

# MINI MCR-SL-FM-RC-SP-NC - Monitoring block



2902962

<https://www.phoenixcontact.com/us/products/2902962>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



The fault monitoring module is used to evaluate and report group errors from the fault monitoring system and monitor supply voltages. Spring-cage connection, standard configuration. Replacement part: 2904508 MINI MCR-2-FM-RC-PT.

## Product description

The MINI MCR-SL-FM-RO-(SP) fault monitoring module is used to evaluate and report group errors from the fault monitoring system. It can be used to monitor the supply voltages of a MINI MCR-SL-PTB-FM-(-SP) power terminal block (Item No. 2902958, 2902959). It also offers the option of detecting and reporting errors from MINI Analog measuring transducers which support fault monitoring and are connected to the fault monitoring module via the ME 6,2 TBUS-2 DIN rail connector (Item No. 2869728). Drawing off the supply is also possible. The error message is reported via an N/C contact. A maximum of 80 measuring transducers can be monitored as a group.

## Commercial data

Item number	2902962
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C403
Product key	DK113Z
GTIN	4046356702843
Weight per piece (including packing)	79.1 g
Weight per piece (excluding packing)	73.3 g
Customs tariff number	85369010
Country of origin	DE

# MINI MCR-SL-FM-RC-SP-NC - Monitoring block

2902962

<https://www.phoenixcontact.com/us/products/2902962>



## Technical data

### Product properties

Product type	Evaluation unit
Product family	MINI Analog

### Insulation characteristics

Overvoltage category	II
Pollution degree	2

### Electrical properties

Rated insulation voltage	50 V AC/DC
Electrical isolation between input and output	yes
Test voltage input/output	1.5 kV AC (50 Hz, 60 s)
Maximum temperature coefficient	< 0.01 %/K

### Electrical isolation Input/output

Electrical isolation	Input, power supply and output to the switching output
Rated insulation voltage	50 V AC/DC
Test voltage	1.5 kV AC (50 Hz, 60 s)
Insulation	Basic insulation in accordance with IEC/EN 61010

### Supply

Supply voltage range	9.6 V DC ... 30 V DC (The DIN rail connector (ME 6.2 TBUS-2 1,5/5-ST-3,81 GN, item no. 2869728) can be used to bridge the supply voltage. It can be snapped onto a 35 mm DIN rail in accordance with EN 60715)
Max. current consumption	< 5 mA (at 24 V DC)
Power consumption	< 120 mW (at 24 V DC)

### Input data

#### Signal: Voltage

Description of the input	Voltage input for redundancy monitoring
Voltage input signal	9.6 V DC ... 30 V DC

### Output data

#### Switching: Relay

Maximum switching voltage	30 V AC/DC
Max. switching current	50 mA

#### Signal

Voltage output signal	8.8 V DC ... 29.2 V DC
Max. current output signal	2 A

### Connection data

# MINI MCR-SL-FM-RC-SP-NC - Monitoring block



2902962

<https://www.phoenixcontact.com/us/products/2902962>

Connection method	Spring-cage connection
Stripping length	8 mm
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 12

## Signaling

Status display	Yellow LED (switching output)
Error indication	Red LED

## Dimensions

Dimensional drawing	
Width	6.2 mm
Height	93.1 mm
Depth	102.5 mm

## Material specifications

Color	green (RAL 6021)
Housing material	PBT
Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 2
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 2
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 2

## Environmental and real-life conditions

Ambient conditions	
Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 65 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

## Approvals

CE	
Certificate	CE-compliant

ATEX	
Identification	Ex II 3 G Ex nA nC IIC T4 Gc X

UL, USA/Canada	
Identification	UL 508 Listed Class I, Div. 2, Groups A, B, C, D T5 pending

# MINI MCR-SL-FM-RC-SP-NC - Monitoring block

2902962

<https://www.phoenixcontact.com/us/products/2902962>



Class I, Zone 2, Group IIC

Shipbuilding approval

Identification	D, EMC1
Certificate	DNV GL 14085-15HH

## EMC data

Electromagnetic compatibility	Conformance with EMC directive
Noise immunity	EN 61000-6-2
Note	When being exposed to interference, there may be minimal deviations.

Noise emission

Standards/regulations	EN 61000-6-4
-----------------------	--------------

Electrostatic discharge

Standards/regulations	EN 61000-4-2
-----------------------	--------------

Electrostatic discharge

Comments	Safety measures must be taken to prevent electrostatic discharge.
----------	---

Electromagnetic HF field

Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
Typical deviation from the measuring range final value	0.5 %

Electromagnetic HF field

Comments	Criterion A
----------	-------------

Fast transients (burst)

Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Typical deviation from the measuring range final value	2 %

Fast transients (burst)

Comments	Criterion B
----------	-------------

Surge current load (surge)

Standards/regulations	EN 61000-4-5
-----------------------	--------------

Surge current load (surge)

Comments	Criterion B
----------	-------------

Conducted interference

Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Typical deviation from the measuring range final value	0.5 %

Conducted interference

# MINI MCR-SL-FM-RC-SP-NC - Monitoring block

2902962

<https://www.phoenixcontact.com/us/products/2902962>



## Comments

## Criterion A

### Mounting

Mounting type	DIN rail mounting
Mounting position	any

# MINI MCR-SL-FM-RC-SP-NC - Monitoring block

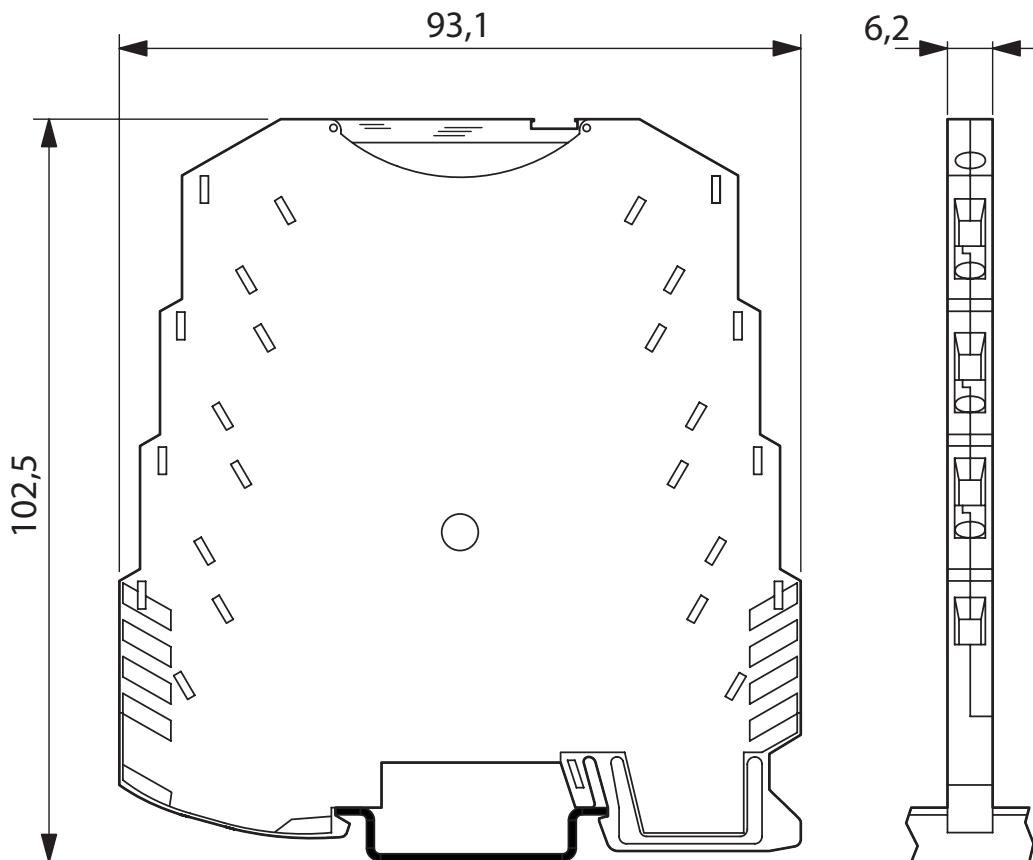
2902962

<https://www.phoenixcontact.com/us/products/2902962>

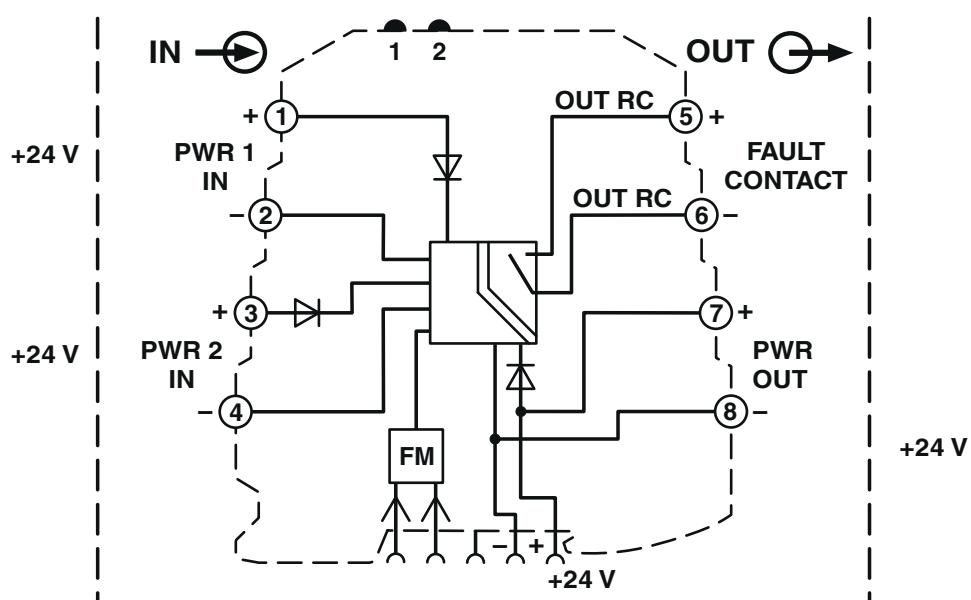


## Drawings

Dimensional drawing



Block diagram



# MINI MCR-SL-FM-RC-SP-NC - Monitoring block

2902962

<https://www.phoenixcontact.com/us/products/2902962>



## Environmental product compliance

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.	

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
-------------------------------------	----------------------------

Phoenix Contact 2025 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)