

FR12-230V

1 NO contact not potential free 16 A/250 V AC. Self-learning. 230 V LED lamps up to 200 W, incandescent lamp load 2300 W. Standby loss 0.8 watt only.

Modular device for DIN EN 60715 TH35 rail mounting.
1 module = 18 mm wide and 58 mm deep.
230 V supply voltage and switching voltage.
State-of-the-art hybrid technology combines advantages of nonwearing electronic control with high capacity of special relays.
The FR12-230V mains disconnection relay disconnects the power supply once all series connected loads are turned off, thus preventing any electromagnetic interference fields from occurring.
Small loads up to 200 mA, are acceptable and, once major loads are disconnected, they do not prevent field disconnection. The limit is taught-in automatically by the FR12 using a patented method so you need not set the limit manually. Loads drawing more than 200 mA are consistently defined as loads which should cause the line power to be connected.
As long as no major load is turned on, one pole of the monitored circuit remains isolated from the mains. Neutral and earth are connected continuously to avoid acting as an aerial.
A DC voltage with an extremely low residual ripple is applied for monitoring.
Therefore, **it is prohibited to bridge the relay contact,** which would ultimately cause device failure.
When a load is turned on, the mains disconnection switch connects the monitored phase after approx. 1 sec and the LED lights red.

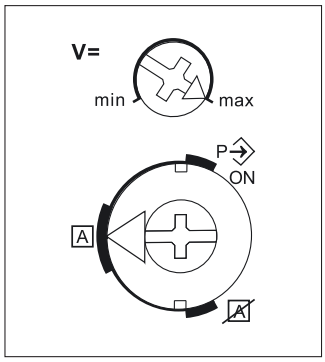
Function of the lower rotary switch

In the function ON/P→ position, the relay contact is continuously closed and field disconnection deactivated.
When turning back to position A = automatic with self-learning, the actual current value is stored as shut down value in which should be switched-off even if small consumers, such as electronic dimmers, are still available. Lighting must therefore be switched-off when 'learngin by rotary switch'.
In position A changes of connected consumers can be taught-in independently. When the outer conductor is switched-on the first time and after a power failure the FR12 automatically teaches-in again.
If a new small consumer is switched-on more than 24 hours, the total current drawn of the monitored circuit is less than 200 mA, the disconnection switch is set to A mode and the light was switched-on and off occasionally, the new small consumer is taught-in and the ladder is switched-off. This can be achieved immediately after connecting of a new small consumer by briefly jumping from A to P→ and back. If self-learning of the device is not desired, the rotary switch must be set to the function A 'automatic switched-off'.

Function of the upper rotary switch

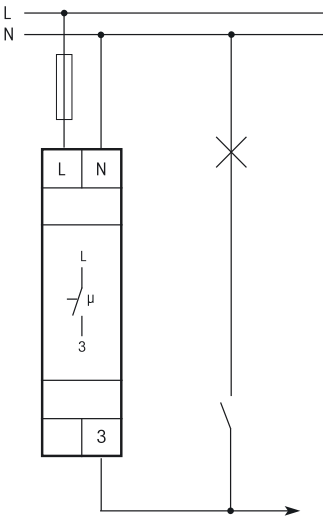
The monitoring voltage can be adjusted in the range from 5 V DC to 230 V DC. Due to its low residual ripple, it generates no measurable alternating field even at 230 V DC. The higher the adjustment, the greater the number of capacitive loads detectable without switching on a base load. It can therefore be reduced until the loads are barely detectable. In many applications, even the lowest monitoring voltages are detectable.

Rotary switches



Standard setting ex factory.

Typical connection



monitored circuit

FR12-230V	Self-learning mains disconnection relay, 1 NO contact 16 A	**Art. No. 22100231**	**87,77 €/pc.**

Manuals and documents in further languages:
https://eltako.com/redirect/FR12-230V

Technical data page 14-9.
Housing for operating instructions GBA14 page 1-48 chapter 1.

Recommended retail prices excluding VAT.