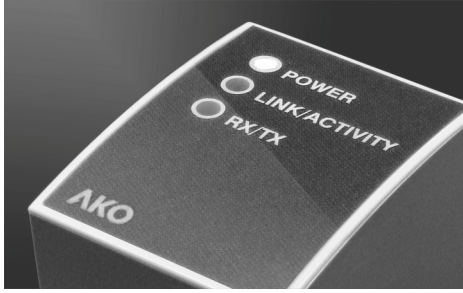


Instructions



AKO-80080

Warnings



This document provides the instructions for use and describes the operation of the **AKO-80080** device. If misplaced, the manual may be downloaded from the AKO web site:
www.ako.com



Disconnect the device from the power supply source before undertaking any maintenance, modification of connections, repairs, etc. If you suspect an operational fault in the unit or in its protection system, remove the unit from service. The design of the unit makes it easy to replace in the event of a fault.

1.-Description

The **AKO-80080** device is a serial physical environment to Ethernet communications converter that uses TCP/IP communication packages.

Please connect the device to the Ethernet network to setup it properly.

2.-Communication

2.1.-Ethernet addressing

As the unit is connected to the master communication system by means of an IP connection, the addressing parameters must be configured. The configuration modes include the assignment of a fixed IP or configuration of a DHCP name. We recommend the use of a fixed IP.

We recommend using a fixed IP address, as this will be used by **AKOnet** to retrieve the data

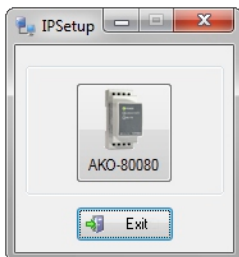
2.1.1.-Ethernet address assignment

To configure the IP address configuration in any of the available formats, run the IPSetup.exe that you must download through this link:

<http://help.ako.com/assets/uploads/IPSetup.exe>

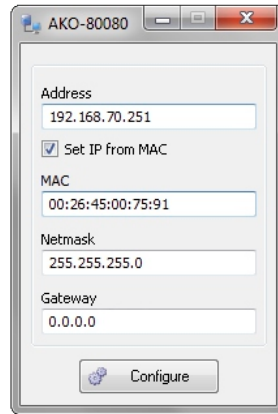
Run IPSetup and select the **AKO-80080** converter.

The device comes with DHCP activated as default parameter. (If you know the IP you can skip the next step and go directly to 2.1.3 Configuration by IP).



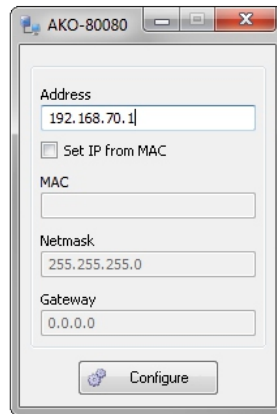
2.1.2.- Configuration by temporal IP from MAC

Before setting a fixed IP or a DHCP, you have to set a temporary and available IP in the same range that your computer in order to configure the device. Insert the IP in the address field, check the checkbox set IP from MAC and, enter the MAC address shown on the permanent side label attached to the device, the format of which is 00:26:45:XX:XX:XX. Do the same with the Netmask and the Gateway if necessary, and press Configuration



2.1.3.-Configuration by IP

If you know the IP assigned by the router write it in the address field and press configuration button.

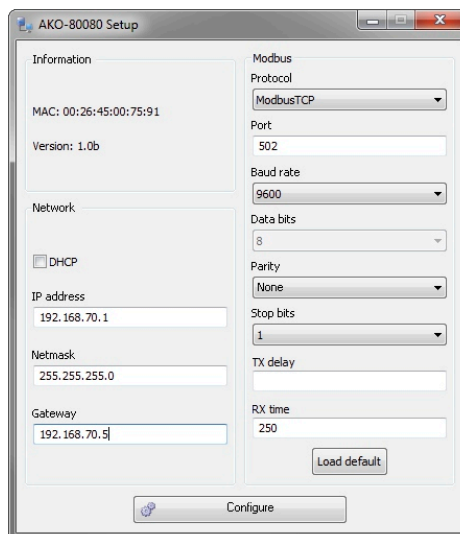


2.2.-Configuration

You have to choose between: Fixed IP or IP by DHCP.

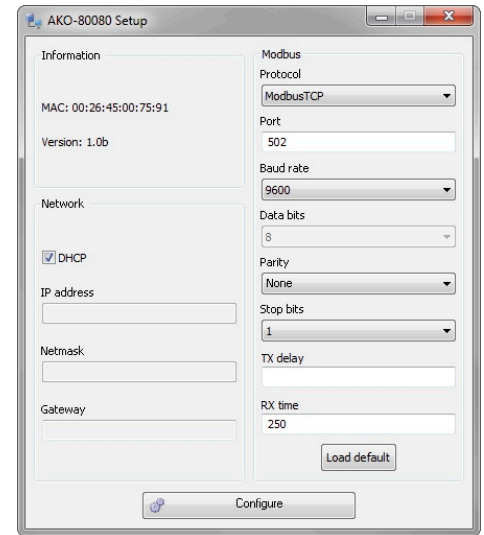
2.2.1.-Fixed IP

Insert the fixed IP in the IP address field, do the same with the Netmask and the Gateway



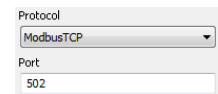
2.2.2.-IP by DHCP

Check the DHCP checkbox and leave the other fields in blank.



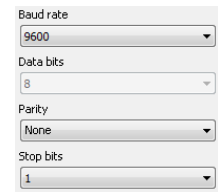
2.2.3.-Choose Protocol and Port

Set always ModbusTCP as protocol and 502 as port.



2.2.4.-Other Fields

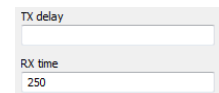
When you choose the Modbus Tcp the other fields get automatically the right values: 9600, 8, None & 1, as you can see in the picture.



2.2.5.-Tx Delay Rx Time

Set always TX delay in blank and RX as 250.

- Tx Delay: additional delay of the RS serial bus
- RxTime: maximum bus waiting time



2.2.6.-Save changes

Once any change has been made to the aforementioned sections, the information must be saved using the "Configure" button.

We reserve the right to supply materials that might vary slightly to those described in our Technical Sheets. Updated information is available on our website.

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3.- Technical features

Power circuit

Single-phase (A1–A2)	196 - 253 V~
Earth connection terminal	
Frequency	47 - 63 Hz
Maximum consumption	9 VA
Working temperature	-10 - 60 °C
Humidity (no condensation)	5 - 95 %

Mechanical features

Case material	UL94 - V0 self-extinguishing plastic
Unit protection degree	IP20
Dimensions (mm)	35,4 x 73 x 84,68 mm (2 modules)
Weight	120 g
Maximum operating height	2000 m

Network interface

Type	Ethernet 10BaseT / 100BaseTX self-detecting
Connector	RJ45
Network Protocols - Accesses	TCP / UDP / Modbus/TCP - HTTP

Serial interface

Type	RS-485 three-wires (A+ /S GND /B-) (RX/GND/TX)
Transmission speed (configurable)	1.2, 2.4, 4.8, 9.6, 19.200, 38.4, 57.6, 115.2 bps
Data bits	7, 8
Parity	No parity, odd, even
Stop bit	1 or 2

LED symbols

Flashing power LED	Powered unit and CPU activity
Flashing RX/TX	RS-485 frame delivery and reception activity
LINK/ACTIVITY	Flashing: Activity in the Ethernet bus Green: Speed 10/100 Mb/s

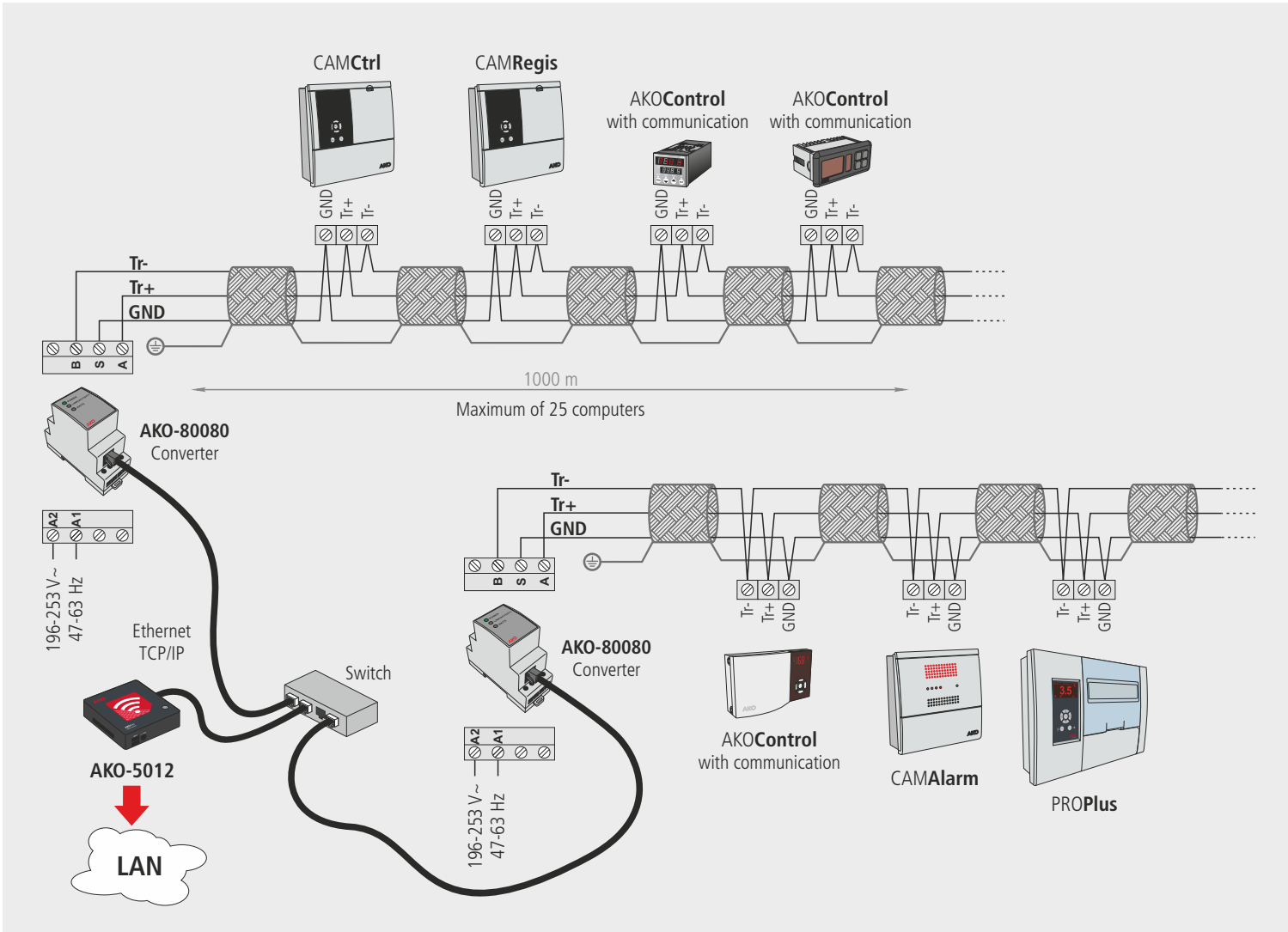
Standards

IEC 60664, VDE 0110, UL 94, EN61010-1, EN55011, EN 61000-4-2, EN 61000-4-3, 61000-4-11, EN 61000-6-4, EN 61000-6-2, EN 61000-6-1, EN 61000-6-3, EN 61000-4-5, CE

Safety

Installation category: Category III / EN61010 double-insulated electric shock protection class II. The unit must be connected to a power circuit protected with type gl fuses, in compliance with IEC 269, or type M, with values from 0.5 to 1A. It must be fitted with a circuit breaker switch or equivalent device in order to be able to disconnect the unit from the power supply. The power supply cable must have a minimum cross-section of 1 mm².
If the unit is not operated according to the manufacturer's specifications, its guaranteed degree of protection may be compromised.

4.- Connections



The **AKO-5012** web server supports up to 10 **AKO-80080** converters and the **AKO-5014** web server supports up to 2. Terminating resistors are not required.