

STE2 LITE

Remote location
temperature monitoring
with email alerts.



Device features:



Temperature sensor included in the package



Additional °C / %RH sensor can be connected



Secured product



External SMS gateway supported



Portal supported



Portal based Device Invalid alert (Email alert)

STE2 LITE is a simple-to-use LAN & WiFi thermometer for remote locations measurement. Whenever a temperature exceeds the specified range an e-mail notification is sent. With external SMS-GW-LTE or Portal service it can also alert you with an SMS or Voice call.

Even though there is only one RJ11 port, STE2 LITE can monitor up to 4 sensor values from external sensors (Relative Humidity, CO₂, VoC, 4-20mA and others). Several RJ11 sensors can be daisy-chained. Also one physical sensor can measure several values (°C + %RH = 2 values).

STE2 LITE device package contains an (international) wall plug power adapter 5V and a 1m temperature sensor.

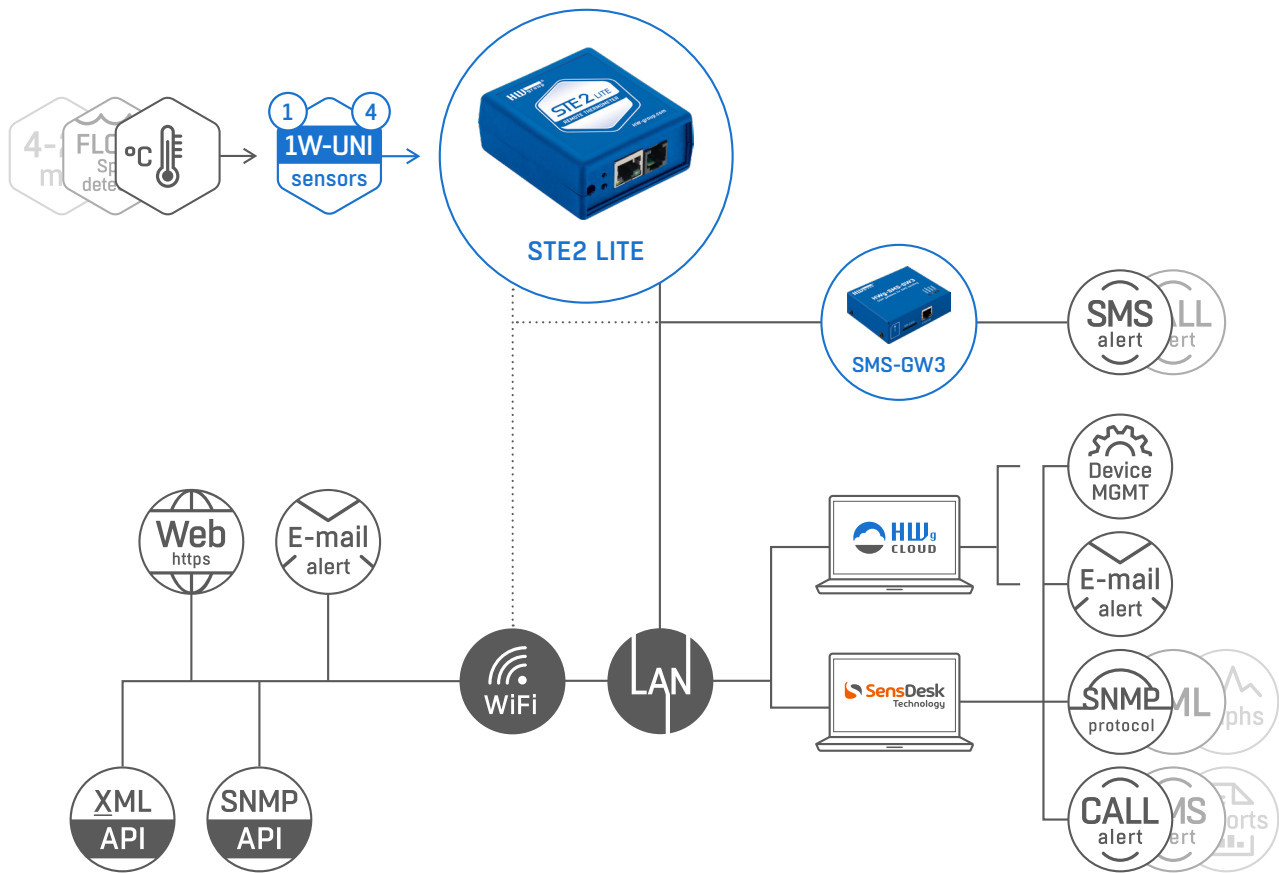
Alerts (Emails) can be sent directly from the device or from the Portal service (also SMS, ring-out and Device Invalid Alert).

Portal based features



STE2 LITE can be connected to any SensDesk Technology-based portal to be monitored and managed. Portal centralizes device management, graphs, and alerts by email, SMS or voice calls. PDF reports are also available.

- HWg-cloud.com offers a limited service for free
- SensDesk.com is a paid service
- Portals from local Portal providers are also available



Typical applications

- Remote temperature alert sensor (Server environment, A/C unit cooling failure alert)
- Simple to use server room environment monitoring
- Food storage (control of storage conditions, creation of HACCP logs using application software)
- LAN/WiFi thermometer which can be integrated with 3rd party SNMP system or with Portal (SensDesk Technology)

Related products



HTemp-1Wire-Box2

Wall mount Temperature and Relative Humidity sensor. Easy to daisy-chain.



Sensor CO2 1W-UNI

Combined Temperature (-0 to +50 °C), Relative Humidity (RH 0-95%) and CO₂ (300-40000 ppm) sensor in one box. RJ11 interface (1W-UNI bus).



SMS-GW3 LTE

Central text message (SMS) gateway that HWg devices and applications in the same network can use to dial numbers or send SMS alerts.

Technical specifications

External power	5V Jack Ø3.5×1.35 mm
Temperature range	Operating: -10 °C – 60 °C Storage: -30 °C – 60 °C / 0% RH – 95% RH
Dimensions / weight	68×63×32 (W×H×D) / 64 g
Connectivity	LAN, WiFi

External sensors and detectors

Sensors	1 port RJ11 (4 sensor values in total)
Compatible sensors	RJ11 sensors from HW group (1W / 1W-UNI)
Sensors you can monitor	Temperature, Relative Humidity, Voltage, AC / DC Current, Flood detection, CO ₂ , VoC, Light intensity & many more...

Communication

M2M Open API	SNMP v1, XML over HTTP, HWg-Push
Alarms	E-mail, HWg-Push, SMS & Voice Call (with assistance of SMS-GW3 LTE)

Software / Services

SensDesk Technology portal	Online remote monitoring service. Graphs, alerts, device management.
HWg-cloud.com	Free of charge portal service
Mobile App	HWg Monitor
Other software	3 rd party software, HWg-SDK







STE2 R2

Reliable environment monitoring for remote locations. Email alerts, SNMP monitoring or cloud service available.









You can connect:

Up to 5 sensors values

 Temperature (Pt1000)	 Relative Humidity (%RH)	 Flood detector
 Carbon dioxide	 Analog input (4-20 mA)	 Voltage sensor

2x DI (Digital Inputs)

 Smoke detector	 Power presence	 Door contact
 Motion detector	 Water spot detector	 Vibration detector

STE2 R2 is a reliable LAN & WiFi remote sensor monitoring product. External sensors for 2x RJ11 ports & detectors to 2x DI (Digital Input).

Whenever a too high or too low temperature is detected (door opened), an Alert is sent. Alerts (Emails) can be sent directly from the device (SMTP) or from the Portal service (SMS, ring-out, and device-disconnected alerts).

Even without Portal service, STE2 R2 can send alerts via an external SMS gateway (on the same network). With or without the Portal, the HWg monitor (IOs / Android mobile App) display current sensor values.

Additional sensors can be connected to a second RJ11 sensor port (% RH, Cryo temperatures, CO₂, VoC, 4-20mA, water flood, ...). RJ11 sensors can be daisy-chained or one physical sensor can measure several values (°C + %RH + VoC = 3 values).

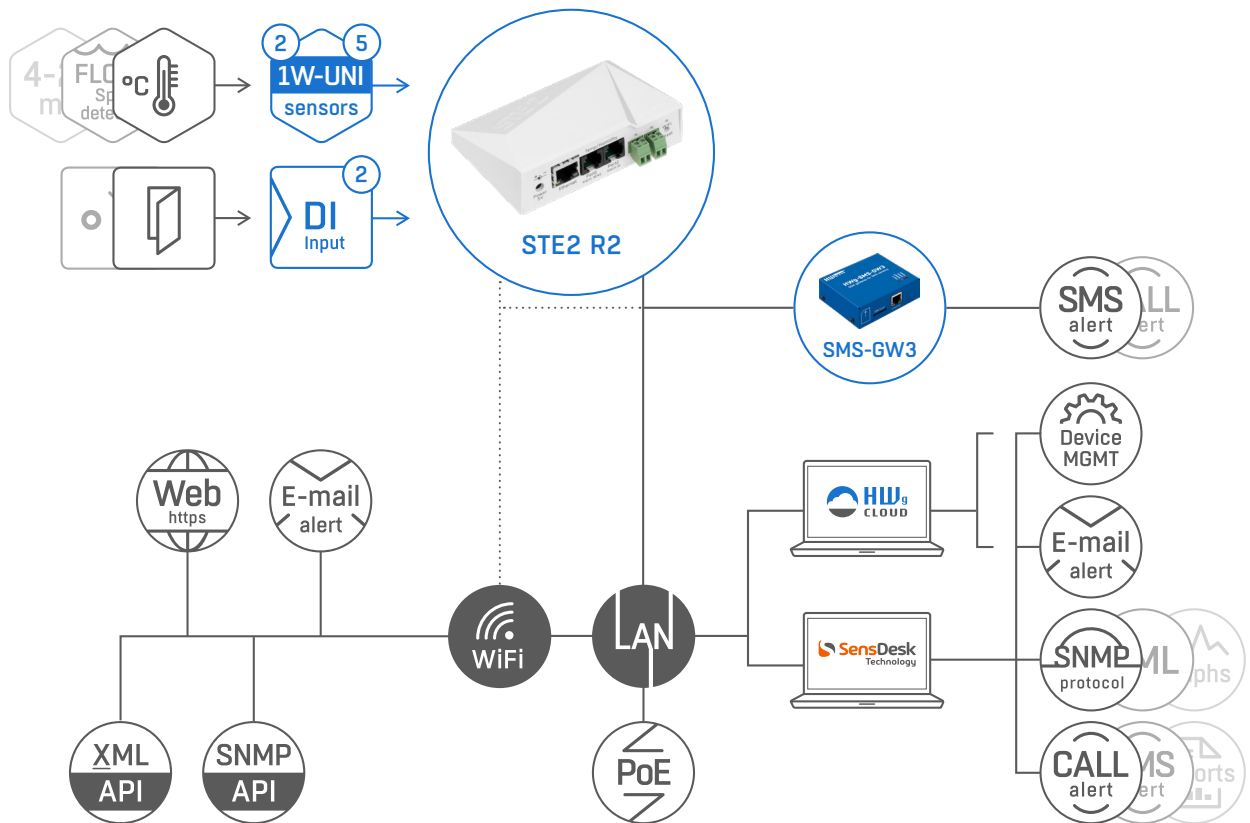
Device package contains (international) wall plug power adapter 5V and 3m RJ11 temperature sensor. Device can be powered from PoE.

Portal based features



STE2 R2 can be connected to any SensDesk Technology-based portal to be monitored and managed. Portal centralizes device management, graphs, and alerts by email, SMS or voice calls. PDF reports are also available.

- HWg-cloud.com offers a limited service for free
- SensDesk.com is a paid service
- Portals from local Portal providers are also available



Typical applications

- Remote Server environment monitoring & alerts
- Remote environment monitoring in IT
- Remote air conditioning control (A/C unit cooling failure alert)
- Food / Drug storage (control of storage conditions, creation of HACCP logs using application software)
- Monitoring of temperature, humidity, electric current, CO₂
- Detection of water leakage (spot / sensing cable)

Related products



SMS-GW3 LTE

Central text message (SMS) gateway that HWg devices and applications in the same network can use to dial numbers or send SMS alerts.



Temp 1Wire Pt100

High precision temperature sensor -50°C to +200°C – ideal temperature sensor for storages, food processing, freezers, medical and laboratory environments, agriculture and industrial applications.



Temp-1Wire-Flat

Temperature probe -30°C to +60°C for use in pharmaceutical or food industry (refrigerators). A flat connection cable can be routed under the door seal.

Technical specifications

External power	5V Jack Ø3.5×1.35 mm, PoE RJ-45
Temperature range	Operating: -10°C – 60°C
Dimensions / weight	98×68×33 (W×H×D) / 91 g
Connectivity	LAN, WiFi

External sensors and detectors

Sensor ports	2 RJ11 ports, 5 sensor values in total
Compatible sensors	RJ11 sensors from HW group (1W / 1W-UNI)
Sensors you can monitor	Temperature, Relative Humidity, Voltage, AC / DC Current, Flood detection, CO ₂ , VoC, Light intensity & many more...
Digital Inputs	2× Dry contact input

Communication

M2M Open API	SNMP v1/v2, XML, HWg-Push
Alarms	Email, HWg-Push, SMS & Voice Call (with assistance of SMS-GW3 LTE)

Software / Services

SensDesk Technology portal	Online remote monitoring service. Graphs, alerts, device management.
HWg-cloud.com	Free of charge portal service
Mobile App	HWg Monitor
Other software	3 rd party software, HWg-SDK

STE2 PLUS

Professional environment monitoring for 15 sensor values.

Professional product with SNMP v3, SNMP Traps or IPv6.



You can connect:

Up to **15** sensors values

Temperature (Pt1000)	Relative Humidity	Flood detector
Carbon dioxide	Analog input	Voltage sensor

2x DI (Digital Inputs)

Smoke detector	Power presence	Door contact
Motion detector	Water spot detector	Vibration detector

STE2 PLUS is a professional LAN & WiFi remote sensor monitoring product. Higher security is available with SNMPv3, HTTPS custom certificates and IPv6. External sensors (15 values) for 2x RJ11 ports & detectors to 2x DI (Digital Input).

Whenever the temperature is too high or too low (door opened), an Alert is sent. STE2 PLUS support also sends SNMP Traps. Email alerts can be sent directly from the device (SMTP) or from the Portal service (also SMS, ring-out, and device-disconnected alerts).

Even without Portal service, the device can send alerts via an external SMS gateway device on the LAN.

Additional sensors can be connected to a second RJ11 sensor port (% RH, Cryo temperatures, CO₂, VoC, 4-20mA, water flood, ...). RJ11 sensors can be daisy-chained. One physical sensor can measure several values (°C + %RH + VoC = 3 values). With VDO (Virtual Digital Outputs), external relay outputs can be controlled based on the sensor value.

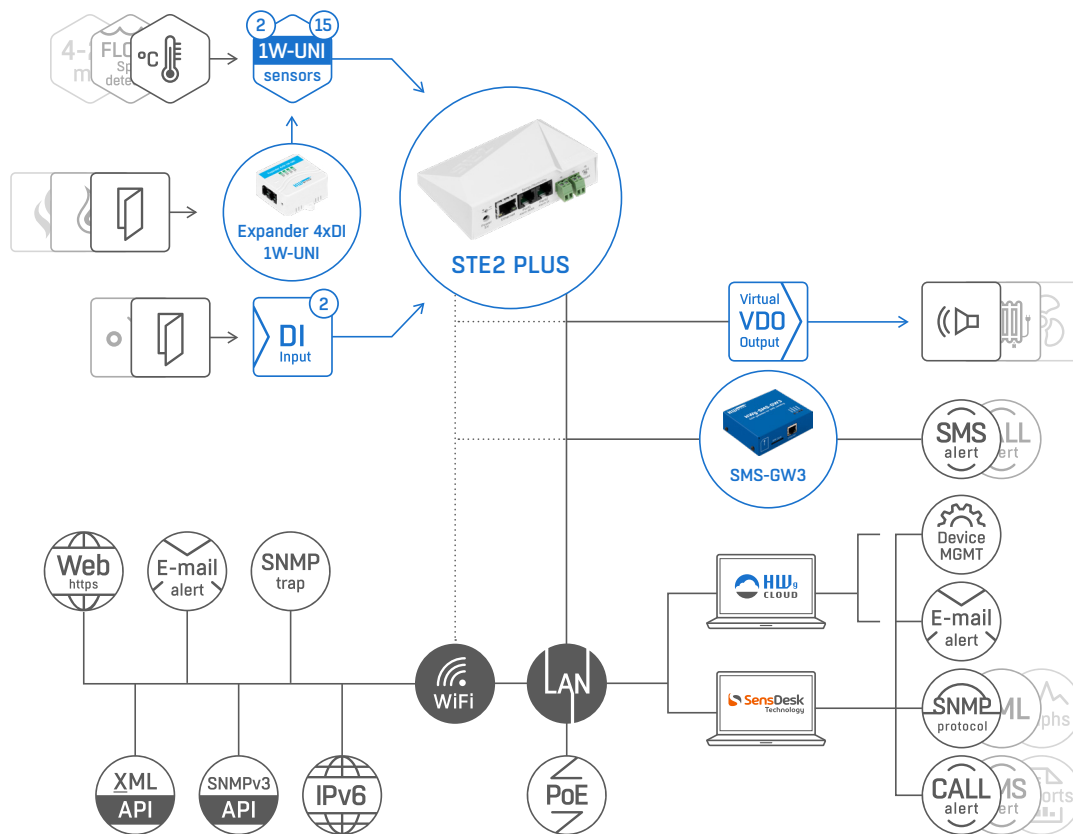
The device package contains an (international) wall plug power adapter (5V) and 3m RJ11 temperature sensor. Device can be powered from PoE.

Portal based features

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STE2 PLUS can be connected to any SensDesk Technology-based portal to be monitored and managed. Portal centralizes device management, graphs, and alerts by email, SMS or voice calls. PDF reports are also available.

- HWg-cloud.com offers a limited service for free
- SensDesk.com is a paid service
- Portals from local Portal providers are also available



Typical applications

- Remote technical rooms monitoring
- Drug storage with reports from Portal
- Food storage (control of storage conditions, creation of HACCP logs using application software)
- Building environment monitoring
- Remote monitoring of refrigerator or freezer (alert when refrigerator fails, logging of operating and storage conditions)
- Detection of water flooding (spot / sensing cable)
- Heating and A/C optimization (cost savings)

Technical specifications

External power	5V Jack Ø3.5×1.35 mm, PoE RJ-45
Temperature range	Operating: -10 °C – 60 °C
Dimensions / weight	98×68×33 (W×H×D) / 91 g
Connectivity	LAN, WiFi

External sensors and detectors

Sensor ports	2 RJ11 ports, 15 sensor values in total
Compatible sensors	RJ11 sensors from HW group (1W / 1W-UNI)
Sensors you can monitor	Temperature, Relative Humidity, Voltage, AC / DC Current, Flood detection, CO ₂ , VoC, Light intensity & many more...
Digital Inputs	2× Dry contact input

Related products



HTemp-1Wire-Box2

Wall mount Temperature and Relative Humidity sensor. Easy to daisy-chain.



Sensor CO2 1W-UNI

Combined Temperature (-0 to +50 °C), Relative Humidity (RH 0–95%) and CO₂ (300–40000 ppm) sensor in one box.



SMS-GW3 LTE

Central text message (SMS) gateway that HWg devices and applications in the same network can use to dial numbers or send SMS alerts.

Communication

M2M Open API	SNMP v1/v2, SNMP v3, XML, HWg-Push
Alarms	Email, SNMP Traps, HWg-Push, SMS & Voice Call (with assistance of SMS-GW3 LTE)
Features	IPv6, VDO (Virtual Digital Outputs)

Software / Services

SensDesk Technology portal	Online remote monitoring service. Graphs, alerts, device management.
HWg-cloud.com	Free of charge portal service
Mobile App	HWg Monitor
Other software	3 rd party software, HWg-SDK



PERSEUS

Platform features



Integrated LTE modem for backup connectivity and SMS/Call alerts



Variables can have multiple conditions and actions



Meters API – ability to work with other HWq devices



802.1X central security management



Local calendar based scheduler



Local custom scripts in Lua



Support for 3rd party sensors



WLD zone input for the sensing cable



Templates repository for 3rd party sensors

Perseus

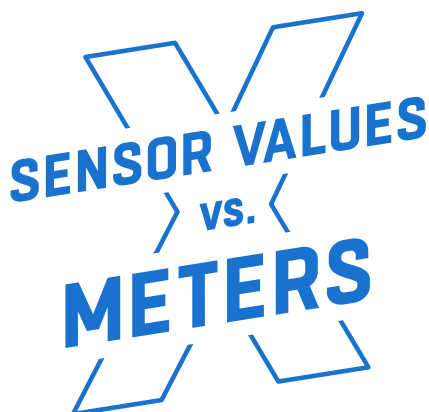
The Perseus platform is designed to read values from connected sensors and detectors. Perseus records these values, evaluates them, and performs calculations. Alarming can be based on these values, switched outputs, or processed calculations.

Sensor, detector, and digital output values are synchronized with the Open API of the Perseus device or with a remote portal (based on SensDesk Technology).

New to the Perseus family features include custom (Lua) scripts, local simple calculations, and virtual sensor values or conditions.

PREVIOUS HWg DEVICES

Interface		Sensor values
1-Wire	HWg XML	°C
Dry Contact	MQTT	% RH
RS-485	SNMP	0/1
		X/0/1



PERSEUS PLATFORM

Interface		Meters	Variables
1-Wire	HWg XML	Poseidon2	°C
Dry Contact	MQTT	STE2	%RH
RS-485	SNMP	HTemp	0/1
Modbus/RTU		Temp	X/0/1

Interface – represents the hardware or software interface through which data is read.

Meters – represent the physical meter (sensor). We use the term “Meter” to distinguish it from “sensor,” which may have been interpreted differently in older devices. Additionally, the meter can also be an external STE2 or Poseidon unit. Meters connected via SNMP can also include generic UPS units or electricity meters connected via Modbus/RTU. Therefore, the term “sensor” is no longer appropriate.

Variables – represent the actual measured values (e.g., 17.4 °C or 12.7 V). This is equivalent to “Values” in older HW group devices.

Perseus Monitoring

A core family of products designed for environmental monitoring in IT, pharmaceutical, food and other industries, including support for independent audits for quality management systems (ISO) and specific professional certifications.

Perseus Monitoring 150 and **155** is a complex 1U solution for a 19" rack monitoring system in data centers, AV installations, telecommunications, etc. Integrated LTE modem in the 145 and 155 units provides backup connectivity and SMS / Call alerts. Perseus Monitoring 140 and 145 differ from 150 and 155 by the amount of available interfaces in a smaller casing.

Perseus Monitoring 145 and **155** uses LAN as the primary connection and LTE as a backup connection when LAN is unavailable. The device connects external physical sensors (°C, %RH, A, V, ...), DI (Digital Inputs), WLD (Water Leak Detection) zone, DO (Digital Outputs) and 3rd party meters via LAN or RS-485 (Modbus/RTU). All sensor data is analyzed and processed by the Perseus device. There is a limit of 100 meters / 1000 values (variables).

A unique feature of the Perseus family is the ability to connect other HWG devices connected via LAN as external meters. Local conditions, Lua scripting, and calendar help with measured data processing. Physical RS-485 supports Modbus/RTU meters (R/W), it allows to connect 3rd party devices. Many devices from other vendors such as electricity meters, UPS or GenSet can be connected to Perseus and the SensDesk Technology-based Portal this way. Perseus Monitoring 155 has one physical port (1 zone) for connection of WLD sensing cable. 4 DO (Relay Outputs) can be controlled by Perseus local alarms, conditions and Lua scripting.

For email alerting, we recommend to use Portal - it's faster and more reliable in case of LAN / LTE connectivity combination.

Typical applications include remote rack / server room monitoring and alerting. Several alerting options are supported by Perseus (Email, SMS, Call, SNMP trap, Output switching, etc.), allowing flexible alert setup.

Mobile App can be used to display the status of all connected meters via LAN directly or via SensDesk.com Portal.



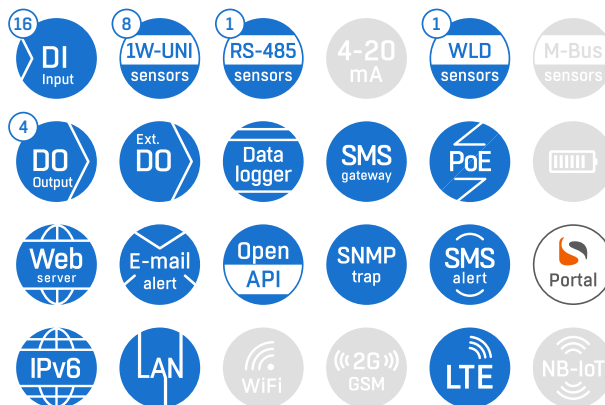
	Perseus Monitoring 155	Perseus Monitoring 150	Perseus Monitoring 145	Perseus Monitoring 140
LTE connectivity	✓	✓	✓	✓
RJ11 ports	8	8	4	4
RS-485 ports (Modbus/RTU)	1	1	1	1
External power for RS-485 sensors	1	1	1	1
DI Inputs	16	16	4	4
DO Outputs (low voltage)	4	4	2	2
WLD zones	1	1	1	1

Perseus Monitoring 155



Top-of-the-line LAN and LTE solution for any remote monitoring scenario.

Perseus Monitoring 155 supports up to 100 meters with 1000 variables, connected via 8 1W-UNI (RJ11) ports, 16 DI (Digital Inputs), RS-485 (Modbus/RTU) and one WLD (Water Leak Detection) zone. Perseus can read values from other network devices over HWg XML, SNMP, MQTT and Modbus/TCP. Perseus Monitoring 155 can control 4 DO (relay outputs), and any other device supporting OpenAPI with local alarms, conditions and



actions, and LUA scripts.

Internal LTE modem provides connectivity backup, as well as SMS and Call alerts.

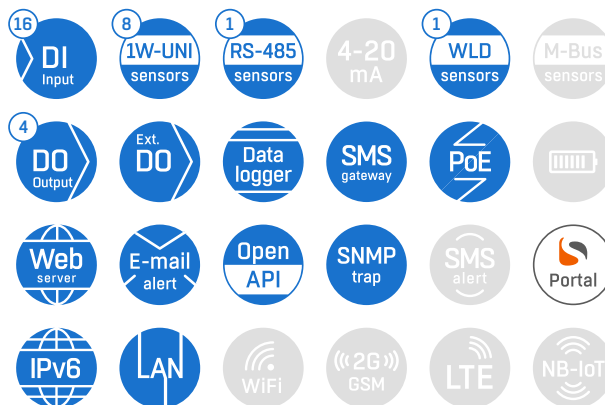
Protocols	HTTP, HTTPs, IPv6, MQTT, SMTP, SNMPv1, SNMPv3, SNMP traps, Modbus/RTU, Modbus/TCP, XML, NetGSM, HWg-PUSH, Radius
Portal	SensDesk Technology (optional)

Perseus Monitoring 150



Top-of-the-line LAN solution for any remote monitoring scenario.

Perseus Monitoring 150 supports up to 100 meters with 1000 variables, connected via 8 1W-UNI (RJ11) ports, 16 DI (Digital Inputs), RS-485 (Modbus/RTU) and one WLD (Water Leak Detection) zone. Perseus can read values from other network devices over HWg XML, SNMP, MQTT and Modbus/TCP. Perseus Monitoring 150 can control 4 DO (relay outputs), and any other device supporting OpenAPI with local alarms, conditions and



actions, and LUA scripts.

External SMS-GW device can be used for SMS / Call alerting.

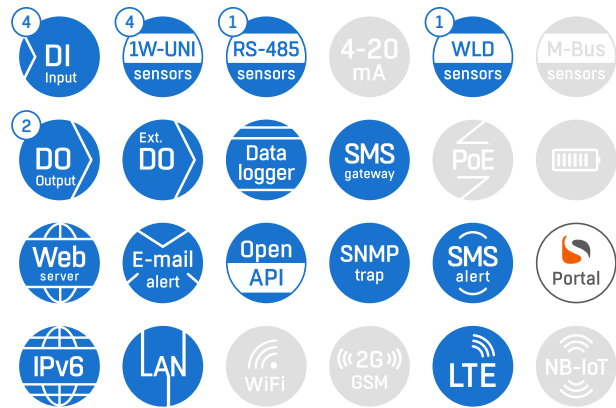
Protocols	HTTP, HTTPs, IPv6, MQTT, SMTP, SNMPv1, SNMPv3, SNMP traps, Modbus/RTU, Modbus/TCP, XML, NetGSM, HWg-PUSH, Radius
Portal	SensDesk Technology (optional)

Perseus Monitoring 145



Middle-sized LAN and LTE solution for remote environment monitoring.

Perseus Monitoring 145 supports up to 100 meters with 1000 variables, connected via 4 1W-UNI (RJ11) ports, 4 DI (Digital Inputs), RS-485 (Modbus/RTU) and one WLD (Water Leak Detection) zone. Perseus can read values from other network devices over HWg XML, SNMP, MQTT and Modbus/TCP. Perseus Monitoring 145 can control 2 DO (relay outputs), and any other device supporting OpenAPI with local alarms, conditions and



actions, and LUA scripts.

Internal LTE modem provides connectivity backup, as well as SMS and Call alerts.

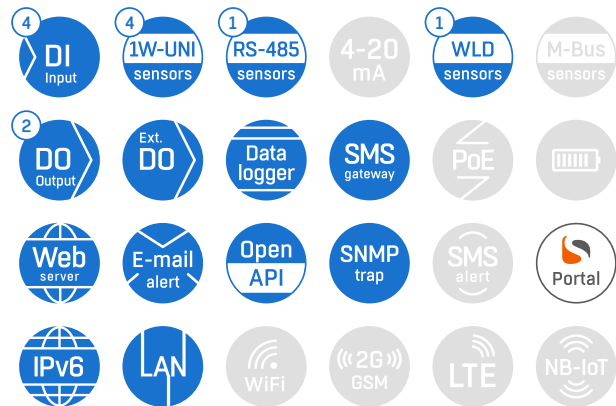
Protocols	HTTP, HTTPs, IPv6, MQTT, SMTP, SNMPv1, SNMPv3, SNMP traps, Modbus/RTU, Modbus/TCP, XML, NetGSM, HWg-PUSH, Radius
Portal	SensDesk Technology (optional)

Perseus Monitoring 140



Middle-sized LAN solution for remote environment monitoring.

Perseus Monitoring 140 supports up to 100 meters with 1000 variables, connected via 4 1W-UNI (RJ11) ports, 4 DI (Digital Inputs), RS-485 (Modbus/RTU) and one WLD (Water Leak Detection) zone. Perseus can read values from other network devices over HWg XML, SNMP, MQTT and Modbus/TCP. Perseus Monitoring 140 can control 2 DO (relay outputs), and any other device supporting OpenAPI with local alarms, conditions and



actions, and LUA scripts.

Protocols	HTTP, HTTPs, IPv6, MQTT, SMTP, SNMPv1, SNMPv3, SNMP traps, Modbus/RTU, Modbus/TCP, XML, NetGSM, HWg-PUSH, Radius
Portal	SensDesk Technology (optional)

Perseus Energy

A family of products designed primarily to measure energy consumption and savings, and to develop methods to improve the efficiency of heating and cooling systems, including the generation of independent reports for grant schemes.

Perseus Energy 240 is the most affordable LAN monitoring device designed to connect HW group's and third-party TCP or Modbus/RTU sensors. Perseus Energy 240 does not have RJ11 ports for physical sensors. A unique feature of the Perseus family is the ability to connect other HWg devices via LAN as external meters. Physical RS-485 supports generic Modbus/RTU meters (R/W). External sensors (meters) and defined variables can be connected to the SensDesk Technology-based portal.

Perseus Energy 285 is the most powerful device in the Energy family, featuring DI inputs with SO counters, DO outputs (230V), RJ11 ports, RS-485 (Modbus/RTU), an M-Bus master interface, and a WLD zone input. Perseus Energy 285 combines LAN and LTE connectivity. Perseus Energy 285 is dedicated to the complex monitoring of external physical sensors and energy meters. You can connect electricity, water, gas, and heat meters. Thanks to LTE connectivity, the Perseus Energy 285 offers backup connectivity and built-in SMS and call alerts. All sensor data is analyzed and processed by the Perseus device. Sensor data can be synchronized with Open API (Modbus/TCP, MQTT, SNMP) or with a user account on the portal (e.g., SensDesk.com). Local conditions, Lua scripting, and a calendar help with measured data processing. Many devices from other vendors, such as electricity meters, UPS, or GenSet, can be connected to Perseus via Modbus/RTU. Data from the Perseus unit is delivered to the SensDesk Technology-based portal. For email alerting, we recommend using the portal – it's faster and more reliable in case of LAN/LTE connectivity combination, and with LAN only, the portal can send a device disconnected alert in case of Internet or power outage. Typical applications include communal and public site monitoring and alerting. Multiple alerting options are supported by Perseus (email, SMS, call, SNMP trap, output switching, etc.), allowing for flexible alert setup.

HWg Monitor Mobile App can be used to display the status of all connected meters via LAN directly or via SensDesk Portal.



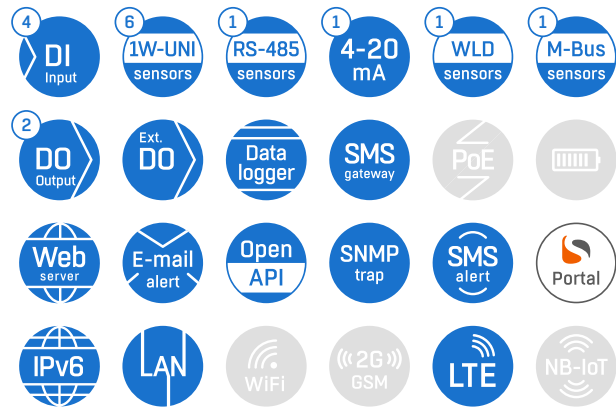
	Perseus Energy 285	Perseus Energy 240
LTE connectivity	✓	-
RJ11 ports	6	0
M-Bus master	1	0
RS-485 ports	1	1
External power for RS-485 sensors	1	1
DI Inputs	4	0
DO Outputs	2	0
WLD zones	1	0

Perseus Energy 285



DIN rail LAN and LTE solution for remote energy monitoring and control applications with M-Bus Master.

Perseus Energy 285 supports up to 100 meters with 1000 variables, connected via 6 1W-UNI (RJ11) ports, 4 DI (Digital Inputs) with SO pulse counters, RS-485 (Modbus/RTU), one WLD (Water Leak Detection) zone and one AI (Analog Input) for any industrial sensor with 4-20 mA (powered) or 0-20 mA (non-powered). Perseus can read values from other network devices over HWg XML, SNMP, MQTT, Modbus/TCP, additionally



reading the data from M-Bus supporting meters, such as electricity, gas, water and other. Perseus Energy 285 can control 2 DO (relay outputs), and any other device supporting OpenAPI with local alarms, conditions and actions, and LUA scripts.

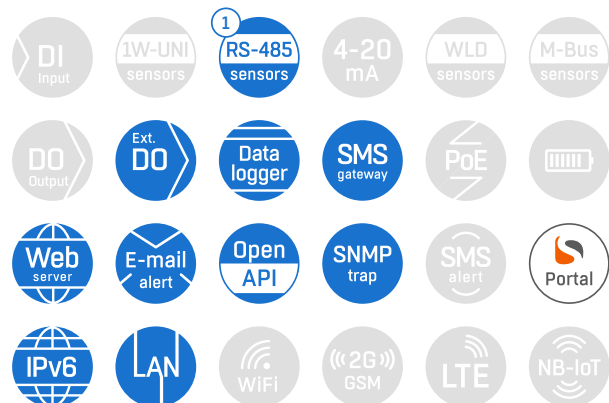
Protocols	HTTP, HTTPS, IPv6, MQTT, SMTP, SNMPv1, SNMPv3, SNMP traps, Modbus/RTU, Modbus/TCP, XML, NetGSM, HWg-PUSH, Radius, M-Bus
Portal	SensDesk Technology (optional)

Perseus Energy 240



Entry-level LAN solution for connecting third party sensors to the SensDesk Technology-based Portal.

Perseus Energy 240 supports up to 100 meters with 1000 variables, connected via RS-485 (Modbus/RTU). As well as other Perseus units, it can read values from other network devices over HWg XML, SNMP, MQTT and Modbus/TCP. It can control other devices supporting OpenAPI with local alarms, conditions and actions, and LUA scripts. This unit is perfect for connecting third party RS-485 (Modbus/



RTU) sensors at the existing remote monitoring site and sending the data to any of the SensDesk Technology-based Portals.

Protocols	HTTP, HTTPS, IPv6, MQTT, SMTP, SNMPv1, SNMPv3, SNMP traps, Modbus/RTU, Modbus/TCP, XML, NetGSM, HWg-PUSH, Radius
Portal	SensDesk Technology (optional)

Perseus Monitoring 155

