

# OVERVOLTAGE PROTECTION FOR INSTRUMENTATION AND CONTROL

## DM-CCT-R

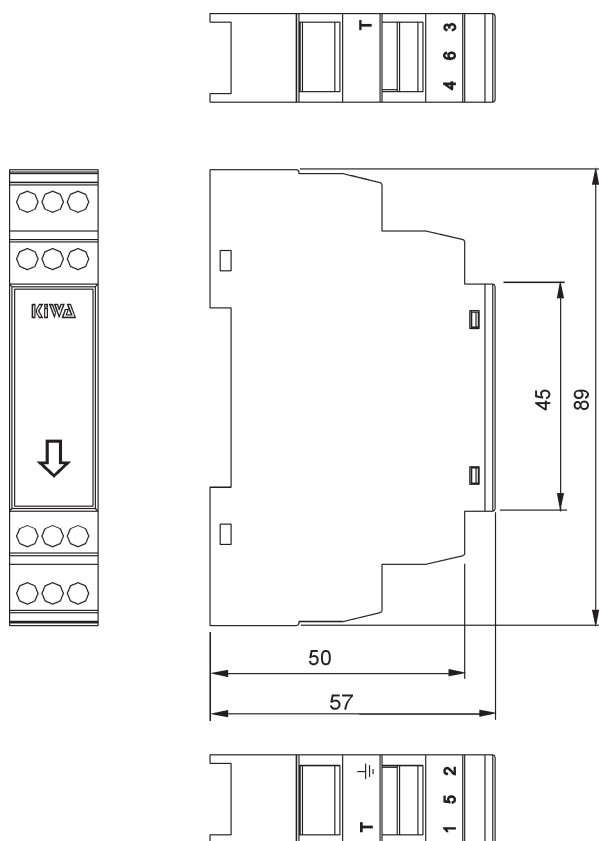
It is used as a protection of appliances against the overvoltage, which is propagating through data and communication lines. It enables the protection of two wires lines or of two one wire lines (symmetrical or asymmetrical systems). It is commonly used in the area of measuring, controlling, and the area of digital and analogue information transmission equipment.

The SPD has been created as the two-stage system with the stepwise overvoltage reduction down to allowable values. In the first stage are used the efficient spark plugs while fast suppressing diodes are used in the second stage. The correct operation requests the proper connection according to this recommendation, respecting connecting diagram as it is printed on the housing.

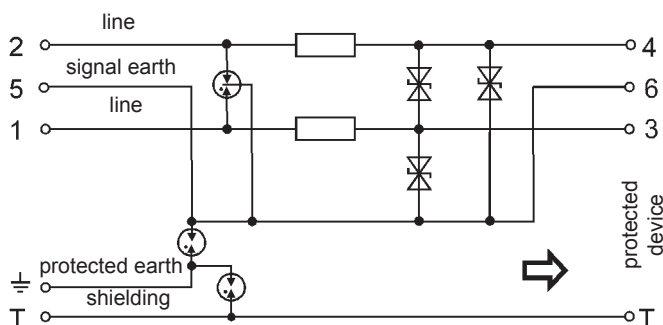
The SPD is encased in the plastic housing designed for mounting on DIN 35 rail.



## DIMENSIONS



## CONNECTION DIAGRAM



## TECHNICAL PARAMETERS

Nominal voltage	$U_n$	8 V=	12 V=	16 V=	24 V=	48 V=
Max. operating voltage	$U_c$	1,15. $U_n$				
Rated load current	$I_L$	100 mA				
Nominal discharge current (8/20)	$I_n$	5 kA				
Max. discharge current (8/20)	$I_{max}$	10 kA				
Max. discharge current (10/350)	$I_{max}$	2,5 kA				
Voltage protection level for $I_{max}$	$U_p$					
line / line		25 V	≤ 23 V	≤ 29 V	≤ 36 V	≤ 72 V
line / sign. earth		15 V	≤ 23 V	≤ 29 V	≤ 36 V	≤ 72 V
Voltage protection level for 1 kV/μs		≤ 450 V				
line / protection earth						
sign. earth / protection earth						
Response time	$t_A$					
line / line		≤ 1 ns				
line / sign. earth		≤ 1 ns				
line / protection earth		≤ 100 ns				
sign. earth / protection earth		≤ 100 ns				
shielding / protection earth		≤ 100 ns				
Limit frequency / baud rate	$f_o$	3 MHz / 1,5 MBit/s				
Input resistance (line / sig. earth)	$R_V$	≤ 1 MΩ				
Longitudinal impedance / line	$R_L$	max. 10 Ω				
Operating temperature range		-25 °C ... +80 °C				
Connection		input/output: terminal for cable 0,5 - 2,5 mm <sup>2</sup> ; wire 0,2 - 4 mm <sup>2</sup>				
Products comply with norms IEC 61643-21		C2; D1				

## PRODUCT SPECIFICATION

**D** - **■** - **■** / **■** — nominal voltage (V)  
 — version: R - on a DIN35 (distributor) rail  
 — type of product - (**CCT**) corresponding to connection diagram  
 — class of overvoltage protection (**M** - instrumentation and control 0,1A)

TYPE	Order number				
	8 V	12 V	16 V	24 V	48 V
DM-CCT-R	94.058	94.059	94.060	94.061	94.062