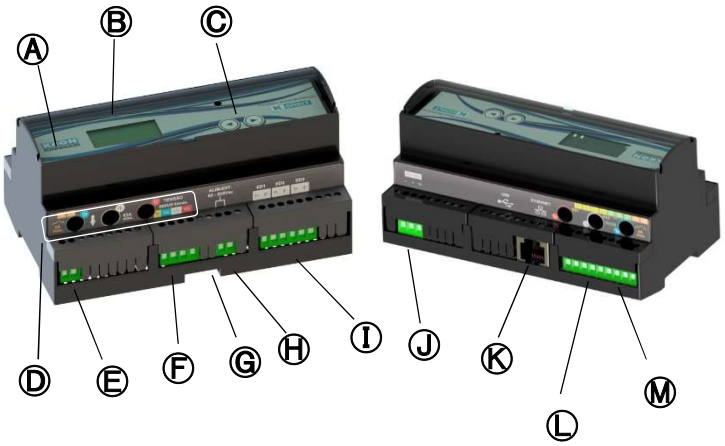
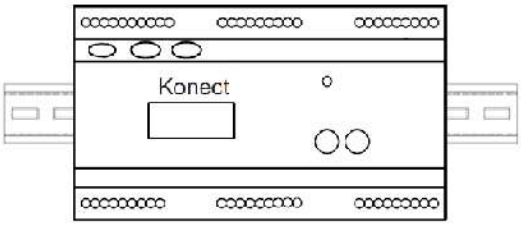
❶ Knowing the Product



Ⓐ	Konect	Ⓗ	Power Supply
Ⓑ	LCD Display	Ⓘ	Digital Inputs
Ⓒ	Navigation keys	Ⓙ	RS-485 Output
Ⓓ	Orifice for cable passage, max. cable diameter of 9mm (63A and 5A models)	Ⓚ	Ethernet Output
Ⓔ	Digital Outputs	Ⓛ	Analog Inputs
Ⓕ	Voltage Input	Ⓜ	PT-100 Input
Ⓖ	DIN rail lock		

❷ Installing the Product

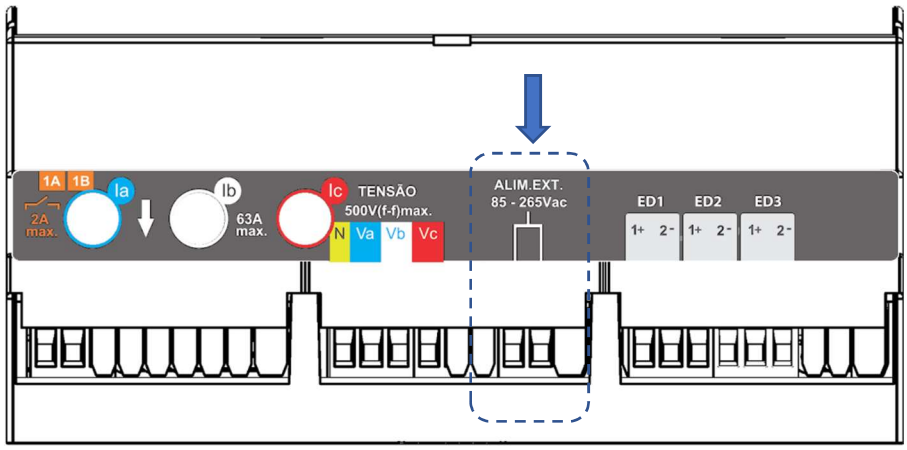
Konect must be fastened on a 35mm DIN rail, which is supposed to be placed on panel's background. To complete the installing process, lock the meter by using Ⓖ .



❸ Power Supply

Power Supply signal must be applied to the Ⓗ terminal block. Konect's power supply working range is 85...265Vac / 100...350Vdc

Power Supply
85...265Vac / 100...350Vdc (No polarity)



ATTENTION

Pay extreme attention to the voltage level applied to the power supply input of your meter.

Applying a voltage signal above the specified limits can damage it severely.

❹ Voltage Input Connections

Connect phases and neutral references to the Ⓕ terminal block, using the order described below:

Terminal Description	Signal to be Connected
N	Neutral
Va	Phase 'R'
Vb	Phase 'S'
Vc	Phase 'T'
Measurement Range: 20 to 500Vac Ph-Ph 11,54 to 288,67 Vac Ph-N	

❺ Current measurement (orifices for cable passage)

Direct Measurement: Pass the phase cables through the current measurement orifices - Ⓓ. Connections must be made as depicted in page 3's example.

Orifice Description	Phase
Ia	Phase 'R'
Ib	Phase 'S'
Ic	Phase 'T'
Measurement Range: 200mA to 63Aac	

Indirect Measurement: Pass the cables connected to the CT secondary side through the current measurement orifices - Ⓓ. Connections must be made as depicted in page 3's example.

Orifice Description	Phase
Ia	Phase R - CT S1 – Cable in
	⬇
	Cable out – Return to CT S2 – Phase R
Ib	Phase S – CT S1 – Cable in
	⬇
	Cable out – Return to CT S2 – Phase S
Ic	CT S1 – Cable in – Phase T
	⬇
	Cable out – Return to CT S2 – Phase T
Measurement Range: 200mA to 7,5Aac	

The passaging of the cables from the CT's secondary side must be made as a "loop", i.e. the first step is to connect the cable to the CT's S1 terminal, pass it through the holes of the meter from top to bottom, and then connect it to the CT's S2 terminal.

FOR MORE INFORMATION ABOUT THE CONNECTION DIAGRAMS FOR INDIRECT CURRENT MEASUREMENT, PLEASE CHECK PRODUCT'S USER MANUAL, AVAILABLE FOR DOWNLOAD ON THE WEBSITE WWW.KRON.COM.BR.

❻ Accessing Operation Modes

Configuration changing is only possible via RS-485 communication.

MEDICAO INSTANT

Instantaneous Measurements: Checking of **V, A, W, VAr, VA, PF**,**Hz** and **THD** values. To access this mode, hold the ◄ and ► keys until the "MEDICAO INSTANT" message appears on the display. To navigate through the parameters, press any key.

MEDICAO ENERGIA

Energy Measurements: Checking of **kWh+, kWh-, kVArh+, kVArh-, kW** and **kVA**. To access this mode, hold the ◄ and ► keys until "MEDICAO ENERGIA" message appears on the display. To navigate through the parameters, press any key.

CONFERIR PARAMET

Parameter Checking: Checking of active configurations, such as PT and CT ratios, connection diagram, integration time (demand), and communication parameters. To access this mode, hold the ◄ and ► keys until the "CONFERIR PARAMET" message appears on the display. To navigate through the parameters, press any key.

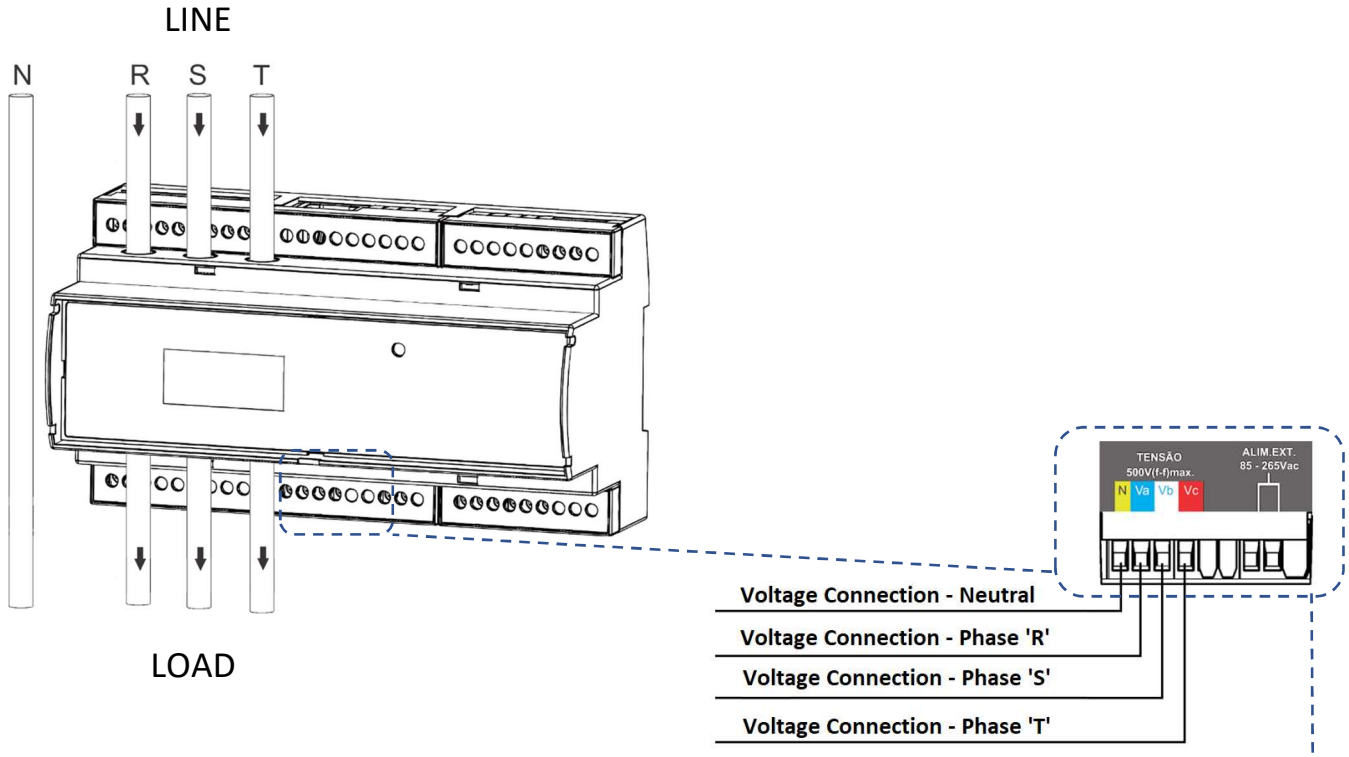
CONFIG REDE

Network Configurations: Checking of network parameters, as IP address, Subnet mask, Gateway, DHCP mode (ON or OFF) and DNS. The MAC Address of the meter is also informed. To access this mode, hold the ◄ and ► keys until the "CONFIG REDE" message appears on the display. To navigate through the parameters, press any key.

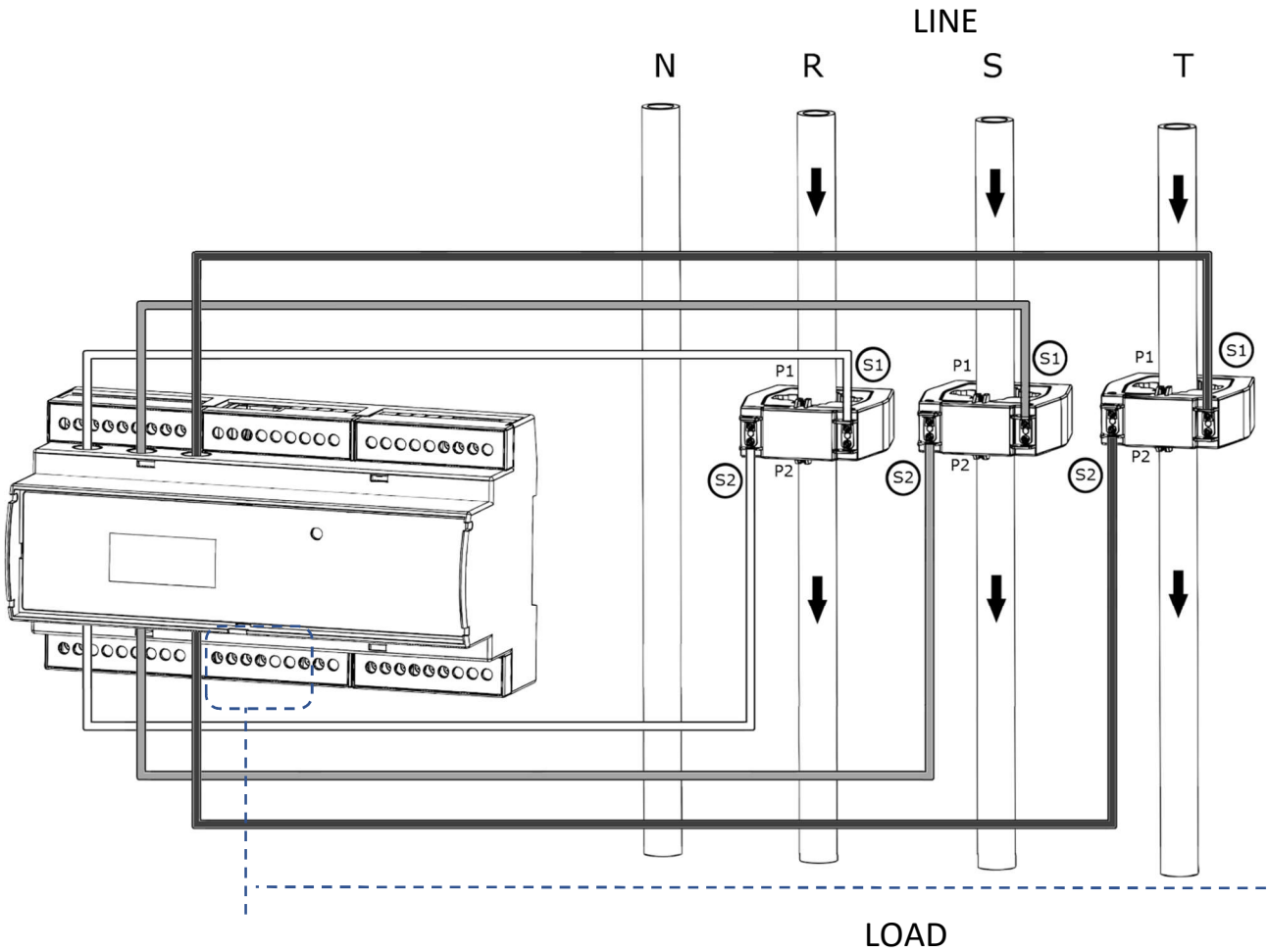
RESTAURA FABRICA

Default Configuration: Reset all configurations of communication parameters to default settings. To execute this command, hold the ◄ and ► keys until the "RESTAURA FABRICA" message appears on the display. Then, press any key once to make the message "SIM" appears and, subsequently, hold the ◄ and ► keys until the meter restarts its CPU.

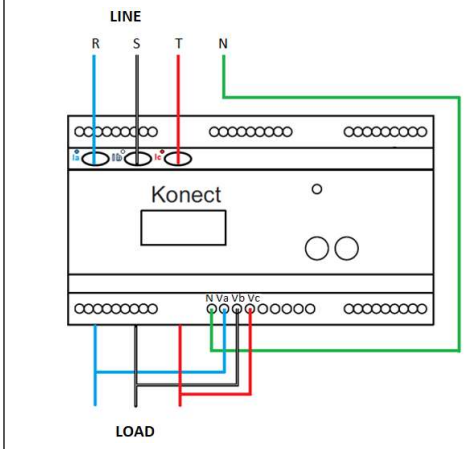
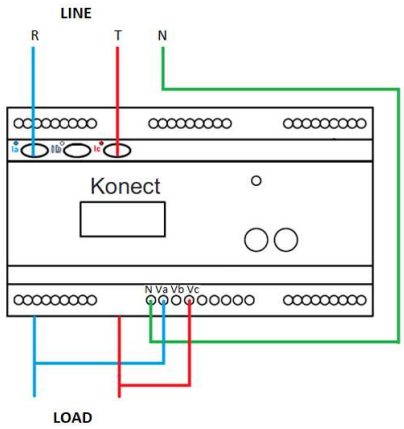
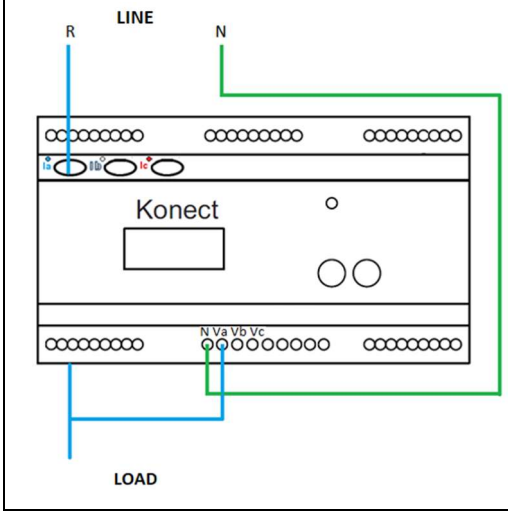
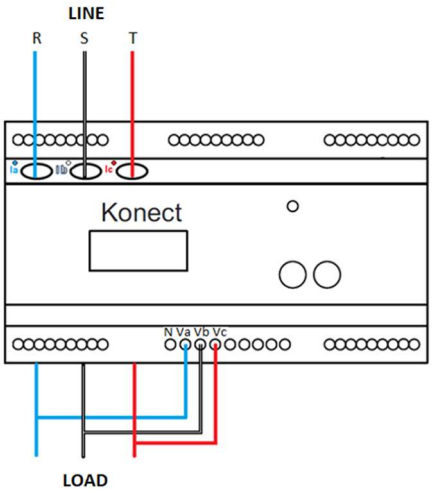
Connection Diagram Example: CD-00 (Direct Measurement)



Connection Diagram Example: CD-00 (Indirect Measurement)



Connection Diagrams (CD - TL configuration)

TL-00 (Three-Phase + Neutral - Wye)	TL-01 (Two-Phase + Neutral)
	
TL-02 (Mono-phase, 1 Phase + Neutral)	**TL-48 (Three-Phase - Delta)**
	

FAQ – Frequently Asked Questions

a. Meter doesn't turn on

Check if the connection to the terminal block Ⓗ was made as stated in step ❸ and if the voltage magnitude applied is within the working range for meter´s power supply.

b. Measurement values seem incorrect

Check if voltage and current connections are corresponding to each other, i.e., each meter's channel with the same reference indication - Example: (Va, Ia* - Ia) - must receive signals from the same phase, as stated in steps ❹ and ❺. Also check if the polarity of CTs is correct (Correct Installing, Primary side: (LINE) P1 → P2 (LOAD)| Secondary side, S1 connected to Ix* → S2 connected to Ix). Also check it the configurations of PT, CT and CD match the expected values for the measured load.

***For more info about the connection diagrams for indirect measurement, please check product's user manual.**

c. Which parameter should be read to check energy consumption?

To read energy consumption info, the user must verify the Positive Active Energy parameter (EA). This parameter is the first that appears when "MEDICAO ENERGIA" mode is accessed. "EA" is a cumulative value, so, to obtain the energy consumption during a period of time, a prior reading must be subtracted from the current value.

THIS IS A QUICK USER GUIDE, WITH ESSENTIAL INFO FOR CONFIGURING AND INITIAL OPERATION OF THE METER. FURTHER DETAILS CAN BE CHECKED IN THE PRODUCT'S USER MANUAL, ALSO AVAILABLE IN KRON'S WEBSITE: www.kron.com.br.