

# ITEM 104770 CES-AZ-AES-01B



#### Features

- One read head 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 unique. The evaluation unit detects only the actuator that has 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 LEDDIA Diagnostics LEDOUT Safety output status

#### **Additional connections**

- **TST** Input for self-test
- **O1** Monitoring output (semiconductor)
- **DIA** Diagnostics output
- Y1, Y2 Feedback loop
- J 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.

#### Approvals



#### Mechanical values and environment

Plastic PA6.6
0,2 kg
-20 55 °C
max.80 % rH
IP20
Mounting rail 35mm according to DIN EN 60715 TH35
min.10 mm <sup>[1]</sup>
1 read head can be connected
10 12 s <sup>[2]</sup>
max.210 ms <sup>[3]</sup>
min.250 ms

Response delay start button (for Manual start operating mode)	
Switching frequency	max.0,25 Hz
Dwell time	min.3 s <sup>[4]</sup>
Connection	Plug-in connection terminals, coded <sup>[5]</sup>
	Safety contacts 13/14, 23/24
Number of safety contacts	2 Relays with internally monitored contacts
Mechanical life	
Operating cycles (relay)	10 × 10 <sup>6</sup>

# **Electrical connection ratings**

Operating voltage DC	21 24 27 V DC
Current consumption	21 24 27 V DC
(with relay energized)	150 mA [6]
· · ·	130 MA
Fusing	0.25 9.4
External (operating voltage UB) EMC protection requirements	In acc. with EN 60947-5-3
Degree of contamination (external,	2
according to EN 60947-1)	2
Connection cross-section	
(plug-in screw- / springterminals)	0,25 2,5 mm <sup>2</sup>
Current via feedback loop	5 8 10 mA
permissible resistance in feedback loop	max.600 Ω
	Safety contacts 13/14, 23/24
Type of output	Relay contacts, floating
Switching current	
0	
At switching voltage AC/DC 21 60 V	1 300 mA
-	
At switching voltage AC/DC 21 60 V	10 6000 mA
At switching voltage AC/DC 21 60 V At switching voltage AC/DC 5 30 V	10 6000 mA
At switching voltage AC/DC 21 60 V At switching voltage AC/DC 5 30 V At switching voltage AC 5 230 V Fusing	10 6000 mA
At switching voltage AC/DC 21 60 V At switching voltage AC/DC 5 30 V At switching voltage AC 5 230 V Fusing External (safety circuit) according to	10 6000 mA 10 2000 mA
At switching voltage AC/DC 21 60 V At switching voltage AC/DC 5 30 V At switching voltage AC 5 230 V Fusing External (safety circuit) according to EN 60269-1 Utilization category according to EN 60947-5-1	10 6000 mA 10 2000 mA
At switching voltage AC/DC 21 60 V At switching voltage AC/DC 5 30 V At switching voltage AC 5 230 V Fusing External (safety circuit) according to EN 60269-1 Utilization category according to EN 60947-5-1 AC-15	10 6000 mA 10 2000 mA 6 AgG or 6 A circuit breaker (characteristic B or C)
At switching voltage AC/DC 21 60 V At switching voltage AC/DC 5 30 V At switching voltage AC 5 230 V Fusing External (safety circuit) according to EN 60269-1 Utilization category according to EN 60947-5-1 AC-15 DC-13	10 6000 mA 10 2000 mA 6 AgG or 6 A circuit breaker (characteristic B or C) 230 V 2 A
At switching voltage AC/DC 21 60 V At switching voltage AC/DC 5 30 V At switching voltage AC 5 230 V Fusing External (safety circuit) according to EN 60269-1 Utilization category according to EN 60947-5-1 AC-15 DC-13	10 6000 mA 10 2000 mA 6 AgG or 6 A circuit breaker (characteristic B or C) 230 V 2 A 24 V 3 A
At switching voltage AC/DC 21 60 V At switching voltage AC/DC 5 30 V At switching voltage AC 5 230 V Fusing External (safety circuit) according to EN 60269-1 Utilization category according to EN 60947-5-1 AC-15 DC-13 AC-12	10 6000 mA 10 2000 mA 6 AgG or 6 A circuit breaker (characteristic B or C) 230 V 2 A 24 V 3 A 60 V 0.3 A
At switching voltage AC/DC 21 60 V At switching voltage AC/DC 5 30 V At switching voltage AC 5 230 V Fusing External (safety circuit) according to EN 60269-1 Utilization category according to EN 60947-5-1 AC-15 DC-13 AC-12	10 6000 mA 10 2000 mA 6 AgG or 6 A circuit breaker (characteristic B or C) 230 V 2 A 24 V 3 A 60 V 0.3 A 30 V 6 A 60 V 0.3 A
At switching voltage AC/DC 21 60 V At switching voltage AC/DC 5 30 V At switching voltage AC 5 230 V Fusing External (safety circuit) according to EN 60269-1 Utilization category according to EN 60947-5-1 AC-15 DC-13 AC-12 DC-12	10 6000 mA 10 2000 mA 6 AgG or 6 A circuit breaker (characteristic B or C) 230 V 2 A 24 V 3 A 60 V 0.3 A 30 V 6 A 60 V 0.3 A
At switching voltage AC/DC 21 60 V At switching voltage AC/DC 5 30 V At switching voltage AC 5 230 V Fusing External (safety circuit) according to EN 60269-1 Utilization category according to EN 60947-5-1 AC-15 DC-13 AC-12 DC-12	10 6000 mA 10 2000 mA 6 AgG or 6 A circuit breaker (characteristic B or C) 230 V 2 A 24 V 3 A 60 V 0.3 A 30 V 6 A 60 V 0.3 A

Rated impulse withstand voltage Uimp	max 1 kV
Rated conditional short-circuit current	100 A
Discrepancy time	
(Between the operating points of both relays)	max.25 ms
	Monitoring outputs: Diagnostic DIA, door monitoring output O1
Type of output	Semiconductor output, p-switching, short circuit-proof
Output voltage	0,8 x UB UB V DC
Output current	max.20 mA
	Inputs: Start button S, test input TST
Input current	
HIGH	5 8 10 mA
Input voltage	
HIGH	15 UB V DC
LOW	0 2 V DC
	STATE LED
LED indicator	Status LED
	LED OUT
LED indicator	Safety contacts status
	DIA LED
LED indicator	Diagnostics LED

# **Operating distance**

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

### Miscellaneous

For the approval according to UL the	Operation only with UL class 2 power supply, or equivalent
following applies	measure

# Reliability values acc. to EN ISO 13849-1

	Monitoring of the safety guard position
Category	4 [7]
Performance Level	PL e [8]
PFHD	1.9 × 10 <sup>-8</sup> [9]

Diagnostic Coverage (DC)	99 %
Number of switching cycles	
$\leq$ 0.1 A at 24 V DC	max.760000 1/Jahr
$\leq$ 1 A at 24 V DC	max.153000 1/Jahr
$\leq$ 3 A at 24 V DC	max.34600 1/Jahr

# in combination withRead head CES-A-LNA-05V, CES-A-LNA-10V, CES-A-LNA-15V, CES-A-LNA-25V, CES-A-LNA-SC, CES-A-LNA-05P, CES-A-LNA-10P, CES-A-LNA-15P, CES-A-LCA-10VandActuator CES-A-BBA, CES-A-BCA

#### Mechanical values and environment

Mounting distance

Neighboring read heads min.50 mm

#### **Operating distance**

Distance s, actuator	
Minimum distance for side approach direction	
Switch-on distance	
With center offset m=0	15 mm <sup>[11]</sup>
Assured switch-off distance Sar	max.26 mm
Assured operating distance S <sub>ao</sub>	
With center offset m=0	min.10 mm [12]
Switching hysteresis	0,5 2 mm <sup>[13]</sup>

# in combination withRead head CES-A-LNA-05V, CES-A-LNA-10V, CES-A-LNA-15V, CES-A-LNA-25V, CES-A-LNA-SC, CES-A-LNA-05P, CES-A-LNA-10P, CES-A-LNA-15P, CES-A-LCA-10VandActuator CES-A-BDA-20

#### Mechanical values and environment

Mounting distance<br/>Neighboring read headsmin.50 mmOperating distancemin.50 mmDistance s, actuator<br/>Minimum distance for side approach<br/>directionmin.4 mm [14]Switch-on distance<br/>With center offset m=0fam [15]Assured switch-off distance Sar<br/>With center offset m=0max.33 mmAssured operating distance Sar<br/>With center offset m=0min.11 mm [16]Switching hysteresis0,5 ... 2 mm [17]

#### in combination withRead head CES-A-LMN-SCandActuator CES-A-BMB

#### Mechanical values and environment

Mounting distance

Neighboring read heads min.20 mm

#### **Operating distance**

Distance s, actuator	
Minimum distance	min.1,2 mm
Switch-on distance	
With center offset m=0	5 mm [18]
Assured switch-off distance Sar	max.10 mm
Assured operating distance Sao	
With center offset m=0	min.3,5 mm <sup>[19]</sup>
Switching hysteresis	0,1 0,3 mm <sup>[20]</sup>

# in combination withRead head CES-A-LNA-05V, CES-A-LNA-10V, CES-A-LNA-15V, CES-A-LNA-25V, CES-A-LNA-SC, CES-A-LNA-05P, CES-A-LNA-10P, CES-A-LNA-15P, CES-A-LCA-10VandActuator CES-A-BDA-18-156935

#### Mechanical values and environment

Mounting distance

Neighboring read heads min.50 mm

#### **Operating distance**

Distance s, actuator	
Minimum distance for side approach direction	
Switch-on distance	
With center offset m=0	16 mm <sup>[21]</sup>
Assured switch-off distance Sar	max.32 mm
Assured operating distance Sao	
With center offset m=0	min.10 mm [22]
Switching hysteresis	
With center offset m=0	0,5 1,4 mm <sup>[23]</sup>

# in combination withRead head CES-A-LNN-SC-106601, CES-A-LNN-05V-106602, CES-A-LNN-10V-113294andActuator CES-A-BBN-106600

#### Mechanical values and environment

min.160 mm
15 mm <sup>[24]</sup>
max.100 mm
max.50 mm
min.10 mm <b>[25]</b>

# in combination withRead head CES-A-LNN-SC-106601, CES-A-LNN-05V-106602, CES-A-LNN-10V-113294andActuator CES-A-BDN-06-104730

#### Mechanical values and environment

Mounting distance

Neighboring read heads min.160 mm

#### **Operating distance**

Switch-on distance In z direction (with center offset x,y=0), in y direction (with center offset x,z=0)	19 mm <b>[27]</b>
Assured switch-off distance S <sub>ar</sub>	max.100 mm
in x or z direction	max.50 mm
Assured operating distance S <sub>ao</sub> In z direction (with center offset x,y=0), in y direction (with center offset x,z=0)	min.14 mm [28]
Switching hysteresis	4 mm [29]

#### in combination withRead head CES-A-LSP-05V-104966, CES-A-LSP-10V-104967, CES-A-LSP-25V-104968, CES-A-LSP-SB-104969, CES-A-LSP-15V-106271, CES-A-LSP-20V-106272andActuator CES-A-BSP-104970

#### **Operating distance**

Switch-on distance	
With center offset m=0	20 mm <sup>[30]</sup>
Assured switch-off distance Sar	max.45 mm
Assured operating distance Sao	
With center offset m=0	min.10 mm <sup>[31]</sup>
Switching hysteresis	1 4 mm [32]

#### in combination withRead head CES-A-LQA-SCandActuator CES-A-BQA

#### Mechanical values and environment

Mounting distance

Neighboring read heads min.80 mm

# **Operating distance**

Switch-on distance23 mm [33]For vertical approach direction (center<br/>offset m=0)23 mm [34]For side approach direction (distance<br/>in x direction 10 mm)± 28 mm [34]Assured switch-off distance Sarmax.60 mm

Assured operating distance S <sub>ao</sub>	
For vertical approach direction (center offset m=0)	min.16 mm <sup>[35]</sup>
For side approach direction (distance in x direction 10 mm)	min.± 24 mm <b>[36]</b>
Switching hysteresis	
For vertical approach direction (center offset m=0)	2 3 mm <b>[37]</b>
For side approach direction (distance in x direction 10 mm)	1 1,3 mm <b>[38]</b>

# in combination withRead head CES-A-LQA-SCandActuator CES-A-BBA, CES-A-BCA, CES-A-BBA-EX

### Mechanical values and environment

Mounting distance

Neighboring read heads min.80 mm

#### Operating distance

Switch-on distance	
For vertical approach direction (center offset m=0)	15 mm [ <b>39]</b>
For side approach direction (distance in x direction 8 mm)	± 22 mm <sup>[40]</sup>
Assured switch-off distance S <sub>ar</sub>	max.47 mm
Assured operating distance S <sub>ao</sub>	
For vertical approach direction (center offset m=0)	min.10 mm <sup>[41]</sup>
For side approach direction (distance in x direction 8 mm)	min.± 18 mm <sup>[42]</sup>
Switching hysteresis	
For vertical approach direction (center offset m=0)	2 3 mm <sup>[43]</sup>
For side approach direction (distance in x direction 8 mm)	1 1,8 mm <sup>[44]</sup>

#### in combination withRead head CES-A-LMN-SCandActuator CES-A-BDA-20

#### Mechanical values and environment

Mounting distance	
Neighboring read heads	min.20 mm
Operating distance	
Switch-on distance	
With center offset m=0	A distance of $s = 4 \text{ mm}$ must be maintained for a side approach direction. 9 mm <sup>[45]</sup>
Assured switch-off distance Sar	
With center offset m=0	max.26 mm <sup>[46]</sup>
Assured operating distance S <sub>ao</sub>	

With	center	offset	m=0	min.6	mm	[47]
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#### Switching hysteresis

With center offset m=0  $1 \dots 1,8$  mm [48]

#### in combination withRead head CES-A-LMN-SCandActuator CES-A-BBA

#### Mechanical values and environment

Mounting distance

Neighboring read heads min.20 mm

#### **Operating distance**

Switch-on distance	
With center offs	et m=0 A distance of s = 3 mm must be maintained for a side approach direction. 8 mm <sup>[49]</sup>
Assured switch-off distance Sar	
With center offs	et m=0 max.25 mm <sup>[50]</sup>
Assured operating distance Sao	
With center offs	et m=0 min.5 mm <sup>[51]</sup>
Switching hysteresis	
With center offs	et m=0 1 1,8 mm <sup>[52]</sup>

<sup>[1]</sup> If several evaluation units are mounted side by side in a control cabinet without air circulation (e.g. fan), a minimum distance of 10 mm must be maintained between the evaluation units. The distance enables heat from the evaluation unit to dissipate.

<sup>[2]</sup> After the operating voltage is switched on, the relay outputs are switched off and the door monitoring output is set LOW during the ready delay. For the visual indication of the delay, the green STATE LED flashes at a frequency of approx. 15 Hz.

<sup>[3]</sup> Corresponds to the risk time according to EN 60947-5-3. This is the maximum switch-off delay 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 switch-off delay can increase to max. 250 ms. After a brief actuation < 0.25 s, the switch-on delay can increase to max. 3 s if this is followed immediately by further actuation.

<sup>[4]</sup> The dwell time is the time that the actuator must be inside or outside the operating distance.

[5] Terminals not included

[6] Without taking into account the load currents on the monitoring outputs

[7, 8, 9, 10] This value is dependent on the number of switching cycles and the switching current.

[11, 12, 13, 21, 22, 23, 24, 25, 26, 27, 28, 29] These values apply for the surface installation of the read head and the actuator.

[14, 15, 16, 17] On mounting in non-metallic environment

[18, 19, 20] These values apply for surface installation of the read head in steel.

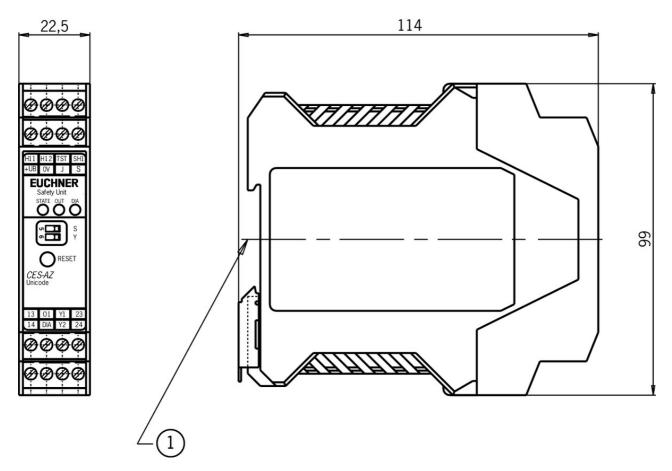
[30, 31, 32] These values apply for the installation of the read head and the actuator in an aluminum profile 45 x 45 mm.

[33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44] These values apply for surface installation of the read head and the actuator.

**[45, 46, 47, 49, 50, 51]** This value applies for the surface installation of the read head in metal and the non-metallic installation of the actuator.

**[48, 52]** These values apply for the surface installation of the read head in metal and the nonmetallic installation of the actuator.

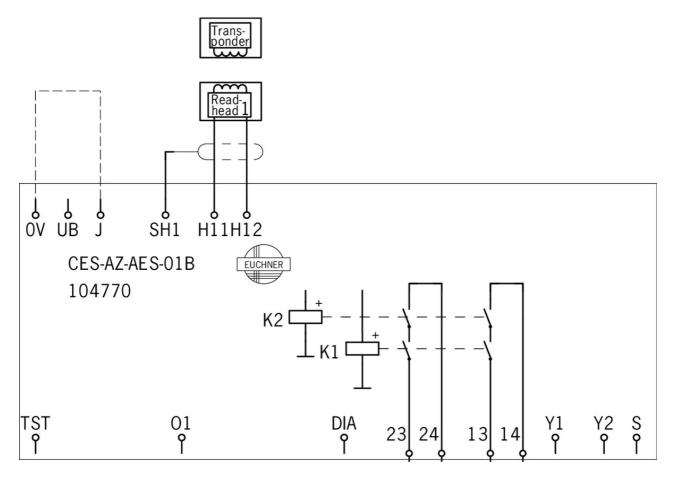
# **Dimension drawing**



# Legende

*1* Suitable for 35 mm mounting rail according to EN 60715

#### **Block diagram**



#### Additional system components

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

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#### 071845 CES-A-LNA-05V

## Features

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



#### 077806 CES-A-LNA-05P

## Features

- > 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 CET1-AX-..., M12, with guard locking and guard lock monitoring

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

- Features
  - > Read head with guard locking
  - > Locking force up to 6500 N
  - > Up to category 4/PL e according to EN ISO 13849-1

- > With plug connector M12
- > 2 LEDs (1 freely configurable)
- > Approach direction A (default setting on delivery)

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



#### 095793 CEM-A-LH10R-S3

- Features
  - > 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

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



## 104062 CET1-AX-LRA-00-50L-SA

Features

- > Read head with guard locking
- > Locking force up to 6500 N
- > Up to category 4/PL e according to EN ISO 13849-1
- > With plug connector M12
- > 2 LEDs (2 freely configurable)
- > Approach direction A (default setting on delivery)

Read head CET1-AX-... M12, with guard locking and guard lock monitoring, double insertion slide



#### 100399 CET1-AX-LDA-00-50X-SE

Features

- > Read head with guard locking
- > Locking force up to 6500 N
- > Up to category 4/PL e according to EN ISO 13849-1
- > With plug connector M12
- > 2 LEDs (1 freely configurable)
- > With double ramp
- > Approach direction A and C (default setting on delivery)

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



095650 CES-A-LQA-SC

Features

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

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



077790 CES-A-LMN-SC ✓ Features

> Cylindrical design M12

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



#### 094800 CEM-A-LE05K-S2

- Features
  - > 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

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



#### 095792 CEM-A-LE05R-S2

- Features
  - > 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-LH10K-S3 with guard locking without guard lock monitoring with remanence



#### 095170 CEM-A-LH10K-S3 ✓ Features

- > 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 CES-A-LNA..., hard-wired encapsulated cable 10 m, PVC



# 071846 CES-A-LNA-10V

- Features
  - > 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, PVC



#### 071847 CES-A-LNA-15V

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



#### 071975 CES-A-LNA-25V

Features

- > 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 10 m, PUR



## 077807 CES-A-LNA-10P

Features

- > 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 15 m, PUR



#### 084682 CES-A-LNA-15P

Features

- > 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-SC, M8 plug connector



# 077715 CES-A-LNA-SC

Features

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

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



# 088785 CES-A-LCA-10V

Features

- > 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-LSP-..., hard-wired encapsulated cable 10 m, PVC

**104967** CES-A-LSP-10V-104967 ▼ Features

- > Optimized for aluminum profile mounting
- > LED for the indication of the door position
- > Hard-wired encapsulated cable made of PVC
- > Cable length 10 m

### **106271** CES-A-LSP-15V-106271

Features

+ 2010 +

- > Optimized for aluminum profile mounting
- > LED for the indication of the door position
- > Hard-wired encapsulated cable made of PVC
- > Cable length 15 m

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

#### 104966 CES-A-LSP-05V-104966

#### Features

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

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

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

#### Features

- > Read head with guard locking
- > Locking force up to 6500 N
- > Up to category 4/PL e according to EN ISO 13849-1
- > With 2 plug connectors M8
- > 2 LEDs (1 freely configurable)
- > Approach direction A (default setting on delivery)

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



#### 103444 CET1-AX-LDA-00-50X-SC

Features

- > Read head with guard locking
- > Locking force up to 6500 N
- > Up to category 4/PL e according to EN ISO 13849-1
- > With 2 plug connectors M8
- > 2 LEDs (1 freely configurable)
- > With double ramp
- > Approach direction A and C (default setting on delivery)

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



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

Features

- > Read head with guard locking
- > Locking force up to 6500 N
- > Up to 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 (default setting on delivery)

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



# 103750 CET1-AX-LDA-00-50F-SA

- Features
  - > Read head with guard locking
  - Locking force up to 6500 N
  - > Up to 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
- > With double ramp
- > Approach direction A and C (default setting on delivery)

Read head CES-A-LSP-SB..., plug connector M5



#### 104969 CES-A-LSP-SB-104969

Features

- > Optimized for aluminum profile mounting
- > LED for the indication of the door position
- > M5 plug connector

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

#### **106602** CES-A-LNN-05V-106602

Features

- > Cube-shaped design 42 x 25 mm
- > Attachment compatible with series CES-A-LNA/LCA
- > LED for the indication of 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

- Features
  - > Cube-shaped design 42 x 25 mm
- > Attachment compatible with series CES-A-LNA/LCA
- > LED for the indication of the door position
- > With plug connector M8

#### **Connection material**

Connection kit for evaluation units CES-AZ-.ES-01B, spring terminals

#### **112631** CES-EA-TC-KK04-112631

- Features
  - > Plug-in spring terminals for evaluation units CCES-AZ-.ES-01B
  - > Coded

**104756** CES-EA-TC-AK04-104756 ✓ Features

- > Plug-in screw terminals for evaluation units CES-AZ-.ES-01B
- > Coded

#### Miscellaneous accessories

Inrush current limiting module PM-SCL



# 096945 PM-SCL-096945

Features

Very high currents are produced on power up if capacitive loads are switched; these currents cause increased wear on electromagnetic switching contacts. The PM-SCL module limits the inrush current for approx. 100 ms and protects the switching contacts.

#### Instructions

#### Návod k použití Bezkontaktní bezpečnostní systém CES-AZ-AES-... (Unicode)

	Doc. no.	Version	Language	Download
Betriebsanleitung Berührungsloses Sicherheitssystem CES-AZ-AES (Unicode)	2104766	10-09/17		🔁 1.8 MB
Mode d'emploi Système de sécurité sans contact CES-AZ-AES (Unicode)	2104766	10-09/17		🔁 1.8 MB
Manual de instrucciones Sistema de seguridad sin contacto CES-AZ-AES (Unicode)	2104766	10-09/17		🔁 1.8 MB
Návod k použití Bezkontaktní bezpečnostní systém CES-AZ-AES (Unicode)	2104766	10-09/17		🔁 1.9 MB
Operating instructions Non-contact safety system CES-AZ-AES (Unicode)	2104766	10-09/17		🔁 1.8 MB
Istruzioni di impiego Sistema di sicurezza senza contatto CES-AZ-AES (Unicode)	2104766	10-09/17		🔁 1.8 MB
使用说明书非接触式安全系统 CES-AZ-AES (特殊编码)	2104766	10-09/17		🔁 2.0 MB

Sicherheitsinformation und Wartung CES-A.../CES-AZ/CES-FD

Doc. no. Version Language Download

Sicherheitsinformation und Wartung CES- A/CES-AZ/CES-FD Información de seguridad y mantenimiento CES- A/CES-AZ/CES-FD Information de sécurité et entretien CES-A/CES- AZ/CES-FD Informazioni sulla sicurezza e manutenzione CES-A/CES-AZ/CES-FD Safety Information and Maintenance CES- A/CES-AZ/CES-FD	109083	07-04/16	<mark>™</mark> 0.5 MB
Bezpečnostní informace a pokyny k údržbě CES- A/CES-AZ/CES-FD	109083	07-04/16	📩 0.2 MB
Informacje o bezpieczeństwie i konserwacji CES- A/CES-AZ/CES-FD	109083	07-04/16	🛃 0.2 MB
安全信息和维护 CES-A/CES-AZ/CES-FD	109083	07-04/16	🔁 0.3 MB

# Catalogs

Transpondercodierte Sicherheitssysteme mit externer Auswertung Transponder-coded safety systems with external evaluation Sistemas de seguridad con codificación por transponder y evaluación externa Systèmes de sécurité à codage par transpondeur avec analyse externe

	Doc. no.	Version	Language	Download
Transpondercodierte Sicherheitssysteme mit externer Auswertung	127596	02-01/18	<u>—</u>	🔁 3.1 MB
Systèmes de sécurité à codage par transpondeur avec analyse externe	137968	02-01/18	u	🔁 3.0 MB
Sistemas de seguridad con codificación por transponder y evaluación externa	139969	02-01/18	2	🔁 3.0 MB
Transponder-coded safety systems with external evaluation	127597	02-01/18		🔁 3.0 MB

#### **Declaration of conformity**

#### EU-Konformitätserklärung

Doe	oc. no.	Version	Language	Download
EU-Konformitätserklärung 207 Declaración UE de conformidad Déclaration UE de conformité Dichiarazione di conformità EU declaration of conformity	77154	34-01/17		🔁 0.5 MB

#### CAD data

CAD data for this item on TraceParts