

MACX-MR-V-600-R-PT - Monitoring relay



1487460

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1-phase voltage monitoring relay with RS-485 interface (0 V ... 600 V AC/DC), with adjustable threshold values, response delay, undervoltage, overvoltage, window monitoring functions. 24 V ... 240 V AC/DC wide-range power supply. Supports failure record storage, supports NFC communication and Modbus/RTU communication, with two configuration possibilities. 1 PDT dry contact output, plug-in connection.

Commercial data

Item number	1487460
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	DK6611
Product key	DK6611
GTIN	4063151931421
Customs tariff number	85371098
Country of origin	CN

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Technical data

Product properties

Product type	Voltage monitoring relay
Operating mode	Closed circuit or wire break

Insulation characteristics: Railway standard

Overvoltage category	III
Pollution degree	3

Electrical properties

Rated impulse withstand voltage	6 kV
Service life electrical	approx. 1×10^5 cycles, resistive load 2000 V A
Maximum power dissipation for nominal condition	15 W
Mains type	Single-phase AC, DC

Railway standard

Rated insulation voltage	600 V
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Electrical isolation

Electrical isolation	300 V
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Supply

Supply voltage range	24 V AC ... 240 V AC -15 % ... +10 %
	24 V DC ... 240 V DC -25 % ... +30 %
	24 V ... 240 V AC (Railway application)
	48 V ... 110 V DC (Railway application)
Nominal power consumption	15 VA (1.5 W)

Input data

Input name	Measuring input
Measured value	DC, AC sine (15 Hz ... 500 Hz)
Input voltage range	0 V AC/DC ... 600 V AC/DC
Input resistance of voltage input	0.75 M Ω
Frequency range	48 Hz ... 400 Hz
Maximum temperature coefficient	0.05 %/K
Setting range for response delay	0 s ... 99.9 s
Min setting range of the voltage threshold value	0 V AC/DC ... 600 V AC/DC
Max. setting range of the voltage threshold value	600 V AC/DC
Function	Undervoltage
	Overvoltage
	Window
Basic accuracy	1 % (>50V, $\pm 0.5V$ (0...50V))
Repeat accuracy	0.5 %
Recovery time	200 ms

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Output data

Switching

Contact switching type	1 floating changeover contact
Contact material	AgSnO ₂
Maximum switching voltage	250 V AC
Interrupting rating (ohmic load) max.	2000 VA (8 A/250 V AC)
Output fuse	10 A (fast-blow)

Connection data

Connection method	Push-in connection
Stripping length	10 mm
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	24 ... 14

Interfaces

Data: Network interface

Communication protocol	Modbus/RTU
Communication standard	RS-485
Connection method	Plug-in connection
Transmission speed range	2.4 kbps ... 115.2 kbps

Signaling

Status display	LED
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Dimensions

Width	22.5 mm
Height	109 mm
Depth	114 mm

Material specifications

Flammability rating according to UL 94	V0
Housing insulation material	PBT

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
	IP20
Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Altitude	2000 m
Permissible humidity (operation)	10 % ... 95 %

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Approvals

CE/UKCA

Identification	EN 62311, EN 300 330, EN 301 489-1, EN 301 489-3, EN/IEC 63000
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UL, USA/Canada

Identification	UL/C-UL Listed UL 508
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CCC

Identification	GB/T 14048.5
Identification	EN 60947-5-1
	EN 60255-27

Electronic devices in rail vehicles

Operating temperature class	OT4
Class of extended operating temperature upon activation	ST2
Temperature change class	H1
Interruption of the power supply/supply changeover	S2
	S3/C1
	C2
Hazard levels	HL1
	HL2
	HL3
Protective coating	PC2
Shock (operation)	Category 1
Vibration (operation)	Class B

EMC data

Electromagnetic compatibility	Conformance with EMC directive
Low Voltage Directive	Conformance with Low Voltage Directive
Noise immunity	EN 61000-6-2

Noise emission

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

Railway standard

Standard designation	EN 50155, GB/T 25119
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Mounting

Assembly note	on standard DIN rail NS 35 in accordance with EN 60715
Mounting position	any

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Approvals

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CCC

Approval ID: 2024010303656845

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Classifications

ECLASS

ECLASS-13.0	27371801
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ETIM

ETIM 9.0	EC001438
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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	435d172f-a35f-4515-b3e2-36c28241a05f

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PHOENIX CONTACT Ltd
Halesfield 13, Telford
Shropshire, TF7 4PG
01952 681700
info@phoenixcontact.co.uk