DATA SHEET

Article number : 09344632

residual current monitors
DCTR B NK 035/0,30-I

AC/DC sensitive type B

Function

RCMs (residual current monitors), when used in combination with separate residual current transformers, allow the monitoring of insulation between active conductors and the earth conductor. In contrast to modular residual current devices (MRCDs) or residual current circuit-breakers (RCCBs), they are used where the system either cannot or should not be switched off. In this way, these devices alone are used to monitor or report residual currents and are therefore suitable for preventative maintenance. They are not suitable for implementing protective measure "Automatic switch-off of power supply" as per DIN VDE 0100-410. Residual current monitors from series DCTR have an integrated bushing transformer offering compact design and easy installation. The device continuously detects the height of the current differential current (residual current). This value is reproduced proportionally as a 4-20-mA signal. If the fixed response threshold is exceeded, a potential-free changeover contact activates. A multicoloured LED signals this status (red) or that the device is ready (green). Residual current monitors with characteristic B/B+ detect pulsating and smooth DC residual currents as well as AC residual currents up to 100 kHz. These device variants work with a fixed residual operating current value of 0.3 A for the alarm relay. The DCTR outputs the measured nominal response residual current proportionally as a 4-20 mA signal.

Features

suitable for detecting Type B residual currents, monitored frequency range 0 Hz – 100 kHz, Rated voltage of monitored circuit up to 690 V, compact, robust plastic housing, easy mounting, Output of the nominal response residual current over 4-20 mA interface, Alarm relay with potential-free changeover contacts, Operating voltage 24 V DC

Mounting

The devices are mounted on stable substrata using the supplied mounting brackets.

Applications

The monitoring device is suitable for use in power supplied to purpose-built buildings and industrial facilities with TN-S, TN-C-S networks, IT networks and direct current networks, such as in server rooms for data centres, laboratories, in the automotive industry and in conjunction with photovoltaic and UPS systems with frequency converters without transformers, air conditioning systems, frequency converters, switching power supplies, high-frequency converters, printing machines and packaging machines. , Suitable for monitoring DC circuits and systems in which electronic equipment may generate smooth DC residual currents or residual currents with frequencies not equal to 50 Hz.

Accessories

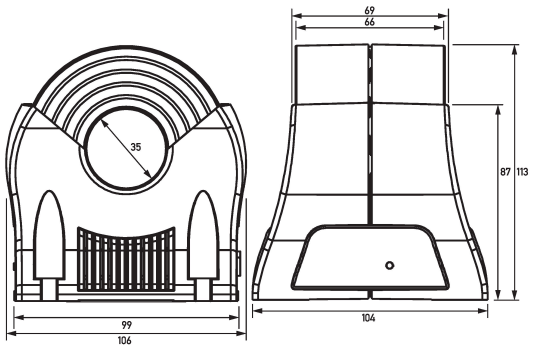
mounting rail adapters RCM Mount B

Technical data

Series	DCTR B NK 035/0,30-I
Operating mode RCM	standalone
Error memory existent	false
Selectivity adjustable	false
Residual operating current characteristics	B
Tripping characteristic curve	NK
Rated residual operating current IΔ	0.3 A
Rated non-responsive residual current IΔno	0.1 A
Frequency range response residual current Type B	0 Hz ... 100 kHz
Rated voltage Uem of circuit monitored AC	0 V ... 690 V
Rated frequency of circuit monitored	0 Hz ... 400 Hz
Control elements	test key
Operating voltage (DC)	24 V (21.6 V ... 26.4 V)
Internal consumption	max. 1.5 W
Rated insulation voltage	30 V

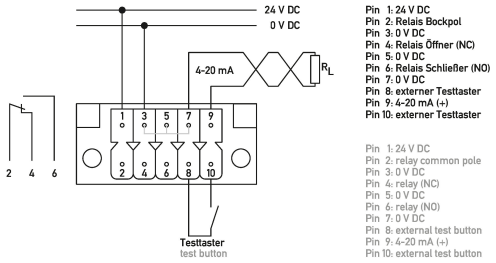
Rated impulse withstand voltage	0.5 kV
Over voltage category	III
	Display (alarm, operation)
Number	1
Type	LED (red, green)
	transformer, primary side
Rated impulse withstand voltage	8 kV
Rated insulation voltage	700 V
Over voltage category	IV
Rated current In	200 A
	external test key
Galvanically separated	false
Rated voltage (DC)	max. 24 V
Rated current In	max. 1 mA
	alarm output
Specification	relays
Number	1
Contact assignment	1 CO
Rated voltage (AC)	30 V (27 V ... 33 V)
Rated voltage (DC)	30 V (27 V ... 33 V)
Rated current (AC)	1 A
	4–20 mA interface
Specification	semiconductor
	plug-in terminal (transformer output, power supply, switching output, control input)
Connection design	female
Allowed types of wires	flexible conductor, solid conductor
Cross section solid	1-wire: 0.2 mm² ... 1.5 mm²
Cross section stranded	1-wire: 0.2 mm² ... 1.5 mm²
	General data
Operating position	optional
max. Operating altitude above MSL	2000 m
Storage temperature	-40 °C ... 70 °C
Ambient temperature	-25 °C ... 55 °C
Housing type	wall-mounted housing
Installation type	Wall mounting
Housing material	polycarbonate (PC)
Protection class	IP20
sealable	false
Width	99 mm
Height	113 mm
Depth	104 mm
Installation depth	113 mm
Weight	0.981 kg
Inside diameter	35 mm
Design requirements/Standards	DIN EN 62020, DIN EN 61000-4-3, DIN EN 61000-4-6, DIN IEC 381-1, ISA-50.1, VDE 0664-400
Degree of pollution	2

Dimensions



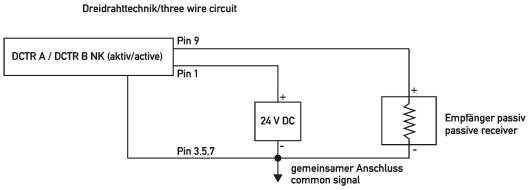
Dimensioned drawing residual current monitors DCTR B NK 035/0,30-I

Wiring example



Pin 1: 24 V DC
Pin 2: Relais Bockpol
Pin 3: 0 V DC
Pin 4: Relais Öffner (NC)
Pin 5: 0 V DC
Pin 6: Relais Schließer (NO)
Pin 7: 0 V DC
Pin 8: externer Testtaster
Pin 9: 4-20 mA (+)
Pin 10: externer Testtaster

Pin 1: 24 V DC
Pin 2: relay common pole
Pin 3: 0 V DC
Pin 4: relay (NC)
Pin 5: 0 V DC
Pin 6: relay (NO)
Pin 7: 0 V DC
Pin 8: external test button
Pin 9: 4-20 mA (+)
Pin 10: external test button



Wiring example residual current monitors DCTR B NK 035/0,30-I