MACX MCR-PTB-SP - Power and fault monitoring module

2924184

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Power and fault monitoring module with Push-in connection, including corresponding ME 17,5 TBUS 1,5/ 5-ST-3,81 GY DIN rail connector

Your advantages

- Simple or redundant supply, decoupled from diode, protected against polarity reversal
- Installation in zone 2 permitted
- Replaceable fuse
- Error message in the event of power supply failure or fuse fault
- Bus cable error message for MACX MCR-...(2)NAM... devices connected via DIN rail connectors
- Relay output (changeover contact) and blinking LED for error messages
- Supply current up to 3.75 A

Commercial data

Item number	2924184
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	C402
Product key	DK111Z
GTIN	4046356342766
Weight per piece (including packing)	156 g
Weight per piece (excluding packing)	151 g
Customs tariff number	85437090
Country of origin	DE

Technical data

Product properties

Product type	Feed-in module
Product family	MACX Analog

Electrical properties

Fuse	5 A (replaceable), slow-blow 250 V AC
Reverse polarity protection	yes

Electrical isolation

Overvoltage category	II
Pollution degree	2

Electrical isolation Input/switching output

Rated insulation voltage	50 V AC/DC

Supply

Nominal supply voltage	24 V DC

Output data

Switching: Relay

Contact switching type	1 changeover contact
Contact material	Gold (Au)
Maximum switching voltage	50 V AC (2 A)
	30 V DC (2 A)
	50 V DC (0.22 A)

Signal: Supply via DIN rail bus connector

Max. current output signal	3.75 A
Output voltage	Nominal supply voltage - max. 0.8 V at 3.75 A

Connection data

Connection method	Push-in connection
Stripping length	10 mm
Conductor cross-section rigid	0.2 mm² ... 2.5 mm²
Conductor cross-section flexible	0.2 mm² ... 2.5 mm²
Conductor cross-section flexible (2 conductors with same cross section)	0.25 mm² ... 0.34 mm² (TWIN ferrule without plastic sleeve)
	0.5 mm² ... 1.5 mm² (TWIN ferrule with plastic sleeve)
Conductor cross-section AWG	24 ... 14
	24 ... 22 (TWIN ferrule without plastic sleeve)
	20 ... 16 (TWIN ferrule with plastic sleeve)

Ex data

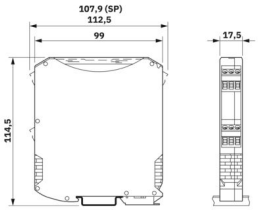
Ex installation (EPL)	Gc

	Div. 2

Signaling

Status display	1 x red LED (error)
	2x green LEDs (PWR1 and PWR2)

Dimensions

Dimensional drawing	
Width	17.5 mm
Height	103.5 mm
Depth	113.7 mm
Depth NS 35/7,5	114.5 mm (Snapped onto DIN rail NS 35/7,5 in accordance with EN 60715)

Material specifications

Color	gray (RAL 7042)
Flammability rating according to UL 94 (Housing)	V0 (Housing)
Housing material	PA 6.6

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 60 °C (Any mounting position)
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Permissible humidity (operation)	5 % ... 95 % (non-condensing)

Altitude range (≤ 2000 m)

Altitude	≤ 2000 m (The technical data refers to altitudes ≤2000 m above mean sea level. For altitudes >2000 m above mean sea level, refer to the data sheet.)
Ambient temperature (operation)	-40 °C ... 60 °C
Rated insulation voltage	50 V AC/DC

Altitude range (≤ 3000 m)

Height range	> 2000 m ... 3000 m
Ambient temperature (operation)	-40 °C ... 54 °C
Rated insulation voltage	40 V AC/DC

Altitude range (≤ 4000 m)

Height range	> 3000 m ... 4000 m

Ambient temperature (operation)	-40 °C ... 48 °C
Rated insulation voltage	30 V AC/DC

Altitude range (≤ 5000 m)

Height range	> 4000 m ... 5000 m
Ambient temperature (operation)	-40 °C ... 42 °C
Rated insulation voltage	30 V AC/DC

Approvals

CE

Certificate	CE-compliant

ATEX

Identification	Ⓔx II 3 G Ex ec nC IIC T4 Gc
Certificate	PxCIF08ATEX2865625X

IECEx

Identification	Ex ec nC IIC T4 Gc
Certificate	IECEx IBE 08.0004X

CCC / China-Ex

Identification	Ex ec nC IIC T4 Gc
Certificate	2021122303114198

UL, USA/Canada

Identification	UL 61010 Listed
	Class I, Div. 2, Groups A, B, C, D T5
	Class I, Zone 2, Group IIC T5

Shipbuilding approval

Certificate	DNV GL TAA0000AG

Shipbuilding data

Temperature	B
Humidity	B
Vibration	A
EMC	B
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

Electromagnetic HF field

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

Fast transients (burst)

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

Conducted interference

Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Evaluation criterion	A

Standards and regulations

GB Standard

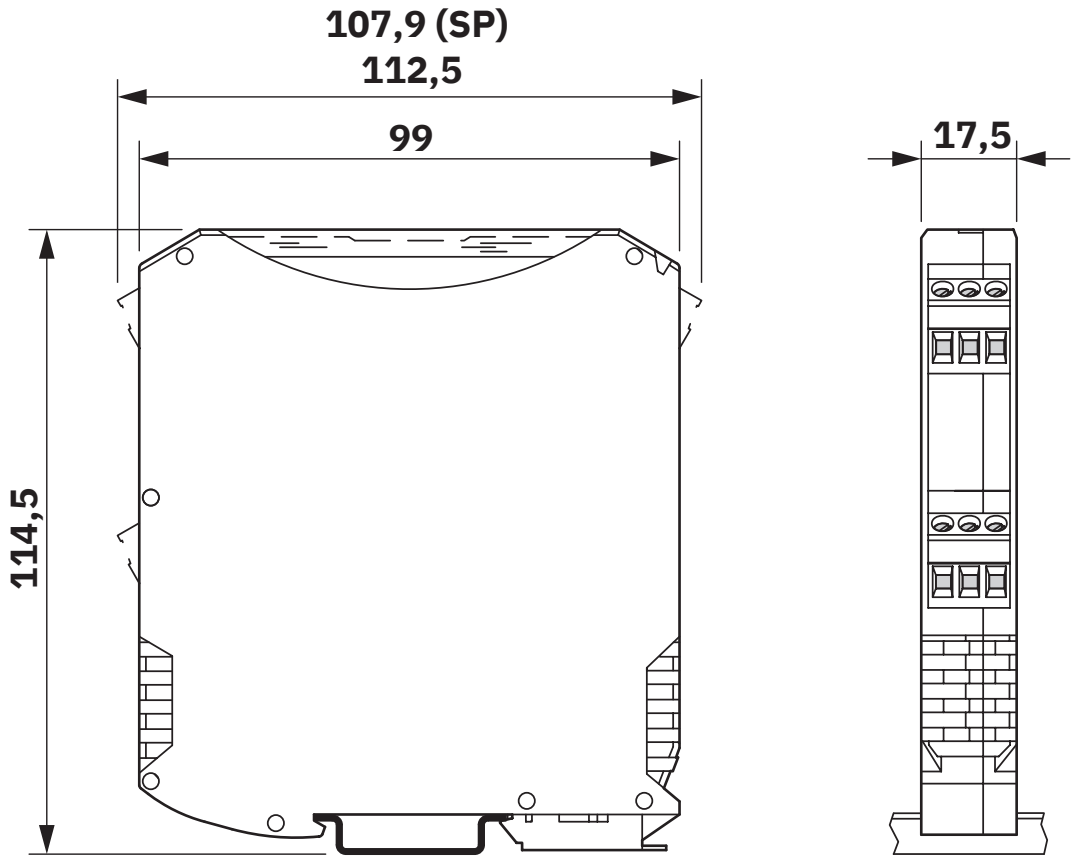
Standards/regulations	GB/T 3836.1
	GB/T 3836.3
	GB/T 3836.8

Mounting

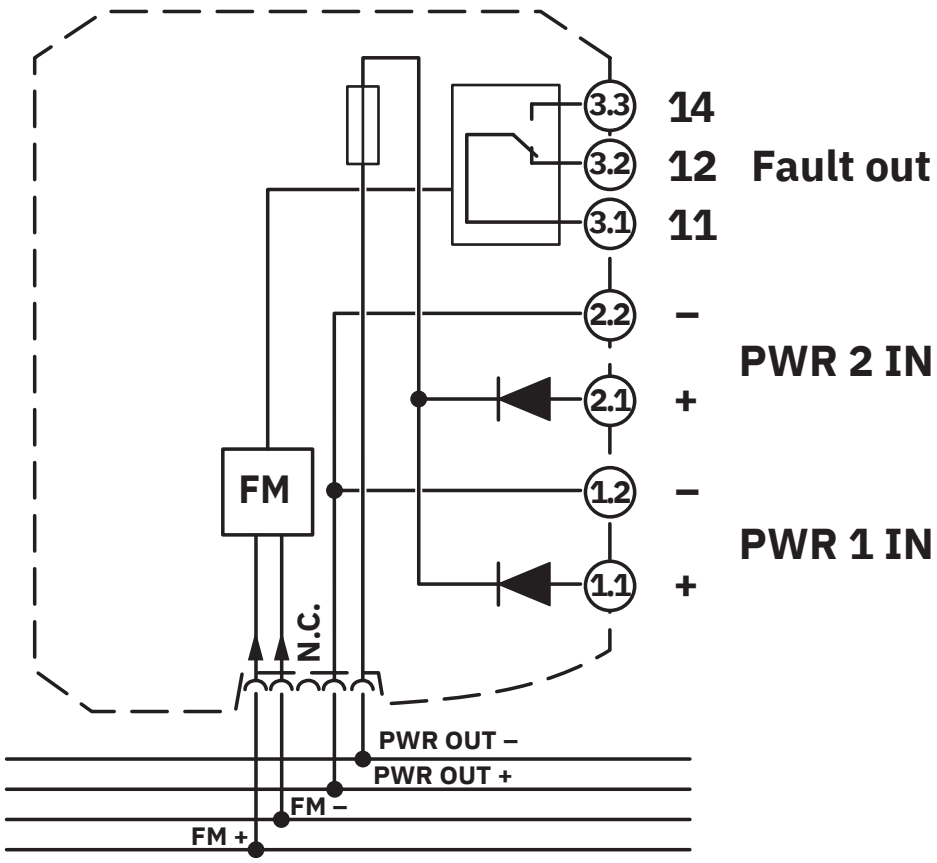
Mounting type	DIN rail mounting

Drawings

Dimensional drawing



Block diagram



Approvals

To download certificates, visit the product detail page: https://www.phoenixcontact.com/us/products/2924184

UL Listed
Approval ID: E330267

cUL Listed
Approval ID: E330267

DNV
Approval ID: TAA00000AG

cULus Listed
Approval ID: E330267

DNV
Approval ID: TAA000020C

IECEx
Approval ID: IECEx IBE 08.0004X

cUL Listed
Approval ID: E199827

UL Listed
Approval ID: FILE E 199827

CCC
Approval ID: 2021122303114198

cULus Listed
Approval ID: E199827

CCC
Approval ID: 2021122303114198

Classifications

ECLASS

ECLASS-13.0	27242610
ECLASS-15.0	27242610

ETIM

ETIM 10.0	EC001600

UNSPSC

UNSPSC 21.0	32151600

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	1ac3de46-9ac0-4d18-a487-6bdb65fdcbb3

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