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LE-01R

Electric energy meter,
1-phase



Do not dispose of this device in the trash along with other waste!

According to the Law on Waste, electro coming from households free of charge and can give any amount to up to that end point of collection, as well as to store the occasion of the purchase of new equipment (in accordance with the principle of old-for-new, regardless of brand). Electro thrown in the trash or abandoned in nature, pose a threat to the environment and human health.



Compliance

MID Directive
Certificate

2014/32/EU
0120/SGS0571

Purpose

The LE-01R is a static (electronic) calibrated electricity meter for single-phase alternating current, designed for direct current measurement in a 2-wire system.

Functioning

The meter provides measurement of active and reactive energy and power measurement as well as monitoring of many additional network parameters such as voltage, current, active power, reactive power, apparent power, frequency, power factor. The meter has additional, resettable active and reactive energy counters.

The touch button located on the front panel of the meter allows you to select the displayed parameter.

The meter is equipped with 2 open collector pulse outputs for signalling increases in active and reactive energy consumption. The backlit LCD display makes it easy to read the measured values.

Measured values

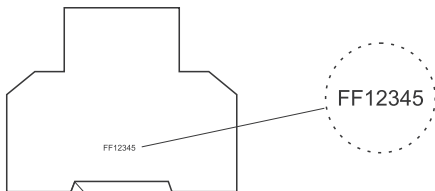
Total active energy		[kWh]
Active energy imported	AE+	[kWh]
Active energy exported	AE-	[kWh]
Total reactive energy		[kvarh]
Phase voltage	U	[V]
Phase current	I	[A]
Frequency	f	[Hz]
Active power	P	[W]
Reactive power	Q	[var]
Apparent power	S	[VA]
Power factor	$\cos\varphi$	
Demand active energy imported		[W]
Total demand active energy imported		[W]
Demand active energy exported		[W]
Total demand active energy exported		[W]
Demand reactive energy imported		[var]
Total demand reactive energy imported		[var]
Demand reactive energy exported		[var]
Total demand reactive energy exported		[var]



The full user manual for the meter is available for download from the product subpage at www.fif.com.pl.

Meter number

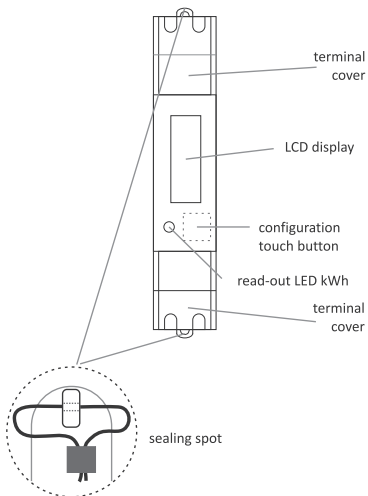
The meter is marked with individual serial number allowing its unambiguous identification. The marking is laser engraved and cannot be removed).



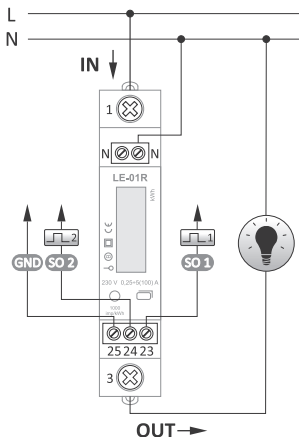
Sealing

The meter has sealable input and output terminal covers to prevent any attempts to bypass the meter.

Front panel



Wiring diagram



- 1 – L_{IN} power input
- 3 – L_{OUT} power output
- N – N-wire neutral
- 23 – SO 1 – pulse output 1 (active energy increase)
- 24 – SO 2 – pulse output 2 (reactive energy increase)
- 25 – common GND terminal (ground) for pulse outputs SO 1 and SO 2

Mounting

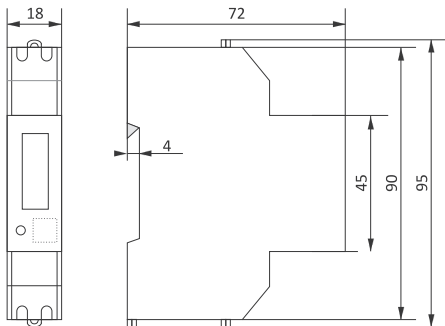
1. Disconnect the power supply.
2. Mount the indicator on the rail in the distribution box.
3. Connect the neutral wire to terminal N.
4. Connect the input phase to terminal 1.
5. Connect the measured circuit or single receiver to terminal 3 (output phase L) and to N.
6. Connect terminals 23, 24 and 25 according to wiring diagram.

Technical data

installation	2-wire
rated voltage	230 V AC
minimum measured current	0.02 A
base current	5 A
maximum current	100 A
voltage measuring range	184÷276 V AC
measurement accuracy (EN50470-1/3)	class B
rated frequency	50 Hz
insulation protection class	II
housing	PC material
environmental conditions class	
mechanical	M1
electromagnetic	E2
own power consumption	10 VA; 1 W
indication range	0÷99999 kWh
display	7-digits backlight LCD (blue color)

constant	1000 pulses/kWh
read-out signalling	red LED
pulse outputs	
number of outputs	2
type	open collector
maximum voltage	27 V DC
maximum current	27 mA
pulse constant (SO1, SO2)	1000 pulses/kWh
pulse time	≥90 ms
working temperature	-25÷55°C
terminal	
100 A (1, 3 terminals)	25 mm ² screw terminals
tightening torque	2.5 Nm
neutral (N terminal)	1 mm ² screw terminals
pulse outputs (23, 24 terminals)	1 mm ² screw terminals
tightening torque	0.4 Nm
dimensions	1 module (18 mm)
mounting	on TH-35 rail
internal (housing recommended)	IP51
external (housing required)	IP54
ingress protection	IP51

Dimensions



Warranty

F&F products are covered by a 24-month warranty from the date of purchase. The warranty is only valid with proof of purchase. Contact your dealer or contact us directly.

CE declaration

F&F Filipowski L.P. declares that the device is in conformity with the essential requirements of The Low Voltage Directive (LVD) 2014/35/EU and the Electromagnetic Compatibility (EMC) Directive 2014/30/UE.

The CE and MID Declaration of Conformity, along with the references to the standards in relation to which conformity is declared, can be found www.fif.com.pl on the product subpage.