

# RESIDENTIAL

Landis+Gyr Domestic

## ZCG100AS, ZCG100CS

### TECHNICAL DATA



#### General

##### Voltage

Nominal voltage  $U_n$  220, 230, 240 VVoltage range 80%–120%  $U_n$ 

##### Frequency

Nominal frequency  $f_n$  selectable: 50 or 60 Hzfrequency variation  $\pm 5\%$ 

#### IEC-specific data

##### Current

Base Current  $I_b$  5, 10 or 20 AMaximum current  $I_{max}$  40, 60 or 80 A

Metrological 80 A

Thermal 100 A

Short Circuit  $\leq 10$  ms 3'000 A

##### Measurement Accuracy

ZCG110, to IEC 62053-21 Class 1

ZCG120, to IEC 62053-23 Class 2

##### Measurement Behaviour

Starting Current 0.4%  $I_b$ 

#### MID-specific data

##### Current (for Classes A and B)

Reference current  $I_{ref}$  5 A; 10 A; 20 AMinimum current  $I_{min}$   $\leq 0.05 \times I_{ref}$ Transitional current  $I_{tr}$  0.5 A; 1 A; 2 AMaximum current  $I_{max}$  100 A

##### Measurement Accuracy

ZCG110, to EN 50470-3 Class B

ZCG120, to EN 50470-3 Class A

##### Measurement Behaviour

Starting current  $I_{st}$ Class A:  $I_{st} \leq 0.005 \times I_{ref}$ Class B:  $I_{st} \leq 0.004 \times I_{ref}$ 

#### General

##### Operating Behaviour

###### Voltage Interruption (Power Down)

Blocking of inputs and outputs immediate

Standby operation for 0.15 s

Data storage after 0.15 s

Switch off after approx 0.5 s

###### Voltage Restoration (Power Up)

Function standby (depending on duration of failure)  $< 5$  sDetection of energy direction and phase voltage  $< 3$  s

###### Power Supply quality

The meter complies with EN 62052-11 Section 7.1.1 Voltage range and 7.1.2 Voltage dips and short interruptions.

Supply voltage 220–240 Vac  $\pm 20\%$

## Power Consumption

Voltage circuit < 0.9 W, < 7.7 VA

### Current circuit

at  $I_b$  < 0.1 VA  
at  $I_{max}$  < 2.5 VA

## Environmental Influences

### Temperature Test

IEC62053-21, IEC62053-23

### Temperature Range

Operation -25 °C to +60 °C  
Limit range of operation -25 °C to +55 °C  
Storage -25 °C to +70 °C  
This complies with EN 62052-11:2003 Section 6.1

### Temperature Coefficient

Range from -10 °C to +45 °C  
Typical mean value  $\pm 0.015\%$  per K  
 $\cos\varphi=1$  (from 0.1  $I_b$  to  $I_{max}$ )  $\pm 0.05\%$  per K  
 $\cos\varphi=1$  (from 0.2  $I_b$  to  $I_{max}$ )  $\pm 0.07\%$  per K

Impermeability to IEC 60529 IP 51

### Shock Test

BS EN60068-2-27

## Electromagnetic compatibility

Electrostatic Discharges to IEC 61000-4-2

Contact discharges 8 kV

Air Discharges 15 kV

Electromagnetic RF Fields to IEC 61000-4-3

80 MHz to 2 GHz at least 10 V/m

Radio Interference Suppression to IEC/CISPR 22

Class B

Fast Transient Burst Test to IEC 61000-4-4

with basic current  $I_b$ :

for current and voltage circuits 4 kV

for auxiliary circuits > 40 V 4 kV

with open current circuit

for voltage and current circuits 4 kV

Fast Transient Surge Test to IEC 61000-4-5

Impulse voltage 10 kV

Impedance of source 2  $\Omega$

Rise-/Decay time of impulse voltage 1.2  $\mu$ S/50  $\mu$ S

Rise-/Decay time of impulse voltage 8  $\mu$ S/20  $\mu$ S

## Insulation Strength

Insulation Strength 4.4 kV at 50 Hz for 80 seconds

Impulse Voltage strength to IEC 62053-11

Impulse voltage 6 kV

Impedance of source 500  $\Omega$

Rise-/Decay time of impulse voltage 1.2  $\mu$ S/50  $\mu$ S

Protection class II to IEC 62050-131  2

## Display

### Characteristics

Type LCD liquid crystal display

Digit size 8 mm

Number of digits 6 integers + 1 dp or  
5 integers + 2 dp

## Communication Interface

### Optical interface

type serial, bi-directional interface

protocol according to IEC 62056-21

## Case Material

Base, top cover and terminal cover

10% glass filled flame retardant polycarbonate

## Weight and dimensions

Weight 340 g

### Dimensions

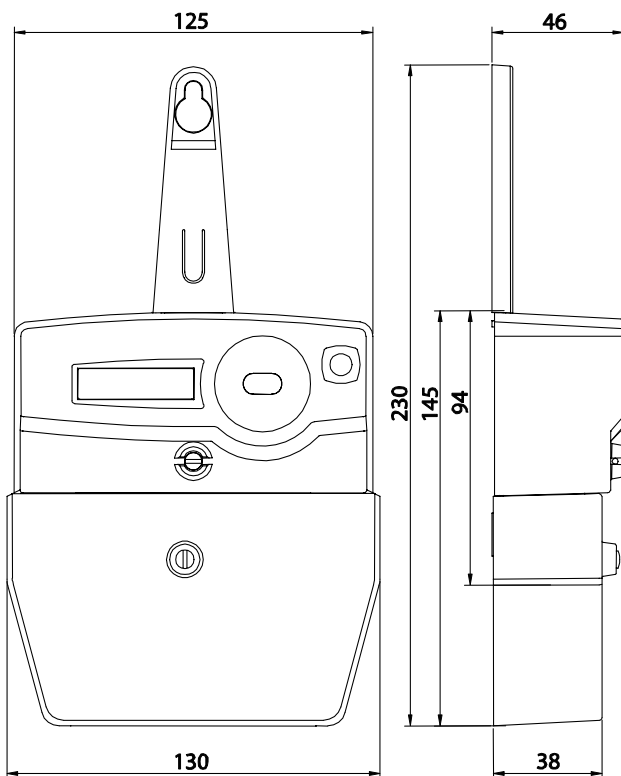
width 125 mm  
height (meter case only) 94 mm  
height (with terminal cover) 145 mm  
depth (meter case only) 46 mm

### Dimensions (with terminal cover and hanger)

width 130 mm  
height 230 mm  
depth (terminal cover) 38 mm

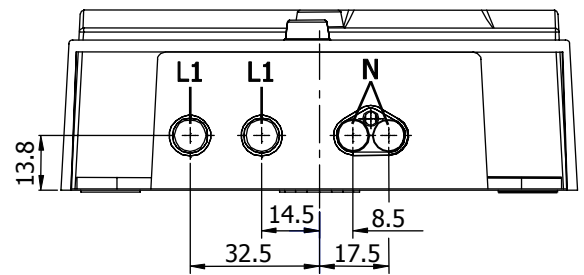
### DIN mount (mount holes centre to centre)

width 105 mm  
height 155 mm



## Connections

Standard layout and dimensions



## Type designation

ZCG 1 2 0 AS e r53

### Type of Meter

ZCG Digital meter/single phase/meter generation G

### Connection Type

1 Direct connection

### Accuracy Class

- 1 Active energy class 1 (IEC); B (MID)
- 2 Active energy class 2 (IEC); A (MID)

### Meter Standard

- 0 DIN-standard Type 230 V
- 1 DIN-standard Type 120 V
- 2 DIN-standard Type 230 V with Non Power Read
- 3 DIN-standard Type 120 V, with Non Power Read
- 7 BS-standard Type 230 V

### Additional Functionality

- AS Standard active only meter
- CS Standard combi meter
- AC Enhanced active only meter with control input
- CC Enhanced combi meter with control input
- AT Active only meter with TOU (Time of Use)
- CT Combi meter with TOU

### Number of Rates

- e Single rate
- d Double rate

### Electronic Interface + Options

r53 Pulse output (only for single rate)

Data subject to change without notice.

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