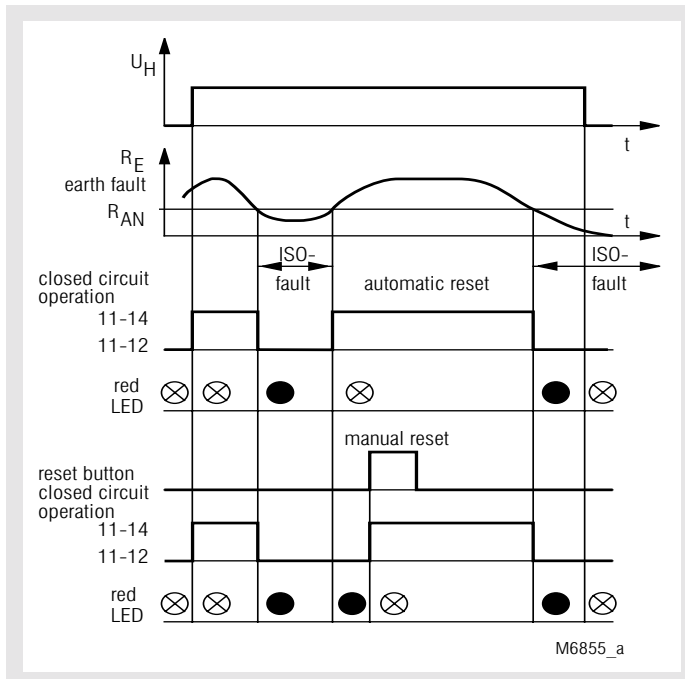


- According to IEC/EN 61 557
- For single- and 3-phase AC-voltage systems, IT-system
- Without auxiliary supply
- Fixed response value  $R_{AN} = 50 \text{ k}\Omega$   
other values on request
- LED indicator for ground fault
- Programmable with automatic or manual reset (bridge LT1/LT2)
- 1 changeover contact
- Closed circuit operation
- Test button to check the function of the device
- External reset button on LT1-LT2
- External connection of indicating instrument possible
- Can be used as pre-warning device AG 5876.11/0--
- Width 50 mm

### Function diagram



### Approvals and marking



### Applications

Monitoring of the resistance to earth in ungrounded single- and 3-phase-voltage systems.

### Technical data

#### Measuring circuit

<b>Nominal voltage <math>U_N</math>:</b>	AC 24, 42, 110, 230, 400 V
<b>Voltage range:</b>	0,8 ... 1,1 $U_N$
<b>Frequency range:</b>	40 ... 400 Hz
<b>Response value <math>R_{AN}</math>:</b>	50 k $\Omega$ , 5 ... 200 k $\Omega$ on request
<b>Setting <math>R_{AN}</math>:</b>	fixed
<b>Internal test resistor:</b>	5 k $\Omega$
<b>Internal AC resistance:</b>	> 300 k $\Omega$
<b>Internal DC resistance:</b>	> 30 k $\Omega$
<b>Measuring voltage:</b>	DC 15 V
<b>Max. measuring current (<math>R_E = 0</math>):</b>	< 0,5 mA
<b>Max. permissible noise DC voltage:</b>	DC 250 V
<b>Operate delay</b>	
at $R_{AN} = 50 \text{ k}\Omega$ , $C_E = 1 \text{ mF}$	
$R_E$ from $\infty$ to $0,9 R_{AN}$ :	< 1,3 s
$R_E$ from $\infty$ to 0 k $\Omega$ :	< 0,3 s
<b>Hysteresis</b>	
at $R_{AN} = 50 \text{ k}\Omega$ :	approx. 8 %
<b>Measuring error</b>	
at $R_{AN} = 50 \text{ k}\Omega$ ,	< 10 %
	ambient temperature - 5 ... 50 °C, within the permitted voltage range

#### Nominal consumption:

approx. 2,5 VA

#### Phase failure bridging:

> 300 ms

### Output

#### Contacts

AG 5876.11: 1 changeover contact

**Max. switching voltage:** AC 250 V

**Thermal current  $I_{th}$ :** 8 A

#### Switching capacity

to AC 15

NO contact: 3 A / AC 230 V IEC/EN 60 947-5-1

NC contact: 1 A / AC 230 V IEC/EN 60 947-5-1

#### Short circuit strength

**max. fuse rating:** 6 A gL IEC/EN 60 947-5-1

## Technical data

### General data

#### Permissible ambient and stocking temperature: Clearance and creepage distances

-20 ... +60°C / -25 ... 70°C

#### overvoltage category / contamination level:

4 kV / 2 IEC 60 664-1

#### EMC

Electrostatic discharge: 8 kV (air) IEC/EN 61 000-4-2

Fast transients: 2 kV IEC/EN 61 000-4-4

#### Surge voltage between

wires for power supply: 2 kV IEC/EN 61 000-4-5

between wire and ground: 4 kV IEC/EN 61 000-4-5

Interference suppression: Limit value class B EN 55 011

Housing: IP 40 IEC/EN 60 529

Terminals: IP 20 IEC/EN 60 529

Thermoplastic with V0 behaviour according to UL subject 94

Vibration resistance: Amplitude 0,35 mm frequency 10...55Hz IEC/EN 60 068-2-6

20 / 060 / 04 EN 60 068-1

Climate resistance: EN 50 005

Terminal designation: EN 50 005

Wire connection: 2 x 2,5 mm<sup>2</sup> solid or 2 x 1,5 mm<sup>2</sup> stranded wire with sleeve DIN 46 228-1/-2/-3/-4

Wire fixing: Flat terminals with self-lifting clamping piece IEC/EN 60 999

Mounting: DIN rail IEC/EN 60 715

Weight: 450 g

### Dimensions

Width x height x depth: 50 x 75 x 111 mm

### Standard type

AG 5876.11 AC 230 V 40 ... 400 Hz 50 kΩ

Article number: 0031854 stock item

• Output: 1 changeover contact

• Nominal voltage  $U_N$ : AC 230 V

• Frequency range: 45 ... 400 Hz

• Response value  $R_{AN}$ : 50 kΩ

• Width: 50 mm

### Variants

AG 5876.11/0--:

pre-warning device

This device can indicate a second resistance value. It is possible to connect several pre-warning devices to one insulation monitor. With this device an early detection of a slowly decreasing insulation resistance with pre-warning is possible. The following pre-warning devices are available:

AG 5876.11/010 für AG 5870, AG 5876,

AN 5871, AN 5872, EH 5878

AG 5876.11/030 für AN 5890

AG 5876.11/031 für AN 5873

### Ordering example for variants

AG 5876 .11 / - - - AC 230 V 50 kW

Response value  
Nominal voltage  
Variant, if required  
Contacts  
Type

## Accessories

AG 5876.11/010:

pre-warning device

EH 5861/002:

indicating instrument,

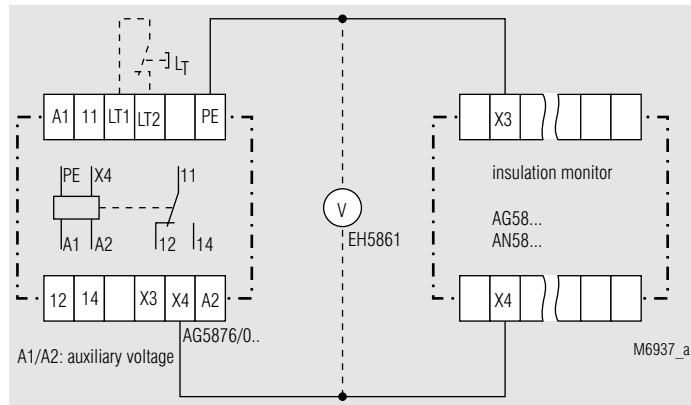
egree of protection: IP 52



The indicating device EH 5861 externally connected to the insulation monitors and shows the actual insulation resistance of the voltage system to ground.

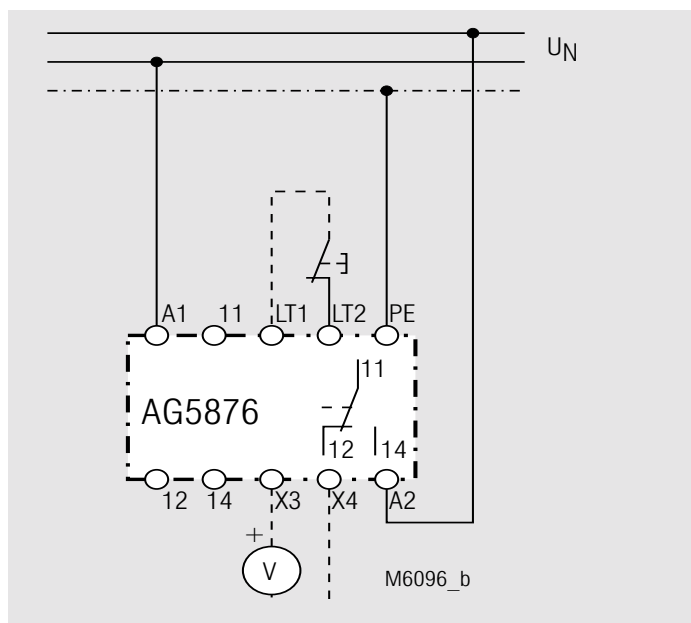
Dimensions:  
Width x height x depth  
96 x 96 x 52 mm

## Application example



Insulation monitor with pre-warning device

## Connection example



A1/A2:

Bridge LT1/LT2:

without Bridge LT1/LT2:

$U_N = U_H$

manual reset

automatic reset