

WITT CM 3 – Cable Monitoring



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Application

WITT CM 3 is a self-resetting cable monitoring device for the detection of cable errors. Between signal and triggering a time delay of 4.8 sec is integrated.

Description

The device is used for the monitoring of the insulation of DC cable systems. It works without auxiliary power supply. The connection is made between the insulating outer shell and a reference ground.

For the reporting, there are two potential free changeover contacts available. The device is integrated in a plastic housing that is made for the mounting on top-hat railways.

Function

The voltage between a cable sheath and the earth is measured by a rectifier. If the voltage limit is exceeded a signalling relay is addressed.

The circuit operates with the constant-current principle. This means that even after the voltage increases to more than 1000 V the demand for electricity is not increasing. The leakage current flowing to earth is dimensioned with only 2 mA. Only in cases of failure the current load will be increased to 6 mA. The state of switching is displayed locally by a signal lamp.

General Data

Supply voltage	none
Power consumption	relaxation <0,2 W release <1,2 W
Humidity	0 ...100 %, none-condensing
Temperature range	-20 ... 50 °C
Type of protection	IP 40
Cycling rate at IMAx	> 1.000.000
Measurements (w x h x d)	100 x 75 x 110 mm

Input

Voltage limit	200 V DC
Measuring accuracy	± 10 % Final value
Release time at 200 V	4,8 sec
Release time at 400 V	2,4 sec
Release time at 800 V	1,2 sec
(Other timings are possible)	

Output

Limit exceeded	Relay, 2 x Change-over contacts
Switching voltage	max. 250 V
Switching current	max. 8 A
Switching power	max. 2000 WAC / 60 WDC
Dielectric strength of coil contact	max. 4 kVAC

Connection Diagram

