



symbolic image

**DATA SHEET**  
**residual current monitors**  
**DCTR A 035/0,30-I**  
**sensitive to pulsating and alternating currents Type A**  
**Article number 09342631**



[Internetlink](#)



**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). Monitors with residual current characteristic A detect sinusoidal AC currents as well as pulsating DC residual currents. Devices in standard design are intended for monitoring circuits with a rated voltage of up to 690 V and a rated frequency of 50 to 60 Hz.

**Features**

suitable for detecting Type A residual currents, monitored frequency range 50 Hz–60 Hz, Rated voltage of monitored circuit up to 690 V, Alarm relay with potential-free changeover contacts, dependent on auxiliary voltage, compact, robust plastic housing, easy mounting

**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 and IT networks, such as in server rooms for data centres, laboratories, in the automotive industry and in conjunction with air conditioning systems, printing machines and packaging machines, Not permitted for use in TN-C networks and direct current networks; not permitted for monitoring systems in which electronic equipment may cause DC residual currents or residual currents with frequencies not equal to the rated frequency of the RCCB.

**Notes**

RCMs are not suitable for basic protective measure "Automatic switch-off of power supply" as per DIN VDE 0100-410 (an RCM does not replace an RCD).

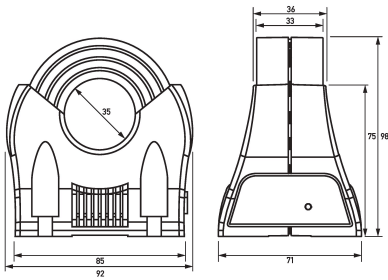
**Technical Data**

Technical Data	DCTR A 035/0,30-I
Series	DCTR A 035/0,30-I
Error memory existent	false
Selectivity adjustable	false
Residual operating current characteristics	A
Residual operating current $I_{\Delta n}$ (settings)	0.3 A
Frequency range response residual current Type A	50 Hz ... 60 Hz
Frequency range response residual current Type AC	50 Hz ... 60 Hz

Technical Data	DCTR A 035/0,30-I
Response threshold range of the pre-alarm	min. 50 %
Rated voltage $U_n$ of circuit monitored	0 V ... 690 V
Rated frequency $f_n$ of circuit monitored	50 Hz ... 60 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	1.5 kV
Over voltage category	III
Type	Display alarm, operation LED (red, green) transformer, primary side
rated impulse withstand voltage	8 kV
rated insulation voltage	700 V
Overvoltage class	IV
Rated current	200 A
Galvanically separated	false
Rated voltage (DC)	max. 24 V
Rated current	max. 1 mA
Specification	alarm output relays
Number	1
Rated voltage (AC)	30 V (27 V ... 33 V)
Rated voltage (DC)	30 V (27 V ... 33 V)
Rated current (AC)	1 A
Rated current (DC)	1 A
Specification	4–20 mA interface semiconductor
Connection design	plug-in terminal connection (transformer output, voltage input, switching output, control input) female
Allowed types of wires	flexible conductor, solid conductor
Cross section solid	1-wire: 0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Cross section stranded	1-wire: 0.2 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Operating position	optional
max. Operating altitude above MSL	2000 m
Storage temperature	-40 °C ... 85 °C
Ambient temperature	-25 °C ... 70 °C
Housing type	wall-mounted housing
Mounting type	Wall mounting
Housing material	polycarbonate (PC)
Protection class	IP20
sealable	false
Width	85 mm
Height	98 mm
Depth	71 mm

Technical Data		DCTR A 035/0,30-I
Installation depth		98 mm
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	
Degree of pollution according to EN 60664		2

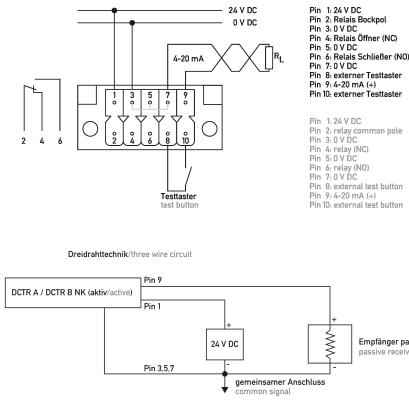
Dimensions



Dimensional drawing Group view

STEP file

Wiring example



Wiring diagram Pin assignment for ten-pin female connector (de-energised)

Wiring diagram 4-20 mA interface design