

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



2904504

<https://www.phoenixcontact.com/us/products/2904504>

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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. Screw 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	2904504
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C404
Product key	CK14ZZ
Catalog page	Page 110 (C-5-2019)
GTIN	4046356857406
Weight per piece (including packing)	128 g
Weight per piece (excluding packing)	109 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

#### Insulation characteristics: GB Standard

Overvoltage category	II
Pollution degree	2

### System properties

#### Functionality

Configuration	DIP switches
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### Electrical properties

Rated insulation voltage	50 V AC/DC (effective)
Electrical isolation	Basic insulation in accordance with EN 61010
Test voltage (Input/output)	1.5 kV AC (50 Hz, 60 s)
Maximum temperature coefficient	< 0.01 %/K

#### Electrical isolation

Electrical isolation	Input, power supply and output to the switching output
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#### 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

### Output data

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## Switching: Relay

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

## 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	Screw connection
Stripping length	10 mm
Screw thread	M3
Conductor cross section rigid	0.2 mm <sup>2</sup> ... 1.5 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)
Tightening torque	0.5 Nm ... 0.6 Nm

## 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)
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
Housing material	PBT

## 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

### UKCA Ex (UKEX)

Identification	⊕ II 3 G Ex ec IIC T4 Gc
Certificate	PxCIF21UKEX2902004X

### IECEX

Identification	Ex ec IIC T4 Gc
Certificate	IECEX BVS 20.0010X

### CCC / China-Ex

Identification	Ex nA IIC T4 Gc
Certificate	NEPSI GYJ20.1320X

### 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

### DNV GL 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

Noise immunity	EN 61000-6-2
Note	When being exposed to interference, there may be minimal deviations.

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Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4

## 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	Basic insulation in accordance with EN 61010
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## GB Standard

Standards/regulations	GB 3836.1
	GB 3836.8

## Mounting

Mounting type	DIN rail mounting
Mounting position	any

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## Classifications

### ECLASS

ECLASS-11.0	27371392
ECLASS-12.0	27371392
ECLASS-13.0	27371392

### ETIM

ETIM 9.0	EC002498
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### UNSPSC

UNSPSC 21.0	39121100
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## Environmental product compliance

REACH SVHC	Lead 7439-92-1
China RoHS	Environmentally Friendly Use Period = 50 years
	For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"

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