G2IO5A20-W1

Manufacturer data sheet: V1.080

Monitoring relay - current monitoring

Status: Available Data sheet created: 01.07.2025

Item Number: 2390414 - **Serie:** Gamma - **EAN:** 9008662005006



- AC/DC current monitoring in 1-phase mains
- Current monitoring with delayed pick-up in case of overcurrent
- 16.6 ... 400 Hz
- Supply voltage selectable via power module TR2/SNT2
- 2 changeover contacts
- width 22,5mm
- industrial design

Description

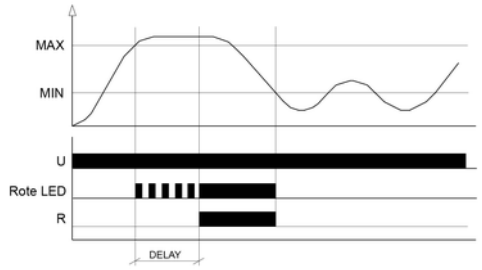
a.c./d.c. overcurrent monitoring in 1-phase mains with adjustable thresholds, tripping delay and adjustable hysteresis.

General information

Short description	Current monitoring with delayed pick-up in case of overcurrent
Item Number	2390414
EAN	9008662005006
Main category	Monitoring Relays
Series	Gamma
Type	G2IO5A20-W1
Design	Industrial design
Supply	12-400V AC
Dimensions	22.5 x 90 x 108 mm

Functions and measurands

Amount of functions 1



Overcurrent monitoring (OVER)
When the supply voltage U is applied, the output relay R is into offposition. When the measured current exceeds the value adjusted at the MAX-regulator, the set interval of tripping delay (DELAY) begins (red LED U/t flashes). After the interval has expired (red LED U/t illuminated), the output relay switches into on-position (yellow LED illuminated).The output relay switches into off-position (yellow LED not illuminated), when the measured current falls below the value adjusted at the MIN-regulator (red LED U/t not illuminated).

Time ranges

Number Of Areas	1	
Time ranges	**Setting range**	
	Start-up delay	-
	Shutter delay	0 ... 5s

Indicators

Supply/time lapse 1	Green LED U/t ON: Supply voltage applied
Relay state	Yellow LED ON/OFF: output relay position
Error / monitoring function	Red LED U/t ON/OFF: Display error for max (A)
Error / monitoring function	Red LED U/t flashes: Indication of tripping delay for fault max (A)

Mechanical design

Housing material	made of self-extinguishing plastic
Housing - protection degree	IP40
Mounting	top hat rail TH 35 7,5-15 according to IEC 60715:2017 / EN 60715:2017
Terminals/connections	Touch-proof clamping yoke terminals according to DGUV 3 (Screwdriver PZ1 required)
Terminals - protection degree	IP20
Mounting position	any
Max. Tightening Torque	1 Nm
Terminal capacity	• 1 x 0.5 to 2.5mm² with/without ferrule • 1 x 4mm² without ferrule • 2 x 0.5 to 1.5mm² with/without ferrules • 2 x 2.5mm² flexible without ferrules

Supply circuit

Terminals/connections	A1-A2
Supply voltage a.c.	12 ... 400 V
Supply voltage tolerance a.c.	According to power supply unit specification
Rated consumption a.c.	1,5 W / 2 VA
Rated frequency power module	According to power supply unit specification
Duty cycle	100%
Recovery time	100 ms
Residual ripple	d.c. 10%
Drop-out voltage	>30% of the min. supply voltage
Overvoltage category	III (IEC 60664-1)
Rated surge voltage	4 kV

Output curcuit

Type	Relay
Contact 1	1 change over contact
Terminals 1	15-16-18
Contacts 2	1 change over contact
Terminals/connections 2	25-26-28
Rated voltage	250 V a.c.
Switching Capacity 1	750 VA (3 A / 250 V a.c.) (distance between devices <5 mm)
Switching capacity	1250 VA (5 A / 250 V a.c.) (distance between devices >5 mm)
Fuse Protection	5 A quick
Mechanical life	15 x 10^6 Switching cycles
Electrical life	100 x 10^3 Switching cycles (1000 VA)
Switching frequency	max. 60/min bei 100 VA ohmscher Last
Switching frequency 2	max. 6/min bei 1000 VA ohmscher Last (IEC 60947-5-1)
Rated surge voltage	4 kV
Overvoltage category	III (IEC 60664-1)

Measuring circuit

Measurand	Current - one phase
Measuring range	5 A a.c./d.c.
Terminals/connections	K-I(+)
Overload capacity	10 A
Input resistance	10 m
Frequency - sinusoidal	16.6 ... 400 Hz
Switching threshold minimum	10% ... 90% In
Switching threshold maximum	0,5 ... 5 A
Rated surge voltage	4 kV
Overvoltage category	III (IEC 60664-1)

Accuracy

Base accuracy	±5 %(from full scale)
Adjustment accuracy	≤5 % (from full scale)
Repetition accuracy	≤2 %
Temperature influence	≤0.1 % / °C
Frequency response	-10% ... +5% (16.6 ... 400 Hz)

Ambient conditions and general specifications

Ambient temperature IEC	-25 ... +55°C (IEC 60068-1)
Storage temperature	-25 ... +70 °C
Transport temperature	-25 ... +70 °C
Relative humidity	-10% ... +5% (16.6 ... 400 Hz)
Vibration resistance	10 ... 55 Hz 0.35 mm (IEC 60068-2-6)
Shock resistance	15 g 11 ms (IEC 60068-2-27)
Pollution degree	3 (IEC 60664-1)

Logistics

Minimum Quantity	1
Tariff Number	85364900
EAN	9008662005006
Country of Origin	AT
Product Weight (g)	171

Available declarations / conformities

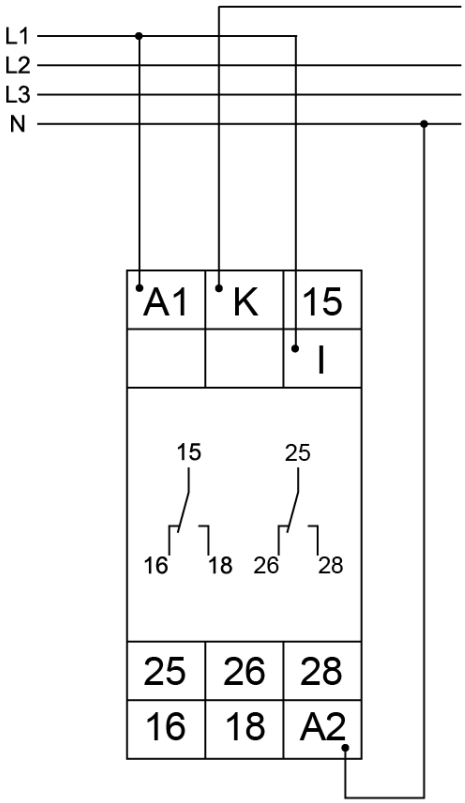
EAC	✓
UL	Open document
c(UL)	Open document
REACH	Open document
WEEE	Open document
TSCA	Open document
RoHs	Open document
CMRT	Open document

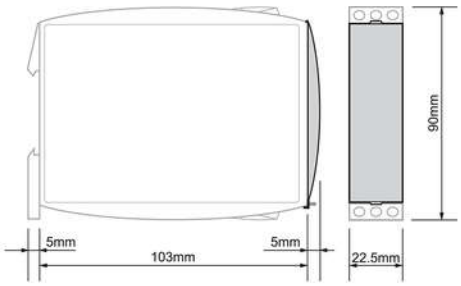
CAD Files

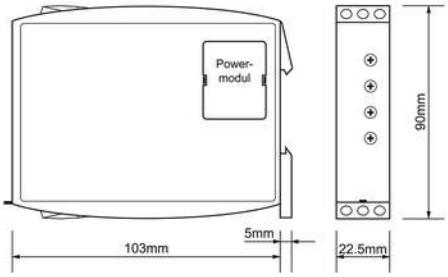
STEP_G2_TRAFO_en.STEP	Download file

Media & drawings













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Changes and errors excepted