time | Both safety outputs max.10 ms |
| Monitoring output OUT | |
| Type of output | Semiconductor output, p-switching, short circuit-proof |
| Output voltage | OUT 0,8xUB ... UB V DC |
| Output current | OUT 1 ... 50 mA |

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 |
|--|--|

Reliability values acc. to EN ISO 13849-1

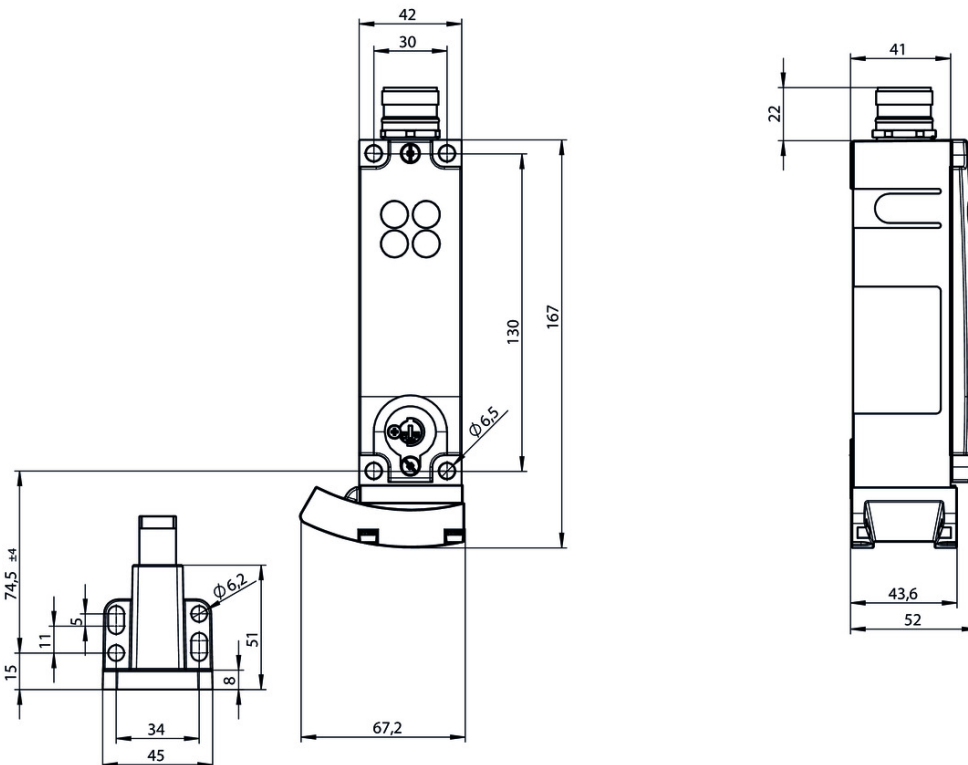
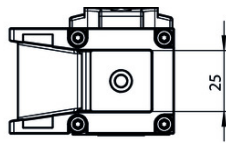
| | |
|----------|--|
| | Monitoring of guard locking and the safety guard position |
| Category | |

| | | |
|-------------------|-----------------------------|-----------------------|
| | Head upward | 3 |
| | Head downward or horizontal | 4 |
| Performance Level | | PL e |
| PFH _D | Head upward | 4.29×10^{-8} |
| | Head downward or horizontal | 3.1×10^{-9} |

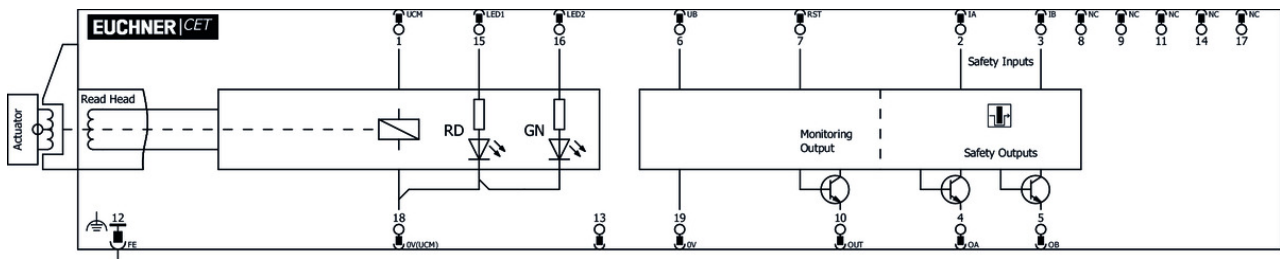
| | |
|--------------|------|
| Mission time | 20 y |
|--------------|------|

- [1] Screwed tight plug connector/mating component
- [2] Preferably head downward
- [3] Caution: outputs must be protected with a free-wheeling diode in case of inductive loads
- [4] For alternatives see operating instructions
- [5] Values at a switching current of 50mA without taking into account the cable lengths

Dimension drawing



Block diagram



Function expansion

- ✓ Emergency unlocking for CET



103714 NOTENTSPERRUNG CET

- ✓ Cover for read head and actuator CET



098807 CET ABDECKUNG LINKS

- ✓ Features

- › Cover for read heads / safety switches CET and actuators CET
- › For approach direction C



098808 CET ABDECKUNG RECHTS

- ✓ Features

- › Cover for read heads / safety switches CET and actuators CET
- › For approach direction A

- ✓ Mechanical key release for CET read head/switch



098850 SCHLUESSEL-HILFSENTRIEGELUNG

- ✓ Features

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

- ✓ Double ramp for safety switch/read head CET



114091 CET-DR

- ✓ Cover for actuator CET



124979 AM-C-124979

- ✓ Features

- › Cover for actuator CET
- › Horizontal and vertical fastening option on the actuator
- › Mounting using 4 screws M5x16 (included with the actuator)
- › Not suitable in combination with lockout bar for actuator CET

▼ Lockout mechanism for CET actuator



122609 AE-L-CET-122609

▼ Features

- › Prevents unintentional closing of the door
- › Can be secured with padlocks
- › Not suitable in combination with cover AM-C for actuator CET



156429 AE-L-CET-156429

▼ Features

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

▼ Holder for lockout mechanism CET actuator



156338 Y-CHN-A1-156338

▼ Features

- › Holder (incl. wire rope) for lockout bar CET

▼ Lockout bar and holder for CET actuators



155865 AE-SET-LCHN-A1-155865

▼ Features

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

Connection material

▼ Connection cable with plug connector M23 with option C1825, 8m, straight



077015 C-M23F19-19XDIFPU08,0-MA-077015

▼ Features

- › M23 plug connector, 18-pin + PE
- › Straight plug connector
- › PUR cable
- › Cable length 8 m
- › With flying lead
- › Cores color-coded

▼ Connection cable with plug connector M23 with option C1825, 3m, angled



092908 C-M23F19-19XDIFPU03,0-MA-092908

▼ Features

- › M23 plug connector, 18-pin + PE
- › Angled plug connector
- › Cable exit C (left)
- › PUR cable
- › Cable length 3 m
- › With flying lead

- › Cores color-coded



092909 C-M23F19-19XDIFPU03,0-MA-092909

▣ Features

- › M23 plug connector, 18-pin + PE
- › Angled plug connector
- › Cable exit A (right)
- › PUR cable
- › Cable length 3 m
- › With flying lead
- › Cores color-coded

- ▣ Connection cable with plug connector M23 with option C1825, 1.5m, straight



092761 C-M23F19-19XDIFPU01,5-MA-092761

▣ Features

- › M23 plug connector, 18-pin + PE
- › Straight plug connector
- › PUR cable
- › Cable length 1.5 m
- › With flying lead
- › Cores color-coded

- ▣ Connection cable with plug connector M23 with option C1825, 3m, straight



092816 C-M23F19-19XDIFPU03,0-MA-092816

▣ Features

- › M23 plug connector, 18-pin + PE
- › Straight plug connector
- › PUR cable
- › Cable length 3 m
- › With flying lead
- › Cores color-coded

- ▣ Connection cable with plug connector M23 with option C1825, 8m, angled



077019 C-M23F19-19XDIFPU08,0-MA-077019

▣ Features

- › RC18 plug connector, 18-pin + PE
- › Angled plug connector
- › Cable exit C (left)
- › PUR cable
- › Cable length 8 m
- › With flying lead
- › Cores color-coded



085195 C-M23F19-19XDIFPU08,0-MA-085195

▣ Features

- › M23 plug connector, 18-pin + PE
- › Angled plug connector
- › Cable exit A (right)
- › PUR cable
- › Cable length 8 m

- › With flying lead
 - › Cores color-coded
-

▼ Female plug RC18 angled



074617 RC18WF

▼ Features

- › Plug connector M23, angled
 - › Number of pins: 19-pin with screen bonding clamp
-

▼ Connection cable with plug connector M23 with option C1825, 6m, straight



077014 C-M23F19-19XDIFPU06,0-MA-077014

▼ Features

- › M23 plug connector, 18-pin + PE
 - › Straight plug connector
 - › PUR cable
 - › Cable length 6 m
 - › With flying lead
 - › Cores color-coded
-

▼ Connection cable with plug connector M23 with option C1825, 10m, straight



092898 C-M23F19-19XDIFPU10,0-MA-092898

▼ Features

- › M23 plug connector, 18-pin + PE
 - › Straight plug connector
 - › PUR cable
 - › Cable length 10 m
 - › With flying lead
 - › Cores color-coded
-

▼ Connection cable with plug connector M23 with option C1825, 15m, straight



077016 C-M23F19-19XDIFPU15,0-MA-077016

▼ Features

- › M23 plug connector, 18-pin + PE
 - › Straight plug connector
 - › PUR cable
 - › Cable length 15 m
 - › With flying lead
 - › Cores color-coded
-

▼ Connection cable with plug connector M23 with option C1825, 20m, straight



092726 C-M23F19-19XDIFPU20,0-MA-092726

▼ Features

- › M23 plug connector, 18-pin + PE
- › Straight plug connector
- › PUR cable
- › Cable length 20 m
- › With flying lead

- › Cores color-coded
-

- ▼ Connection cable with plug connector M23 with option C1825, 25m, straight



092727 C-M23F19-19XDIFPU25,0-MA-092727

▼ Features

- › M23 plug connector, 18-pin + PE
 - › Straight plug connector
 - › PUR cable
 - › Cable length 25 m
 - › With flying lead
 - › Cores color-coded
-

- ▼ Connection cable with plug connector M23 with option C1825, 30m, straight



095993 C-M23F19-19XDIFPU30,0-MA-095993

▼ Features

- › M23 plug connector, 18-pin + PE
 - › Straight plug connector
 - › PUR cable
 - › Cable length 30 m
 - › With flying lead
 - › Cores color-coded
-

- ▼ Connection cable with plug connector M23 with option C1825, 1.5m, angled



092906 C-M23F19-19XDIFPU01,5-MA-092906

▼ Features

- › M23 plug connector, 18-pin + PE
 - › Angled plug connector
 - › Cable exit C (left)
 - › PUR cable
 - › Cable length 1.5 m
 - › With flying lead
 - › Cores color-coded
-



092907 C-M23F19-19XDIFPU01,5-MA-092907

▼ Features

- › M23 plug connector, 18-pin + PE
 - › Angled plug connector
 - › Cable exit A (right)
 - › PUR cable
 - › Cable length 1.5 m
 - › With flying lead
 - › Cores color-coded
-

- ▼ Connection cable with plug connector M23 with option C1825, 6m, angled



077018 C-M23F19-19XDIFPU06,0-MA-077018

▼ Features

- › M23 plug connector, 18-pin + PE
- › Angled plug connector

- › Cable exit C (left)
- › PUR cable
- › Cable length 6 m
- › With flying lead
- › Cores color-coded



085194 C-M23F19-19XDIFPU06,0-MA-085194

▾ Features

- › M23 plug connector, 18-pin + PE
- › Angled plug connector
- › Cable exit A (right)
- › PUR cable
- › Cable length 6 m
- › With flying lead
- › Cores color-coded

▾ Connection cable with plug connector M23 with option C1825, 10m, angled



092901 C-M23F19-19XDIFPU10,0-MA-092901

▾ Features

- › M23 plug connector, 18-pin + PE
- › Angled plug connector
- › Cable exit C (left)
- › PUR cable
- › Cable length 10 m
- › With flying lead
- › Cores color-coded



092902 C-M23F19-19XDIFPU10,0-MA-092902

▾ Features

- › M23 plug connector, 18-pin + PE
- › Angled plug connector
- › Cable exit A (right)
- › PUR cable
- › Cable length 10 m
- › With flying lead
- › Cores color-coded

▾ Connection cable with plug connector M23 with option C1825, 15m, angled



077020 C-M23F19-19XDIFPU15,0-MA-077020

▾ Features

- › M23 plug connector, 18-pin + PE
- › Angled plug connector
- › Cable exit C (left)
- › PUR cable
- › Cable length 15 m
- › With flying lead
- › Cores color-coded



085196 C-M23F19-19XDIFPU15,0-MA-085196

▾ Features

- › M23 plug connector, 18-pin + PE

- › Angled plug connector
 - › Cable exit A (right)
 - › PUR cable
 - › Cable length 15 m
 - › With flying lead
 - › Cores color-coded
-

▼ Connection cable with plug connector M23 with option C1825, 20m, angled



092910 C-M23F19-19XDIFPU20,0-MA-092910

▼ Features

- › M23 plug connector, 18-pin + PE
 - › Angled plug connector
 - › Cable exit C (left)
 - › PUR cable
 - › Cable length 20 m
 - › With flying lead
 - › Cores color-coded
-



092911 C-M23F19-19XDIFPU20,0-MA-092911

▼ Features

- › M23 plug connector, 18-pin + PE
 - › Angled plug connector
 - › Cable exit A (right)
 - › PUR cable
 - › Cable length 20 m
 - › With flying lead
 - › Cores color-coded
-

▼ Connection cable with plug connector M23 with option C1825, 25m, angled



092912 C-M23F19-19XDIFPU25,0-MA-092912

▼ Features

- › M23 plug connector, 18-pin + PE
 - › Angled plug connector
 - › Cable exit C (left)
 - › PUR cable
 - › Cable length 25 m
 - › With flying lead
 - › Cores color-coded
-



092913 C-M23F19-19XDIFPU25,0-MA-092913

▼ Features

- › M23 plug connector, 18-pin + PE
 - › Angled plug connector
 - › Cable exit A (right)
 - › PUR cable
 - › Cable length 25 m
 - › With flying lead
 - › Cores color-coded
-

▼ Female plug RC18 straight



074616 RC18EF

✓ Features

- › Plug connector M23, straight
 - › Number of pins: 19-pin with screen bonding clamp
-

- ✓ Connection cable with plug connector M23 with option C1825, 40m, straight



102490 C-M23F19-19XDIFPU40,0-MA-102490

✓ Features

- › M23 plug connector, 18-pin + PE
 - › Straight plug connector
 - › PUR cable
 - › Cable length 40 m
 - › With flying lead
 - › Cores color-coded
-

- ✓ Female plug RC18 straight with option C1825



077025 RC18EF-C1825

✓ Features

- › Plug connector M23, straight
 - › Number of pins: 19-pin with screen bonding clamp
-

- ✓ Female connector RC18 angled with option C1825



077026 RC18WF-C1825

✓ Features

- › Plug connector M23, angled
 - › Number of pins: 19-pin with screen bonding clamp
-

Actuator

- ✓ Actuator CET-A-BWK-50X



096327 CET-A-BWK-50X

✓ Features

- › Actuator for read head/safety switch CET
 - › Four safety screws M5x16 included
-

Bolt

- ✓ Bolt CET-A-C



104309 RIEGEL CET-A-C

✓ Features

- › Steel bolt
- › In combination with CET
- › For left or right hinged doors
- › Can be locked in open position with padlocks



109672 RIEGEL CET-A-C-C2308

▼ Features

- › Steel bolt
- › In combination with CET
- › For left or right hinged doors
- › Can be locked in open position with padlocks
- › Bolt without door stop, suitable for swing doors

Mounting accessories

▼ Mounting plate EMP-L-... for CET read head/switches



106695 EMP-L-CET

▼ Features

- › Mounting plate for CET read heads/switches
- › For hinged or sliding doors
- › Suitable for aluminum profiles 40 ... 45 mm
- › Horizontal and vertical mounting
- › Suitable for CET with escape release

▼ Mounting plate EM-P switch for safety switch CET



126399 AM-P-126399

▼ Features

- › Mounting plate for CET read heads/switches
- › Direct mounting on aluminum profiles of width 30/40/50 mm
- › Suitable for the mounting plates AM-P-126400 and AM-P-126398

▼ Mounting plate EM-P actuator for safety switch CET



126400 AM-P-126400

▼ Features

- › Mounting plate for CET actuator
- › Suitable for mounting on aluminum profiles of width 30/40/50 mm
- › Suitable for the mounting plates AM-P-126399 and AM-P-126398

▼ Mounting plate EM-P handle for safety switch CET



126398 AM-P-126398

▼ Features

- › Mounting plate with handle (handle included)
- › For hinged or sliding doors
- › Horizontal and vertical assembly circuits possible
- › Suitable for aluminum profiles of width 30/40/50 mm
- › Suitable for the CET mounting plates AM-P-126399 and AM-P-126400

▼ Mounting plate EMP-B-... for actuator CET

106694 EMP-B-CET



Features

- › Mounting plate for actuator CET for hinged or sliding doors
- › Suitable for aluminum profiles 40 ... 45 mm
- › Horizontal and vertical mounting
- › Made of aluminum









Instructions

Bezpečnostní informace CET (-AR/-AP)


| | Doc. no. | Version | Language | Download |
|--|----------|----------|----------|----------|
| Sicherheitsinformation CET (-AR/-AP) | 105517 | 14-01/17 | | 0.7 MB |
| Información de seguridad CET (-AR/-AP) | | | | |
| Information de sécurité CET (-AR/-AP) | | | | |
| Informazioni sulla sicurezza CET (-AR/-AP) | | | | |
| Safety Information CET (-AR/-AP) | | | | |
| Bezpečnostní informace CET (-AR/-AP) | 105517 | 14-01/17 | | 0.2 MB |
| Informação de segurança CET (-AR/-AP) | 105517 | 14-01/17 | | 0.2 MB |
| Güvenlik bilgisi CET (-AR/-AP) | 105517 | 14-01/17 | | 0.3 MB |
| 安全情報 CET (-AR/-AP) | 105517 | 14-01/17 | | 0.6 MB |
| Информация о безопасности CET (-AR/-AP) | 105517 | 14-01/17 | | 0.3 MB |
| 安全信息 CET (-AR/-AP) | 105517 | 14-01/17 | | 0.3 MB |









Návod k použití Bezpečnostní spínač s kódovaným transpondérem a jištěním ochranného krytu CET.-AR-... (Unicode/Multicode)

| | Doc. no. | Version | Language | Download |
|--|----------|----------|----------|----------|
| Betriebsanleitung Transpondercodierter Sicherheitsschalter mit Zuhaltung CET.-AR-... (Uni-/Multicode) | 2110788 | 12-07/18 | | 3.3 MB |
| Mode d'emploi Interrupteur de sécurité à codage par transpondeur avec interverrouillage CET.-AR-... (uni-/multicode) | 2110788 | 12-07/18 | | 3.3 MB |
| Manual de instrucciones Interruptor de seguridad con codificación por transponder con bloqueo CET.-AR-... (Unicode/Multicode) | 2110788 | 12-07/18 | | 3.3 MB |
| Návod k použití Bezpečnostní spínač s kódovaným transpondérem a jištěním ochranného krytu CET.-AR-... (Unicode/Multicode) | 2110788 | 12-07/18 | | 3.6 MB |
| Operating Instructions Transponder-Coded Safety Switch With Guard Locking CET.-AR-... (Unicode/Multicode) | 2110788 | 12-07/18 | | 3.3 MB |
| Istruzioni di impiego Finecorsa di sicurezza con codifica a transponder con meccanismo di ritenuta CET.-AR-... (Unicode/Multicode) | 2110788 | 12-07/18 | | 3.3 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 CET.-AR-... (ユニコード/マルチコード) | 2110788 | 12-07/18 | | 3.7 MB |

| | | | | |
|---|---------|----------|---|--|
| Návod na prevádzku Bezpečnostný spínač kódovaný transpondérom s istením CET.-AR-... (Uni-/Multicode) | 2110788 | 12-07/18 |  |  3.5 MB |
| İşletim kılavuzu Kapalı tutmalı CET.-AR-... (Uni-/Multicode) | 2110788 | 12-07/18 |  |  3.7 MB |
| 使用说明书应答机编码安全开关 CET.-AR-... (特殊/通用编码) | 2110788 | 12-07/18 |  |  3.7 MB |
| Инструкция по эксплуатации Транспондерный предохранительный выключатель с защитной блокировкой CET.-AR-... (Uni-/Multicode) | 2110788 | 12-07/18 |  |  3.8 MB |







Catalogs

-  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 Declaración UE de conformidad Déclaration UE de conformité Dichiarazione di conformità EU declaration of conformity | 2110802 | 10-01/17 |      |  0.3 MB |

CAD data

CAD data for this item on TraceParts