



G-CHECK

Protector against the transient overvoltages with earth resistance monitoring and transient surge counter

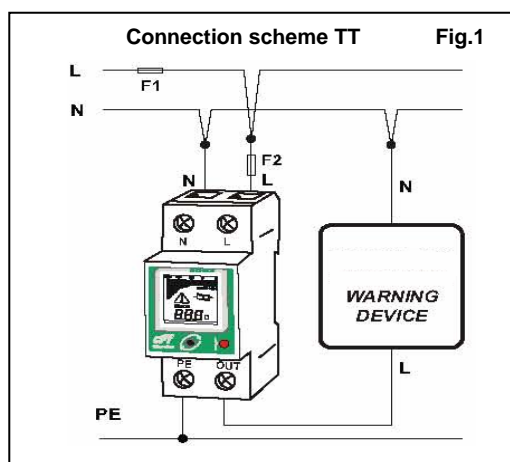
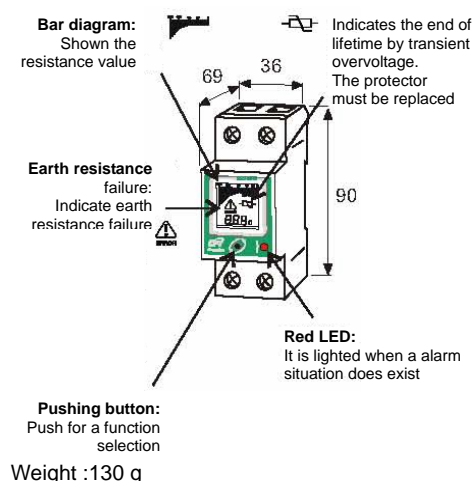


Table 1

I_{max}	Maximum value for F1 fuse and value for F2 if necessary
15 kA	63 A gL

F1: fuse of the service mains
F2: backup fuse for the SPD

Technical features



GENERAL INFORMATION

G-CHECK is a revolutionary device. It is an intelligent overvoltage protector that combines three main features; transient surge protection, transient surge counter and continuous checking and measure of earthing. It has been provided with an auxiliary output that can operate on contactors or other shut-down devices. By means of this remote contact it can also give an alarm. Is designed to be installed in TT power distribution system.

FUNCTIONS

Protection against transient overvoltages

When a transient overvoltage is induced in the electrical network, the protector avoids that the equipments installed down-stream would be damaged. In case of a failure by transient overvoltages (indicate on a display with the symbol) **G-CHECK** remains automatically disconnected from the electric network , the equipment connected down-stream are still being supplied from the mains, nevertheless the protection against transient overvoltage would not be operative and the protector must be replaced.

Earth resistance monitoring

G-CHECK monitors an earth resistance value. This value is shown through the bar diagram of 0 to 500 Ohms permanently and also by a digital number if this function is selected.

Transient surge counter

G-CHECK is able to count partial and total number of transient events through the electrical network.

With the reset function partial counter can be restart.

ALARMS

Earth resistance failure alarm activation

When earth resistance value exceeds a predefined level (50 Ohms), alarm will be activated.

This failure is indicate in the display with the symbol:



Surge protection failure activation

When surge protector device is out of life, alarm will be activated.

This failure is indicate in the display with the symbol:



INSTALLATION

It is a DIN RAIL mounted format, therefore it can be easily installed in any type of electrical switchboard. It only needs the connection of L,N and PE(earth).

Considerations about the backup fuse:

In the wiring diagrams of figure.3, F1 is the fuse installed in the service mains, the backup fuse F2 may be necessary depending on the maximum discharge current of the SPD(I_{max})

it is necessary to install the backup fuse of the protector F2 if F1 is higher than the value indicated in the Table1, the recommended value for F2 is also indicated in that Table (according to the I_{max} of the SPD)



Connection to an earthing system is essential for a proper operation of protection

Cirprotec reserves the right to introduce changes in the technical characteristics of the product without notice

Technical date		
Code		77706500
General Features		
Nominal voltage	U_N	230V ~ +/-10%
Maximum service voltage		275 V~
Frequency		50/60 Hz
Features of the earth resistance monitoring		
Actuating value for alarm	R_a	0.5 Ohms
Maximum monitoring value		500 Ohms
Features of the transient protection		
Type according to EN 61643-11		Type 2
Nominal discharge current	I_n	3 kA
Maximum discharge current	I_{max}	15kA
Voltage protection level	U_p	$\leq 1.5kV$
Response time	t_A	< 25 ns (L-N) < 100 ns (N-PE)
Short circuit current	I_{cc}	10kA – 50 Hz