

## CES-AZ-AES-04B (Order no. 104780)

### Evaluation unit CES-AZ-AES-04B (for 4 read heads)

- ▶ 4 read heads can be connected
- ▶ 2 safety outputs (relay contacts with 2 internally connected NO contacts per output)
- ▶ Start button and feedback loop can be connected
- ▶ Unicode
- ▶ Plug-in connection terminals
- ▶ Category 4 / PL e according to EN ISO 13849-1



### Unicode evaluation

Each actuator is highly coded (unicode). The evaluation unit detects only actuators that have been taught-in. Additional actuators can be taught-in.

Only the last actuator taught-in is detected.

New actuators are taught-in by fitting a jumper.

### Guard lock monitoring

Evaluation units in the series CES-AZ make it possible to use read heads with integrated guard locking for the protection of personnel during overtraveling machine movements. You will find suitable read heads in the accessories

### 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 Safety output status

### Additional connections

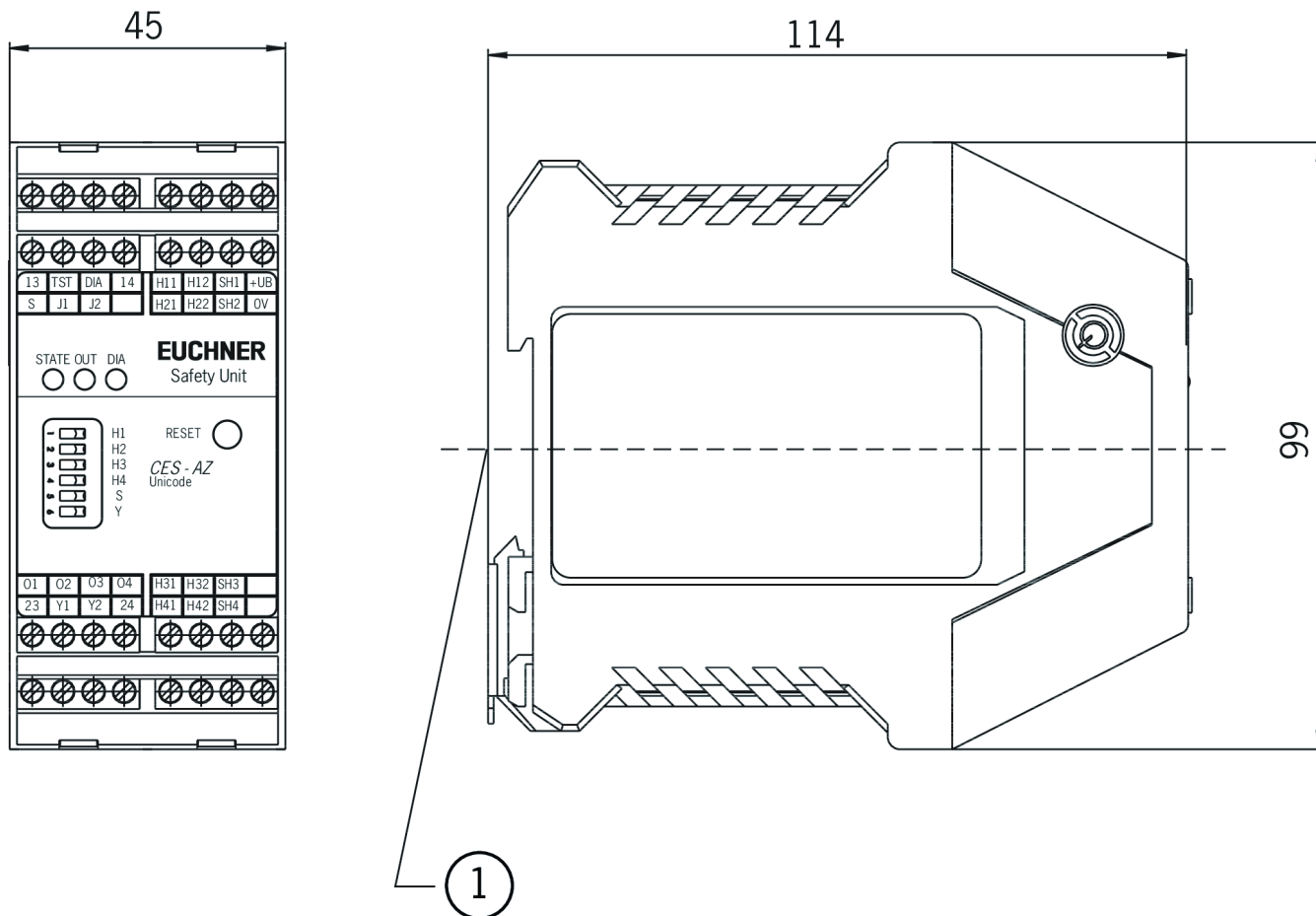
TST Input for self-test

O1 ... O4 Monitoring outputs (semiconductor)

- DIA Diagnostic output
- Y1, Y2 Feedback loop
- J1, J2 Teach-in input
- S Start button connection (monitoring of the falling edge)

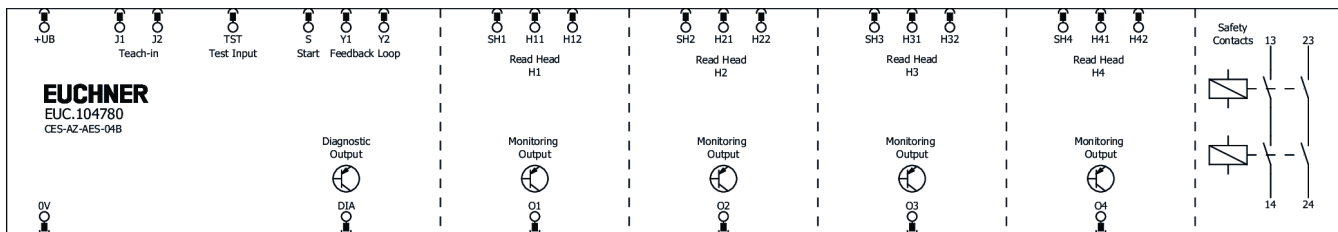
**Important:** The plug-in connection terminals are not included and must be ordered separately.

## Dimensional drawings



1 Suitable for 35 mm mounting rail according to EN 60715

## Connection examples



## Technical data

### Approvals



### Workspace

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

### Operating and display elements

LED display	
	Status LED
	Diagnostics LED
	Safety contacts status

### Electrical connection values

Fuse	
	external (operating voltage $U_B$ ) 0.25 ... 8 A

Connection cross section	
	Plug-in screw / spring terminals 0.25 ... 2.5 mm <sup>2</sup>

Operating voltage DC	
	$U_B$ 21 ... 24 ... 27 V DC regulated, residual ripple < 5%

EMC protection requirements	Acc. to EN IEC 60947-5-3
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Current consumption	
	(with relay energized) 150 mA
	(without taking into account the load currents at the monitoring outputs)

Current via feedback loop	5 ... 8 ... 10 mA
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Degree of contamination (external, according to EN 60947-1)	2
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permissible resistance in feedback loop	max. 600 $\Omega$
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**Inputs: start button S, test input TST**

## Input voltage

LOW	0 ... 2 V DC
HIGH	15 ... UB V DC

## Input current

HIGH	5 ... 8 ... 10 mA
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### Monitoring outputs: diagnostics DIA, door monitoring outputs O1...O4

Output type Semiconductor output, p-switching, short circuit-proof

Output voltage 0.8 x UB ... UB V DC

Switching current max. 20 mA

### Safety contacts 13/14, 23/24

## Fuse

external (safety circuit) according to EN 60269-1 6 AgG or 6 A circuit breaker (characteristic B or C)

Output type Relay contacts, floating

rated conditional short-circuit current 100 A

Rated insulation voltage  $U_i$  250 V

Rated impulse voltage  $U_{imp}$  4 kV

## Discrepancy time

(between the operating points of both relays) max. 25 ms

## Utilization category

AC-15	230 V 2 A
DC-12	60 V 0.3 A
DC-12	30 V 6 A
DC-13	24 V 3 A
AC-12	30 V 6 A
AC-12	60 V 0.3 A

## Switching load

according to c UL us Class 2 max. 30 V AC / Class 2 max. 60V DC

Switching current	
at switching voltage AC/DC 5 ... 30 V	10 ... 6000 mA
at switching voltage AC/DC 21 ... 60 V	1 ... 300 mA
at switching voltage AC 5 ... 230 V	10 ... 2000 mA

## Mechanical values and environment

Connection type	plug-in connection terminals, coded (Terminals not included)
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Number of read heads	max. 4 read heads can be connected
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Ready delay	10 ... 12 s  (After the operating voltage is switched on, the relay outputs are switched off and the door 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.)
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Switching frequency	max. 0.25 Hz  (In case of monitoring with feedback loop, the actuators must remain outside the actuating range, e.g. with a door open, until the feedback loop is closed.)
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Atmospheric humidity	not condensing	max. 80 % rH
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Mounting distance	between evaluation units	min. 10 mm
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Mounting type	TH 35 mounting rail (EN IEC 60715)
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Response time		
Start button response delay (for Manual start operating mode)		200 ... 300 ms
after change in the actuation status, 2 active actuators		max. 290 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. In case of EMC interference in excess of the requirements in accordance with EN 60947-5-3, the OFF time can increase to max. 750 ms. After brief actuation)
after change in the actuation status, 3 active actuators		max. 370 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. In case of EMC interference in excess of the requirements in accordance with

EN 60947-5-3, the OFF time can increase to max. 750 ms. After brief actuation

after change in the actuation status, 4 active actuators

max. 450 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. In case of EMC interference in excess of the requirements in accordance with EN 60947-5-3, the OFF time can increase to max. 750 ms. After brief actuation

after change in the actuation status, 1 active actuator

max. 210 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. In case of EMC interference in excess of the requirements in accordance with EN 60947-5-3, the OFF time can increase to max. 750 ms. After brief actuation

Start button actuating duration (for Manual Start operating mode)

min. 250 ms

Degree of protection	IP20
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Ambient temperature

with  $U_B = 24 \text{ V DC}$  -20 ... +55 °C

Dwell time	min. 3 s (The dwell time is the time that the actuator must be outside the actuating range.)
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Material

Housing Plastic PA6.6

### Safety contacts 13/14, 23/24

Number of safety contacts 2 Relay with internally monitored contacts

Mechanical life	Operating cycles (relay) 10 x 10 <sup>6</sup>
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### Characteristic values according to EN ISO 13849-1 and EN IEC 62061

		PL	Maximum SIL	PFH <sub>D</sub>	Category	Mission time
Monitoring of the guard position	Read head	PL e	-	1.9x10 <sup>-8</sup>	4	20 y
	CES-A-L.. CEM-A-L..					
		Only applies for switching voltage 24V DC and switching current up to 0.1 A (max. switching cycles 760,000 1/y) OR up to 1 A (max. switching cycles 153,000 1/y ) OR up to 3 A (max. switching cycles 34,600 1/y)				

Monitoring of guard locking	Read head CET.-AX	PL e	–	$1.9 \times 10^{-8}$	4	20 y
		Only applies for switching voltage 24V DC and switching current up to 0.1 A (max. switching cycles 760,000 1/y) OR up to 1 A (max. switching cycles 153,000 1/y ) OR up to 3 A (max. switching cycles 34,600 1/y)				
Safe key detection	Read head CKS-A-L..	PL e	–	$1.9 \times 10^{-8}$	4	20 y
		Only applies for switching voltage 24V DC and switching current up to 0.1 A (max. switching cycles 760,000 1/y) OR up to 1 A (max. switching cycles 153,000 1/y ) OR up to 3 A (max. switching cycles 34,600 1/y)				

		PL	Maximum SIL	Category	Mission time
Control of guard locking	Read head CET1-AX	Depending on external control of guard locking			20 y

### Miscellaneous

Notices for UL approval	Operation only with UL Class 2 power supply or equivalent measures
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### In combination with read head CES-A-LMN-SC and actuator CES-A-BMB

Actuator distance s	
Minimum distance for side approach direction	min. 1.2 mm
Switch-on distance	
with center offset m=0	5 mm (for non-flush mounting; assembly of the read head in steel)
Secured switch-off distance $s_{ar}$	max. 10 mm
Secured switching distance $s_{ao}$	
with center offset m=0	min. 3.5 mm (for non-flush mounting; assembly of the read head in steel)
Switching hysteresis	
0.1 ... 0.3 mm (for non-flush mounting; assembly of the read head in steel)	

## In combination with read head CES-A-LMN-SC

Mounting distance	
between read heads	min. 20 mm

## In combination with read head CES-A-LQA-SC

Mounting distance	
between read heads	min. 80 mm

## In combination with read head CES-A-LMN-SC and actuator CES-A-BDA-20

Switch-on distance	
with center offset $m=0$	9 mm A distance of $s = 4$ mm must be maintained for a side approach direction. (with non-flush mounting of the read head in metal and metal-free mounting of the actuator)

### Secured switch-off distance $s_{ar}$

with center offset $m=0$	max. 26 mm (with non-flush mounting of the read head in metal and metal-free mounting of the actuator)
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### Secured switching distance $s_{ao}$

with center offset $m=0$	min. 6 mm (with non-flush mounting of the read head in metal and metal-free mounting of the actuator)
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### Switching hysteresis

with center offset $m=0$	1 ... 1.8 mm (with non-flush mounting of the read head in metal and metal-free mounting of the actuator)
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## In combination with read head CES-A-LSP-05V-104966 and actuator CES-A-BSP-104970

Switch-on distance	
with center offset $m=0$	20 mm (when mounting; assembly of the read head and actuator in an aluminum profile 45 x 45 mm)

### Secured switch-off distance $s_{ar}$

max. 45 mm

### Secured switching distance $s_{ao}$

with center offset  $m=0$

	min. 10 mm (when mounting; assembly of the read head and actuator in an aluminum profile 45 x 45 mm)
Switching hysteresis	1 ... 4 mm (when mounting; assembly of the read head and actuator in an aluminum profile 45 x 45 mm)

### In combination with read head CES-A-LQA-SC and actuator CES-A-BQA

Switch-on distance	
for side approach direction (distance in x direction 10 mm)	+/- 28 mm (for non-flush mounting; assembly of the read head and the actuator)
with vertical approach direction (center offset m = 0)	23 mm (for non-flush mounting; assembly of the read head and the actuator)

Secured switch-off distance  $s_{ar}$  max. 60 mm

Secured switching distance $s_{ao}$	
for side approach direction (distance in x direction 10 mm)	min. +/- 24 mm (for non-flush mounting; assembly of the read head and the actuator)
with vertical approach direction (center offset m = 0)	min. 16 mm (for non-flush mounting; assembly of the read head and the actuator)

Switching hysteresis

for side approach direction (distance in x direction 10 mm)	1 ... 1.3 mm (for non-flush mounting; assembly of the read head and the actuator)
with vertical approach direction (center offset m = 0)	2 ... 3 mm (for non-flush mounting; assembly of the read head and the actuator)

### In combination with read head CES-A-LNN-SC-106601, CES-A-LNN-05V-106602, CES-A-LNN-10V-113294, CES-A-LNN-25V-115107 and actuator CES-A-BDN-06-104730

Switch-on distance	
in z-direction (with center offset x,y = 0), in x-direction (with center offset y,z = 0)	19 mm (for non-flush mounting; assembly of the read head and the actuator)

Secured switch-off distance  $s_{ar}$

in x or z direction	max. 50 mm
in y direction	max. 100 mm

## Secured switching distance $s_{ao}$

in z-direction (with center offset $x, y = 0$ ), in x-direction (with center offset $y, z = 0$ )	min. 14 mm (for non-flush mounting; assembly of the read head and the actuator)
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Switching hysteresis	4 mm (for non-flush mounting; assembly of the read head and the actuator)
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**In combination with read head CES-A-LNA-SC-077715, CES-A-LNA-05P-077806, CES-A-LNA-10P-077807, CES-A-LNA-05V-071845, CES-A-LNA-10V-071846, CES-A-LNA-15V-071847, CES-A-LNA-25V-071975, CES-A-LNA-15P-084682, CES-A-LCA-10V and actuator CES-A-BBA-071840, CES-A-BCA**

## Actuator distance $s$

Minimum distance for side approach direction	min. 3 mm
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## Switch-on distance

with center offset $m=0$	15 mm (for non-flush mounting; assembly of the read head and the actuator)
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Secured switch-off distance $s_{ar}$	max. 26 mm
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## Secured switching distance $s_{ao}$

with center offset $m=0$	min. 10 mm (for non-flush mounting; assembly of the read head and the actuator)
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Switching hysteresis	0.5 ... 2 mm (for non-flush mounting; assembly of the read head and the actuator)
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**In combination with read head CES-A-LNN-SC-106601, CES-A-LNN-05V-106602, CES-A-LNN-10V-113294, CES-A-LNN-25V-115107**

## Mounting distance

between read heads	min. 160 mm
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**In combination with read head CES-A-LNA-SC-077715, CES-A-LNA-05P-077806, CES-A-LNA-10P-077807, CES-A-LNA-05V-071845, CES-A-LNA-10V-071846, CES-A-LNA-15V-071847, CES-A-LNA-25V-071975, CES-A-LNA-15P-084682, CES-A-LCA-10V**

## Mounting distance

between read heads	min. 50 mm
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## In combination with read head CES-A-LQA-SC and actuator CES-A-BBA-071840, CES-A-BCA

Switch-on distance	
for side approach direction (distance in x direction 8 mm)	+/- 22 mm (for non-flush mounting; assembly of the read head and the actuator)
with vertical approach direction (center offset m = 0)	15 mm (for non-flush mounting; assembly of the read head and the actuator)
Secured switch-off distance $s_{ar}$	max. 47 mm
Secured switching distance $s_{ao}$	
with vertical approach direction (center offset m = 0)	min. 10 mm (for non-flush mounting; assembly of the read head and the actuator)
for side approach direction (distance in x direction 8 mm)	min. +/- 18 mm (for non-flush mounting; assembly of the read head and the actuator)
Switching hysteresis	
for side approach direction (distance in x direction 8 mm)	1 ... 1.8 mm (for non-flush mounting; assembly of the read head and the actuator)
with vertical approach direction (center offset m = 0)	2 ... 3 mm (for non-flush mounting; assembly of the read head and the actuator)

## In combination with read head CES-A-LMN-SC and actuator CES-A-BDA-18-156935

Actuator distance s	
Minimum distance for side approach direction	min. 3 mm
Switch-on distance	
with center offset m=0	9 mm (for non-flush mounting; assembly of the read head and the actuator)
Secured switch-off distance $s_{ar}$	max. 21 mm
Secured switching distance $s_{ao}$	
with center offset m=0	min. 6 mm (for non-flush mounting; assembly of the read head and the actuator)
Switching hysteresis	
with center offset m=0	0.5 ... 1 mm (for non-flush mounting; assembly of the read head and the actuator)

## In combination with read head CES-A-LMN-SC and actuator CES-A-BBA-071840

Switch-on distance	
with center offset $m=0$	8 mm A distance of $s = 3$ mm must be maintained for a side approach direction. (with non-flush mounting of the read head in metal and metal-free mounting of the actuator)

### Secured switch-off distance $s_{ar}$

with center offset $m=0$	max. 25 mm (with non-flush mounting of the read head in metal and metal-free mounting of the actuator)
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Secured switching distance $s_{ao}$	
with center offset $m=0$	min. 5 mm (with non-flush mounting of the read head in metal and metal-free mounting of the actuator)

### Switching hysteresis

with center offset $m=0$	1 ... 1.8 mm (with non-flush mounting of the read head in metal and metal-free mounting of the actuator)
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## In combination with read head CES-A-LNN-SC-106601, CES-A-LNN-05V-106602, CES-A-LNN-10V-113294, CES-A-LNN-25V-115107 and actuator CES-A-BBN-106600

Switch-on distance	
in z-direction (with center offset $x,y = 0$ ), in x-direction (with center offset $y,z = 0$ )	15 mm (for non-flush mounting; assembly of the read head and the actuator)

### Secured switch-off distance $s_{ar}$

in x or z direction	max. 50 mm
in y direction	max. 100 mm

Secured switching distance $s_{ao}$	
in z-direction (with center offset $x,y = 0$ ), in x-direction (with center offset $y,z = 0$ )	min. 10 mm (for non-flush mounting; assembly of the read head and the actuator)

### Switching hysteresis

1 ... 4 mm (for non-flush mounting; assembly of the read head and the actuator)
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In combination with read head CES-A-LNA-SC-077715, CES-A-LNA-05P-077806, CES-A-LNA-10P-077807, CES-A-LNA-05V-071845, CES-A-LNA-10V-071846, CES-A-LNA-15V-071847, CES-A-LNA-25V-071975, CES-A-LNA-15P-084682, CES-A-LCA-10V and actuator CES-A-BDA-18-156935

Actuator distance  $s$

Minimum distance for side approach direction	min. 5 mm
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Switch-on distance

with center offset $m=0$	16 mm
	(for non-flush mounting; assembly of the read head and the actuator)

Secured switch-off distance $s_{ar}$	max. 32 mm
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Secured switching distance  $s_{ao}$

with center offset $m=0$	min. 10 mm
	(for non-flush mounting; assembly of the read head and the actuator)

Switching hysteresis

with center offset $m=0$	0.5 ... 1.4 mm
	(for non-flush mounting; assembly of the read head and the actuator)

In combination with read head CES-A-LNA-SC-077715, CES-A-LNA-05P-077806, CES-A-LNA-10P-077807, CES-A-LNA-05V-071845, CES-A-LNA-10V-071846, CES-A-LNA-15V-071847, CES-A-LNA-25V-071975, CES-A-LNA-15P-084682, CES-A-LCA-10V and actuator CES-A-BDA-20

Actuator distance  $s$

Minimum distance for side approach direction	min. 4 mm
	(on mounting in non-metallic environment)

Switch-on distance

with center offset $m=0$	16 mm
	(on mounting in non-metallic environment)

Secured switch-off distance $s_{ar}$	max. 33 mm
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Secured switching distance  $s_{ao}$

with center offset $m=0$	min. 11 mm
	(on mounting in non-metallic environment)

Switching hysteresis

	0.5 ... 2 mm
	(on mounting in non-metallic environment)

## Downloads

All documentation for this material can be found on our website:

<https://www.euchner.de/en-us/a/104780/?#downloads-tab>

**Ordering data**

Ordernumber	104780
Item designation	CES-AZ-AES-04B
Gross weight	0,302kg
Global Trade Item Number (GTIN)	4047048005686
Customs tariff number	85364110
ECLASS	27-27-24-03 Safety-related transponder switch

## Accessories

### CEM read heads

#### Read head CEM-A-LE05... with guard locking without guard lock monitoring with remanence



**094800**

CEM-A-LE05K-S2

- ▶ Read head with guard locking without guard lock monitoring
- ▶ Locking force 650 N
- ▶ With remanence
- ▶ Up to category 4 according to EN ISO 13849-1
- ▶ Two safety screws M5x16 included



**102821**

CEM-A-LE05K-S1-10P

- ▶ Read head with guard locking without guard lock monitoring
- ▶ Locking force 650 N
- ▶ With remanence
- ▶ CES evaluation unit connection: 10 m cable, PUR
- ▶ Connection for solenoid operating voltage: M8 male plug
- ▶ Up to category 4 according to EN ISO 13849-1

#### Read head CEM-A-LE05... with guard locking without guard lock monitoring with remanence, permanent magnet



**158763**

CEM-A-LE05K-S2-P-158763

- ▶ Read head with guard locking without guard lock monitoring
- ▶ Locking force 650 N
- ▶ With permanent magnet 30 N
- ▶ Up to category 4 according to EN ISO 13849-1
- ▶ Two safety screws M5x16 included

#### Read head CEM-A-LE05... with guard locking without guard lock monitoring without remanence



**095792**

CEM-A-LE05R-S2

- ▶ Read head with guard locking without guard lock monitoring
- ▶ Locking force 650 N
- ▶ Without remanence
- ▶ Up to category 4 according to EN ISO 13849-1
- ▶ Two safety screws M5x16 included

#### Read head CEM-A-LE05H-S2... with guard locking without guard lock monitoring with adjustable adhesive force



**104606**

CEM-A-LE05H-S2-104606

- ▶ Read head with guard locking without guard lock monitoring
- ▶ Locking force 650 N
- ▶ Adjustable adhesive force
- ▶ Up to category 4 according to EN ISO 13849-1
- ▶ Two safety screws M5x16 included

## Read head CEM-A-LH10K-S2... with guard locking without guard lock monitoring with retentivity



**102822**

CEM-A-LH10K-S2-10V

- ▶ Read head with guard locking without guard lock monitoring
- ▶ Locking force 1000 N
- ▶ With remanence
- ▶ CES evaluation unit connection: 10 m cable, PVC
- ▶ Connection for solenoid operating voltage: M8 male plug
- ▶ LED indicator connection: M8 female plug
- ▶ Up to category 4 according to EN ISO 13849-1

## Read head CEM-A-LH10K-S3 with guard locking without guard lock monitoring with remanence



**095170**

CEM-A-LH10K-S3

- ▶ Read head with guard locking without guard lock monitoring
- ▶ Locking force 1000 N
- ▶ With remanence
- ▶ Up to category 4 according to EN ISO 13849-1

## Read head CEM-A-LH10R-S3 with guard locking without guard lock monitoring without remanence



**095793**

CEM-A-LH10R-S3

- ▶ Read head with guard locking without guard lock monitoring
- ▶ Locking force 1000 N
- ▶ Without remanence
- ▶ Up to category 4 according to EN ISO 13849-1

## CES read heads

### Read head CES-A-LCA..., hard-wired encapsulated cable 10 m, PVC



**088785**

CES-A-LCA-10V

- ▶ Cube-shaped design 42 x 25 mm
- ▶ Hard-wired encapsulated cable made of PVC
- ▶ Cable length 10 m
- ▶ Two safety screws M4x14 included

### Read head CES-A-LMN-SC, M8 plug connector



**077790**

CES-A-LMN-SC

- ▶ Cylindrical design M12
- ▶ M8 plug connector

### Read head CES-A-LNA-SC, M8 plug connector



**077715**

CES-A-LNA-SC-077715

- ▶ Cube-shaped design 42 x 25 mm
- ▶ With plug connector M8
- ▶ Two safety screws M4x14 included

### Read head CES-A-LNA..., hard-wired encapsulated cable 10 m, PUR



**077807**

CES-A-LNA-10P-077807

- ▶ Cube-shaped design 42 x 25 mm
- ▶ Hard-wired encapsulated cable made of PUR
- ▶ Cable length 10 m
- ▶ Two safety screws M4x14 included

## Read head CES-A-LNA..., hard-wired encapsulated cable 10 m, PVC



**071846**

CES-A-LNA-10V-071846

- ▶ Cube-shaped design 42 x 25 mm
- ▶ Hard-wired encapsulated cable made of PVC
- ▶ Cable length 10 m
- ▶ Two safety screws M4x14 included

## Read head CES-A-LNA..., hard-wired encapsulated cable 15 m, PUR



**084682**

CES-A-LNA-15P-084682

- ▶ Cube-shaped design 42 x 25 mm
- ▶ Hard-wired encapsulated cable made of PUR
- ▶ Cable length 15 m
- ▶ Two safety screws M4x14 included

## Read head CES-A-LNA..., hard-wired encapsulated cable 15 m, PVC



**071847**

CES-A-LNA-15V-071847

- ▶ Cube-shaped design 42 x 25 mm
- ▶ Hard-wired encapsulated cable made of PVC
- ▶ Cable length 15 m
- ▶ Two safety screws M4x14 included

## Read head CES-A-LNA..., hard-wired encapsulated cable 25 m, PVC



**071975**

CES-A-LNA-25V-071975

- ▶ Cube-shaped design 42 x 25 mm
- ▶ Hard-wired encapsulated cable made of PVC
- ▶ Cable length 25 m
- ▶ Two safety screws M4x14 included

## Read head CES-A-LNA..., hard-wired encapsulated cable 5 m, PUR



**077806**

CES-A-LNA-05P-077806

- ▶ Cube-shaped design 42 x 25 mm
- ▶ Hard-wired encapsulated cable made of PUR
- ▶ Cable length 5 m
- ▶ Two safety screws M4x14 included

## Read head CES-A-LNA..., hard-wired encapsulated cable 5 m, PVC



**071845**

CES-A-LNA-05V-071845

- ▶ Cube-shaped design 42 x 25 mm
- ▶ Hard-wired encapsulated cable made of PVC
- ▶ Cable length 5 m
- ▶ Two safety screws M4x14 included

## Read head CES-A-LNN-...hard-wired encapsulated cable 10 m, PVC



**113294**

CES-A-LNN-10V-113294

- ▶ Cube-shaped design 42 x 25 mm
- ▶ Mounting compatible with series CES-A-LNA/LCA
- ▶ LED for indicating the door position
- ▶ Hard-wired encapsulated cable, PVC
- ▶ Cable length 10 m

## Read head CES-A-LNN-...hard-wired encapsulated cable 25 m, PVC



**115107**

CES-A-LNN-25V-115107

- ▶ Cube-shaped design 42 x 25 mm
- ▶ Mounting compatible with series CES-A-LNA/LCA
- ▶ LED for indicating the door position
- ▶ Hard-wired encapsulated cable, PVC
- ▶ Cable length 25 m

## Read head CES-A-LNN-...hard-wired encapsulated cable 5 m, PVC



**106602**

CES-A-LNN-05V-106602

- ▶ Cube-shaped design 42 x 25 mm
- ▶ Mounting compatible with series CES-A-LNA/LCA
- ▶ LED for indicating the door position
- ▶ Hard-wired encapsulated cable, PVC
- ▶ Cable length 5 m

## Read head CES-A-LNN-SC... M8 plug connector



**106601**

CES-A-LNN-SC-106601

- ▶ Cube-shaped design 42 x 25 mm
- ▶ Mounting compatible with series CES-A-LNA/LCA
- ▶ LED for indicating the door position
- ▶ With plug connector M8

## Read head CES-A-LQA-SC, M8 plug connector



**095650**

CES-A-LQA-SC

- ▶ Cube-shaped design 50 x 50 mm
- ▶ M8 plug connector
- ▶ Two safety screws M4x14 included

## Read head CES-A-LSP-..., hard-wired encapsulated cable, 5 m, PVC



**104966**

CES-A-LSP-05V-104966

- ▶ Optimized for aluminum profile mounting
- ▶ LED for indicating the door position
- ▶ Hard-wired encapsulated cable made of PVC
- ▶ Cable length 5 m

## CET-AX read heads

### Read head CET1-AX-... M12, with guard locking and guard lock monitoring, 2 freely configurable LEDs



**104062**

CET1-AX-LRA-00-50L-SA

- ▶ Read head with guard locking
- ▶ Locking force up to 6500 N
- ▶ Category 4 / PL e according to EN ISO 13849-1
- ▶ With plug connector M12
- ▶ 2 LEDs (2 freely configurable)
- ▶ Approach direction A (delivery state)

### Read head CET1-AX-... M12, with guard locking and guard lock monitoring, double ramp



**100399**

CET1-AX-LDA-00-50X-SE

- ▶ Read head with guard locking
- ▶ Locking force up to 6500 N
- ▶ Category 4 / PL e according to EN ISO 13849-1
- ▶ With plug connector M12
- ▶ 2 LEDs (1 freely configurable)
- ▶ With double ramp
- ▶ Approach directions A and C (delivery state)

## Read head CET1-AX-... M12, with guard locking and guard lock monitoring, escape release



**102161**  
CET1-AX-LRA-00-50F-SA

- ▶ Read head with guard locking
- ▶ Locking force up to 6500 N
- ▶ Category 4 / PL e according to EN ISO 13849-1
- ▶ With plug connector M12
- ▶ 2 LEDs (1 freely configurable)
- ▶ With escape release, 75 mm long
- ▶ Approach direction A (delivery state)

## Read head CET1-AX-..., 2 plug connectors M8, with guard locking and guard lock monitoring



**102988**  
CET1-AX-LRA-00-50X-SC

- ▶ Read head with guard locking
- ▶ Locking force up to 6500 N
- ▶ Category 4 / PL e according to EN ISO 13849-1
- ▶ With 2 plug connectors M8
- ▶ 2 LEDs (1 freely configurable)
- ▶ Approach direction A (delivery state)

## Read head CET1-AX-..., M12, with guard locking and guard lock monitoring



**095735**  
CET1-AX-LRA-00-50X-SA

- ▶ Read head with guard locking
- ▶ Locking force up to 6500 N
- ▶ Category 4 / PL e according to EN ISO 13849-1
- ▶ With plug connector M12
- ▶ 2 LEDs (1 freely configurable)
- ▶ Approach direction A (delivery state)



**104051**  
CET1-AX-LRA-00-50X-SF

- ▶ Read head with guard locking
- ▶ Locking force up to 6500 N
- ▶ Category 4 / PL e according to EN ISO 13849-1
- ▶ With plug connector M12 (can be rotated by 360°)
- ▶ 2 LEDs (1 freely configurable)
- ▶ Approach direction A (delivery state)

## CKS

### Electronic-Key adapter CKS, round design



**171792**  
CKS-A-LA1-SC-171792

- ▶ Key adapter with integrated CES read head
- ▶ Mechanical detent mechanism for inserted key
- ▶ LED indicator when key detected
- ▶ Simple connection via M8 plug connector(s)
- ▶ Mounting; assembly at the front; mounting cut-out  $\varnothing$  22.5 mm

### Key adapter CKS



**113130**  
CKS-A-L1B-SC-113130

- ▶ Key adapter with integrated CES read head
- ▶ Simple connection via plug connector M8
- ▶ Front cover: red
- ▶ High degree of protection IP67
- ▶ LED indicator



**158081**  
CKS-A-L1B-SC-158081

- ▶ Key adapter with integrated CES read head
- ▶ Simple connection via plug connector M8
- ▶ Front cover: black
- ▶ High degree of protection IP67
- ▶ LED indicator

## Connection material

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



**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

## Miscellaneous

### Inrush current limiting module PM-SCL



**096945**

PM-SCL-096945

- ▶ Limitation of switch-on current
- ▶ Suitable for mounting on mounting rail