

# MINI MCR-2-FM-RC-PT - Monitoring block



2904508

<https://www.phoenixcontact.com/us/products/2904508>

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Fault monitoring module with plug-in connection technology for evaluating and reporting group errors from the FM system and for monitoring the supply voltages. Error message via N/C contact. Push-in connection technology, standard configuration

## Product description

The fault monitoring module with plug-in connection technology is used to evaluate and report group errors from the fault monitoring system of up to 115 connected MINI Analog Pro signal conditioners via the ME 6,2 TBUS-2 DIN rail connector (Item No.: 2869728). You can also monitor the supply voltages of MINI MCR-2-PTB(-PT) power terminals (Item No.: 2902066, 2902067). Drawing off the supply is also possible. The error is reported via an N/C contact. The error reporting module supports NFC communication.

## Commercial data

Item number	2904508
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C404
Product key	DK112Z
GTIN	4046356857390
Weight per piece (including packing)	119 g
Weight per piece (excluding packing)	96.3 g
Customs tariff number	85437090
Country of origin	DE

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## Technical data

### Notes

#### Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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### Product properties

Product type	Evaluation unit
Product family	MINI Analog Pro
Configuration	DIP switches

### System properties

#### Functionality

Configuration	DIP switches
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### Electrical properties

Electrical isolation	2-way isolation
Electrical isolation between input and output	yes
Maximum temperature coefficient	< 0.01 %/K

#### Electrical isolation

Overvoltage category	II
Pollution degree	2

#### Electrical isolation Input/output IEC/EN 61010

Standards/regulations	IEC/EN 61010
Rated insulation voltage	50 V AC/DC (effective)
Test voltage	1.5 kV AC (50 Hz, 60 s)
Insulation	Basic insulation

#### 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	< 16 mA (24 V DC)
Power consumption	< 410 mW (24 V DC)

### Input data

#### Signal: Voltage

Description of the input	Voltage input for redundancy monitoring
Number of inputs	1
Voltage input signal	9.9 V DC ... 30 V DC

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## Output data

Switching: Relay

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

Signal: Voltage

Number of outputs	1
Voltage output signal	9.6 V DC ... 29.7 V DC
Max. current output signal	3.2 A

## Connection data

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (with ferrule) 0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> (without ferrule)
Conductor cross-section flexible	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	24 ... 12 (flexible)

## Ex data

Ex installation (EPL)	Gc Div. 2
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## Signaling

Status display	Green LED (supply voltage) Yellow LED (switching output)
Error indication	Red LED

## Dimensions

Width	6.2 mm
Height	109.81 mm
Depth	119.2 mm

## Material specifications

Color	gray (RAL 7042)
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 (not assessed by UL)
Ambient temperature (operation)	-40 °C ... 70 °C

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Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m
Permissible humidity (operation)	5 % ... 95 % (non-condensing)

## Approvals

### CE

Certificate	CE-compliant
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### ATEX

Identification	Ⓜ II 3 G Ex ec IIC T4 Gc
Certificate	BVS 20 ATEX E 014X

### IECEX

Identification	Ex ec IIC T4 Gc
Certificate	IECEX BVS 20.0010X

### CCC / China-Ex

Identification	Ex ec IIC T4 Gc
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### UL, USA/Canada

Identification	UL 508 Listed
	Class I, Div. 2, Groups A, B, C, D T6
	Class I, Zone 2, Group IIC T6

### Shipbuilding approval

Certificate	DNV GL TAA00002UA
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### EAC Ex

Identification	Ⓜ Ex ec IIC T4 Gc
Certificate	BY/112 02.01 TP012 103.01 00079

### Shipbuilding data

Temperature	B
Humidity	B
Vibration	A
EMC	A
Enclosure	Required protection according to the Rules shall be provided upon installation on board

## 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
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## Electrostatic discharge

Standards/regulations	EN 61000-4-2
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## Electrostatic discharge

Comments	Safety measures must be taken to prevent electrostatic discharge.
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## Electromagnetic HF field

Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3

## Fast transients (burst)

Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4

## Surge current load (surge)

Standards/regulations	EN 61000-4-5
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## Conducted interference

Designation	Conducted interferences
Standards/regulations	EN 61000-4-6

## Standards and regulations

Electrical isolation	2-way isolation
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## GB Standard

Standards/regulations	GB/T 3836.1
	GB/T 3836.3

## Mounting

Mounting type	DIN rail mounting
Mounting position	any

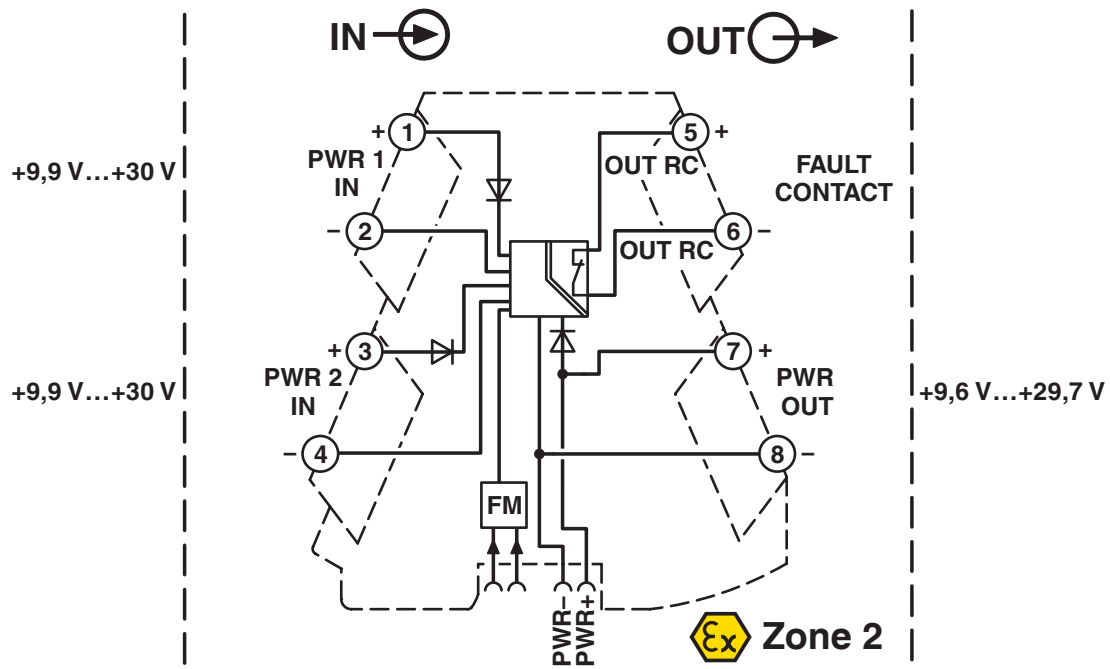
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## Drawings

Block diagram



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## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2904508>



**UL Listed**

Approval ID: FILE E 238705



**cUL Listed**

Approval ID: FILE E 238705

**DNV**

Approval ID: TAA00002UA



**IECEx**

Approval ID: IECEx BVS 20.0010X



**cUL Listed**

Approval ID: E196811



**UL Listed**

Approval ID: E196811



**ATEX**

Approval ID: BVS 20 ATEX E 014X



**EAC Ex**

Approval ID: TP012 103.01 00079



**CCC**

Approval ID: 2022122309115969

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## Classifications

### ECLASS

ECLASS-13.0	27371392
ECLASS-15.0	27371392

### ETIM

ETIM 10.0	EC002886
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### UNSPSC

UNSPSC 21.0	39121100
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## Environmental product compliance

### EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	7(a), 7(c)-I

### 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.)	Lead(CAS: 7439-92-1)
SCIP	fb417cef-770e-42ef-b0af-2beab695b3f5

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