

## Technical specification

scope of application

### FMSC Master FMSC Slave

Programmable controller for safe and non safe applications

Safety design of hardware

SIL 3 (IEC61508), pl e EN ISO 13849-1

## Electrical specification

Power supply

24V DC

Tolerance range

18 ... 30,0 V DC max. 10% ripple

Current consumption

typ. 20 mA

Fuse for power supply

T 20 A extern

Terminal connection  
power supply  
input level  
output level

screw- or spring type  
max. 2,5 mm<sup>2</sup>  
max. 1,5 mm<sup>2</sup>  
max. 2,5 mm<sup>2</sup>

Interface

Mirco USB for programming,  
hardware diagnosis and Debug-Mode

## Inputs

Number of inputs

6 (24V) and 6 (24V oder 5V)

Galvanic isolation

no

Signal level at log "0"

0 ... 8V DC at 24V  
0 ... 1,5V DC at 5V

Signal level at log "1"

15 ... 28V DC at 24V  
3,5 ... 6V DC at 5V

Input current

4 mA (at 24V)

min impulse duration

0,5 ms

Status displayed via

LED

## Outputs - safe

Number of outputs - safe

4

Galvanic isolation

no

Output current at log "1"

max. 4 A

Short circuit protection

electronically

Status displayed via

LED

## Outputs - Standard

Number of outputs - standard

5

Galvanic isolation

no

Output current at log "1"

max. 0,5 A

Short circuit protection

electronically

Status displayed via

LED

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## Technical data



## Mechanical specification

Design size (hxbxt) without connectors  
Installation on top hat rail

## FMSC Master FMSC Slave

114,5 x 22,5 x 99 mm  
according to DIN 50 022

Protection class housing

IP 20

Protection class terminals

IP 20

Weight

130 gr / 170 gr with connectors

## Environmental conditions

## FMSC Master FMSC Slave

Operating temperature range

0 ... +55° C

Storage temperature range

-25° C ... +70° C

Relative humidity

10% ... 95% RH

Creep distance

DIN EN 50 178

Oscillation

DIN EN 60 068-2-6















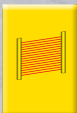









EMC

DIN EN 61 000-6-2

Condensation

not allowed

## Overview about FMSC function elements

Emergency stop		AND - NAND		
Safety gate monitoring		OR - NOR		
Operating mode selector switch		XOR Inverter		
Operating console evaluation		R- S- Flip- Flop		
Valve monitoring dynamically or static		Ton and Toff delay		
Safety light curtain evaluation		Monoflop rising or falling edge		
Two hand control monitoring		Timer Counter upward		
Fiessler AKAS evaluation		Decimal / binaryr or Binary / Decimal converter		
Fiessler BLVT programming				

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	FMSC Master FMSC Slave
Number of counter inputs	2
Typ of sensors	Linear encoder Rotary encoder
Signal voltage	5V or 24V
Resolution linear encoder	1 - 1000 $\mu\text{m}$
Resolution rotary encoder	1 - 36000 Pulses
The smallest possible speed with linear encoder	$\geq 1 \text{ mm/s}$
The smallest possible speed with rotary encoder	$\geq 1 \text{ U/min}$
Number of pulse counter	2

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# FMSC System-family

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# FMSC System-family

## Type overview

<b>Hardware overview</b>	<b>FMSC Master FMSC ECO</b> 12 inputs 4 safe outputs 5 standard outputs -	<b>FMSC Master FMSC BASIC</b> 12 inputs 4 safe outputs 5 standard outputs ... up to 4 slaves configurable - - - - - - - - - -	<b>FMSC Master FMSC ADVANCED</b> 12 inputs 4 safe outputs 5 standard outputs ... up to 8 slaves configurable configurable 1 Axis / Master	<b>FMSC Master FMSC PROFİ</b> 12 inputs 4 safe outputs 5 standard outputs ... up to 16 slaves configurable configurable 1 Axis / Master up to 17 Axis complete system
<b>Expandable with...</b>				
<b>Switch-off delay safe outputs</b>				
<b>Fast shut down function 0,5 ms reaction time</b>				
<b>Safe monitored number of axis</b>				
<b>Software overview</b>	<b>FMSC Master FMSC ECO</b> - - - - - - - - - - - - - - -	<b>FMSC Master FMSC BASIC</b> - - - - - - - - - - - - - - -	<b>FMSC Master FMSC ADVANCED</b> implemented implemented implemented	<b>FMSC Master FMSC PROFİ</b> implemented implemented implemented
<b>PSDI - mode</b>				
<b>Muting - application</b>				
<b>BLVT - application</b>				
<b>Connection overview</b>		<b>FMSC Slave FMSC BASIC</b>	<b>FMSC Slave FMSC ADVANCED</b>	<b>FMSC Slave FMSC PROFİ</b>
<b>Connection to Master type of slaves</b>		FMSC Basic Master FMSC Advanced Master FMSC Profi Master	FMSC Advanced Master FMSC Profi Master	FMSC Profi Master

