

**ITEM 121289 MSC-CB-AC-FI8FO2-121289**

Description	Technical data	Accessories	Downloads
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**Features**

- › Freely programmable small safe control system
- › 8 single-channel /4 dual-channel inputs
- › 2 control inputs
- › 2 semiconductor outputs (PL e, category 4)
- › 2 door monitoring outputs
- › PC connection for the software "EUCHNER Safety Designer"
- › Optional memory module for configuration
- › Compact housing with width of only 22.5mm
- › Straightforward diagnostics via LED displays
- › Plug-in screw terminals

**Approvals**



**Mechanical values and environment**

Dimensions	108 x 22.5 x 114.5 [1]
Material	
Housing	Polyamide
Ambient temperature	-10 ... +55 °C
Atmospheric humidity	10 ... 95 % rH
Degree of protection	IP20
Mounting method	Mounting rail 35mm [2]
Connection	Plug-in screw terminal [3]
Cable length	max.100 m [4]
	<b>USB port for PC connection</b>
Connection	USB type B - Mini
Cable length	USB cable max.3 m
	<b>Safety outputs OSSD1, OSSD2</b>
Number of safety outputs	2
	<b>For module activation</b>
Number of inputs	2
	<b>Safety input 1...8</b>
Number of inputs	8
	<b>External relay monitoring (EDM), automatic, manual operation</b>
Number of inputs	2
	<b>Status (can be programmed via software)</b>
Number of monitoring outputs	2
	<b>Pulse output 1...4</b>
Number of outputs	4

## Electrical connection ratings

Operating voltage DC	UB	24 V DC -20% ... +20% PELV [5]
Overvoltage category according to IEC EN 60664-1		II
Degree of contamination according to EN 60664-1		2
Connection cross-section		0,5 ... 0,2 mm <sup>2</sup> 2,5 mm <sup>2</sup> Screw terminal
Delay time		0,0106 ... 0,0546 s [6]
Power consumption		max.3 W
		<b>Safety outputs OSSD1, OSSD2</b>
Test pulses		0,1 ms
Inductive load		max.30 mH
Capacitive load		max.0,82 µF
Type of output		Semiconductor outputs, p-switching, short circuit-proof
Output voltage	HIGH	UB-0,75 ... UB V DC
	LOW	0 ... 2 V DC

Output current	
Max. load at 24VDC	- ... 400 mA
	<b>For module activation</b>
Type of input	Semiconductor inputs, p-switching [7]
	<b>Safety input 1...8</b>
Type of input	Semiconductor inputs, p-switching [8]
	<b>External relay monitoring (EDM), automatic, manual operation</b>
Type of input	Semiconductor inputs, p-switching [9]
	<b>Status (can be programmed via software)</b>
Type of output	Semiconductor outputs, p-switching [10]
Output current	max.100 mA
	<b>Pulse output 1...4</b>
Test pulses	0,2 ms
Type of output	Semiconductor outputs, p-switching [11]

### Reliability values acc. to EN ISO 13849-1

ESPE type	4 [12]
Performance Level	PL e [13]
Category	4 [14]
PFH <sub>D</sub>	6.06E-9 1/h [15]
SIL CL	3 [16]
Mission time	20 y [17]

[1] Including screw terminals

[2] Acc. to EN 60715

[3] Terminals not included

[4] With length above 50m use cross-section > 1mm<sup>2</sup>

[5] Acc. to EN 60204-1

[6] Depending on the number of slave modules, operators and OSSD outputs. (See operating instructions and calculated values in the software "Euchner Safety Designer")

[7] "Typ2" acc. to EN 61131-2

[8, 9, 10, 11] Acc. to EN 61131-2

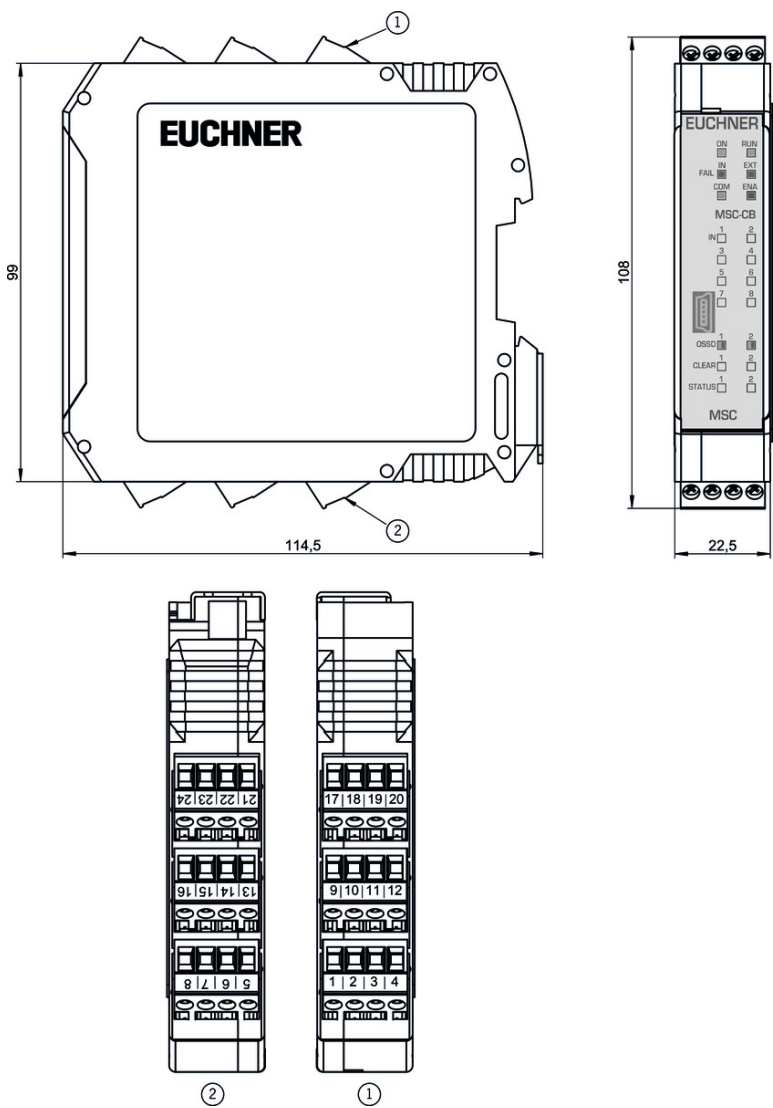
[12] Acc. to EN 61496-1

[13, 14, 17] Acc. to ISO 13849-1:2006/IEC 62061:2005

[15] Acc. to IEC 61508:2010

[16] Acc. to IEC 62061:2005

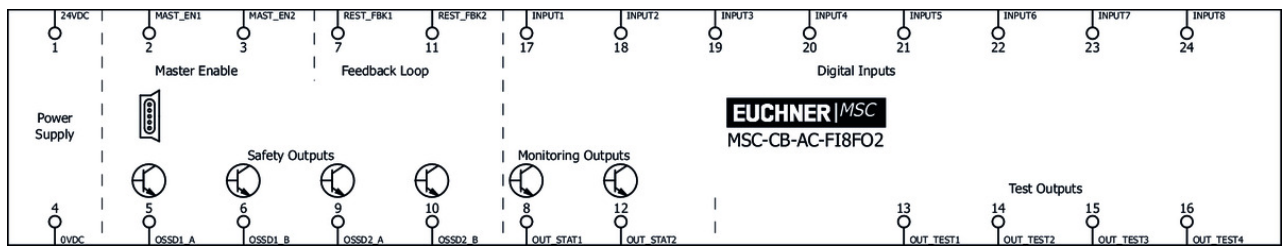
### Dimension drawing



### Legende

- 1 Page A
- 2 Page B

### Block diagram



### Connection material

Terminal set 6 contacts, screw terminals



**121321** AC-SC-04-V06-121321

Features

- › Plug-in screw terminals

Connection cable with USB type A to type Mini-USB, 1.8m



**121322** C-USB-2.0-A-01,8-MINB-121322

Features

- › USB 2.0 cable type A to type mini-USB
- › Cable length 1.8 m

Expansion connector, MSC



**121308** AC-PL-B-121308

## Miscellaneous accessories

Memory Card MSC-M-A1



**121309** MSC-M-A1-121309

Features

- › 8-pole memory module for configuration
- › Suitable for MSC-CB base module



## Instructions

MODULARE SICHERHEITSSTEUERUNG MSC Installation und Verwendung

	Doc. no.	Version	Language	Download
MODULARE SICHERHEITSSTEUERUNG MSC Installation und Verwendung	121331	03-05/16		5.9 MB
AUTOMATE INTÉGRÉ DE SÉCURITÉ MODULAIRE MSC Installation et utilisation	121331	03-05/16		6.2 MB
MODULAR SAFETY INTEGRATED CONTROLLER MSC Instalación y uso	121331	03-05/16		6.2 MB
MODULAR SAFETY INTEGRATED CONTROLLER MSC Installation and use	121331	03-05/16		6.2 MB
SISTEMA DI CONTROLLO MODULARE DI SICUREZZA MSC Installazione e uso	121331	03-05/16		6.1 MB

MSC-CB MASTER MODUL

Doc. no. Version Language Download

MSC-CB MASTER MODUL MSC-CB MASTER MODULE	121335	01-07/14		 0.3 MB
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## Catalogs

- Einfach programmierbar - Die sichere Kleinsteuerung MSC Easily programmable - The small safe control system MSC Simplement programmable - L'automate de sécurité MSC Fácil de programar - El controlador seguro de tamaño reducido MSC 易于编程 - MSC小型安全控制系统

	Doc. no.	Version	Language	Download
Einfach programmierbar - Die sichere Kleinsteuerung MSC	121780	05-05/16		 2.2 MB
Simplement programmable - L'automate de sécurité MSC	122111	05-05/16		 2.2 MB
Fácil de programar - El controlador seguro de tamaño reducido MSC	122112	05-05/16		 2.2 MB
Easily programmable - The small safe control system MSC	121888	05-05/16		 2.2 MB
易于编程 - MSC小型安全控制系统	157058	05-05/16		 2.7 MB







## Application example

- Einbindung MSC-CE-PN in das TIA Portal V13/V14/V15

	Doc. no.	Version	Language	Download
Einbindung MSC-CE-PN in das TIA Portal V13/V14/V15	AP000235	01-08/18		 1.0 MB
Integration of MSC-CE-PN in TIA Portal V13/V14/V15	AP000235	01-08/18		 1.1 MB

## Declaration of conformity

- EU-Konformitätserklärung

	Doc. no.	Version	Language	Download
EU-Konformitätserklärung Declaración UE de conformidad Déclaration UE de conformité Dichiarazione di conformità EU declaration of conformity	2122800	05-06/17	    	 0.3 MB