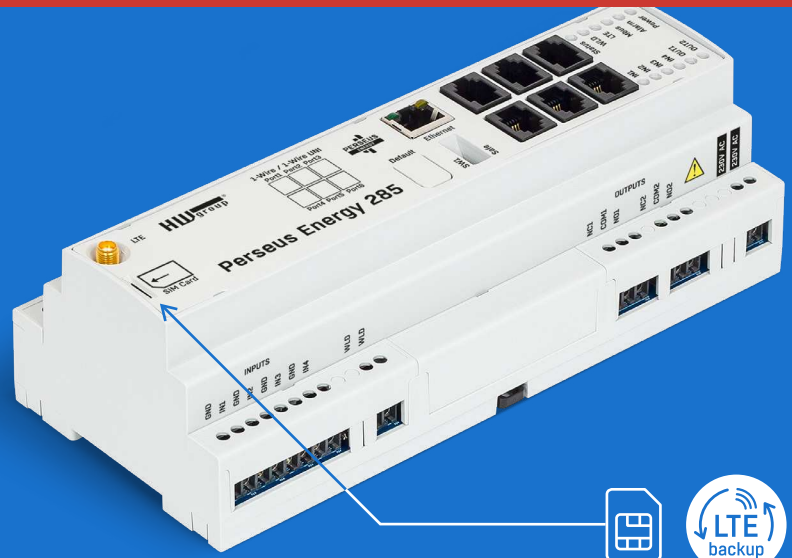**HW group**

Perseus
Energy 285

DIN rail LAN and LTE solution for remote energy monitoring and control applications with M-Bus Master. Connect external physical sensors, detectors or Water Leak Detection sensing cable and also 3rd party meters.

HWg XML Devices	Meters API – ability to work with other HWg devices
Modbus RTU	Support for 3rd party sensors
Scheduler	Local calendar based scheduler
Conditions & Actions	Variables can have multiple conditions and actions
Radius protocol	802.1X central security management
Lua	Local custom scripts in Lua
Templates	Templates repository for 3rd party sensors
x+1=z Calculation Formula	Converts variable from one unit into another
M-Bus protocol	Support for 3rd party meters
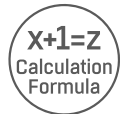
Perseus Energy 285 combines data from external physical sensors, detectors and meters with data from other HWg devices connected via LAN. Local conditions, Lua scripting, calendar or periodic scheduler help to analyze the measured data.

Within one DIN rail unit there are 6 1W-UNI (RJ11) ports, 4 DI (Digital Inputs) with S0 pulse counters, RS-485 (Modbus/RTU), one WLD (Water Leak Detection) zone input, an M-Bus Master input, and 2 DO (Relay Outputs).

Up to 100 external sensors with 1000 values can be connected. SMS, Call, Email or SNMP Trap alert can be sent from the Perseus device. Measured values are available via Open API (XML, Modbus/TCP, MQTT).

The Perseus Energy 285 unit has a built-in LTE modem that serves as an SMS gateway for Perseus itself as well as other connected HW group devices, and also provides back up connectivity to the Portal.

A unique feature of all Perseus products is the Meters Open API. That means that Perseus can read over LAN sensor values from other devices (e.g. STE2 R2) and use this data for analysis or alerting.

The combination of the RS-485 physical interface on the Perseus Energy 285, M-Bus Master and Modbus-RTU Meters Open API allows data to be read from 3rd party meters, UPS or air conditioning products.
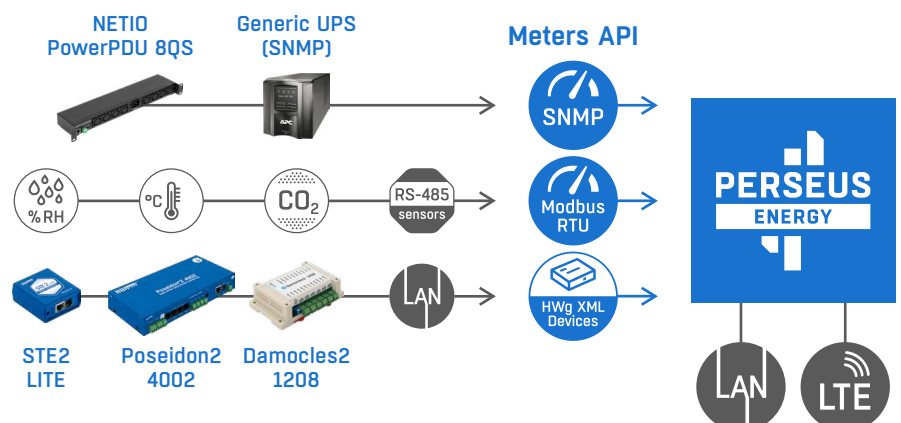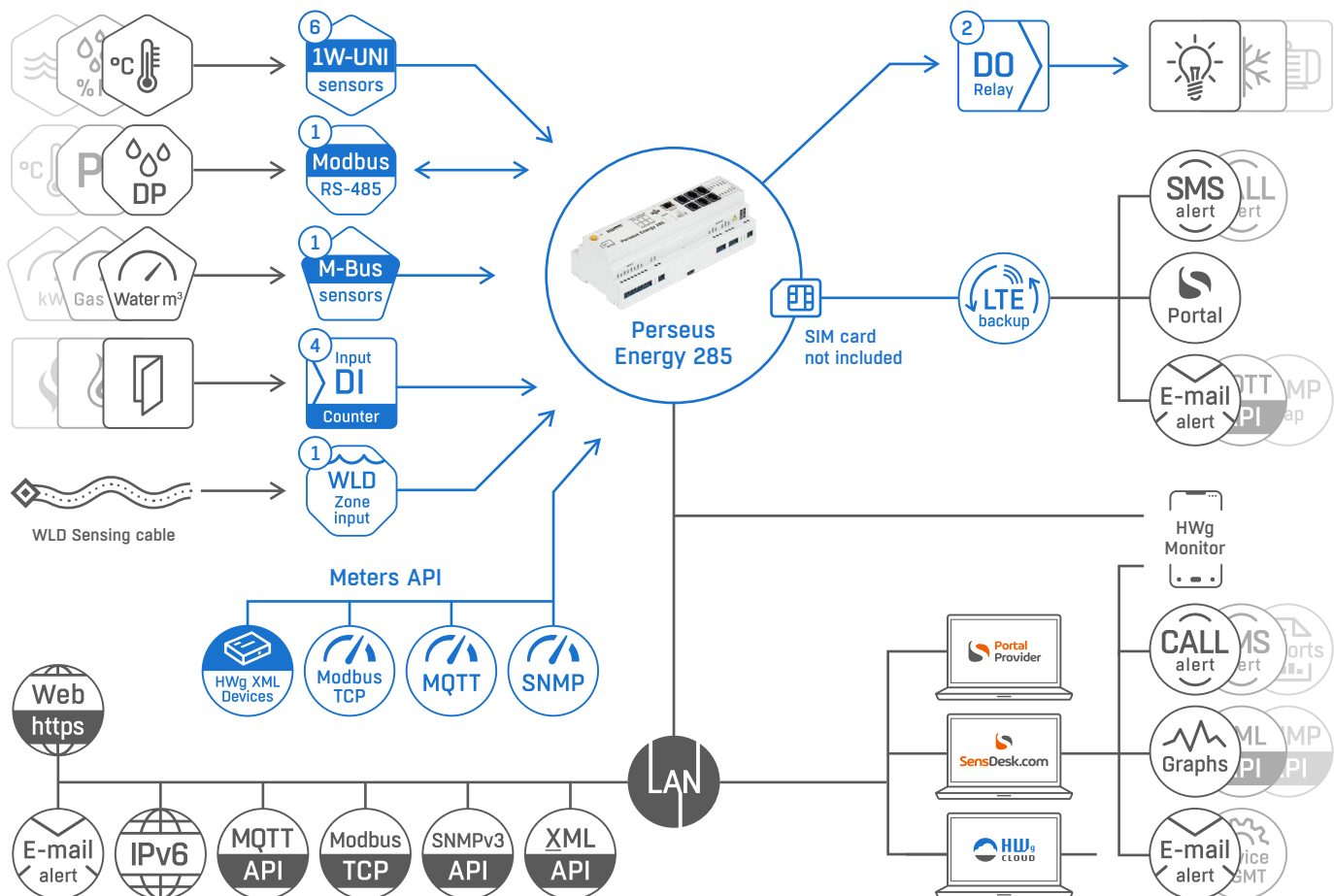
Typical applications

- Remote site data concentrator of all local sensors / meters
- Remote technical room monitoring
- Boiler room equipment monitoring
- Industrial machinery monitoring
- Greenhouse / food storage / pharmaceutical warehouse monitoring
- Remote infrastructure monitoring
- Gateway for 3rd party sensors to the Portal

Interfaces

Interfaces	
Sensors	6× RJ11 port – 1-Wire / 1-Wire UNI
Meters API	HWg XML, Modbus/TCP, MQTT, SNMP
M-Bus (Master)	1× terminal block
RS-485 (Modbus/RTU)	1× terminal block (with 12V)
WLD	1 zone for external Water Leak Detection sensing cable
DO (Digital Outputs)	2× DO (relays)
DI (Digital Inputs)	4× DI (dry contact)

Features

Features	
Alerts	SNMP trap, email, SMS/calls
LTE	Global
Open API	SNMP, XML, Modbus/TCP, MQTT
Professional product	IPv6, SNMP traps, SNMPv3
Security	Radius - IEEE 802.1X, Admin and user accounts, HTTPs (customer certificate)

Software / Services

Software / Services	
SensDesk.com	Online remote monitoring service. Graphs, alerts, device management.
Portal on premise	Standalone individual SensDesk installation
Portal Providers	Several SensDesk Technology portals
HWg-cloud.com	Free of charge portal service
HWg Monitor	Smart phone application (iOS, Android)
Other software	3rd party software, HWg-SDK

Technical specifications

Technical specifications	
Ethernet	RJ45 (100BASE-T)
Power	230V
Operating temperature	-30 °C to 65 °C (-22 °F to 149 °F)
Mechanical	Plastic case, DIN rail, 65×90×213 mm
Warranty	24 months