Eltako

Single-phase energy meter WSZ14DRS-32A with display, with MID approval

> **Only skilled electricians may install this electrical equipment otherwise there is the risk of fire or electric shock!**

> Temperature at mounting location: -25°C up to +70°C.
> Storage temperature: -25°C up to +70°C.
> Relative humidity: annual average value <75%.

RS485 bus single phase energy meter WSZ14DRS-32A with display, with MID.
Maximum current 32 A. Standby loss 0.4 watt only.

Modular device for DIN-EN 60715 TH35 rail mounting.
1 module = 18 mm wide and 58 mm deep.

Connection to the Eltako RS485 bus. Bus wiring and power supply with jumpers.

The meter reading, the instantaneous power and the serial number are transferred to the bus - e.g. B. for transfer to an external computer, to a controller - and also sent to the radio network via the FAM14. For this it is necessary that a device address is assigned by the radio antenna module FAM14.

This single-phase energy meter measures active energy by means of the current between input and output. The internal power consumption of 0.4 watt active power is neither metered nor indicated.

1 phase conductor with a max. current up to 32 A can be connected.

The start current is 20 mA. Accuracy class B (1%).

If the anticipated load exceeds 50%, maintain an air gap of ½ pitch unit to the devices mounted adjacently. If necessary, use spacer DS12.

Two N terminals for secure cross wiring of several counters.

The consumption value is stored in non-volatile memory and is displayed again immediately after a power failure.

The 7 segment LC display is also legible twice within a period of 2 weeks without power supply. Press the button.

Power consumption is shown by a bar flashing at a rate of 1000 times per kWh.

Error message
In case of a connection error, the background lighting of the display flashes.

When the display is running, it shows the total active energy and the display bars are in the kWh position.

Press the button under the display to switch on the **background lighting.** Then you can browse through the menu. The bar moves to the current display: the cumulative power of the resettable memory RS (kWh), the current power P (kW), the current voltage U (V) and the present current I (A) will be displayed successively. In the end it will be browsed to the active energy display (kWh). The program automatically returns back to normal display (kWh) 20 seconds after pressing the button and the background lighting will be swiched off.

The memory RS is reset by pressing the button for longer than 3 seconds while the memory is displayed. Then confirm the message 'reset' by pressing the button again for 3 seconds.

Assign device address for the WSZ14:

Normal display: Short press the button, the backlight will turn on. If the button is pressed for more than 3 seconds, the device address **Adr** appears on the display. Now turn the rotary switch on the FAM14 to position 1 within 60 seconds; its lower LED lights up red. After the address has been assigned by the FAM14, its lower LED lights up green for 5 seconds and the normal display appears again on the WSZ14.

Delete device address of the WSZ14:

Normal display: Short press the button, the backlight will turn on. If the button is pressed for more than 3 seconds, the device address Adr appears on the display. Now hold the button down again for 3 seconds, LEArn appears in the display. Then press the button briefly, **rESEt.A** appears in the display. Now keep the button pressed for 3 seconds, the device address is set to zero and the normal display appears.

Send learning telegram:

Normal display: Short press the button, the backlight will turn on. If the button is pressed for more than 3 seconds, the device address Adr appears on the display. Keep the button pressed for 3 seconds again, **LEArn** appears in the display. Now press the button again for 3 seconds, a teach-in telegram and a data telegram are sent. The FAM14 must be operated in position 2 or position 5 so that the telegrams of the WSZ14 can be sent to the Eltako wireless network. A data telegram with meter reading, power and serial number is sent automatically after switching on the supply voltage and cyclically every 10 minutes. If the meter reading changes by 0.1 kWh, the meter reading telegram is sent.

PcH is the value (delivery condition 200 watts) of the necessary power change so that a power telegram is sent immediately.

Change PcH value:

Short press the button, the backlight will turn on. Then press the button repeatedly until PcH appears in the display. Now press and hold the button for at least 3 seconds until the first digit of the number flashes. The number then increases with each press of the button. Between 10 to 100 in increments of 10 and from 100 to 1000 in increments of 100. If the selected value is to be saved, press and hold the button again for 3 seconds. SEt appears in the display. Now you can switch between SEt and ESc with a short button press. By pressing the button for at least 3 seconds, the value is saved with SEt, with ESc the value is discarded. After briefly pressing the button, the normal display appears.

Meter special operating modes:
In the meter operating modes of the FAM14, the focus is on the adjustable transmission speed of electricity meter data for external building energy managers.

Data can be accessed and forwarded via gateways connected to the FAM14 (FGW14, FGW14-USB, FGW14W(L)-IP).

Additional setting options are available on the FAM14 **for meters from production week 33/23.**

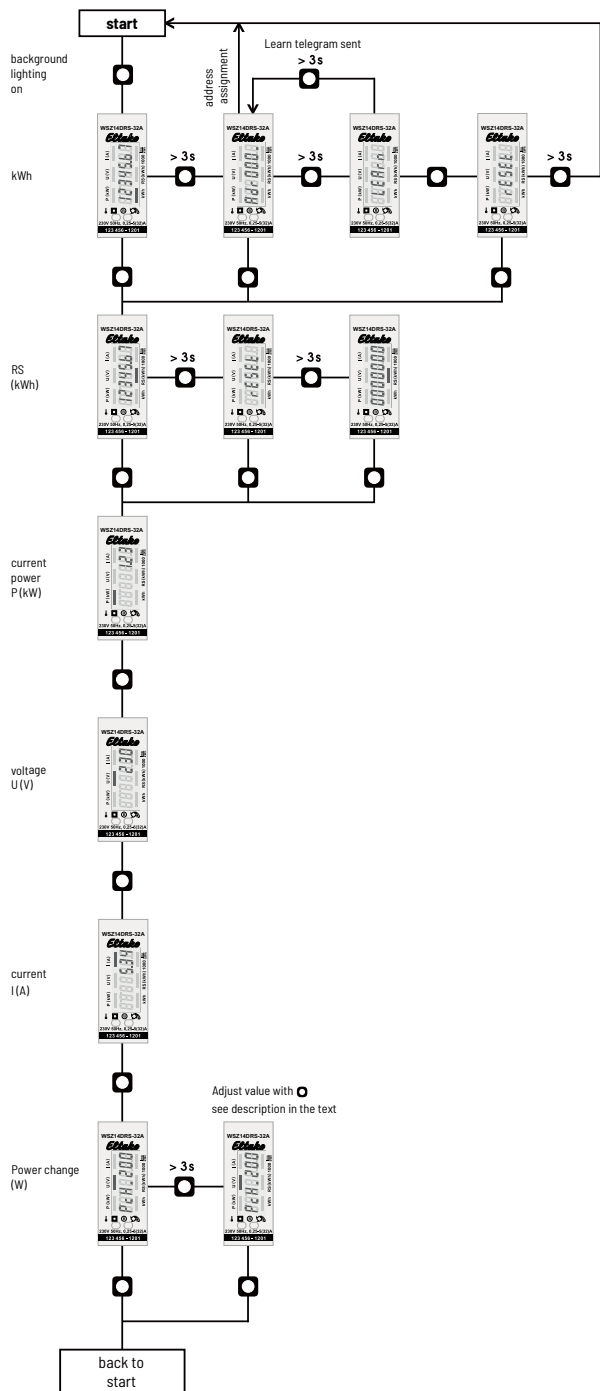### Typical connection
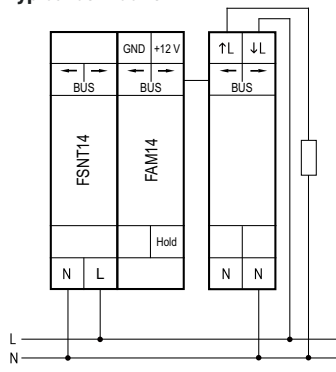
Technical data

Rated voltage, extended range	230 V, 50 Hz, -20%/+15%
Reference current I_{ref} (Limiting current I_{max})	0.25 - 5(32)A
Internal consumption active power	0.4 W
Display	LC display 7 digits, therefrom 1 or 2 digits after the decimal point
Accuracy class ±1%	B
Inrush current according to accuracy class B	20 mA
Ambient temperature limits	-25/+70°C
Interface	series 14 RS485-Bus
Protection degree	IP50 for mounting in distribution cabinets with protection class IP51
Maximum conductor cross section [1]	L terminals 16 mm² N terminals 6 mm²
Recommended torque [2] L terminals N terminals	1,5 Nm (max. 2,0 Nm) 0,8 Nm (max. 1,2 Nm)
EC type examination certificate	0120/SGS0722
The energy meter is for indoors use.	
Mechanical environmental conditions	class M1
Electromagnetic environmental conditions class	class E2

[1] The carrying capacity of cables and wires is defined in DIN VDE 0298-4.

[2] The torques for screw terminals are mentioned in DIN EN 60999-1.
   To avoid damages at the energy meter, the recommended torque values for each terminal must not be exceeded!
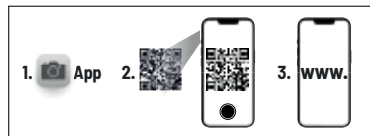
Menu guidance WSZ14DRS

start

background lighting on

address assignment

Learn telegram sent
> 3s

kWh

> 3s > 3s > 3s > 3s

RS (kWh)

> 3s > 3s

current power P (kW)

voltage U (V)

current I (A)

Adjust value with ⭘
see description in the text

Power change (W)

> 3s

back to start

Manuals and documents in further languages:

https://eltako.com/redirect/WSZ14DRS-32A

1. 📷 App   2. ▦   3. www.