Operating Instructions

Radio energy and weather display
2360 ..

GIRA

Table of Contents

Safety instructions

Observe the notes on power supply. No other form of power supply other than specified in these instructions may be used.

Conventional batteries must never be charged. Danger of explosion!

Do not throw batteries into fire! Do not short-circuit batteries!

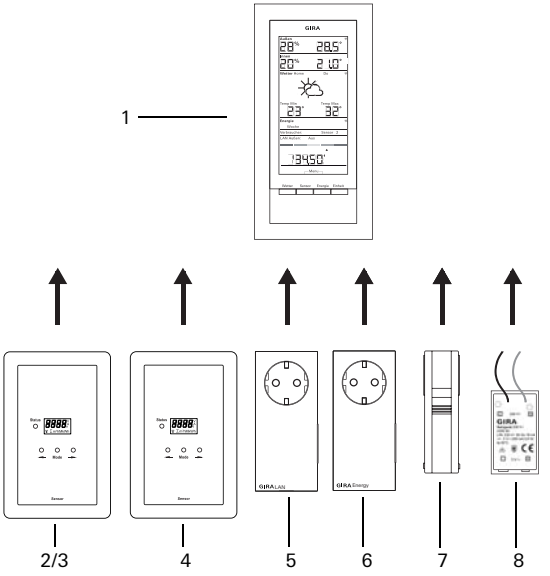
Only operate device indoors and avoid influence of humidity, dust, sun and heat.

Proper use

The energy and weather display is for the display of temperature, humidity, weather forecasts, energy consumption, energy costs and CO_2 emission.

Uses other than those specified in these operating instructions are not in accordance with the intended purpose and lead to exclusion of warranty and liability. This is also the case with modifications and conversions.

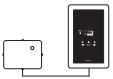
The measured or displayed values are not suitable for medical use or for purposes of public information. The device is intended solely for private use.



(1) Energy and weather display

The energy and weather display is the central unit of the Gira energy and weather system and is for displaying weather and energy data transmitted from various devices in the system. The system consists of sensors (gas meter sensor, electricity meter sensor or LED sensor, outdoor sensor), energy adapters, a LAN adapter and the energy and weather display.
The energy and weather display can be assigned an electricity sensor (electricity meter or LED sensor).

(2) Electricity meter sensor

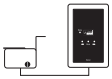


The electricity meter sensor measures the electricity at three-phase current meters and single phase meters with Ferraris disks and transmits the data to the energy and weather display.

(3) LED sensor

The LED sensor measures the electricity at electronic household meters and transmits the data to the energy and weather display. The energy and weather display can be assigned an electricity sensor (electricity meter or LED sensor).

(4) Gas meter sensor



The gas meter sensor measures the gas consumption at Elster diaphragm gas meters (standard counter with magnet controller) and transmits the data to the energy and weather display.

(5) LAN adapter

The LAN adapter obtains weather data from the internet and transmits these to the energy and weather display.

(6) Energy adapter

The energy adapter measures electricity consumed at the socket outlet and transmits the data to the energy and weather display.

Up to 3 energy adapters can be assigned to an energy and weather display.

(7) Outdoor sensor

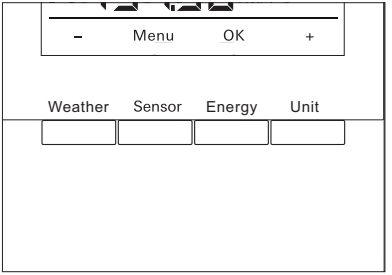
The outdoor sensor measures temperature and humidity at its location and transmits the data to the energy and weather display.

(8) Power supply unit, 230 V~

The power supply unit supplies power to the energy and weather display via the 230 V AC supply mains. The power supply unit is inserted into the battery compartment of the energy and weather display.

Button functions

The energy and weather display is operated with four buttons. Within the configuration menu these have different functions to outside of this menu. The alternative function of the buttons is shown in the lower display area as soon as the configuration menu is open.



In normal operation		In the configuration menu	
Button	**Function**	**Button**	**Function**
Weather	Display of weather forecasts	-	Navigate backwards
Sensor	Selection of a gas or electricity meter sensor or an energy adapter	Menu	One menu level back
Energy	Selection of a comparable time period for energy consumption (day, week...)	OK	Confirm the selection
Unit	Selection of a consumption unit (euro, kWh, kg CO2, ...)	+	Navigate forwards

Inserting/replacing batteries

The energy and weather display is operated with two alkaline batteries (1.5 V, type LR06, Mignon, AA).

1. If necessary, remove the energy and weather display from the mounting plate:
   Press in the lower snap clip of the energy and weather display with a screwdriver for example and simultaneously remove the energy and weather display from the mounting plate.
2. Insert two LR06 batteries with correct polarisation into the battery compartment.
3. Attach the energy and weather display to the mounting plate and snap it in.
4. Set the time and date (see below).
   If the energy and weather display is operated with a LAN adapter, time and date are assumed from the LAN adapter. In this case time and date do not have to be set.

Do not use rechargeable batteries

The energy and weather display must only be operated with alkaline batteries or via the optional power supply unit.

Rechargeable batteries must not be used.

Setting the time and date

After inserting the batteries, time and date must be set. These settings can be subsequently modified via the menu items "tiME" and "dAtE" in the configuration menu.

✓ The year is flashed for setting the date.

1. Set the valid year with "+" or "-".
2. Confirm with "OK".

✓ The year is set and the month is flashed in the display.

3. Enter all further data in the same manner:
   day – minutes – hours.

✓ The date is then displayed following the last confirmation with "OK".

Assigning radio components

Radio components must be assigned to each other to enable communication.

Assigning the LAN adapter

Before assigning a LAN adapter, the transmission channel ("LAn1" or "LAn2") must be set in the menu of the energy and weather display. "LAn1" is preset. If channel 2 is to be assigned, "LAn2" must be set in the configuration menu.

Note about previously assigned sensors

If a previously assigned sensor is to be reassigned, the assignment must be deleted beforehand (see "Deleting assignment", Page 10).

Start the programming mode at the sensor or adapter:

1. Press and hold the corresponding assignment button for 3 seconds (see the operating instructions for the sensor/adapter).

Start the programming mode at the energy and weather display:

1. Press and hold the "Sensor" and "Energy" buttons for longer than 3 seconds to trigger the configuration menu.
2. Confirm the entry "SEnSo" with "OK".
3. Confirm the entry "LEArn" with "OK".

✓ The energy and weather display searches for new sensors and adapters.

✓ Devices in programming mode are displayed as "Device gas, electricity, sensor 1,2,3" or as "LAN" or "external".

4. Press "OK".

✓ All located sensors are selected and flash.

5. Select a single sensor or all sensors with "+" or "-".
6. Confirm with "OK".

✓ Following successful assignment, the energy and weather display shows the transmitted data. If no current data exist, "-88" is initially displayed.

Why cannot a sensor/adapter be assigned?

If a sensor or adapter can't be assigned to the energy and weather display, this may be due to an (unintended or incorrect) assignment of this sensor or adapter.

In such cases the existing assignments must be deleted before correct assignment.

Deleting the assignment

Deletion of sensor and adapter assignments is only possible at the energy and weather display.

To delete an assignment:

1. Press and hold "Sensor" and "Energy" for longer than 3 seconds to trigger the configuration menu.

✓ Configuration menu items appear in the lower area of the display.

2. Confirm the entry "SEnSo" with "OK".
3. Select the entry "CLEAr" with "+" or "-" and confirm with "OK".
4. Select the sensor to be deleted with "+" or "-" and confirm with "OK".

✓ The selected sensor is deleted and the display changes to "SEnSo".

Configuration menu settings

Energy and weather display settings are modified in the configuration menu. The following menu items are available:

Menu	Setting possibilities
SEnSo LEArn CLEAr	Assignment/deletion of sensors Sensors are assigned Assignments are deleted
tAuto on oFF	Assume date and time from portal (with LAN adapter) Date and time are adopted from the portal Date and time are not adopted from the portal
tiME	Setting time
dAtE	Setting date
LAn LAn1 LAn2	Selection of the channel for the LAN adapter LAN adapter assigned to channel 1 LAN adapter assigned to channel 2
Contr	Contrast setting between values of 01-16 for the display
EL.Co	Entering the electricity price per kilowatt hour
GAS.Co	Entering the gas price per kilowatt hour
GAS.F	Calculation factor, gas – kWh/m^3
El.Co2	Quantity (grams) of CO_2 / kWh electricity (information about CO_2 consumption is available from your energy provider)
GAS.Co2	Quantity (grams) of CO_2 / kWh gas (information about CO_2 consumption is available from your energy provider)
OLd.EL	Previous year's electricity consumption (electricity meter sensor)
OLd.GAS	Previous year's gas consumption (gas meter sensor)
dAt.EL	Invoicing date for electricity (electricity meter sensor)
dAt.GAS	Invoicing date for gas (gas meter sensor)
d.S.t. on oFF	Automatic summer/winter changeover Automatic time changeover activated Automatic time changeover deactivated
Euro on oFF	Currency for display of energy costs Euros € Foreign currency $
t.oFF	Temperature offset for indoors
r-MEM	Reset the saved energy value for a selected sensor
rESEt	Reset the energy and weather display to factory setting

Configuration menu – operation

1. Press and hold the "Sensor" and "Energy" buttons for longer than 3 seconds to start the configuration menu.

✓ The lower part of the display shows the items that are valid for the four operating buttons in the configuration menu.

2. Navigate forwards or backwards in the menu with "+" or "-".
3. Confirm the selection with "OK".
4. Return to the previous menu level with "Menu".

If no button is pressed for 60 seconds, the configuration menu is left without saving any modifications.

Display of menu items

The last set value is displayed first in the menu items.

Example: Setting contrast

1. Press and hold "Sensor" and "Energy" for longer than 3 seconds to trigger the configuration menu.
2. Select the "Contr" entry with "+" or "-".
3. Press "OK".

✓ The currently active value is flashed (e.g. "05").

4. Set the contrast value with "+" or "-" and confirm with "OK".

✓ The display returns to the next menu level up ("Contr").

Example: Entering the electricity price per kilowatt hour

1. Press and hold the "Sensor" and "Energy" buttons for longer than 3 seconds to trigger the configuration menu.
2. Select the "EL.Co" entry with "+" or "-".
3. Press "OK".

✓ The last digit of the electricity price to be entered flashes.

4. Set the value with "+" or "-" and confirm with "OK".

✓ The next digit of the electricity price to be entered flashes.

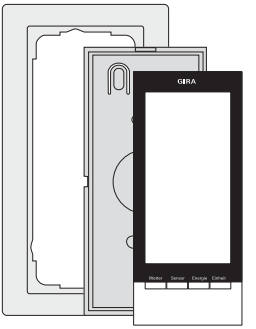
5. Enter all further data in the same manner.

✓ The display returns to the next menu level up ("EL.Co") following the last confirmation.

Installing the energy and weather display

The energy and weather display can be installed with or without a cover frame. When installing in a flush-mounted box, the energy and weather display must be mounted with a cover frame.

The 2-gang cover frame without cross-bar is not included in the scope of supply.



Installation with a cover frame is as follows. Proceed in the same way for installation without a cover frame.

Wall mounting

Make sure that no cables run through the walls prior to mounting.

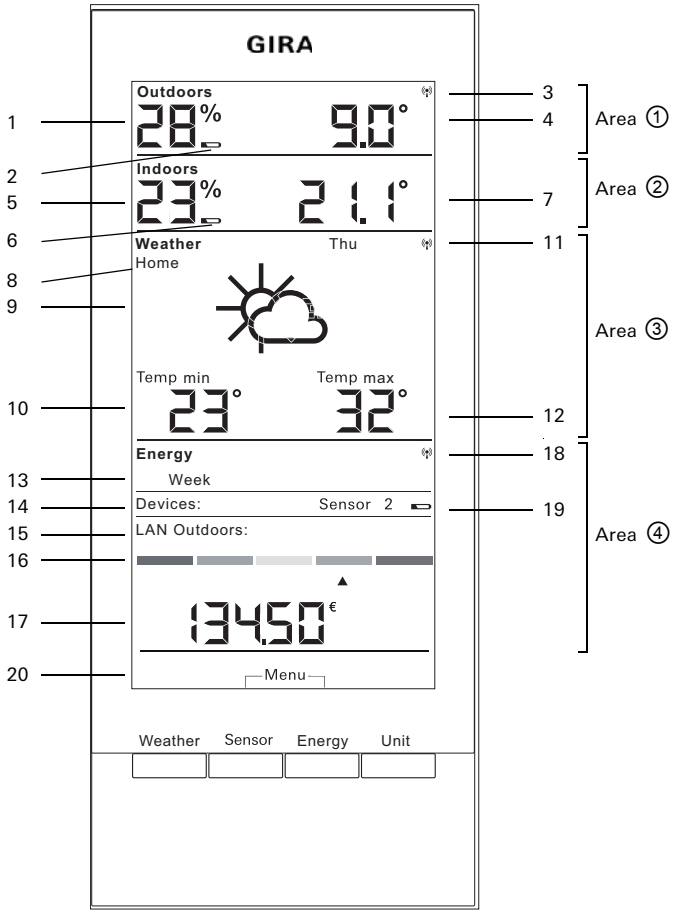
1. Mark mounting holes.
2. Drill mounting holes and insert plugs.
3. Attach mounting plate with the cover frame to the wall with two screws.
4. Attach the energy and weather display to the mounting plate and snap it in.

Box mounting

1. Place mounting plate and cover frame on the flush-mounted box.
2. Secure mounting plate with cover frame to the support ring of the flush-mounted box with two screws.
3. Attach the energy and weather display to the mounting plate and snap it in.

Removing the energy and weather display

For removal, press in the lower snap clip of the energy and weather display with a screwdriver and simultaneously remove the energy and weather display from the mounting plate.


GIRA
Outdoors
28 %
9.0°
Indoors
23 %
21.1°
Weather
Thu
Home
Temp min
23°
Temp max
32°
Energy
Week
Devices:
Sensor 2
LAN Outdoors:
134.50 €
Menu
Weather
Sensor
Energy
Unit
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
Area ①
Area ②
Area ③
Area ④

Description of the display symbols

No.	Symbol	Description
Area ①		**Area for outdoor temperature and humidity**
1	Display	Humidity
2	Battery	Battery status "empty" for an outdoor sensor
3	Antenna	Outdoor sensor is received
4	Display	Temperature
Area ②		**Area for indoor temperature and humidity**
5	Display	Humidity, energy and weather display
6	Battery	Battery status "empty" for energy and weather display
7	Display	Temperature / humidity
Area ③		**Area for weather forecast**
8	Home	Energy and weather display is assigned as channel 1 to LAN adapter
9	Weather conditions	Expected weather conditions
10	Display	Minimum temperature, humidity, wind speed, probability of rain
11	Antenna	Synchronisation with LAN adapter
12	Display	Maximum temperature, current temperature
Area ④		**Area for energy consumption**
13	Day, week, ...	Comparable time period
14	Devices	Currently selected sensor In programming mode: available sensors
15	LAN, outdoors	In programming mode: available sensors
16	Bar display	Consumption display compared to an earlier time period
17	Display	Costs, CO_2 quantity, electricity consumption (kWh), gas consumption (m^3)
18	Antenna	Gas meter sensor, electricity meter sensor, energy adapter are received
19	Battery	Battery status "empty" for an energy sensor
20	Buttons	Alternative button function

Area ① – area for outdoor temperature and humidity

If the energy and weather display is assigned to an outdoor sensor an antenna symbol lights up in the display at top right.

If the energy and weather display is assigned to a LAN adapter and not an outdoor sensor, the antenna symbol is inactive. The displayed outdoor temperature comes from the LAN adapter in this case (internet portal).

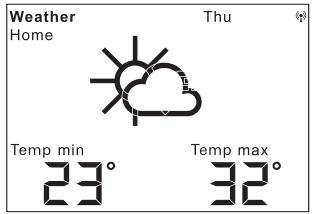
The battery symbol lights up when the batteries of the outdoor sensor are empty.

Area ② – area for indoor temperature and humidity

If the energy and weather display has empty batteries, the battery symbol lights up and no more data is shown in this area. Only lines are then displayed. In this case the batteries of the energy and weather display must be replaced.

Area ③ – area for weather forecast

If the energy and weather display is assigned to a LAN adapter, pressing the "Weather" button enables display of the forecasts for the current day and the following three days.



No weather symbols are shown if no LAN adapter is assigned. Instead, the min./max. temperatures of the assigned outdoor sensors are shown.

These min./max. values are automatically reset once daily:

- the min. temperature at 7.30 am,
- the max. temperature at 7.30 pm

Weather symbols

The adjacent table shows the symbols used in the forecast area.

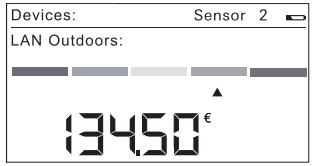
Data

The software of the LAN adapter enables setting of which data are to be displayed in the forecast area. The following possibilities can be specified:

1. Minimum and maximum temperature
2. Average temperature and probability of rain
3. Average temperature and wind speed
4. Average temperature and humidity

Weather conditions	Symbol
Cloudless	
Partially cloudy	
Cloudy	
Very cloudy	
Fog	
Rain shower	
Light rain	
Strong rain	
Storm	
Sleet shower	
Snow shower	
Sleet	
Snow	

Area ④ – area for energy consumption



The data of the energy sensors are displayed here.

The batterysymbol lights up if the selected sensor has weak batteries.

The following consumption values can be read below the coloured energy consumption display:

- Consumed energy in kilowatt hours (kWh)
- Costs accrued in EUROS (€) or another currency ($)
- Released CO_2 in kilogrammes ($kgCO_2$)
- Gas consumption in m^3 (with gas sensor),
- Current consumption in W (with energy adapter)

The "Sensor" button enables selection of the sensor or energy adapter, the data of which is to be displayed.

The "Unit" button selects the desired unit.

The "Energy" button enables selection of the following consumption time periods:

- Current: the sum of the last 20 minutes.
- Day: the sum of the current day, beginning at 0:00 am.
- Week: the sum of the current week, beginning on the Monday.
- Month: the sum of the current month, beginning on the first day of the month.
- Year: the sum since the beginning of the calculation time period. The calculation time period for gas/electricity meters can be modified in the configuration menu (factory setting 01.01.) The value 01.01. is always valid for intermediate plug sensors.

The consumption data are saved in the energy and weather display for two years.

If radio connection to an assigned energy adapter is lost, the antenna symbol flashes and "-188 W" is displayed as the current consumption.

Energy consumption display

The coloured bar display compares the currently measured consumption for the selected sensor with consumption from the previous year:

- If the current consumption is less, the arrow of the bar display moves to the light green or dark green section. One part to the right signifies 5% less consumption.
- If the current consumption is greater than consumption one year ago, the arrow moves to the orange or red section. One part to the left signifies 5% more consumption.

If no previous year's consumption has been specified then the arrow remains in the yellow section in the first two weeks following the beginning of measurement. In this time period no values can be compared.

The energy consumption display functions

- With the energy adapter only after two weeks following commencement of measurement,
- With the meter sensor two weeks following commencement of measurement, or immediately if the previous year's values have been specified in the configuration menu.

The energy consumption display calculates comparative values based upon the following:

- Current: consumption over the last 20 minutes, calculated up to one day, compared to the mean value of the day from the previous year +/- 1 week.
- Day: consumption over the previous day compared to the mean value of the day from the previous year +/- 1 week.
- Week: consumption over the last 7 days compared to the week from the previous year +/- 1 week.
- Month: consumption over the last 30 days compared to the month from the previous year.
- Year: consumption over the last 366 days compared to the previous year. The "Year" energy consumption display is influenced by the settable invoicing date for electricity/gas.

With a sensor without specification of the previous year's consumption or with an energy adapter, in the first year the mean value from the first two weeks is assumed as a comparative value.

Overview of display possibilities

The following table shows the various display possibilities, depending upon the assigned sensors. The upper section shows the assigned devices. The lower section shows the data displayed in the specific areas.

Existing devices	Example						
	1	2	3	4	5	6	7
Energy and weather display	✓	✓	✓	✓	✓	✓	✓
Outdoor sensor		✓		✓		✓	✓
LAN adapter			✓	✓			✓
Energy adapter							✓
Electricity or gas meter sensor					✓	✓	✓
Display							
Area ①	Indoor temp.	Outdoor temp./ humidity	Outdoor temp. (portal)	Outdoor temp./ humidity	Indoor temp.	Outdoor temp./ humidity	Outdoor temp./ humidity
Area ②	Indoor humidity	Indoor temp./ humidity	Indoor temp./ humidity	Indoor temp./ humidity	Indoor humidity	Indoor temp./ humidity	Indoor temp./ humidity
Area ③		Outdoor temp. min/max	Weather forecast	Weather forecast		Outdoor temp. min/max	Weather forecast
Area ④	Date	Date	Date	Date	Energy data	Energy data	Energy data

Example 1: No devices assigned to the energy and weather display

- Area ① : Indoor temperature
- Area ② : Indoor humidity
- Area ③ : Empty
- Area ④ : Date

Example 2: Outdoor sensor assigned

- Area ① : Outdoor temperature/humidity
- Area ② : Indoor temperature/humidity
- Area ③ : Min./max. outdoor temperature
  (reset min. value at 7:30 am, max. value at 7:30 pm)
- Area ④ : Date

Example 3: LAN adapter assigned

- Area ① : Outdoor temperature (internet portal)
- Area ② : Indoor temperature/humidity
- Area ③ : Weather forecast from the internet portal
- Area ④ : Date

Example 4: Outdoor sensor and LAN adapter assigned

- Area ① : Outdoor temperature/humidity
- Area ② : Indoor temperature/humidity
- Area ③ : Weather forecast from the internet portal
- Area ④ : Date

Example 5: Electricity/gas meter sensor assigned

- Area ① : Indoor temperature
- Area ② : Indoor humidity
- Area ③ : Empty
- Area ④ : Energy data

Example 6: Outdoor sensor and electricity/gas meter sensor assigned

- Area ① : Outdoor temperature/humidity
- Area ② : Indoor temperature/humidity
- Area ③ : Min./max. outdoor temperature
  (reset min. value at 7:30 am, max. value at 7:30 pm)
- Area ④ : Energy data

Example 7: Outdoor sensor, LAN adapter, energy adapter and electricity/gas meter sensor assigned

- Area ① : Outdoor temperature/humidity
- Area ② : Indoor temperature/humidity
- Area ③ : Weather forecast from the internet portal
- Area ④ : Energy data

Transmission behaviour and radio interference

The energy and weather display receives data at periods of 2 – 3 minutes from the sensors and adapters.

Radio transmission occurs on a non-exclusive transmission path, and interference cannot be excluded for this reason. Interference may be caused by switching processes, electric motors or defective electrical devices.

If radio interference occurs causing the abortion of regular data transmission from the sensor/adapter to the energy and weather display, the so-called radio synchronisation between both devices is lost.

Lost radio synchronisation is indicated by flashing of the antenna symbol in the area of the corresponding sensor/adapter.

If synchronisation is lost, the energy and weather display searches for the sensor/adapter once daily at a pre-defined time for a maximum of 6 minutes.

In order to manually restore synchronisation, assignment of the sensor/adapter to the energy and weather display can be deleted and reassigned, as specified in the "Assigning" section.

When the assignment of a gas or electricity meter sensor or an energy adapter is deleted by the energy and weather display, the recorded energy data of the sensor for that day are also deleted.

All of the data recorded prior to the current day remain saved in the energy and weather display.

The following causes may prevent proper radio communication between the energy and weather display and the sensor/adapter:

No reception – the distance between the transmitter and the energy and weather display is too large/small

The distance between the transmitter and energy and weather display should exceed 0.5 m. In a free field a range of 100 m is possible.

No reception – strongly shielding material between the transmitter and energy and weather display (thick walls, reinforced concrete etc.).

Modify the position of the transmitter and/or energy and weather display.

The transmitter is overlaid by the interference source (radio device, wireless headphones/loudspeakers)

Remove the interference source or modify the position of the transmitter and/or energy and weather display.

Often interference is limited in time (radio speech communication) or can be eliminated easily. If wireless headphones, wireless babyphones or similar devices are used in your house or in the neighbourhood on the same frequency band, their power-on time is usually temporary.

Most of these devices allow modification to an interference-free frequency. This may effectively remove interference.

Maintenance and cleaning

The product is maintenance-free apart from possibly required battery replacement. Leave repair to a qualified expert. Clean the product with a clean, soft, dry and lint-free cloth.

The cloth may be dampened with luke-warm water for removal of heavier soiling.

Do not use solvent-based cleaning materials. The plastic housing and inscription may be adversely affected.

Technical data

Power supply:	3 V +/- 20 %
Batteries:	2x LR6 battery (Mignon/AA) Do not use rechargeable batteries!
Current consumption:	approx. 140 µA
Radio transmission interval:	2 to 3 minutes (dynamic)
Reception frequency:	868.35 MHz
Free field range:	100 m
Ambient temperature range:	0 to 50 °C
Dimensions (W x H x D):	68 x 105 x 30 mm

Note

The manufacturer or seller of the energy and weather display accepts no responsibility for incorrect measurement values and any consequences that may ensue.

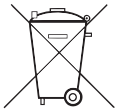
The weather data are made available by an external provider. The manufacturer or seller has no influence on the transmitted weather data and forecasts. The manufacturer does not assume warranty for uninterrupted availability and correctness of data.

Start-up table

All data needed for start-up of the energy and weather display can be noted in this table.

Parameter	Value
Electricity price per kilowatt hour	
Gas price per kilowatt hour	
Calculation factor, gas – kWh/m^3	
Quantity in grams of CO_2 / kWh electricity	
Quantity in grams of CO_2 / kWh gas	
Previous year"s electricity consumption	
Previous year"s gas consumption	
Electricity invoicing date	
Gas invoicing date	

Waste disposal information



Remove empty batteries immediately and dispose of them in an environmentally-friendly way. Do not throw batteries into the domestic refuse. Local authorities inform about environmentally-compatible disposal. The end consumer is legally required to return used batteries in accordance with legislative requirements.

Declaration of Conformity

The energy and weather display may be operated in all EU and EFTA countries.

The declaration of conformity can be downloaded at **www.download.gira.de**.

Warranty

The warranty is provided in accordance with statutory requirements via the specialist trade.

Please submit or send faulty devices postage paid together with an error description to your responsible salesperson (specialist trade/installation company/specialist electrical trade).

They will forward the devices to the Gira Service Center.

Gira
Giersiepen GmbH & Co. KG
Electrical Installation
Systems
P.O. Box 1220
42461 Radevormwald
Phone +49 (0) 2195 / 602 – 0
Fax +49 (0) 2195 / 602 – 339
www.gira.com
info@gira.com

42/12

GIRA