GB CE

22 100 530 - **1**

Eltako

Multifunction current relay

MFSR12DX-230V

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

Temperature at mounting location: -20°C up to +50°C.
Storage temperature: -25°C up to +70°C.
Relative humidity: annual average value <75%.

Multifunction current relay for two-way three-phase meters with two S0 outputs or IR interface according to IEC 62056-21. 1 NO contact potential free 16 A/250 V AC, with DX technology. Standby loss 0.6 watt only.

Modular device for DIN-EN 60715 TH35 rail mounting.
3 modules = 54 mm wide, 58 mm deep.

This current relay either evaluates the data of a balancing two-way three-phase meter, e.g. DSZ15DZ-3x80A with two S0 interfaces, or that of an electronic household meter (eHZ-EDL) with IR interface according to IEC 62056-21 and SML protocol version 1.

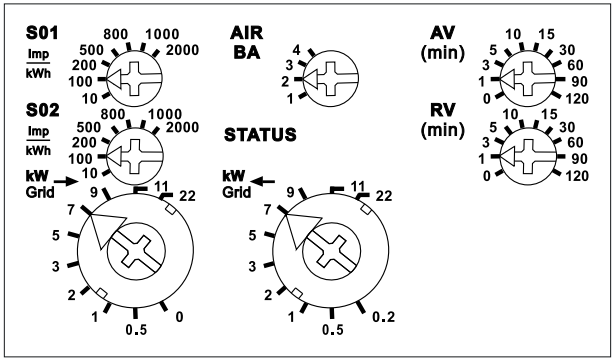
The data for the power consumed (→) and the power supplied (←) are recorded, evaluated and a relay contact is switched on or off according to the settings.

With the patented Eltako Duplex technology (DX) the normally potential-free contact can still switch in zero passage when switching 230 V AC 50 Hz and therefore drastically reduce wear. Simply connect the neutral conductor to the terminal (N) for this. This results in an standby consumption of only 0.1 watt.

Supply voltage 230 V.

If the supply voltage fails, the switching status is retained. When the supply voltage returns, it is defined switched off.

Function rotary switches



S0 inputs S01 (consumed power →) and S02 (delivered power ←)

The S0 pulses/kWh of the electricity meter used are set with the respective rotary switch.

Adjustable values are 10, 100, 200, 500, 800, 1000, 2000 Imp/kWh.

When pulses are received at S01, the red LED below the rotary switch (kW Grid →) flashes briefly.

When pulses are received at S02, the green LED below the rotary switch (kW Grid ←) flashes briefly.

If no S0 input is used, the two rotary switches S01 and S02 must be set to the right stop.

AIR input (OBIS codes according to IEC 62056-61)

With the rotary switch AIR (BA) you can choose between the following operating modes:

1: Purchase totalizer (1.8.0) and reference power on channel 1, supply totalizer (2.8.0) and supply power on channel 2.
2: Purchase of tariff 1 (1.8.1) and tariff 2 (1.8.2) and reference power on channel 1, supply of tariff 1 (2.8.1) and tariff 2 (2.8.2) and supply of power on channel 2.
3: Import tariff 1 (1.8.1) and tariff 2 (1.8.2) and import power on channel 1, supply totalizer (2.8.0) and supply power on channel 2.
4: Purchase totalizer (1.8.0) and reference power on channel 1, supply tariff 1 (2.8.1) and tariff 2 (2.8.2) and supply power on channel 2.

If no **AIR** is used, the rotary switch must be set to the right stop.

The connection is made using an IR scanner AIR. The IR scanner is fixed with its fastening magnet over the IR output of the meter and connected with its connection cable to the Rx, GND and +12 V terminals.

When data is received, the red STATUS LED flashes briefly.

Setting the switching threshold for the reference power (kW grid →)

The switching threshold at which the relay should switch off is set with the rotary switch (kW Grid →).

The adjustable values for the power are 0, 0.5, 1, 2, 3, 5, 7, 9, 11, 22 kW.

When energy is purchased, the red LED under the rotary switch (kW Grid →) lights up.

Setting the switching threshold for the delivery power (kW grid ←)

The switching threshold at which the relay should switch on is set with the rotary switch (kW Grid ←).

The adjustable values for the power are 0.2, 0.5, 1, 2, 3, 5, 7, 9, 11, 22 kW.

When energy is supplied, the green LED under the rotary switch (kW Grid ←) lights up.

Functionality:

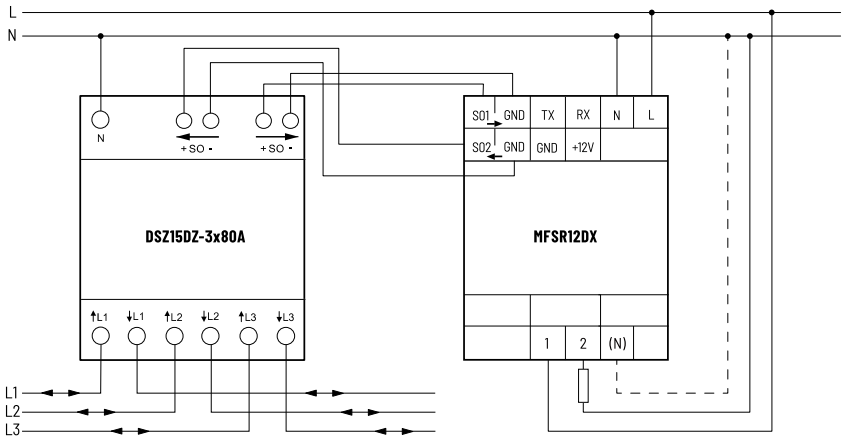
Turn on relay contact 1-2

When the set power for the energy supply (←) is reached, the **response delay time (AV)** begins, which can be set between 0, 1, 3, 5, 10, 15, 30, 60, 90, 120 minutes with the rotary switch (AV). The red LED behind the rotary switch (AV) flashes as long as the AV time is running. At the end of the AV time, the relay contact switches on if the power (kW) has not fallen below the set switching threshold again. The red **STATUS** LED lights up as long as the relay contact is closed.

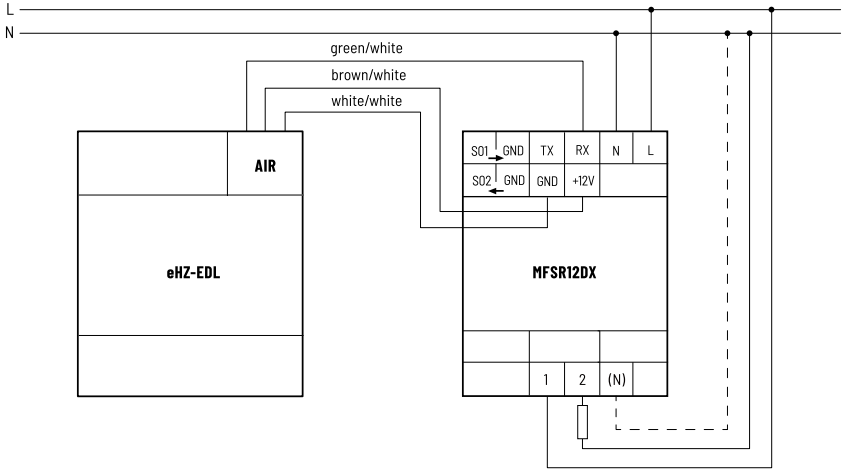
Switching off relay contact 1-2

When the set power for the energy consumption (→) is reached, the **off-delay time (RV)** begins, which can be set between 0, 1, 3, 5, 10, 15, 30, 60, 90, 120 minutes with the rotary switch (RV). The red LED behind the rotary switch (RV) flashes as long as the RV time is running. At the end of the RV time, the relay contact switches off if the power (kW) has not fallen below the set switching threshold again. The red STATUS LED goes out when the relay contact is open.

Typical connection with DSZ15DZ-3x80A



Typical connection with eHZ-EDL and AIR



If (N) is connected, the zero passage switching is active.

Attention!
The switched L and the L of the supply voltage must be identical.

Manuals and documents in further languages:

http://eltako.com/redirect/MFSR12DX-230V

Must be kept for later use!
We recommend the housing for operating instructions GBA14.

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