CES-AR-AES-12 (Order no. 098225)

AR evaluation unit CES-AR-AES-12

- Central evaluation of an AR switch chain
- Status of each individual switch can be recognized
- For switch chains of up to 12 devices
- Four individual safe relay contacts
- ▶ Category 4/PLe according to EN ISO 13849-1



Important: A switch chain comprising the following safety switches can be connected to the AR evaluation unit:

CES-AR-C01 / CES-AR-C02 / CES AR-C04 / ESL-AR / CET- AR / CTP-AR

Function

The AR evaluation unit is used to evaluate the individual safety switches in a CES-AR-... switch chain and the safe interruption of a safety circuit.

The unit has two inputs for connection of a CES–AR... switch chain. The safety contacts are switched as a function of the input signals. Downstream parts of the safety circuit can be monitored using a feedback loop.

The switching states of the connected safety switches can be signaled by means of monitoring outputs. If the actuator on one of the safety switches in the switch chain is moved out of the actuating range, the AR evaluation unit opens its contacts and the corresponding monitoring output is reset.

The system is designed so that failures will not result in the loss of the safety function. The occurrence of failures is detected by cyclic self-monitoring at the latest at the next demand to close the safety contacts. The system can be started either manually using a start button or automatically.

Category according to EN ISO 13849-1

Due to two redundant safety paths (relay contacts) with 2 internal, monitored normally open contacts per safety path, suitable for:

• Category 4 / PL e according to EN ISO 13849–1 Each safety path is independently safe.

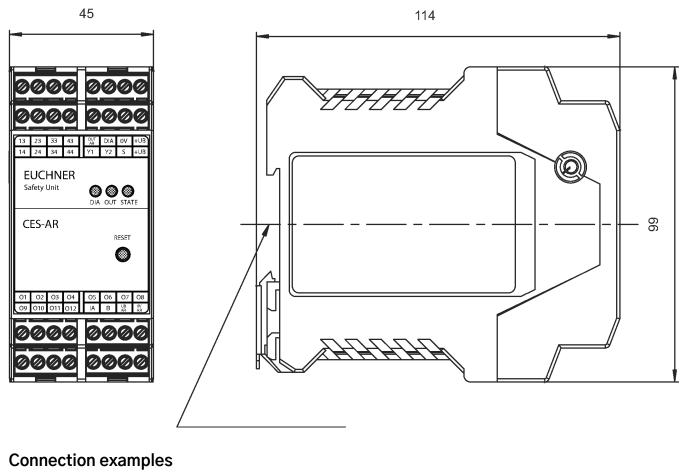
LED indicator

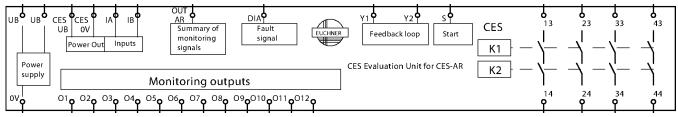
STATE Status LED DIA Diagnostics LED

OUT Safe state/self-test

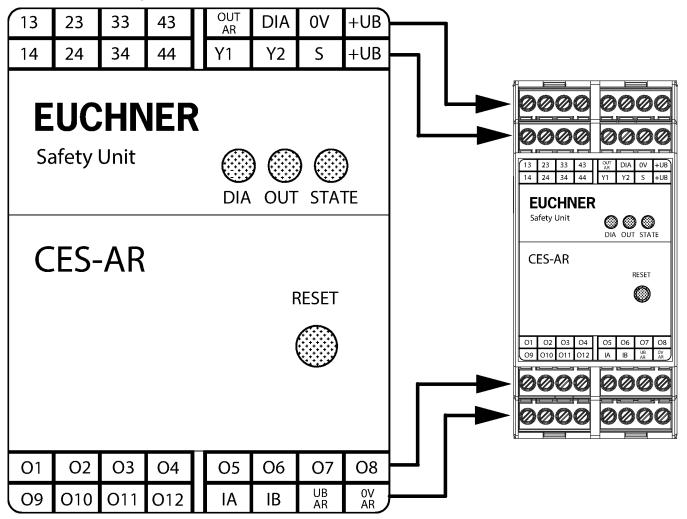
Important: The plug-in connection terminals are not included and must be ordered separately.

Dimensional drawings





Connection examples





Technical data

Approvals



Operating and display elements

LED display

DIA	LED red: fault display
OUT	LED yellow: AR chain status
STATE	LED green: device status

Electrical connection values

Connection cross section	0.14 2.5 mm ²
Rated insulation voltage U _i	250 V
Rated impulse withstand voltage U _{imp}	4 kV
EMC protection requirements	Acc. to EN 60947-5-3
Switching delay from state change	max. 480 ms (Corresponds to the risk time according to EN 60947-5-3. This is the maximum OFF time for the safety outputs following removal of the actuator.)
Degree of contamination (external, according to EN 60947-1)	2
	Y1/Y2
Current via feedback loop	5 8 10 mA
permissible resistance in feedback loop	max. 600 Ω
	01 012
Output type	Semiconductor outputs, p-switching, short circuit proof
Output voltage	
LOW	0 1 V DC
HIGH	UB – 20% UB V DC
Output current	max. 20 mA



Output type	Semiconductor output, p-switching, short circuit proof	
Output voltage		
HIGH	UB – 20 % UB V DC	
LOW	0 1 V DC	
Output current	max. 20 mA	
	DIA	
Output type	Semiconductor output, p-switching, short circuit proof	
Output voltage		
HIGH	UB – 20% UB V DC	
LOW	0 1 V DC	
Output current	max. 20 mA	
	IA, IB	
Number of connectible safety switches	max. 12	
Safety inputs	2 (for CES-AR switch chain)	
	13/14, 23/24, 33/34, 43/44	
Fuse		
external (safety circuit) according to EN 60269-1	6 AgG or 6 A circuit breaker (characteristic B or C)	
Discrepancy time		
between the operating points of both relays	max. 25 ms	
Utilization category		
AC-15	230 V 5 A	
DC-12	30 V 6 A	
AC-12	30 V 6 A	
AC-12	60 V 0.3 A	
DC-12	60 V 0.3 A	
DC-13	24 V 5 A	

Switching current	
Relay outputs (at switching voltage AC/DC 21 60 V	1 300 mA
Relay outputs (at switching voltage AC 5 230 V)	10 5000 mA
Relay outputs (at switching voltage AC/DC 5 30 V)	10 6000 mA
	Start button S
Response delay	
Start button	300 600 ms
Duration of actuation	min. 250 ms
Input voltage	
LOW	0 2 V DC
HIGH	15 UB V DC
Input current	
HIGH	5 8 10 mA
HIGH	5 8 10 mA Power supply 1
HIGH Fuse	
	Power supply 1
Fuse	Power supply 1
Fuse external (operating voltage UB) Operating voltage DC	Power supply 1
Fuse external (operating voltage UB) Operating voltage DC	Power supply 1 2.5 8 A
Fuse external (operating voltage UB) Operating voltage DC U _B	Power supply 1 2.5 8 A
Fuse external (operating voltage UB) Operating voltage DC U _B Current consumption	Power supply 1 2.58A 24 V DC -10% +10% regulated, residual ripple<5%
Fuse external (operating voltage UB) Operating voltage DC U _B Current consumption IB (with relay energized)	Power supply 1 2.58A 24 V DC -10% +10% regulated, residual ripple<5%
Fuse external (operating voltage UB) Operating voltage DC U _B Current consumption IB (with relay energized)	Power supply 1 2.58A 24 V DC -10% +10% regulated, residual ripple<5%

Ready delay

max.8s

(After the operating voltage is switched on, the relay outputs are switched off and the monitoring outputs are set to LOW level during the ready delay. For visual indication of the delay, the green STATE LED flashes at a frequency of approx. 15 Hz.)

Atmospheric humidity		
not condensing	max. 80 % rH	
Mounting type	Mounting rail 35 mm according to EN 60715	
Shock and vibration resistance	Acc. to EN IEC 60947-5-3	
Degree of protection	IP20	
Ambient temperature		
at U _B = DC 24 V	−20 +55 °C	
Material		
Housing	Plastic PA6.6	
	01 012	
Number of monitoring outputs	12	
	13/14, 23/24, 33/34, 43/44	
Number of safety contacts	4 Relay with internally monitored contacts	
Switching frequency	1 Hz (If the current load is>100 mA, a switching frequency of 0.1 Hz should not be exceeded as this will affect the mechanical life of the relay contacts.)	
Mechanical life		

Relay 10 x 10⁶

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

Number of switching cycles			
	\leq 0.1 A at 24 V DC	max. 720000 1/y	
	\leq 1 A at 24 V DC	max. 540000 1/y	
	\leq 3 A at 24 V DC	max. 107000 1/y	
Mission time		20 y (This value is dependent on the number of switching cycles and the switching current.)	
		Monitoring of the guard position	

Category	4 (This value is dependent on the number of switching cycles and the switching current.)
Performance Level	PL e (This value is dependent on the number of switching cycles and the switching current.)
PFH _D	 1.5 x 10⁻⁸ (This value is dependent on the number of switching cycles and the switching current.)

Downloads

All documentation for this material can be found on our website: <u>https://www.euchner.de/en-us/a/098225/?#downloads-tab</u>

Ordering data

Ordernumber	098225
Item designation	CES-AR-AES-12
Gross weight	0,326kg
Customs tariff number	85364110
ECLASS	27-27-24-03 Safety-related transponder switch



Accessories

CES-AR

Non-contact safety switch CES-AR-C01...

098941 CES-AR-C01-AH-SA	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849-1 Unicode
098942 CES-AR-C01-CH-SA	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849-1 Multicode
098582 CES-AR-C01-EH-SA	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849–1 Fixcode evaluation (incl. actuator CES-A-BPA) Actuator CES-A-BPA included

Non-contact safety switch CES-AR-CL2-..., plug connector M12, PUR

115792 CES-AR-CR2-CH-SA-115792	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge right Category 4 / PL e according to EN ISO 13849–1 Connecting cable PUR, 0.15 m, plug connector M12, 8-core Multicode Two safety screws M4x14 included
105747 CES-AR-CL2-CH-SA-105747	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge left Category 4 / PL e according to EN ISO 13849–1 Connecting cable PUR, 1 m, plug connector M12, 8-core Multicode Two safety screws M4x14 included



105748 CES-AR-CL2-AH-SA-105748	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge left Category 4 / PL e according to EN ISO 13849-1 Connecting cable PUR, 1 m, plug connector M12, 8-core Unicode Two safety screws M4x14 included
115793 CES-AR-CL2-CH-SA-115793	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge left Category 4 / PL e according to EN ISO 13849–1 Connecting cable PUR, 0.15 m, plug connector M12, 8-core Multicode Two safety screws M4x14 included

Non-contact safety switch CES-AR-CL2-..., plug connector M8

() () () () () () () () () () () () () (105752 CES-AR-CL2-CH-SG-105752	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge left Category 4 / PL e according to EN ISO 13849–1 Plug connector M8, 8-pin Multicode Two safety screws M4x14 included
Land and a second se	105753 CES-AR-CL2-AH-SG-105753	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge left Category 4 / PL e according to EN ISO 13849–1 Plug connector M8, 8-pin Unicode Two safety screws M4x14 included

Non-contact safety switch CES-AR-CL2-..., with flying lead, PUR

(<mark>)_</mark>	109051 CES-AR-CL2-AH-L10-109051	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge left Category 4 / PL e according to EN ISO 13849–1 Connecting cable PUR, 10 m, flying lead, 8-core Unicode
		Two safety screws M4x14 included

Can and a second	109045 CES-AR-CL2-CH-L05-109045	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge left Category 4 / PL e according to EN ISO 13849–1 Connecting cable PUR, 5 m, flying lead, 8-core Multicode Two safety screws M4x14 included
() <mark>() () () () () () () () () () () () () (</mark>	109049 CES-AR-CL2-CH-L10-109049	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge left Category 4 / PL e according to EN ISO 13849-1 Connecting cable PUR, 10 m, flying lead, 8-core Multicode Two safety screws M4x14 included
	109047 CES-AR-CL2-AH-L05-109047	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge left Category 4 / PL e according to EN ISO 13849-1 Connecting cable PUR, 5 m, flying lead, 8-core Unicode Two safety screws M4x14 included
	109055 CES-AR-CL2-AH-L20-109055	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge left Category 4 / PL e according to EN ISO 13849–1 Connecting cable PUR, 20 m, flying lead, 8-core Unicode Two safety screws M4x14 included

Non-contact safety switch CES-AR-CR2-... , plug connector M12, PUR

105746 CES-AR-CR2-AH-SA-105746	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge right Category 4 / PL e according to EN ISO 13849-1 Connecting cable PUR, 1 m, plug connector M12, 8-core Unicode Two safety screws M4x14 included
--	--



105745 CES-AR-CR2-CH-SA-105745	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge right Category 4 / PL e according to EN ISO 13849–1 Connecting cable PUR, 1 m, plug connector M12, 8-core Multicode Two safety screws M4x14 included
--	--

Non-contact safety switch CES-AR-CR2-..., plug connector M8

(<mark>11)</mark> Competence Notes	105750 CES-AR-CR2-CH-SG-105750	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge right Category 4 / PL e according to EN ISO 13849-1 Plug connector M8, 8-pin Multicode Two safety screws M4x14 included
(Looper real)	105751 CES-AR-CR2-AH-SG-105751	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge right Category 4 / PL e according to EN ISO 13849–1 Plug connector M8, 8-pin Unicode Two safety screws M4x14 included

Non-contact safety switch CES-AR-CR2-..., with flying lead, PUR

	109052 CES-AR-CR2-CH-L20-109052	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge right Category 4 / PL e according to EN ISO 13849–1 Connecting cable PUR, 20 m, flying lead, 8-core Multicode Two safety screws M4x14 included
()	109050	 Safety switch with integrated evaluation
)	CES-AR-CR2-AH-L10-109050	electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge right Category 4 / PL e according to EN ISO 13849–1 Connecting cable PUR, 10 m, flying lead, 8-core Unicode Two safety screws M4x14 included

() (1) (1) (1) (1) (1) (1) (1) (1) (1) (109054 CES-AR-CR2-AH-L20-109054	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge right Category 4 / PL e according to EN ISO 13849–1 Connecting cable PUR, 20 m, flying lead, 8-core Unicode Two safety screws M4x14 included
()	109048 CES-AR-CR2-CH-L10-109048	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge right Category 4 / PL e according to EN ISO 13849-1 Connecting cable PUR, 10 m, flying lead, 8-core Multicode Two safety screws M4x14 included
()	109044	 Safety switch with integrated evaluation
Lander tr	CES-AR-CR2-CH-L05-109044	electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge right Category 4 / PL e according to EN ISO 13849-1 Connecting cable PUR, 5 m, flying lead, 8-core Multicode Two safety screws M4x14 included
()	109046	 Safety switch with integrated evaluation
Loose ex	CES-AR-CR2-AH-L05-109046	electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Door hinge right Category 4 / PL e according to EN ISO 13849-1 Connecting cable PUR, 5 m, flying lead, 8-core Unicode Two safety screws M4x14 included

Non-contact safety switches CES-I-AR-.-C04-..., M12

		119473 CES-I-AR-U-C04-USA-119473	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849-1 Three active faces Connecting cable PUR, 1 m, plug connector M12, 8-core Unicode
--	--	--	--



119479 CES-I-AR-M-C04-USA-119479	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849-1 Three active faces Connecting cable PUR, 1 m, plug connector M12, 8-core Multicode
-------------------------------------	--

Non-contact safety switches CES-I-AR-.-C04-..., M8

• EUC

<u>p</u> u¶	119469	 Safety switch with integrated evaluation
≊	CES-I-AR-U-C04-SG-119469	electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849-1 Three active faces Plug connector M8, 8-pin Unicode
نگر	119474	 Safety switch with integrated evaluation
ع⊻ر ∎	CES-I-AR-M-C04-SG-119474	electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849-1 Three active faces Plug connector M8, 8-pin Multicode

Non-contact safety switches CES-I-AR-.-C04-..., flying lead

119470 CES-I-AR-U-C04-U05-119470	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849-1 Three active faces Connecting cable PUR, 5 m, flying lead, 8-core Unicode
119476 CES-I-AR-M-C04-U10-119476	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849–1 Three active faces Connecting cable PUR, 10 m, flying lead, 8-core Multicode

	119475 CES-I-AR-M-C04-U05-119475	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849-1 Three active faces Connecting cable PUR, 5 m, flying lead, 8-core Multicode
	119471 CES-I-AR-U-C04-U10-119471	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849-1 Three active faces Connecting cable PUR, 10 m, flying lead, 8-core Unicode
	119477 CES-I-AR-M-C04-U20-119477	 Safety switch with integrated evaluation electronics Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849-1 Three active faces Connecting cable PUR, 20 m, flying lead, 8-core Multicode

CET-AR

Non-contact safety switch CET-AR-..., M12

110240 CET2-AR-CRA-AH-50X-SG-110240	 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) Category 4 / PL e according to EN ISO 13849-1 With 2 plug connectors M12 Unicode Teach-in input Approach direction A (delivery state)
105764 CET1-AR-CRA-CH-50S-SG-105764	 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) Category 4 / PL e according to EN ISO 13849-1 With 2 plug connectors M12 Multicode Feedback loop Approach direction A (delivery state)



1034	18	 Safety switch with guard locking and integrated
CET1	-AR-CRA-AH-50X-SG-103418	evaluation electronics Locking force up to 6500 N Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849-1 With 2 plug connectors M12 Unicode Teach-in input Approach direction A (delivery state)
1116	83	 Safety switch with guard locking and integrated
CET4	-AR-CRA-AH-50X-SG-111683	evaluation electronics Locking force up to 6500 N Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849–1 With 2 plug connectors M12 Unicode Door monitoring output Indication of the door position by LED Teach-in input Approach direction A (delivery state)
1136	09	 Safety switch with guard locking and integrated
CET4	-AR-CRA-CH-50X-SG-C2355-113609	evaluation electronics Locking force up to 6500 N Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849-1 With 2 plug connectors M12 Multicode Door monitoring output Indication of the door position by LED Approach direction A (delivery state)
1057	63	 Safety switch with guard locking and integrated
CET1	-AR-CRA-CH-50X-SG-105763	evaluation electronics Locking force up to 6500 N Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849-1 With 2 plug connectors M12 Multicode Approach direction A (delivery state)

(O) - 18

(a) --- : 99

(a) --- : 99



109075 CET2-AR-CRA-AH-50S-SG-109075	 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) Category 4 / PL e according to EN ISO 13849-1 With 2 plug connectors M12 Unicode Feedback loop Approach direction A (delivery state)
105802 CET1-AR-CRA-AH-50S-SG-105802	 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) Category 4 / PL e according to EN ISO 13849-1 With 2 plug connectors M12 Unicode Feedback loop Approach direction A (delivery state)
112992 CET3-AR-CRA-CH-50S-SG-112992	 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) Category 4 / PL e according to EN ISO 13849-1 With 2 plug connectors M12 Multicode Door monitoring output Indication of the door position by LED Feedback loop / start button Approach direction A (delivery state)
110082 CET2-AR-CRA-CH-50X-SG-110082	 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) Category 4 / PL e according to EN ISO 13849-1 With 2 plug connectors M12 Multicode Approach direction A (delivery state)



109401 • Safety switch with guard locking and integrated evaluation electronics CET3-AR-CRA-AH-50X-SG-109401 • Safety switch with guard locking and integrated evaluation electronics · Up to 20 switches in series • Safety switch with guard locking and integrated evaluation electronics · Up to 20 switches in series • Safety switch with guard locking and integrated evaluation electronics · Unicode • Door monitoring output · Indication of the door position by LED • Safety switch with guard locking and integrated evaluation electronics · Up to 20 switches in series • Sofety switch with guard locking and integrated evaluation electronics · Up to 20 switches in series • Sofety switch with guard locking and integrated evaluation el		
CET4-AR-CRA-CH-50X-SG-111684 evaluation electronics Locking force up to 6500 N Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Cetagory 4/PL e according to ENISO 13849-1 With 2 plug connectors M12 Multicode Door monitoring output Indication of the door position by LED Approach direction A (delivery state) Image: Ceta-AR-CRA-CH-50S-SG-113081 Safety switch with guard locking and integrated evaluation electronics Locking force up to 6500 N Up to 20 switches in series Short circuit monitoring Safety outputs (semiconductor outputs) Cetagory 4/PL e according to ENISO 13849-1 With 2 plug connectors M12 Multicode Door monitoring output Safety outputs (semiconductor outputs) Category 4/PL e according to ENISO 13849-1 With 2 plug connectors M12 Vote 20 switches in series Short circuit monitoring Cetago		 evaluation electronics Locking force up to 6500 N Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849–1 With 2 plug connectors M12 Unicode Door monitoring output Indication of the door position by LED Teach-in input
cET4-AR-CRA-CH-50S-SG-113081 evaluation electronics Locking force up to 6500 N Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849-1 With 2 plug connectors M12 Multicode Door monitoring output Indication of the door position by LED Feedback loop / start button Approach direction A (delivery state) I10906 CET3-AR-CRA-CH-50X-SG-110906 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) Category 4 / PL e according to EN ISO 13849-1 With 2 plug connectors M12 With 2 plug connectors M12 Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849-1 With 2 plug connectors M12 With 2 plug connectors M12 Multicode Door monitoring output Indication of the door position by LED		 evaluation electronics Locking force up to 6500 N Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849-1 With 2 plug connectors M12 Multicode Door monitoring output Indication of the door position by LED
 CET3-AR-CRA-CH-50X-SG-110906 Locking force up to 6500 N Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849-1 With 2 plug connectors M12 Multicode Door monitoring output Indication of the door position by LED 		 evaluation electronics Locking force up to 6500 N Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849–1 With 2 plug connectors M12 Multicode Door monitoring output Indication of the door position by LED Feedback loop / start button
• Approach direction A (derivery state)		evaluation electronics Locking force up to 6500 N Up to 20 switches in series Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849–1 With 2 plug connectors M12 Multicode Door monitoring output



Non-contact safety switch CET-AR-..., M12, with double ramp

109231 CET1-AR-CDA-CH-50X-SG-109231	 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) Category 4 / PL e according to EN ISO 13849-1 With 2 plug connectors M12 Multicode With double ramp Approach directions A and C (delivery state)
114090 CET3-AR-CDA-CH-50X-SG-114090	 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) Category 4 / PL e according to EN ISO 13849–1 With 2 plug connectors M12 Multicode Door monitoring output Indication of the door position by LED With double ramp Approach directions A and C (delivery state)
106275 CET1-AR-CDA-AH-50X-SG-106275	 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) Category 4 / PL e according to EN ISO 13849–1 With 2 plug connectors M12 Unicode Teach-in input With double ramp Approach directions A and C (delivery state)
114712 CET4-AR-CDA-CH-50X-SG-114712	 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) Category 4 / PL e according to EN ISO 13849-1 With 2 plug connectors M12 Multicode Door monitoring output Indication of the door position by LED With double ramp Approach directions A and C (delivery state)



Non-contact safety switch CET-AR-..., M12, with escape release

110907 CET3-AR-CRA-CH-50F-SG-110907	 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) Category 4 / PL e according to EN ISO 13849–1 With 2 plug connectors M12 Multicode Door monitoring output Indication of the door position by LED Escape release, 75 mm long Approach direction A (delivery state)
106616 CET1-AR-CRA-AH-50A-SG-106616	 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) Category 4 / PL e according to EN ISO 13849–1 With 2 plug connectors M12 Unicode Feedback loop Escape release, 75 mm long Approach direction A (delivery state)
114650 CET4-AR-CRA-CH-50F-SG-114650	 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) Category 4 / PL e according to EN ISO 13849–1 With 2 plug connectors M12 Multicode Door monitoring output Indication of the door position by LED Escape release, 75 mm long Approach direction A (delivery state)
109941 CET2-AR-CRA-CH-50F-SG-C2312-109941	 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) Category 4 / PL e according to EN ISO 13849–1 With 2 plug connectors M12 Multicode Escape release, 105 mm long Approach direction A (delivery state)



113965 CET3-AR-CRA-AH-50F-SG-113965	 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) Category 4 / PL e according to EN ISO 13849-1 With 2 plug connectors M12 Unicode Door monitoring output Indication of the door position by LED Teach-in input Escape release, 75 mm long Approach direction A (delivery state)
106159 CET1-AR-CRA-AH-50F-SG-106159	 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) Category 4 / PL e according to EN ISO 13849-1 With 2 plug connectors M12 Unicode Teach-in input Escape release, 75 mm long Approach direction A (delivery state)
110241 CET1-AR-CRA-CH-50F-SG-110241	 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) Category 4 / PL e according to EN ISO 13849-1 With 2 plug connectors M12 Multicode Escape release, 75 mm long Approach direction A (delivery state)

Non-contact safety switch CET-AR-..., M12, with wire front release (bowden)

	110114 CET3-AR-CRA-CH-50X-SG-C2290-110114	 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) Category 4 / PL e according to EN ISO 13849–1 With 2 plug connectors M12 Multicode Door monitoring output Indication of the door position by LED Wire front release (bowden), 3 m, automatic return Approach direction A (delivery state)
--	---	--



Ĩ	109015 CET1-AR-CRA-CH-50X-SG-C2290-109015	 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) Category 4 / PL e according to EN ISO 13849–1 With 2 plug connectors M12 Multicode Wire front release (bowden), 3 m, automatic
		return Approach direction A (delivery state)

Non-contact safety switch CET-AR-..., M12, with wire front release (bowden) (3 m)

Ĩ	113139 CET3-AR-CRA-AH-50X-SG-C2290-113139	 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) Category 4 / PL e according to EN ISO 13849–1 With 2 plug connectors M12 Unicode Door monitoring output Indication of the door position by LED Teach-in input Wire front release (bowden), 3 m, automatic return Approach direction A (delivery state)
---	--	--

Non-contact safety switch CET-AR-..., RC18

110204 CET1-AR-CRA-CH-50X-SH-110204	 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) Category 4 / PL e according to EN ISO 13849–1 With plug connector MR23 (RC18) Multicode Approach direction A (delivery state)
110104 CET3-AR-CRA-CH-50X-SH-110104	 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) Category 4 / PL e according to EN ISO 13849–1 With plug connector M23 (RC18) Multicode Door monitoring output Approach direction A (delivery state)



115202 CET3-AR-CRA-AH-50X-SH-C2375-115202	 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) Category 4 / PL e according to EN ISO 13849-1 With plug connector M23 (RC18) Unicode Door monitoring output Approach direction A (delivery state)
124104 CET1-AR-CRA-CH-50F-SH-C2312-124104	 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) Category 4 / PL e according to EN ISO 13849-1 With plug connector M23 (RC18) Multicode Escape release, 105 long Approach direction A (delivery state)
110203 CET1-AR-CRA-AH-50X-SH-110203	 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) Category 4 / PL e according to EN ISO 13849-1 With plug connector M23 (RC18) Unicode Teach-in input Approach direction A (delivery state)
110103 CET3-AR-CRA-AH-50X-SH-110103	 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) Category 4 / PL e according to EN ISO 13849-1 With plug connector M23 (RC18) Unicode Door monitoring output Teach-in input Approach direction A (delivery state)



110201 CET4-AR-CRA-AH-50X-SH-110201	 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) Category 4 / PL e according to EN ISO 13849–1 With plug connector M23 (RC18) Unicode Door monitoring output Teach-in input Approach direction A (delivery state)
110206 CET2-AR-CRA-CH-50X-SH-110206	 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) Category 4 / PL e according to EN ISO 13849–1 With plug connector M23 (RC18) Multicode Approach direction A (delivery state)
110202 CET4-AR-CRA-CH-50X-SH-110202	 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) Category 4 / PL e according to EN ISO 13849–1 With plug connector M23 (RC18) Multicode Door monitoring output Approach direction A (delivery state)
110205 CET2-AR-CRA-AH-50X-SH-110205	 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) Category 4 / PL e according to EN ISO 13849–1 With plug connector M23 (RC18) Unicode Teach-in input Approach direction A (delivery state)



Non-contact safety switch CET-AR-..., RC18, and double ramp

113255 CET1-AR-CDA-CH-50X-SH-113255	 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) Category 4 / PL e according to EN ISO 13849-1 With plug connector M23 (RC18) Multicode With double ramp
	Approach directions A and C (delivery state)

Non-contact safety switch CET-AR-..., RC18, with escape release

110943 CET1-AR-CRA-AH-50F-SH-C2312-110943	 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) Category 4 / PL e according to EN ISO 13849–1 With plug connector M23 (RC18) Unicode Teach-in input Escape release, 105 mm long Approach direction A (delivery state)
116285 CET4-AR-CRA-AH-50F-SH-116285	 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) Category 4 / PL e according to EN ISO 13849–1 With plug connector M23 (RC18) Unicode Door monitoring output Teach-in input Escape release, 75 mm long Approach direction A (delivery state)
113148 CET3-AR-CRA-AH-50F-SH-113148	 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) Category 4 / PL e according to EN ISO 13849–1 With plug connector M23 (RC18) Unicode Door monitoring output Teach-in input Escape release, 75 mm long Approach direction A (delivery state)



	111725 CET3-AR-CRA-AH-50F-SH-C2312-111725	 Safety switch with guard locking and integrated evaluation electronics Locking force up to 6500 N Up to 20 switches in series
Ţ		 Short circuit monitoring 2 safety outputs (semiconductor outputs) Category 4 / PL e according to EN ISO 13849-1 With plug connector M23 (RC18) Unicode Door monitoring output
		 Teach-in input Escape release, 105 mm long Approach direction A (delivery state)

Non-contact safety switch CET-AR-..., RC18, with wire front release (bowden)

113022 CET1-AR-CRA-AH-50X-SH-C2290-113022	 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) Category 4 / PL e according to EN ISO 13849–1 Plug connector M23 (RC18) Unicode Teach-in input Wire front release (bowden), 3 m, automatic return Approach direction A (delivery state)
113024 CET3-AR-CRA-AH-50X-SH-C2290-113024	 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) Category 4 / PL e according to EN ISO 13849–1 Plug connector M23 (RC18) Unicode Door monitoring output Teach-in input Wire front release (bowden), 3 m, automatic return Approach direction A (delivery state)



Non-contact safety switch CET-AR-..., RC18, with wire front release (bowden) (5 m)

114088 CET3-AR-CRA-AH-50X-SH-C2290-114088	 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) Category 4 / PL e according to EN ISO 13849-1 Plug connector M23 (RC18) Unicode Door monitoring output Teach-in input Wire front release (bowden), 5 m, automatic return
	 Approach direction A (delivery state)

Non-contact safety switch CET-AR-..., RC18, with wire front release (bowden) and escape release

	113023	 Safety switch with guard locking and integrated evaluation electronics
	CET3-AR-CRA-AH-50F-SH-C2353-113023	Locking force up to 6500 N
		Up to 20 switches in series
		 Short circuit monitoring
*		 2 safety outputs (semiconductor outputs)
		Category 4 / PL e according to EN ISO 13849–1
		 Plug connector M23 (RC18)
		► Unicode
0		 Door monitoring output
		 Teach-in input
		 With wire front release (bowden), 3 m, automatic return
		 With escape release, 105 mm long
		 Approach direction A (delivery state)

CTP-AR

Transponder-coded safety switch CTP-AR, 2 x M12

123307 CTP-L1-AR-M-HA-AZ-SAB-123307

- Safety switch with guard locking and integrated evaluation electronics
- 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 2 plug connectors M12
- Multicode
- Door monitoring output
- Approach directions A, B and C (delivery state)

122814 CTP-L2-AR-U-HA-AZ-SAB-122814	 Safety switch with guard locking and integrated evaluation electronics 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 2 plug connectors M12 Unicode Door monitoring output Approach directions A, B and C (delivery state)
122812 CTP-L1-AR-U-HA-AZ-SAB-122812	 Safety switch with guard locking and integrated evaluation electronics 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 2 plug connectors M12 Unicode Door monitoring output Approach directions A, B and C (delivery state)
123361 CTP-L2-AR-M-HA-AZ-SAB-123361	 Safety switch with guard locking and integrated evaluation electronics 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 2 plug connectors M12 Multicode Door monitoring output Approach directions A, B and C (delivery state)

Transponder-coded safety switch CTP-AR, 2 x M12, with escape release

ŀ	122813 CTP-L1-AR-U-HA-AE-SAB-122813	 Safety switch with guard locking and integrated evaluation electronics 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 2 plug connectors M12 Unicode Door monitoring output With escape release Approach directions A, B and C (delivery state)
---	---	---



123308 CTP-L1-AR-M-HA-AE-SAB-123308	 Safety switch with guard locking and integrated evaluation electronics 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 2 plug connectors M12 Multicode Door monitoring output With escape release Approach directions A, B and C (delivery state)
	• Approach directions A, B and C (derivery state)

Transponder-coded safety switch CTP-AR, M23

123369 CTP-L2-AR-M-HA-AZ-SH-123369	 Safety switch with guard locking and integrated evaluation electronics 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 Multicode Door monitoring output Approach directions A, B and C (delivery state)
123366 CTP-L2-AR-U-HA-AZ-SH-123366	 Safety switch with guard locking and integrated evaluation electronics 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 Unicode Door monitoring output Approach directions A, B and C (delivery state)
123363 CTP-L1-AR-M-HA-AZ-SH-123363	 Safety switch with guard locking and integrated evaluation electronics 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 Multicode Door monitoring output Approach directions A, B and C (delivery state)



 With plug connector M23 Unicode Door monitoring output Approach directions A, B and C (delivery
--

Transponder-coded safety switch CTP-AR, M23, with escape release

123374 CTP-L1-AR-M-HA-AE-SH-123374	 Safety switch with guard locking and integrated evaluation electronics 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 Multicode Door monitoring output With escape release Approach directions A, B and C (delivery state)
123373 CTP-L1-AR-U-HA-AE-SH-123373	 Safety switch with guard locking and integrated evaluation electronics 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 Unicode Door monitoring output With escape release Approach directions A, B and C (delivery state)

Connection material

Connection kit for evaluation units CES-AZ-.ES-04B and CES-AR-AES-12, screw terminals

	E
200	
14	

104776 CES-EA-TC-AK08-104776

- Plug-in screw terminals for evaluation units CES-AZ-.ES-04B and CES-AR-AES-12
- Coded
- 8 screw terminals included

Connection kit for evaluation units CES-AZ-.ES-04B and CES-AR-AES-12, spring terminals



112629 CES-EA-TC-KK08-112629

- Plug-in spring terminals for evaluation units CES-AZ-.ES-04B and CES-AR-AES-12
- Coded
- ▶ 8 spring terminals included