

MINI MCR-SL-FM-RC-NC - Monitoring module



2902961

<https://www.phoenixcontact.com/in/products/2902961>

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The fault monitoring module is used to evaluate and report group errors from the fault monitoring system and to monitor the supply voltages. The error is reported via an N/O contact. Screw connection, standard configuration.

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	2902961
Packing unit	1 pc
Minimum order quantity	1 pc
Sales Key	CK1
Product Key	CK12ZZ
Catalog Page	Page 524 (C-5-2017)
GTIN	4046356702850
Weight per Piece (including packing)	95.2 g
Weight per Piece (excluding packing)	81.7 g
Customs tariff number	85369010
Country of origin	DE

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
Configuration	DIP switches

Insulation characteristics

Overvoltage category	II
Pollution degree	2

System properties

Functionality

Configuration	DIP switches
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Electrical properties

Maximum temperature coefficient	< 0.01 %/K
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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

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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

Connection method	Screw connection
Stripping length	12 mm
Screw thread	M3
Conductor cross section rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	26 ... 12

Signaling

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

Dimensions

Width	6.2 mm
Height	93.1 mm
Depth	101.2 mm

Material specifications

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
Ambient temperature (operation)	-20 °C ... 65 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	≤ 2000 m
Permissible humidity (operation)	5 % ... 95 % (non-condensing)

Approval data

CE

Certificate	CE-compliant
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UKCA

Certificate	UKCA-compliant
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UL, USA/Canada

Identification	UL 508 Listed
	Class I, Div. 2, Groups A, B, C, D T4
	Class I, Zone 2, Group IIC

Shipbuilding approval

Certificate	DNV GL TAA00002R0
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DNV GL data

Temperature	B
Humidity	B
Vibration	B
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 emission	EN 61000-6-4
Noise immunity	EN 61000-6-2
Note	When being exposed to interference, there may be minimal deviations.

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
Typical deviation from the measuring range final value	0.5 %

Electromagnetic HF field

Comments	Criterion A
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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
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Surge current load (surge)

Standards/regulations	EN 61000-4-5
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Surge current load (surge)

Comments	Criterion B
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Conducted interference

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

Conducted interference

Comments	Criterion A
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Mounting

Mounting type	DIN rail mounting
Mounting position	any

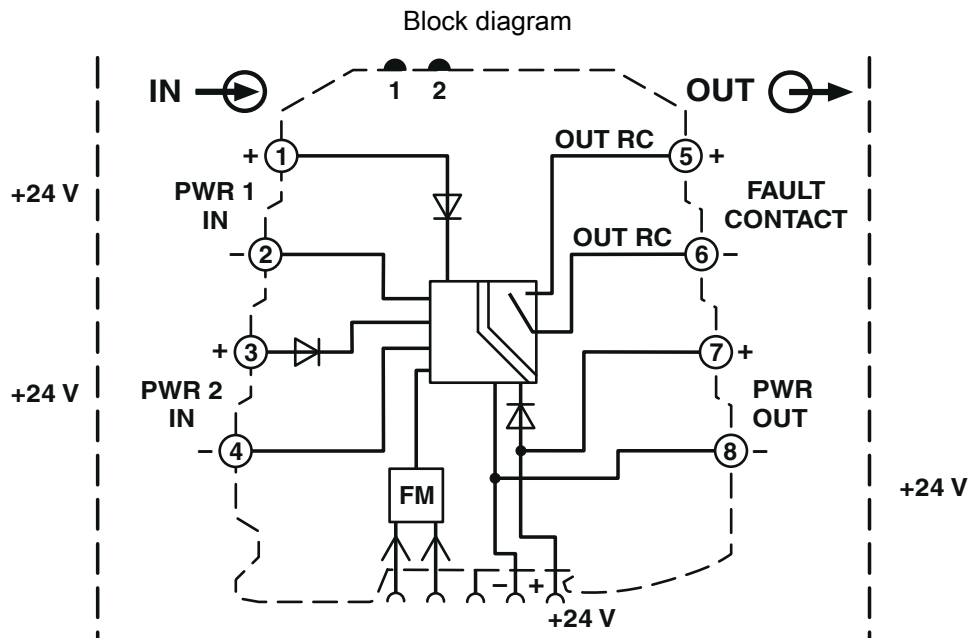
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Drawings



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Approvals



DNV GL

Approval ID: TAA00002R0



UL Listed

Approval ID: FILE E 238705



cUL Listed

Approval ID: FILE E 238705



cUL Listed

Approval ID: FILE E 199827



UL Listed

Approval ID: FILE E 199827



ATEX

Approval ID: 2902961_Ex-n

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Classifications

ECLASS

ECLASS-11.0	27371392
ECLASS-12.0	Auswerteeinheit
ECLASS-12.0	Auswerteeinheit
ECLASS-12.0	Auswerteeinheit

ETIM

ETIM 8.0	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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Accessories

TC-D37SUB-AIO16-M-PS-UNI - Module carrier

2902934

<https://www.phoenixcontact.com/in/products/2902934>



Universal termination carrier for connecting 16 MINI Analog signal conditioners to digital or analog I/O cards, via D-SUB connector, 37-pos. (1:1 connection), with HART multiplexer connection

TC-D37SUB-ADIO16-M-P-UNI - Module carrier

2902933

<https://www.phoenixcontact.com/in/products/2902933>



Universal termination carrier for connecting 16 MINI Analog signal conditioners to digital or analog I/O cards, via D-SUB connector, 37-pos. (1:1 connection)

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MINI MCR-SL-PTB-FM - Power terminal block

2902958

<https://www.phoenixcontact.com/in/products/2902958>

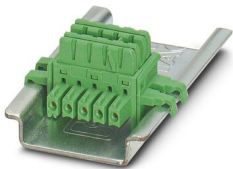


The MINI MCR-SL-PTB-FM(-SP) power terminal block is used to supply the supply voltage to the DIN rail connector. The FM power terminal block offers the additional function of monitoring in combination with the fault monitoring module. Screw connection.

ME 6,2 TBUS-2 1,5/5-ST-3,81 GN - DIN rail bus connectors

2869728

<https://www.phoenixcontact.com/in/products/2869728>



DIN rail connector for DIN rail mounting. Universal for TBUS housing. Gold-plated contacts, 5-pos.

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MINI-SYS-PS-100-240AC/24DC/1.5 - Power supply unit

2866983

<https://www.phoenixcontact.com/in/products/2866983>



Please use the following item in new systems: 2904614
Primary-switched MINI POWER power supply for DIN rail mounting, input: 1-phase, output: 24 V DC/1.5 A

MINI MCR DKL - Transparent cover

2308111

<https://www.phoenixcontact.com/in/products/2308111>



Fold up transparent cover for MINI MCR modules with additional labeling option using insert strips and flat Zack marker strip 6.2 mm

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MINI MCR-DKL-LABEL - Marking label

2810272

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Label for extended marking of MINI MCR modules in connection with the MINI MCR-DKL



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