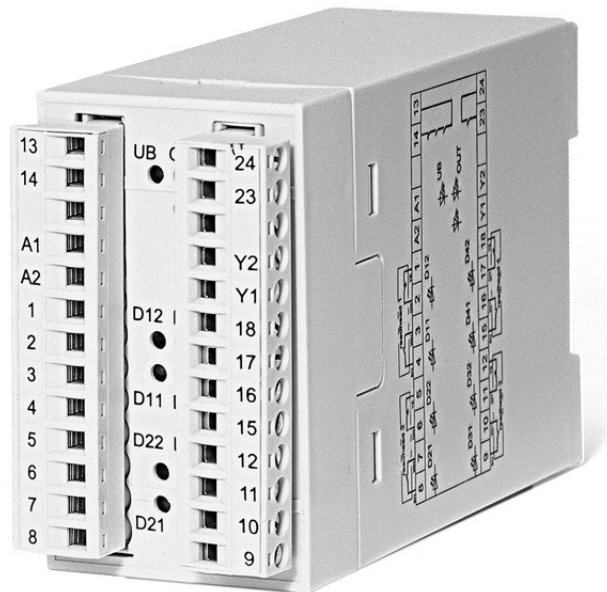


ITEM 085537 CMS-E-BR

Description	Technical data	Accessories	Downloads
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Features

- › Four read heads can be connected
- › 1 safety contact
- › 1 auxiliary contact
- › 1 feedback loop can be connected

Functional description

The evaluation unit CMS-E-BR is suitable for the direct connection of up to 4 read heads.

Category/PL according to EN ISO 13849-1

- › Category 3/PL d with more than one read head connected
- › Category 4/PL e with only one read head connected

Notice:

At low approach speeds in the z direction, the time offset when switching the reed contacts must not be more than 150 ms.

Approvals



Mechanical values and environment

Housing material	Polycarbonate (PC)
Weight	Net 0,24 kg
Ambient temperature	0 ... 50 °C
Degree of protection	Terminals IP20 / housing IP40
Mechanical life	30 x 10 ⁶
Mounting method	Mounting rail 35mm according to DIN EN 60715 TH35
Number of read heads	Up to 4 read heads
Connection	Connection terminals, plug-in
Safety contacts 13/14	
Number of safety contacts	1
Auxiliary contacts 23/24	
Number of auxiliary contacts	1

Electrical connection ratings

Operating voltage	AC/DC 24 V -10% ... +10% [1]
Fusing	Protection internal (operating voltage UB) 0,5 A Automatically resetting fuse PTC
Rated insulation voltage U _i	AC 250 V
Degree of contamination (external, according to EN 60947-1)	2
Connection cross-section	0,14 ... 2,5 mm ²
LED indicator	1 indicator LED Power (UB) green 1 LED safety output (OUT green/red) 8 LED status indicators (Dx1 / Dx2 /green/ red)
Safety contacts 13/14	
Type of output	Relay contacts, floating [2]
Current consumption	250 mA
Switching voltage	AC max.250 V
Switching current	at DC 24V 13 ... 3000 mA
Fusing	

External contact fuse (safety circuit) acc. to EN IEC 60269-1	3A gG
Utilization category according to EN 60947-4-1	AC-1 3A , 250V ; 3A , 24V [3]
Utilization category according to EN 60947-5-1	AC-15 1A , 250V ; 1A 24V [4] DC-13 3A , 24V [5]
Switching load Switching load acc. to UL Class 2	Input: 24V AC/DC : Output: 30V AC , 24V DC
Breaking capacity (VA)	max.750 VA
Risk time according to EN 60947-5-3	20 ms
	Auxiliary contacts 23/24
Type of output	Relay contact, floating [6]

Miscellaneous

in compliance with	EN ISO 13849-1: 2015; EN 50178: 1997; EN ISO 14119: 2013; EN 6100-6-3: 2007; EN 60947-5-2: 2007/A1: 2012; EN 60947-5-3: 2013
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Reliability values acc. to EN ISO 13849-1

	Monitoring of the safety guard position
Category	
With one read head	4 [7]
With more than one read head	3 [8]
Performance Level	
With one read head	PL e [9]
With more than one read head	PL d [10]
PFH _D	
With one read head	2.5×10^{-8} [11]
With more than one read head	1.0×10^{-7} [12]

Number of switching cycles	
≤ 0.1A at 24V DC	max.100000 1/Jahr
≤ 1A at 24V DC	max.18500 1/Jahr
≤ 3A at 24V DC	max.9000 1/Jahr
Mission time	20 y [13]

in combination with Read head CMS-R-AXH-03V, CMS-R-AXH-SC, CMS-R-AXH-05P and Actuator CMS-M-AC

Operating distance

Center offset	
At s=3 mm read distance	2,5 mm [14]
Assured switch-off distance S_{ar}	max.31 mm [15]
Assured operating distance S_{a0}	
With center offset m=0	min.6 mm [16]

in combination with Read head CMS-R-BXI-03V, CMS-R-BXI-05V, CMS-R-BXI-SC, CMS-R-BXI-05P, CMS-R-BXI-07P and Actuator CMS-M-BD

Operating distance

Center offset	
At s=3 mm read distance	2,5 mm [17]
Assured switch-off distance S_{ar}	max.12 mm [18]
Assured operating distance S_{a0}	
With center offset m=0	min.3 mm [19]

in combination with Read head CMS-R-CXC-03V, CMS-R-CXC-05V, CMS-R-CXC-05P, CMS-R-CXC-SC and Actuator CMS-M-CA

Operating distance

Center offset	
At s=3 mm read distance	2,5 mm [20]
Assured switch-off distance S_{ar}	max.14 mm [21]
Assured operating distance S_{a0}	
With center offset m=0	min.6 mm [22]

in combination with Read head CMS-R-EXM-03V, CMS-R-EXM-05V, CMS-R-EXM-05P, CMS-R-EXM-SC and Actuator CMS-M-EF

Operating distance

Center offset	
At s=3 mm read distance	2,5 mm [23]
Assured switch-off distance S_{ar}	max.17 mm [24]
Assured operating distance S_{a0}	
With center offset m=0	min.6 mm [25]

[1] All the electrical connections must either be isolated from the mains supply by a safety transformer according to EN 61558-2-6 with limited output voltage in the event of a fault, or by other equivalent isolation measures.

[2, 6] 1 NO contact

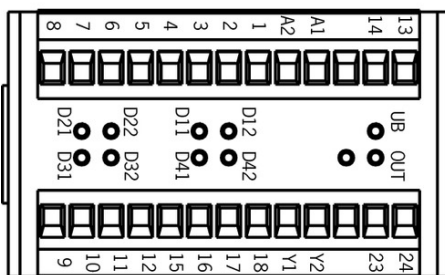
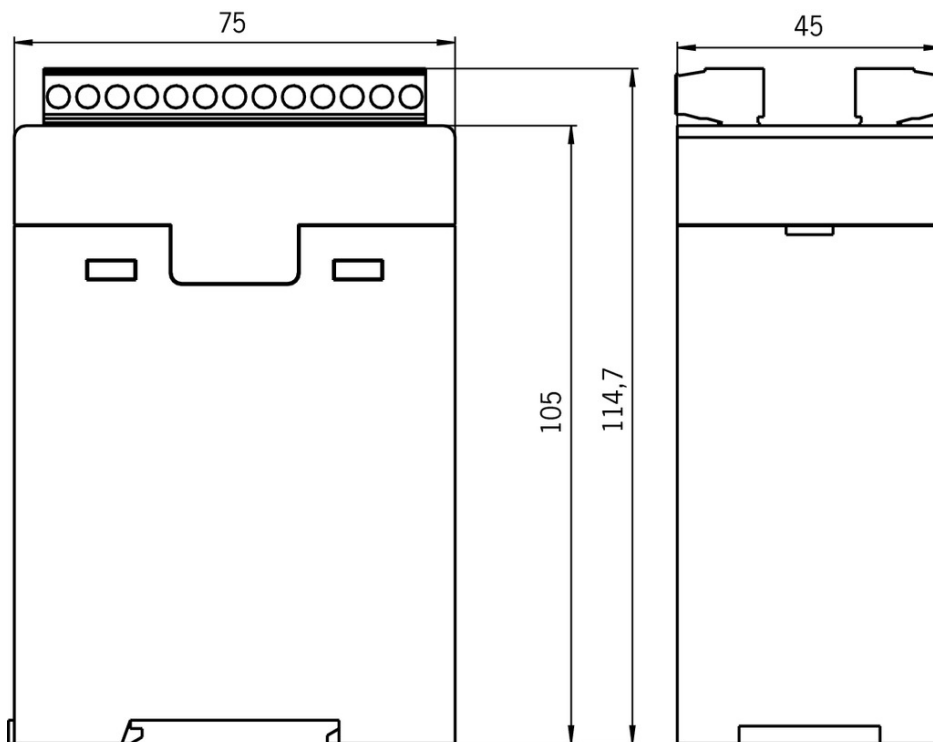
[3, 4, 5] Max. switching current per contact

[7, 8, 9, 10, 11, 12, 13] This value is dependent on the number of switching cycles and the switching current

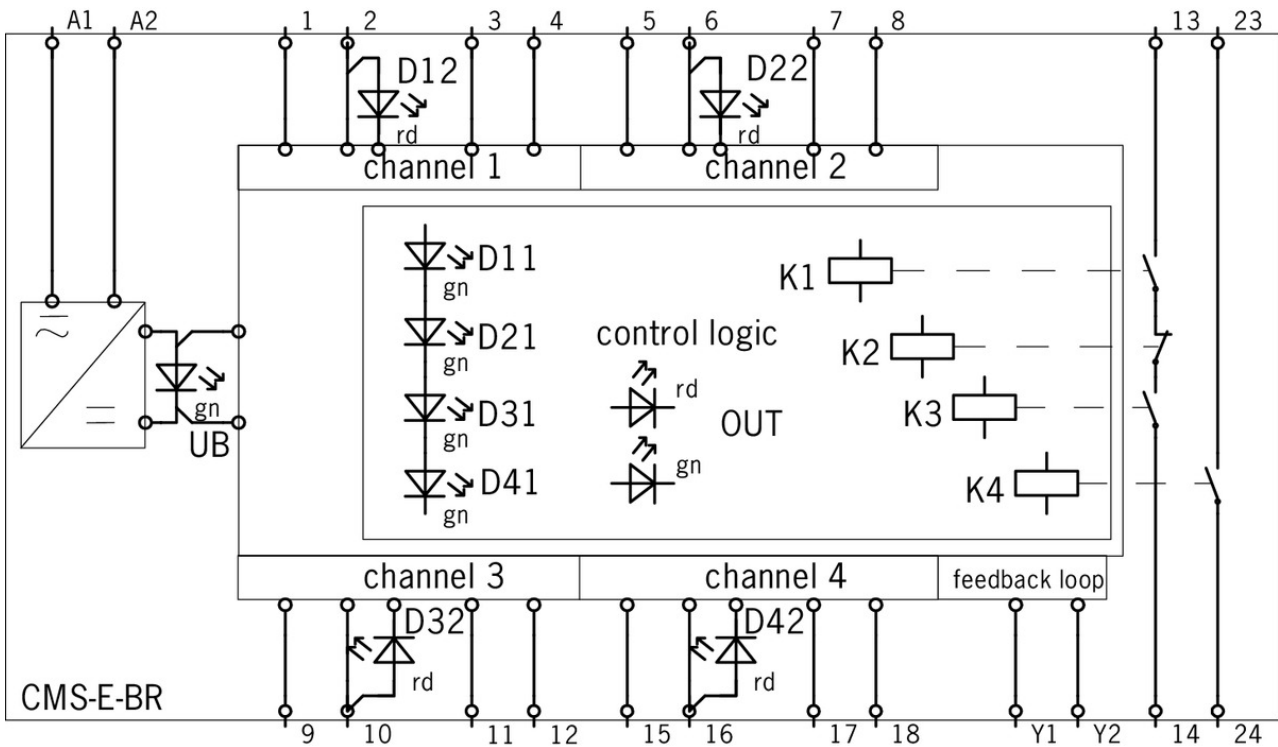
[14, 16, 17, 19, 20, 22, 23, 25] Figure only applies if there is no ferromagnetic material in the vicinity of the read head and the actuator.

[15, 18, 21, 24] The assured switch-off distance s_{ar} corresponds to the reset distance.

Dimension drawing



Block diagram



Additional system components

- ✓ Read heads CMS design A - with NC/NO contacts, PVC



084587 CMS-R-AXH-03V

✓ Features

- › In combination with evaluation units CMS-E-BR/CMS-E-ER/CMS-E-FR
- › Cube-shaped version 88 x 25 mm
- › Connection cable
- › Cable type: PVC



085736 CMS-R-AXH-05V

✓ Features

- › In combination with evaluation units CMS-E-BR/CMS-E-ER/CMS-E-FR
- › Cube-shaped version 88 x 25 mm
- › Connection cable
- › Cable type: PVC

- ✓ Read heads CMS design A - with NC/NO contacts, M8



100745 CMS-R-AXH-SC

✓ Features

- › In combination with evaluation units CMS-E-BR/CMS-E-ER/CMS-E-FR
- › Cube-shaped version 88 x 25 mm
- › Plug connector M8

- ✓ Read heads CMS design B - with NC/NO contacts, PVC



085530 CMS-R-BXI-03V

✓ Features

- › In combination with evaluation units CMS-E-BR/CMS-E-ER/CMS-E-FR
- › Cube-shaped version 36 x 26 mm
- › Connection cable
- › Cable type: PVC



085737 CMS-R-BXI-05V

✓ Features

- › In combination with evaluation units CMS-E-BR/CMS-E-ER/CMS-E-FR
- › Cube-shaped version 36 x 26 mm
- › Connection cable
- › Cable type: PVC

✓ Read heads CMS design B - with NC/NO contacts, PUR



115117 CMS-R-BXI-07P

✓ Features

- › In combination with evaluation units CMS-E-BR/CMS-E-ER/CMS-E-FR
- › Cube-shaped version 36 x 26 mm
- › Connection cable
- › Cable type: PUR

✓ Read heads CMS design B - with NC/NO contacts, M8



100696 CMS-R-BXI-SC

✓ Features

- › In combination with evaluation units CMS-E-BR/CMS-E-ER/CMS-E-FR
- › Cube-shaped version 36 x 26 mm
- › Plug connector M8

✓ Read heads CMS design C - with NC/NO contacts, PVC



084575 CMS-R-CXC-03V

✓ Features

- › In combination with evaluation units CMS-E-BR/CMS-E-ER/CMS-E-FR
- › Cylindrical version M25
- › Connection cable
- › Cable type: PVC



085741 CMS-R-CXC-05V

✓ Features

- › In combination with evaluation units CMS-E-BR/CMS-E-ER/CMS-E-FR
- › Cylindrical version M25
- › Connection cable
- › Cable type: PVC

✓ Read heads CMS design C - with NC/NO contacts, PUR

103872 CMS-R-CXC-05P

✓ Features



- › In combination with evaluation units CMS-E-BR/CMS-E-ER/CMS-E-FR
- › Cylindrical version M25
- › Connection cable
- › Cable type: PUR

▼ Read heads CMS design E - with NC/NO contacts, M8



103969 CMS-R-EXM-SC

▼ Features

- › In combination with evaluation units CMS-E-BR/CMS-E-ER/CMS-E-FR
- › Cylindrical version M30
- › Plug connector M8

▼ Read heads CMS design C - with NC/NO contacts, M8



103967 CMS-R-CXC-SC

▼ Features

- › In combination with evaluation units CMS-E-BR/CMS-E-ER/CMS-E-FR
- › Cylindrical version M25
- › Plug connector M8

▼ Read heads CMS design E - with NC/NO contacts, PVC



085634 CMS-R-EXM-03V

▼ Features

- › In combination with evaluation units CMS-E-BR/CMS-E-ER/CMS-E-FR
- › Cylindrical version M30
- › Connection cable
- › Cable type: PVC



085743 CMS-R-EXM-05V

▼ Features






- › In combination with evaluation units CMS-E-BR/CMS-E-ER/CMS-E-FR
- › Cylindrical version M30
- › Connection cable
- › Cable type: PVC

Instructions

▼ Betriebsanleitung Auswertegerät CMS-E-BR







	Doc. no.	Version	Language	Download
Betriebsanleitung Auswertegerät CMS-E-BR	2099180	14-06/18		0.7 MB
Operating Instructions Evaluation Unit CMS-E-BR				
Manual de instrucciones Unidad de evaluación CMS-E-BR				
Mode d'emploi Analyseur CMS-E-BR				

▼ Sicherheitsinformation CMS-E-.R

	Doc. no.	Version	Language	Download
Sicherheitsinformation CMS-E-.R	137276	01-09/16		 0.4 MB
Safety Information CMS-E-.R				
Información de seguridad CMS-E-.R				
Information de sécurité CMS-E-.R				







Catalogs

- Magnetisch codierte Sicherheitsschalter CMS Système de sécurité sans contact CMS
 Magnetically Coded Safety Switches CMS

	Doc. no.	Version	Language	Download
Magnetisch codierte Sicherheitsschalter CMS	086823	09-02/18		 2.3 MB
Système de sécurité sans contact CMS	090606	09-02/18		 2.3 MB
Magnetically Coded Safety Switches CMS	086824	09-02/18		 2.3 MB

Declaration of conformity

- EU-Konformitätserklärung

	Doc. no.	Version	Language	Download
EU-Konformitätserklärung	2112987	07-05/17		 0.3 MB
Declaración UE de conformidad				
Déclaration UE de conformité				
Dichiarazione di conformità				
EU declaration of conformity				

CAD data

CAD data for this item on TraceParts