Instructions

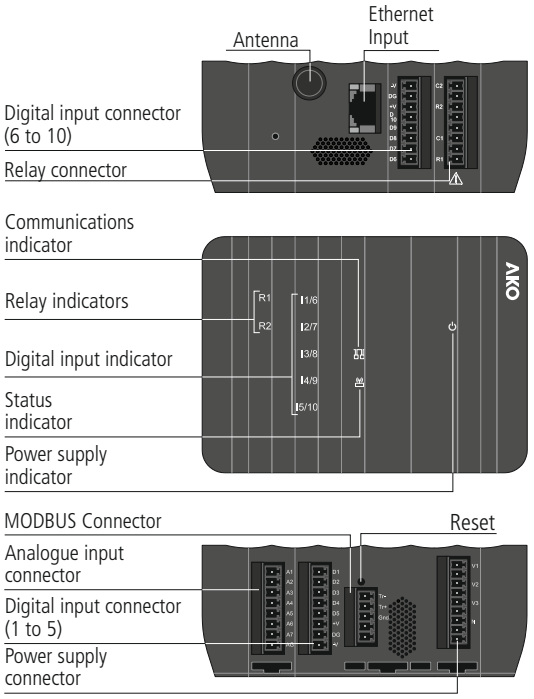
AKO-5051 Akonet.Edge

Warnings

-If the device is used without adhering to the manufacturer's instructions, the device safety requirements could be compromised. Only probes supplied by AKO should be used for the appliance to operate correctly.
-The device should be installed in a place protected from vibrations, water and corrosive gases, where the ambient temperature does not exceed the value indicated in the technical data.
-Avoid installing the device on metal walls or near devices that may produce radio emissions.
-The AKO.net.Edge device should NEVER be operated without installing the external antenna.
-This device can be fitted with any antenna provided it has a gain of less than 9.2 dBi and there is a minimum distance between it and any person or animal of more than 20 cm.
-This device must be installed in a location where a minimum distance of 20 cm to the human body can be guaranteed, in order to ensure compliance with standards on human exposure to electromagnetic fields.
-Any type of antenna used with the device must comply with the limits established in the radio interface of the member states and the following documents: Commission Decision 2010/267/EU of 6 May 2010, ECC Decision (09)03 of 30 October 2009.

Description

AKOnet.Edge is a communications gateway with AKOnet.Cloud for up to 25 AKO devices, with a 2-year licence included, modbus-rtu ports, Ethernet and gprs and local web panel via WIFI. The **AKO-5051** model includes 2 relays that can be controlled from akonet.cloud, 10 digital inputs and 7 analogue inputs.



Indicators (Wait between 3 and 4 minutes after start-up for indicators to show their real status)

Flashing red: Indicates RS485 communication (MODBUS) (Tx).
Flashing green: Indicates RS485 communication (MODBUS) (Rx).
Flashing blue: Linux application activated.

Green: Indicates that the device is charged.

Constant red: Communication error with the cloud.
Constant blue: Connected to the cloud with a registration error, check that registration has been completed correctly.
Flashing blue: Linux application in start-up process.
Constant green: Device connected and registered on the cloud.
Flashing green: Communication with the cloud (Tx).

I1/6 **Blue:** Input 1 ON **Green:** Input 6 ON **White:** Input 1 and 6 ON

I2/7 **Blue:** Input 2 ON **Green:** Input 7 ON **White:** Input 2 and 7 ON

I3/8 **Blue:** Input 3 ON **Green:** Input 8 ON **White:** Input 3 and 8 ON

I4/9 **Blue:** Input 4 ON **Green:** Input 9 ON **White:** Input 4 and 9 ON

I5/10 **Blue:** Input 5 ON **Green:** Input 10 ON **White:** Input 5 and 10 ON

R1 R2 **Blue:** Relay ON — **Relay ON** **Relay OFF**

Installation

Option A: Ethernet Connectivity through DHCP (Recommended)

-Fix the device onto a DIN rail (Fig. 2).
-Connect the ethernet cable. By default, configuration is through DHCP, for configuration through static IP, consult the application note available on our web.
-Make the connections according to the wiring diagram provided.
-Connect the power supply, the device starts up automatically.
-Register the AKONet Edge in https://akonet.cloud

Option B: GPRS Connectivity

-Install the SIM card for GPRS connectivity (Not included) (Fig. 1).
-Fix the device onto a DIN rail (Fig. 2).
-Make the connections according to the wiring diagram provided.
-Connect the power supply.
-Connect to the local console of the AKOnet.Edge with a computer or mobile device through a WIFI connection:
- Search for WIFI network with name "EDGE-xxxx" (xxxx are the last 4 digits of the serial number of your Akonet.Edge)
- WIFI password: "edge1234"
- Enter the following address in the web browser: "10.0.0.1"
- Access with the following access data: Username: "Edge" and Password: "admin*2019"
- Click "GPRS" and "Edit".
- Enter the data provided by your GPRS* operator and click "Submit".
- Click on "Parameters", in "Tx type" change from Ethernet to GPRS and click on "Submit".
- Close the web browser and disconnect from the "EDGE-xxxx" WIFI.

-Register the AKONet Edge in https://akonet.cloud

Fig. 1

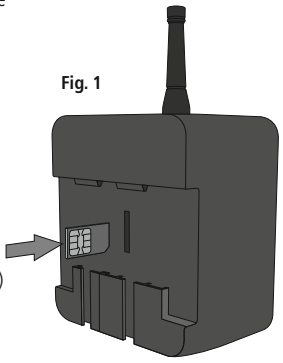
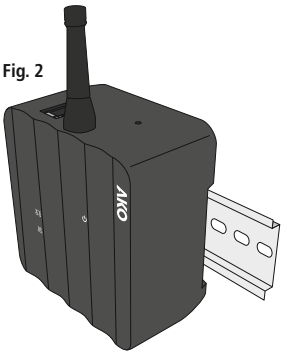
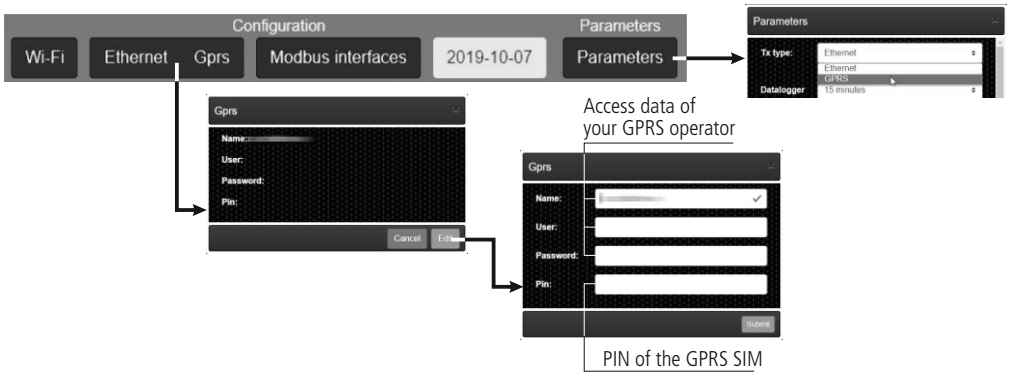


Fig. 2





*Make sure you correctly configure GPRS data, your operator must provide you with the necessary information.

akonet.cloud

AKO ELECTROMECÁNICA, S.A.L.
Avda. Roquetes, 30-38
08812 • Sant Pere de Ribes.
Barcelona • Spain.
Tel.: +34 902 333 145
Fax: +34 938 934 054
www.ako.com

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Start-up

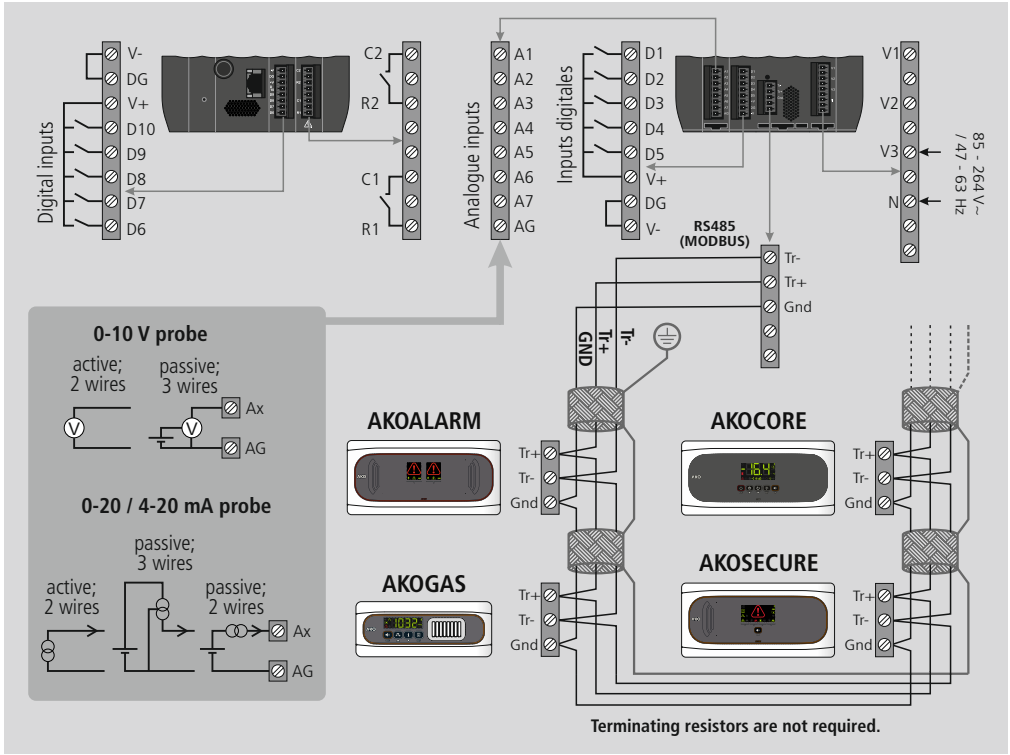
1.-Access akonet.cloud (you must be registered).
2.-Access the "Edges" (A) section and click "+" (Activate new Edge) (B).
3.-Enter the data that appears on the label of the new AKONet.Edge (Serial no. and validation code) or click and scan the QR code provided on the label.
4.-Finish the activation by filling in the requested data.
5.-After registering start searching for devices connected to the AKO Edge and activate them.
6.-From then on, the AKO Edge starts to transmit data to akonet.cloud. For further information, please refer to the manuals available on our website.

Display and analysis of the logged data

Both the display of the logged data and the device configuration must be done in the akonet.cloud portal.
The portal also allows you to analyse the stored data using graphs, statistics and operating indicators. For more information visit akonet.cloud.

Wiring

Always disconnect the power supply to do the wiring.
For disconnection, the power supply circuit must be equipped with at least a 2 A, 230 V switch, located near the device. The power supply cable shall be of the H05VV-F or NYM 1x16/3 type. The section to be used will depend on current local regulations but should never be less than 1.5 mm^2. The 120 / 230 V~ wiring area must be kept clear of any other external element.



The digital and analogue input function and the relay function must be configured from akonet.cloud. For more information, refer to the "akonet.edge configuration" section.
The analogue inputs can be powered by the V+ outputs as long as their specifications are not exceeded.

Technical specifications

Power supply	85 - 264 V ~ / 47 - 63 Hz
Maximum consumption	10 VA
Communications:	WIFI (802.11 b/g/n, 2.4 GHz)
	Ethernet Port 10/100 Mbps
	RS 485 9600
	Quad-band GSM/GPRS (850/900/1800/1900 MHz)
Relays	2 relay outputs SPST, 30 Vac/Vdc, 1 A, cos φ=1
Analogue inputs	0-20 mA / 4-20 mA / 0-10 V
Analogue inputs measurement error	1% (With respect to full scale)
Digital inputs	Maximum voltage: 24 VDC; Low level: 0-7 V; High level: 8-24 V; Consumption: 12 mA
V+ outputs	max. 100 mA, 11 VDC each
Antenna	External
Working ambient temperature	0 to 40 °C
Range of moisture permitted	5 - 95 %
Maximum working height	2000 m
Casing	Self-extinguishing UL94 V0 polycarbonate
Protection degree	Ip20
Fixing	DIN rail 46277
Connections	Plug-in terminals, maximum 1.5 mm^2
Electrical and safety features	Double insulation (fitted), protection class II
Dimensions (with terminals and antenna fitted)	122.5 mm (W) x 135 mm (H) x 50 mm (D)

Simplified declaration of conformity

AKO Electromecánica S.A.L. hereby declares that the radioelectric device types **AKO-5051** (Akonet.Edge) conform to the provisions set forth by Directive 2014/53/EU.
The full text of the EU conformity declaration is available at the following internet address:
http://help.ako.com/manuales/declaracion-ue-de-conformidad

www.akonet.cloud
Add device