

HAN Network Interface in Stoen Operator

What is the HAN network interface?

According to the measurement regulation* of March 22, 2022, every remote reading meter in tariffs G1x and C1x** has an interface for communication with the customer's home network (ISD network, from English "HAN" – Home Area Network). Meters installed from October 2022 have functionality allowing connection of the meter to the customer's home network via the Wireless M-Bus interface (wirelessly), and meters installed from September 2023 via the P1 interface (wired).

The meter uses the HAN interface to send information about electricity consumption to external devices. Data transmission is encrypted.

How to activate the home network communication interface (HAN)?

To activate the home network communication interface, you need to fill out an application and deliver it to the Customer Service Office – Distribution (18 Rudzka Street, Warsaw) or send a scan of the application to: operator@stoen.pl

According to regulations, Stoen Operator has a maximum of 2 months to implement the activation of the communication interface. Activation of the communication interface with the home network is free of charge.

Remember!

You purchase the home network management device independently!

Stoen Operator does not indicate a specific model of device for communication with the meter. At the customer's request, Stoen Operator activates the HAN port remotely or locally (depending on the technical capabilities of remote connection to the meter), other activities, i.e., selection, installation and configuration of the device, remain the responsibility of the customer.

*) Regulation of the Minister of Climate and Environment of March 22, 2022 regarding the measurement system

**) these are direct single- and three-phase meters connected to the network without the use of transformers

Types of HAN network interfaces in Stoen Operator direct meters

In currently installed network meters (GAMA150, GAMA350, MA110M, MA309M) there are two types of communication interfaces for HAN networks:

- Wireless - Wireless M-Bus (WM-Bus)
- Wired - P1

Both of the above interfaces serve to communicate the electricity meter with the so-called home network (HAN), through which you can build home automation, e.g., automatic control of lighting, air conditioning, devices, or connect devices visualizing current energy consumption, etc.

Wireless M-Bus

Wireless M-Bus is a wireless interface for communication with the meter. After starting the HAN network interface in the meter, the meter should be visible on the client device for receiving communication. Communication on the interface takes place in near real-time.

Standard	PN-EN 13757-4
Operating mode	T1, transmission
Protocol	OMS
Frequency	868.95 MHz

P1

P1 is a wired interface for communication with the meter. It enables connection of a dedicated client device to the P1 port (cable with RJ12 connector). Communication on the interface takes place in near real-time.

How to recognize which home network communication interface my meter supports?

To recognize what communication interface is located in a given meter, you should look for the appropriate communication interface logo on the meter housing.

Currently Stoen Operator has the following meter models with two types of communication interfaces:

- Wireless M-Bus (wireless) – GAMA150 and GAMA 350
- P1 (wired) with RJ12 connector without hole in terminal box cover (connector is located under the cover) – GAMA150 and GAMA 350

ATTENTION! In case of having a GAMA 150 or GAMA 350 meter without a hole in the terminal box cover, a visit from a Stoen Operator employee and replacement of the terminal box cover with a cover with a hole will be necessary. Stoen Operator will contact you regarding the cover replacement.

- P1 (wired) with RJ12 connector – GAMA150 and GAMA 350 (with hole in terminal box cover), MA110M and MA309M (connector on the front of the meter)

Home network management device

Home network management devices or communication establishment devices with the meter enable receiving messages from the meter and display them in the form of readable data according to OBIS codes programmed in the meter. The meter does not communicate directly with a computer, phone, or internet router. It can only do this through the above-mentioned additional device.

Communication with the meter is one-way, i.e., the communication device only receives data. It is not possible to control the meter via the Wireless M-Bus or P1 interface.

Remember! You purchase the home network management device independently!

To receive communication from the meter, you need:

- Dedicated device for receiving communication:
 - for P1 - various types of converters plugged into the P1 port in the meter via RJ12 plug,
 - for Wireless M-Bus - wireless devices or devices connected to a computer,
- Application allowing reading and decoding messages, which will allow communication with the electricity meter. Various solutions are available on the market, not only in the form of comprehensive applications, but also in the form of very simple frame decoders.
- Communication encryption keys – after enabling the HAN interface, Stoen Operator sends encryption keys for P1 (in the case of WM-Bus it is one encryption key) to the meter (this results from the communication security method selected by Stoen Operator in accordance with the DLMS COSEM standard). The encryption keys (or key for WM-Bus) should be entered in the communication decoding application to receive communication from the meter.