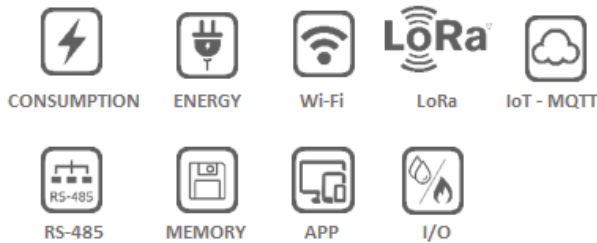




FEATURES

- The **Konect 05** is a multi-meter for electrical quantities aimed at cloud applications, IoT systems, and Industry 4.0, as it allows integration with various platforms such as Amazon AWS, Microsoft Azure, TagoIO, among others.
- Applicable at low, medium, or high voltage, through the programming of connection schemes and the ratios of current and voltage transformers.
- Communication through **Wi-Fi connections (MQTT and Modbus TCP), LoRa (LoRaWAN), and RS-485 (Modbus-RTU)**. Data can be made available locally or remotely through software, apps, mobile phones, tablets, dashboards, supervisory systems, or web platforms.
- It has a data concentrator function, collecting information from other devices, such as water, gas, and oil meters. It incorporates 2 digital relay outputs for sending commands in control systems (ON/OFF).

APPLICATIONS



- IoT, Industry 4.0, and Automation Systems
- Energy Efficiency and Cost Allocation
- Energy Cogeneration Systems (measurement in all four quadrants, consumption, and supply)
- Analysis of Circuits and Electrical Equipment
- Any application involving measurement of electrical parameters

PRODUCT INFO

ELECTRICAL PARAMETERS (52 parameters)

- Includes current, voltage, frequency, energy consumption, energy demand, active, reactive and apparent powers, power factor and other parameters

CONNECTION DIAGRAMS

- Mono-Phase, Two-Phase or Three-Phase systems (configurable)

INSTALLATION

- Fundo de painel, trilho DIN
- Suporte Técnico por telefone, e-mails, WhatsApp e vídeos

MEMORY

- FRAM memory, which stores configurations and measurement values, acting as an MQTT buffer when connection to the cloud server is lost.

INTERFACES, READINGS & CONFIGURATIONS

- LCD Human Machine Interface (HMI) - for data visualization of the meter
- RS-485, Wi-Fi or LoRa communications
- Modbus-RTU/TCP, MQTT or LoRaWAN protocols
- Softwares for reading and parameterization: RedeMB (RS-485), RedeMB-TCP and Kron-Fi (Wi-Fi); Android Apps (MQTT)
- Use in IoT systems and 4.0 Industry, via MQTT Broker. Integration to Dashboards, Apps and other IoT tools
- MODBUS-RTU, MODBUS-TCP/IP protocols, allowing integration to PLCs, master MMIs, data concentrators and supervisory systems

WATER, GAS, OIL, TEMPERATURE, COMMANDS....

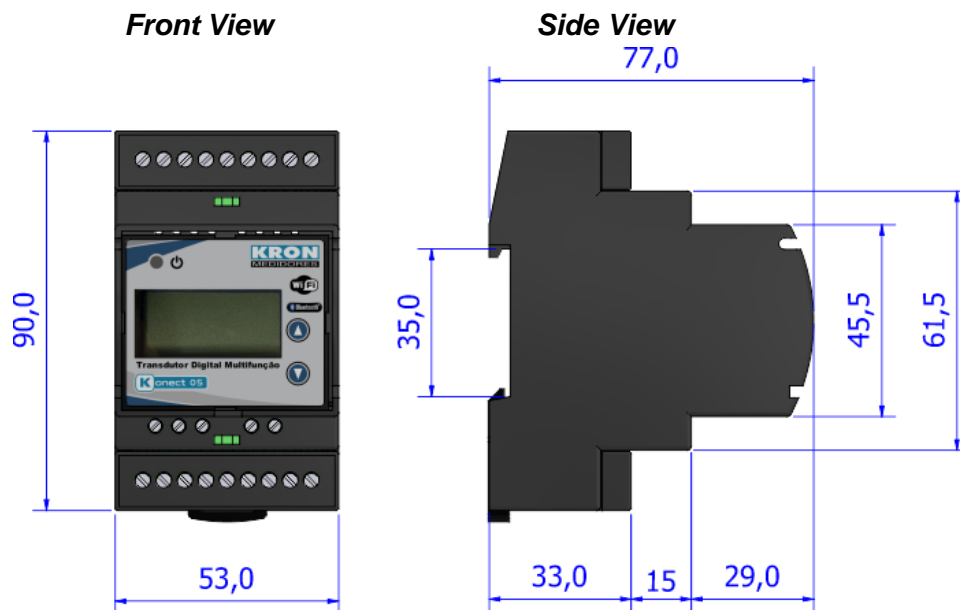
- Two digital inputs for concentration of external pulses, generated by other resources meters (like water, gas and oil). One digital output (relay) for remote commands (On/Off).

ELECTRICAL GREATNESSES	<i>Instantaneous</i>	Voltage (Ph-Ph, Ph-N and 3Ph), Current (Ph and 3Ph), Frequency, Active, Reactive and Apparent Power (Ph and 3Ph), Power Factor (Ph and 3Ph)
	<i>Energy</i>	± Active Energy kWh (Consumption and Supply, Ph* and 3Ph) ± Reactive Energy kVarh [Inductive(+) and Capacitive (-) Loads, Ph* and 3Ph] Apparent Energy kVAh (Ph* and 3Ph) Active, Reactive and Apparent Demand (Last and Maximum) Current Demand (Last and Maximum)
MEASUREMENTS AND INPUT INFO	<i>Connections Diagrams</i>	Three-Phase (Star or Delta), Two-phase and Single-Phase
	<i>Voltage – Working Range</i>	20 to 500Vac (Ph-Ph) [1.5Vmax overload (1s)]
	<i>Current – Working Range</i>	20mA a 7,5A
	<i>Frequency – Working Range</i>	45 to 65Hz
	<i>Connection</i>	Terminal Blocks: Quick coupling terminal (IP-00)
	<i>Maximum Cable to be Used</i>	Power Supply, Voltage and I/O connections: 2,5mm ²
POWER SUPPLY	<i>Internal Consumption</i>	< 0,5VA
	<i>Voltage</i>	85-265Va.c../70-300Vd.c.
ACCURACY at 25°C (77 °F), referred to the full scale	<i>Internal Consumption</i>	< 10VA
	<i>Voltage and Frequency</i>	0,5%
COMMUNICATION	<i>Current, Powers, Power Factors and Energies</i>	0,5%
	<i>Connection/Protocol</i>	Wi-Fi: Modbus-TCP & MQTT RS-485: Modbus RTU LoRa: LoRaWAN (LA915-928A)
IoT DATA PUBLISHING FRAM MEMORY	<i>RS-485 Cabling</i>	Shielded cables, with at least two twisted pairs (2x24 AWG), minimum section of 0.25mm ² and characteristic impedance of 120ohms
	<i>Transmission Speed</i>	RS-485: 9600 and 19200bps
	<i>Adressing/Data Format</i>	1 to 247 8N1, 8N2, 8E1 or 8O1 (configurable for RS-485)
	<i>Data Publishing Interval</i>	Minimum: 1 minute (resolution in minutes)
	<i>Number of parameters to be Configurations</i>	Up to 20** Number of start-ups, PT and CT ratios, Connection Diagrams. Modbus Adressing Network Configurations (LAN) IoT: Data publishing interval and parameters to be published, SNTP and MQTT Broker
I/O	<i>Buffer (Parameters)**</i>	20 param. - 21 blocks 19 param. - 22 blocks 18 param. - 23 blocks 17 param. - 24 blocks 16 param. - 25 blocks 15 param. - 27 blocks 14 param. - 28 blocks 13 param. - 30 blocks 12 param. - 32 blocks 11 param. - 35 blocks 10 param. - 38 blocks 9 param. - 41 blocks 8 param. - 45 blocks 7 param. - 50 blocks 6 param. - 57 blocks 5 param. - 65 blocks 4 param. - 76 blocks 3 param. - 91 blocks 2 param. - 113 blocks 1 param. - 151 blocks
	<i>2 Digital Inputs</i>	Type: Open Collector Voltage required: 12~24Vdc Maximum Frequency: 2Hz Admittable pulse width: 200ms
DISPLAY INVÓLUCRO	<i>1 Digital Output</i>	Relay Output, 250V – 2A (AC or DC)
	<i>LCD</i>	2 lines, 20 characters
CONDIÇÕES AMBIENTAIS	<i>Material</i>	Thermoplastic
	<i>Mass</i>	0,325 Kg
	<i>Protection Degree</i>	IP-20
NORMALIZAÇÃO	<i>Temperature</i>	Operation: -10 to 50°C (14 to 122°F) Storage: -25 to 50 °C (-13 to 122°F)
	<i>Relative Air Humidity</i>	Maximum of 85% (without condensation)
NORMALIZAÇÃO	<i>Electrical Parameters</i>	IEC 61000-4-2 IEC 61000-4-3 IEC 61000-4-4 IEC 61000-4-5 IEC 61000-4-6 IEC 61000-4-8 IEC 61000-4-11 CISPR 11
	<i>Wi-Fi</i>	IEE 802.11 b, g, n Anatel Certification - 02152-20-11541
	<i>LoRa</i>	Anatel Certification - 05658-18-08488

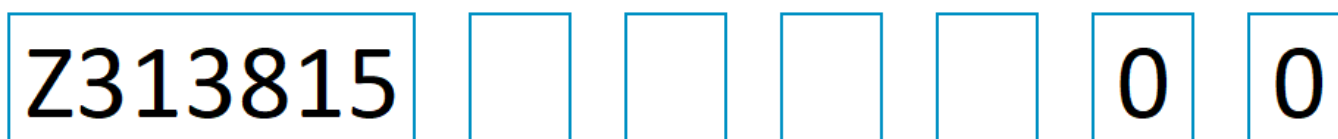
** Wi-Fi: Up to 20 parameters | Lora: Up to 10 parameters.

- For further information, see Technical Manual

DIMENSIONS



How to Specify:



Current Input:
 2: 5A

Frequency:
 1: 60Hz
 2: 50H

Communication:

Digital Outputs and Inputs:
 0: Sem Entradas ou Saída Digital
 1: 2 Inputs and 1 Outputs

- 1 - RS-485
- 2 - RS-485 + Wi-Fi + Bluetooth**
- A - RS-485 + LoRa
- B - RS-485 + LoRa (Extension)

The bold signaled items indicate the standard options, which have higher stock availability.

Standard Model: (Example)

Z313815 2 1 2 1 00

Konect 05 {5A} {Frequency 60Hz} {RS-485 + WiFi + Bluetooth} {2 Inputs and 1 Outputs}

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 For correct utilization of the product, the User Manual must be consulted before its installation or operation.
 Some items presented here may be optional, being necessary the correct product specification by their code.

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