Smart Meter Compatibility Report

Kamstrup OMNIA / HAN-NVE (HAN): protocol, readable data, configuration and limitations

Scope

This report describes how the Reduxi controller reads the Kamstrup OMNIA / HAN-NVE smart meter over the HAN interface: the protocol, the readable data, the configuration needed, the compatibility status and the known limitations.

The status reflects the meter drivers implemented in the current Reduxi controller software. It is a compatibility statement for this meter, not a log of individual bench measurements. On the first installation of this meter type, a short commissioning check is recommended: compare the power and energy values shown in Reduxi with the meter's own display.

Status levels

Status	Meaning
Supported, in use	The Reduxi controller reads this meter in installations today.
Protocol supported	The Reduxi controller supports the meter's protocol. The additional support needed before first use is listed per meter.

Summary

Brand	Model	Interface	Protocol	Status	Additional support needed
Kamstrup	OMNIA / HAN-NVE	HAN	DLMS/COSEM push, HDLC over M-Bus	Protocol supported	Yes: push-list profile, then a field test

HAN meter

Protocol

Norwegian HAN meters push DLMS/COSEM messages in HDLC frames over an M-Bus port (RJ45), in fixed lists defined by the grid operator: a short list with active power every 2–10 s, a longer list with power, current and voltage about every 10 s, and an hourly list that adds the cumulative energy counters. The meter sends on its own; no polling is needed.

Reduxi supports two ways to read these meters:

1. **Through the Reduxi P1 Wi-Fi converter.** The converter is plugged into the meter's HAN port and forwards the M-Bus data to the Reduxi controller over Wi-Fi. The controller receives the frames and decodes them with its DLMS/COSEM push driver, the same driver already used for meters pushing over M-Bus elsewhere in Europe. Each meter brand arranges its lists differently, so a push-list profile is added per meter model. The profile is built from a recorded HAN frame of that model and then confirmed in a field test.
2. **Through a Currently One HAN reader.** Currently One connects to the meter's HAN port, decodes the lists and publishes the values over Wi-Fi. The Reduxi controller subscribes to the Currently One event stream over HTTP (port 80). This path needs no push-list profile; meter coverage follows Currently's own compatibility list. More about the device: Telldus Currently One.

Readable data

Value	Reduxi P1 Wi-Fi	Via Currently One
Active power import / export	Yes	Yes
Reactive power import / export	Yes	Yes
Active power import / export per phase L1 / L2 / L3	When the meter list contains it	When the meter list contains it
Reactive power import / export per phase L1 / L2 / L3	When the meter list contains it	When the meter list contains it
Current L1 / L2 / L3	Yes	Yes
Voltage L1 / L2 / L3	Yes	Yes
Active energy import / export	Yes, hourly list	Yes
Reactive energy import / export	Yes, hourly list	Yes

Configuration requirements

- The HAN port must be opened by the grid operator.
- Reduxi P1 Wi-Fi: the converter plugged into the meter's HAN port (RJ45) and connected to the same local network as the Reduxi controller; 2400 baud, parity as specified by the meter brand (Aidon: 8E1). In Reduxi: add the meter with the DLMS push device type, select the "Converter WiFi - P1" connection and the push-list profile for the meter model. Unencrypted HAN data needs no keys.
- Currently One: the reader installed on the meter's HAN port and connected to the same local network as the Reduxi controller. In Reduxi: add the device type "Currently One" and enter its IP address (TCP port 80). If no new telemetry arrives for 15 s, Reduxi reconnects automatically.

Limitations

- Reduxi P1 Wi-Fi: the push-list profiles for the Norwegian HAN lists of Kamstrup meters are not yet part of the controller. Each is added from a recorded HAN frame of the model, or with access to a meter, and confirmed in a field test.
- The existing Reduxi device type "Kamstrup OMNIA" does not cover the Norwegian HAN variant. It reads the OMNIA's ASCII OBIS telegram.
- Update rates follow the meter's HAN lists; cumulative energy is typically updated once per hour.
- Frequency is not part of the Norwegian HAN lists and is not available through Currently One.