PRODUCT OVERVIEW

2019

Monitoring / Access / IP Serial

HW group

HW group s.r.o. is a Czech manufacturer of monitoring and remote control solutions. We deliver top quality products that are part of a robust ecosystem, from sensors to monitoring software. All our units are manufactured in the European Union and sold by over 40 distributors worldwide.

What do we make?

- Remote monitoring and control solutions
- IoT Devices and Sensors
- Monitoring software and online portal
- Access control systems
- IP serial products

What makes us different?

- Rich and modular product ecosystem
- Compatible with many SW solutions and protocols
- Free SDK and Push protocol for 3rd party integration
- 16 years of experience with monitoring devices
- Strict quality control and compliance
- Made in the European Union

Typical applications

- Environment monitoring
- HVAC control & monitoring
- Water Leaks monitoring
- Energy metering
- Security & I/O integration
- Building Management
- Access Control
- Infrastructure monitoring

References

We have helped the following companies with their monitoring or access solutions. We would be thrilled if you were the next.

Mercedes-Benz · MITSUBISHI MOTORS · ŠKODA · VOLVO · Allianz

RIJKS MUSEUM · SIEMENS · PHILIPS · MTV NETWORKS · HSBC

ABN·AMRO Bank · verizon · HUAWEI · VIE Vienna International Airport · QUIKSILVER

ZENTIVA · SANOFI · GTS Novera · Pfizer · BRITISH AMERICAN TOBACCO · Rai · Prague Airport

Monitoring

Sensor	Detector	Accessories

Temperature	Humidity	Dew Point	Flooding	Voltage
Smoke	Atmospheric Pressure	Gas	Light	Current
Contact	Motion	Airflow	Supply	Energy

1-Wire Sensors	1-Wire UNI Sensors	Digital Input	RS-485 Industrial Sensors	M-Bus Sensors
Water Leak Detection	Open Collector Output	Relay Output	Virtual Output	SMS Notification
SNMP Trap	E-mail Notification	HWg-SMS-GW3	Ethernet	Wi-Fi
GSM / GPRS	Data Logging	Web Server	Relay Output 1W-UNI	

Acccess pages: 22–23

E-mail Notification	SMS Gateway	SNMP Protocol	Data Logging	SNMP Trap
Ethernet				

IP Serial pages: 24–25

Serial port RS-232/485	Data Logging	Web Server	Digital Input	Relay Output

Monitoring

Our portfolio of monitoring and control units with LAN/GSM/Wi-Fi connectivity offers a complete solution for monitoring your site – from measuring various quantities and watching the status to monitoring energy consumption. In addition to logging and analysis of measured values, immediate actions can be taken – an alarm immediately alerts you to a value out of a specified range.

Our units support a wide range of protocols to facilitate the integration with your existing system and 3rd party software. We offer dozens of types of sensors, detectors and accessories, particularly suitable for the areas mentioned below. We also offer our software, custom-designed to meet our clients' needs. Simply select (or ask for help with selecting) suitable device, sensors and software, easily install and configure them, and let our products do the rest.

Typical industry segments include: IT, electronics, industrial, telco, pharmaceuticals, food, shipping, transport, hotels/accommodation facilities. Our solutions are often deployed in data centers, BTS sites, factories, warehouses or pharmacies.

Data Input
Measured quantities, Sensors, Detectors, Inputs / Outputs

Processing
Product lines, Logging, Analysis, Alarms

M2M Transfer
XML/HTTP, SMNP, E-mail, GPRS/SMS

SW Apps
Reports Graphs, Excel, Alarms

Poseidon2 4002

Secure solution for remote environment monitoring and control of outputs.

Poseidon2 4002 supports up to 16 sensors connected over 1-Wire / 1-Wire UNI, up to 26 sensors connected over RS-485 and up to 12 detectors connected to digital inputs. Poseidon2 4002 can control 4 digital NO/NC relay outputs, as well as up to 8 virtual digital outputs (VDO) at remote Poseidon2 or Damocles2 units (M2M).

Poseidon2 4002 can be used as a stand-alone device with e-mail alerts, or as a part of a complex monitoring system with text message (SMS) alerts sent via a central HWg-SMS-GW3 gateway.

Protocols	HTTP, HTTPs, IPv6, MQTT (IoT), SMTP, SNMPv1, SNMPv3, SNMP Traps, Modbus/TCP, XML, NetGSM, HWg-PUSH
Software	SensDesk, HWg-PDMS, HWg-Trigger

Poseidon2 3268

Remote monitoring of sensors and detectors and control of relay outputs.

Poseidon2 3268 supports up to 8 sensors connected over 1-Wire / 1-Wire UNI and up to 4 detectors connected to digital inputs. Poseidon2 3268 can control 2 digital NO/NC relay outputs, as well as up to 8 virtual digital outputs (VDO) at remote Poseidon2 or Damocles2 units (M2M).

Protocols	HTTP, HTTPs, IPv6, MQTT (IoT), SMTP, SNMPv1, SNMPv3, SNMP Traps, Modbus/TCP, XML, NetGSM, HWg-PUSH
Software	SensDesk, HWg-PDMS, HWg-Trigger

Poseidon2 3266

Cost-effective model for remote monitoring of sensors and detectors.

Poseidon2 3266 supports up to 8 sensors connected over 1-Wire / 1-Wire UNI and up to 4 detectors connected to digital inputs.

Protocols	HTTP, HTTPs, IPv6, MQTT (IoT), SMTP, SNMPv1, SNMPv3, SNMP Traps, Modbus/TCP, XML, NetGSM, HWg-PUSH
Software	SensDesk, HWg-PDMS, HWg-Trigger

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Poseidon2 3468

Remote monitoring and control for industrial applications with 230 V / 16 A relay outputs.

Poseidon2 3468 supports up to 8 sensors connected over 1-Wire / 1-Wire UNI and up to 4 detectors connected to digital inputs. Poseidon2 3468 can control 2 digital 230 V / 16 A relay outputs, as well as up to 8 virtual digital outputs (VDO) at remote Poseidon2 or Damocles2 units (M2M).

In addition to the standard 9–30 V power input, Poseidon2 3468 can be powered from -48 V to enable easy use in Telco solutions.

Protocols	HTTP, HTTPs, IPv6, MQTT (IoT), SMTP, SNMPv1, SNMPv3, SNMP Traps, Modbus/TCP, XML, NetGSM, HWg-PUSH
Software	SensDesk, HWg-PDMS, HWg-Trigger

Damocles2 2404

Secure industrial I/O device with PoE and Telco -48 V power.

Damocles2 2404 supports up to 24 detectors connected to digital inputs. In order to connect meters (such as water, gas or electricity meters), all digital inputs feature S0 pulse counters with memory. Damocles2 2404 can control 4 digital NO/NC relay outputs, as well as up to 8 virtual digital outputs (VDO) at remote Poseidon2 or Damocles2 units (M2M). Thanks to 9–30 V DC, -48 V and PoE power options, Damocles2 2404 can

be deployed in a wide range of situations.

Protocols	HTTP, HTTPs, IPv6, MQTT (IoT), SMTP, SNMPv1, SNMPv3, SNMP Traps, Modbus/TCP, XML, NetGSM, HWg-PUSH
Software	SensDesk, HWg-PDMS, HWg-Trigger

Damocles2 1208

Industrial I/O with enhanced IP security and OC outputs.

Damocles2 1208 supports up to 12 detectors connected to digital inputs. In order to connect meters (such as water, gas or electricity meters), all digital inputs feature S0 pulse counters with memory. Damocles2 1208 can control 8 open collector digital outputs, as well as up to 8 virtual digital outputs (VDO) at remote Poseidon2 or Damocles2 units (M2M).

Damocles2 1208 is an Ethernet I/O device with enhanced IP security and an excellent cost per I/O pin.

Protocols	HTTP, HTTPs, IPv6, MQTT (IoT), SMTP, SNMPv1, SNMPv3, SNMP Traps, Modbus/TCP, XML, NetGSM, HWg-PUSH
Software	SensDesk, HWg-PDMS, HWg-Trigger

Damocles2 MINI

Smart I/O controlled over Ethernet.

Damocles2 MINI supports up to 4 detectors connected to digital inputs. In order to connect meters (such as water, gas or electricity meters), all digital inputs feature S0 pulse counters with memory. Damocles2 MINI can control 2 digital NO/NC relay outputs, as well as up to 8 virtual digital outputs (VDO) at remote Poseidon2 or Damocles2 units (M2M).

Damocles2 MINI is a compact and cost-effective Ethernet I/O device with enhanced IP security.

Protocols	HTTP, HTTPs, IPv6, MQTT (IoT), SMTP, SNMPv1, SNMPv3, SNMP Traps, Modbus/TCP, XML, NetGSM, HWg-PUSH
Software	SensDesk, HWg-PDMS, HWg-Trigger

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STE2

WiFi and Ethernet temperature and humidity sensor with digital inputs.

STE2 supports up to 3 sensors connected over 1-Wire and up to 2 detectors connected to digital inputs. Whenever a value is out of the specified range or a contact changes state, an e-mail notification is sent. Besides a standard 5 V adapter, STE2 can be powered over the Ethernet (PoE).

STE2 is an ideal solution for temperature and humidity monitoring in sensitive environments, with the possibility to connect a wide range of supplemental detectors, such as door contacts, motion detectors, water leak detectors, smoke detectors etc.

Protocols	HTTP, SNMPv1, HWg-PUSH, XML, NetGSM
Software	SensDesk, HWg-PDMS, HWg-Trigger

HWg-STE

Ethernet temperature and humidity sensor.

HWg-STE supports up to 2 sensors connected over 1-Wire. Whenever a value is out of the specified range, an e-mail notification is sent. The package includes one temperature sensor.
HWg-STE is an ideal solution for temperature and humidity monitoring in sensitive environments.

Protocols	HTTP, SNMPv1, XML
Software	HWg-PDMS

HWg-Ares 12

Industrial measuring and monitoring device for 14 sensors with GSM communication and back-up power.

HWg-Ares 12 supports up to 14 sensors connected over 1-Wire / 1-Wire UNI and up to 2 detectors connected to digital inputs. In order to connect meters (such as water, gas or electricity meters), physical digital inputs feature S0 pulse counters with memory. HWg-Ares 12 can be extended with a relay output expansion module connected over the 1-Wire UNI bus to allow remote control of other appliances, or to implement a "thermostat" function.
HWg-Ares 12 is an industrial device with back-up power for remote monitoring and alerting over GSM from locations without LAN access.

Protocols	HWg-PUSH, NetGSM, SMTP
Software	SensDesk, HWg-PDMS

HWg-Ares 10

Cost-effective GSM thermometer with remote management and alerts sent by e-mail, text messages or by dialing a number.

HWg-Ares 10 supports up to 3 sensors connected over 1-Wire / 1-Wire UNI and up to 2 detectors connected to digital inputs. In order to connect meters (such as water, gas or electricity meters), the digital inputs feature S0 pulse counters with memory.
HWg-Ares 10 is a cost-effective GSM thermometer for remote monitoring and alerting over GSM for locations without LAN access.

Protocols	HWg-PUSH, NetGSM, SMTP
Software	SensDesk, HWg-PDMS

HWg-WLD

Water leak detector with Ethernet connectivity that detects water in a 2D area using a sensing cable.

HWg-WLD connects to the Ethernet. The sensing cable detects as little as a few drops of a liquid, and can be also used to detect condensation. Whenever a liquid is detected, the device sends an e-mail or a SNMP Trap, or uses a central SMS gateway (HWg-SMS-GW3) to send a text message.

By providing an early detection and warning, HWg-WLD can prevent damages and avoid the associated costs.

Protocols	HTTP, SNMPv1, SNMP Trap, XML, NetGSM
Software	HWg-PDMS, HWg-Trigger

Sensor WLD Relay 1W-UNI

Water leak detector that detects water in a 2D area using a sensing cable and signals by switching a relay.

Sensor WLD Relay 1W-UNI can work as a stand-alone device, or as a sensor connected to Poseidon2 or HWg-Ares. The sensing cable detects as little as a few drops of a liquid, and can be also used to detect condensation. Whenever a liquid is detected, the device switches the relay, or uses a Poseidon2 or HWg-Ares to send an e-mail

or a SNMP Trap. By providing an early detection and warning, Sensor WLD Relay 1W-UNI can prevent damages and avoid the associated costs even at places without Ethernet connectivity.

Protocols	–
Software	–

IP WatchDog2 Industrial

Industrial watchdog that checks devices for heartbeat over Ethernet and RS-232.

IP WatchDog2 Industrial monitors the correct functioning of devices over LAN (PING / WEB) or serial line (RS-232). When an outage is detected, it reacts by power-cycling or restarting the device using its two output relays. Everything takes place automatically without human intervention. Up to 10 devices can be monitored. An e-mail or SNMP

Trap can be also sent in response to an outage. With a SMS gateway, it can even send text message alerts.

Protocols	HTTP, SNMPv1, SNMP Trap, HWg-PUSH, XML, NetGSM
Software	SensDesk, HWg-PDMS, HWg-Trigger

IP WatchDog2 Lite

A watchdog that checks devices for heartbeat over Ethernet.

IP WatchDog2 Lite monitors the correct functioning of devices over LAN (PING / WEB). When an outage is detected, it reacts by power-cycling or restarting the device using its two output relays. Everything takes place automatically without human intervention. Up to 10 devices can be monitored. An e-mail or SNMP Trap can be also sent in response to an outage. With a SMS gateway, it can even send text message alerts.

Protocols	HTTP, SNMPv1, SNMP Trap, HWg-PUSH, XML, NetGSM
Software	SensDesk, HWg-PDMS, HWg-Trigger

HWg-PWR 3/12/25

Smart Ethernet device for remote consumption monitoring and collecting data from external M-Bus meters.

HWg-PWR is available in three versions for connecting 3, 12 or 25 external meters with the M-Bus (EN13757) interface. It enables remote monitoring of consumption and other data from a wide range of meters (such as electricity, gas and water meters). Meters from different manufacturers can be combined. When a value is outside of the specified range, HWg-PWR can send an e-mail alert or a SNMP Trap. With a SMS gateway, it can even send text message alerts.

Protocols	HTTP, SNMPv1, SNMP Trap, HWg-PUSH, Modbus/TCP, XML, NetGSM
Software	SensDesk, HWg-PDMS, HWg-Trigger

HWg-SMS-GW3

GSM gateway for sending text messages (SMS) over the Ethernet.

HWg-SMS-GW3 is a central text message (SMS) gateway that HWg devices and applications in the same network can use to dial numbers or send SMS alerts. Target phone numbers are specified in the sending device or the HWg-Trigger application.

The central HWg-SMS-GW3 text message gateway significantly saves costs of external GSM modems, and the entire installation only needs one SIM card.

Protocols	SNMPv1, SNMPv3, XML, NetGSM
Software	HWg-Trigger

	Ethernet / Web Interface	Wi-Fi	GSM	1-Wire UNI / 1-Wire	RS-485	M-Bus	WLD	Digital Input (DI)	Digital Output (DO) / Virtual DO	E-mail Notification	SMS + Ring Notification	SNMP	SNMP Trap	HWg-PUSH	XML	HTTP	HTTPs	IPv6	MQTT (IoT)	Modbus / TCP	Logger	Telco - 48 V	Power over Ethernet (PoE)
Poseidon2 4002	✔			16/16	26			12	4/8	5	5²	v3¹	5	✔	✔	✔	✔	✔	✔	✔	✔		✔
Poseidon2 3468	✔			8/8				4	2/8	5	5²	v3¹	5	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Poseidon2 3268	✔			8/8				4	2/8	5	5²	v3¹	5	✔	✔	✔	✔	✔	✔	✔	✔		✔
Poseidon2 3266	✔			8/8				4		5	5²	v3¹	5	✔	✔	✔	✔	✔	✔	✔	✔		✔
Damocles2 2404	✔							24	4/8	5	5²	v3¹	5	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
Damocles2 1208	✔							12	8/8	5	5²	v3¹	5	✔	✔	✔	✔	✔	✔	✔	✔		✔
Damocles2 MINI	✔							4	2/8	5	5²	v3¹	5	✔	✔	✔	✔	✔	✔	✔	✔		✔
HWg-Ares 10			✔	3/3				2		5	5			✔	✔						✔		
HWg-Ares 12			✔	14/14				2		5	5			✔	✔						✔		
HWg-WLD	✔						1		-/1	1	1²	v1	1	✔	✔								✔
Sensor WLD Relay 1W-UNI							1	1/-															
STE2	✔	✔		-/3				2		2	2²	v1		✔	✔	✔							✔
HWg-STE	✔			-/2				2				v1			✔	✔							
HWg-SMS-GW3	✔		✔									v1			✔	✔							✔
HWg-PWR25	✔					25		8		3	1²	v1	1	✔	✔	✔				✔	✔		
HWg-PWR12	✔					12		8		3	1²	v1	1	✔	✔	✔				✔	✔		
HWg-PWR3	✔					3		8		3	1²	v1	1	✔	✔	✔				✔	✔		
IP WatchDog2 Industrial	✔								2/8	2	1²	v1	1	✔	✔	✔					✔		✔
IP WatchDog2 Lite	✔								2/8	2	1²	v1	1	✔	✔	✔					✔		✔

✔ – On request
1 – SNMP v3 contains also v1
2 – Through HWg-SMS-GW3

HW group

Digital Input
Compatibility: Poseidon2, HWg-Ares, Damocles2, STE2

Door Contact MK4
3 m connection wiring

Flood Detector LD-12
Spot flood detection

Sensor WLD Relay 1W-UNI
Up to 85 meters of water detection cable

Power Detector
110/230 V voltage, relay output
(max. 50 V/130 V)

PowerEgg2
110/230 V single phase, max. load 8A

Gas Leak Detector
2 optional reactions

Vibration Detector SS14
IP23 rating

Motion PIR Detector
Recommended installation height: 2.5 m

Optical Smoke Detector FDR26
Covered space: 40 m², max. height 7 m

AirFlow Detector 5101
Wind speed: 1 to 10 m/s, IP67 rating

1-Wire
Compatibility: Poseidon2, HWg-Ares, STE2, HWg-STE

HTemp-1Wire Outdoor 3 m
Temperature range: -30 to 85 °C,
humidity range: 0–100 % RH

HTemp-1Wire 3 m
Temperature range: -30 to 80 °C,
humidity range: 0–100 % RH

HTemp-1Wire-Box2
Temperature range: -10 to 80 °C,
humidity range: 0-100 % RH

Temp-1Wire Rack19
Temperature range: -10 °C to 80 °C.
2 RJ12 connectors

HTemp-1Wire Rack19
Temperature range: -10 to 80 °C,
humidity range: 0-100 % RH

Temp-1Wire IP67
Temperature range: -10 to 80 °C, IP67 rating,
available in 1 m, 3 m, 10 m

Temp-1Wire-Flat 3 m
Temperature range: -30 to 60 °C,
IP67 rating

Temp-1Wire 3 m calibrated
Temperature range: -10 °C to 80 °C,
accuracy: 0.3 °C

Humid-1Wire
Humidity range: 0-100 % RH, accuracy: 5 % RH,
available in 1 m, 3 m, 10 m

1-Wire hub Power
8× 1-Wire or 1-Wire UNI bus expander

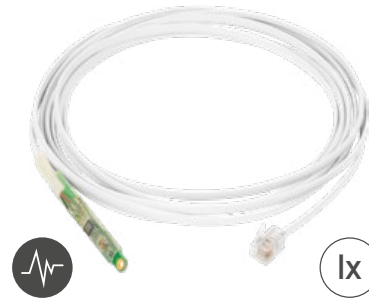**HW group**®

1-Wire UNI   Compatibility: Poseidon2, HWg-Ares

Sensor 0-20 mA 1W-UNI
8-point calibration table, accuracy: ±2 %

Sensor 4-20 mA 1W-UNI
8-point calibration table, accuracy: ±2 %

Light 1Wire-UNI
Illuminance: 0–100 %, accuracy: ±10 %

Sensor WLD Relay 1W-UNI
Up to 85 meters of water detection cable

Sensor 230 V AC 1W-UNI
Voltage range: 0–250 V AC, accuracy: 5 %

Sensor 60V 1W-UNI v2
Voltage range: 0–60 V DC, accuracy: 2 %

30A Current probe 1W-UNI 2
Current range: 0–30 A DC, accuracy: 2 %

30A DC Current probe 1W-UNI
Current range: 0–30 A DC, accuracy: 2 %

100A DC Current probe 1W-UNI
Current range: 0–100 A DC, accuracy: 2 %

Temp-1W-UNI Pt100 Frost
Temperature range: -190 to 150 °C,
Converter 2xPt100 1W-UNI

Temp-1W-UNI Pt100 Cable
Temperature range: -50 to 200 °C,
Converter 2xPt100 1W-UNI

Converter 2x Pt100 1W-UNI
Temperature range: -200 to 850 °C, 8-point
calibration table
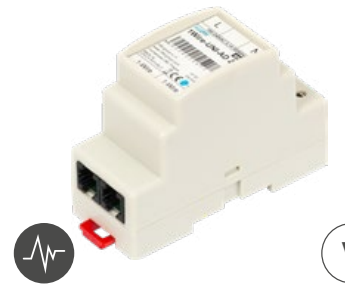
Expander 4xDI 1W-UNI
4× digital inputs on 3 m cable

Flood detector 1W-UNI 3 m
1D water detection, can be fully submerged

Relay output 1W-UNI
4× relay output, supported only by
HWg-Ares 12/14

Temp Pt-1000 3m 1W-UNI
Temperature range: -50 to 200 °C, IP67 rating

1-Wire hub Power
8× 1-Wire or 1-Wire UNI bus expander

UPS 12 V and 5 V
Status info, capacity: 1,3 Ah

M-Bus   Compatibility: HWg-PWR 3/12/25
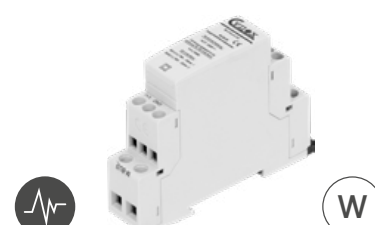
M-Count 2C
2× pulse input (SO) / M-Bus output

Meter 1f DHZ 5/63-M-BUS
1× 230 V, 63 A

Meter 3f ED 310.DB HWG
3× 230 V/400 V, 63 A

Accessories

Probe Pt100 TR125 2 m
Temperature range: -190 to 150 °C, IP67 rating

Probe Pt100 TG8 2 m
Temperature range: -50 to 200 °C, IP67 rating

RS-485   Compatibility: Poseidon2 4002

HTemp-485 T3411
Temperature range: -30 to 80 °C,
humidity range: 0–100 % RH,
dew point range: -60 to 80 DP °C

HTemp-485 T3419
Temperature range: -30 to 105 °C,
humidity range: 0–100 % RH,
dew point range: -60 to 80 DP °C

PHTemp-485 T7410
Temperature range: -30 to 80 °C, humidity
range: 0–100 % RH, pressure range: 600–1100
Pa, dew point range: -60 to 80 DP °C

HTemp-485 Box2
Temperature range: -10 to 70 °C,
humidity range: 0–100 % RH

Temp-485-Pt100 Box2
Temperature range: -30 to 70 °C,
IP65 rating

Temp-485-Pt100 Cable3
Temperature range: -10 to 70 °C,
IP23 rating

Temp-485-Pt100 Frost2
Temperature range: -190 to 150 °C,
IP53 rating

Temp-485 Box2
Temperature range: -10 to 70 °C,
IP23 rating

Spider
4× DI contacts or 4× 1-Wire to RS-485 bus

Poseidon S-Hub
8× sensors over RJ45

SensDesk portal

Online IoT portal for real-time monitoring of HW group devices.

From a single interface, you can manage all of your devices, compare
trends of variables in time, and process alarm alerts and much more.
Visit www.sensdesk.com.

License type:
Free – free for up to 10 devices
Commercial – various subscriptions and purchase options available

HWg-PDMS

*Windows application for collecting data from sensors and inputs
over LAN and GSM. Export of data in the background.*

Data processing and analysis with export to MS Excel. Data are collected
by e-mail (e.g. from GSM/GPRS devices), LAN or Portal. Periodic or manual
data export. Supported values: kWh, W, A, V, °C/°F, Cos Fi, Lx, %RH.
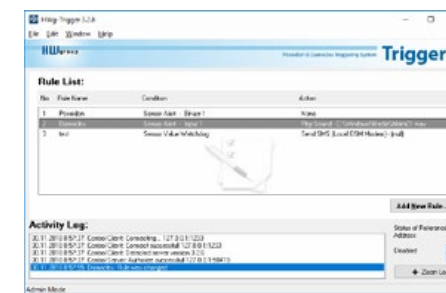
License type:
Freeware – max. 3 sensors
HWg-PDMS 8 – (up to 8 sensors)
HWg-PDMS 20 – (up to 20 sensors)
HWg-PDMS 200 – (up to 200 sensors)
HWg-PDMS unlimited

HWg-Trigger

*IFTT application for Windows. Values from HW group sensors
can trigger different actions.*

For example: Display a pop-up window, play a sound, start an application,
start a service, shut down the PC. Device Watchdog function, sms alerts.

License type:
30-day trial version free of charge
Unrestricted commercial version

HWg-SDK

*HWg-SDK is a package of programming examples and APIs for
most of HW group products. Various programming languages,
Unix, Windows and other programming platforms.*

Supported programming languages: C++, Active X, VB, C#, .NET, Borland
C++, Microsoft C++, Borland Delphi, JAVA, PHP, AJAX, and more.

SensDesk

Monitoring and control portal for IoT projects with HW group devices

Online sensor status and measurement overview

Alert services

Remote process control and switching

Configurable user interface/dashboard

Quick setup and configuration

SensDesk.com portal is a web-based service, providing online remote monitoring and control capabilities for HW group sensors and devices without need of user IT system configuration or a control application. All monitoring and control functions are available via web browser and mobile app.

SensDesk can be used for quick and easy set-up of condition monitoring IoT projects based on HW group monitoring devices, using various networks (Ethernet, WiFi, GPRS, LTE…).

Technical experts can monitor and control the system from anywhere.

APPLICATIONS AND USAGE

IT: Monitoring of operating conditions

Food industry: Monitoring of storage conditions (temperature, humidity, etc.) within a certification system (HACCP)

Pharmaceutical industry: Monitoring of medical material storage

Temperature monitoring in 19" racks and server rooms

Monitoring of UPS status, humidity, power, access to the room

SUPPORTED DEVICES

The SensDesk portal allows to connect all HW group devices that support the HWg Push protocol:

✔ **Poseidon2**
4002, 3468, 3268, 3266

✔ **Damocles2**
2404, 1208, MINI

✔ **HWg-Ares**
12, 10

✔ **STE2**

✔ **STE plus**

✔ **HWg-PWR 3/12/25**

Alert services

For all sensors serviced by the SensDesk portal, an operating range of values can be set. If this range is exceeded, the system shows an alert for the affected sensor. Alerts can be conditionally forwarded to e-mail or SMS.

All alerts, such as temporary device or sensor inaccessibility or measured values exceeding the specified limits, are recorded in the event log for easy system diagnostics.

Remote process control and switching

SensDesk can monitor and control virtual outputs of connected devices. User can switch any relay manually; in addition, SensDesk provides several simple algorithms for switching the outputs automatically according to sensor states.
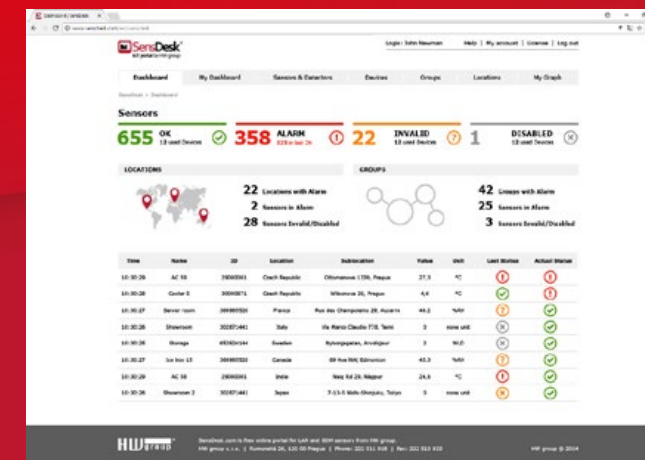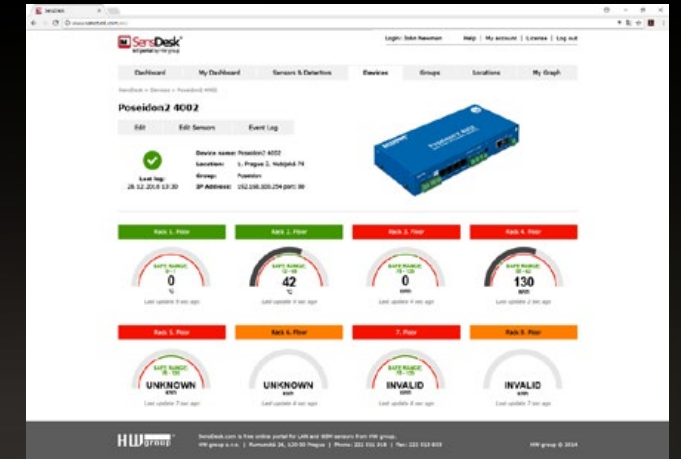
Configurable user interface/dashboard

SensDesk provides tools for customizing the user interface. Users can define names of their sensors, devices and locations, and group related monitoring and control units together. SensDesk provides a number of elements for displaying the most frequently used quantities, such as temperature, pressure, humidity, fluid level, electrical power, current, voltage, as well as percentages or output relay states.

An additional dashboard presents device and sensor status for system diagnostics.

All data can be presented on timeline in charts, with visible operating/safe range limits. Recorded data can be downloaded from the portal for use in any spreadsheet or diagnostic 3rd party software.

Quick setup and configuration

All HW group devices have a built-in auto detection for the SensDesk portal. Connection of a new device to SensDesk takes less than 60 seconds!

All sensors and devices can have custom names and arranged into groups and locations to provide a clear overview according to user preferences.

SensDesk is powered by HW group

SensDesk portal is a web-based service, providing online remote monitoring and control capabilities for HW group sensors and devices without need of user IT system configuration or a control application. The SensDesk Mobile application is available for Android and iOS devices.

Users can use unlimited number of sensors, connected to up to 10 HW group devices. To monitor and control more devices, please ask for our concentrator system (expected availability 1Q 2019) that includes SensDesk portal functions.

Access

The SH4 is an ultimate access system that works with any electromagnetic lock and any RFID reader. It will work in your datacenter as well as in your office or even your home. Whether you have one door or several hundred racks, the SH4 system provides a cost effective way to manage access to your technology.

There are many locks and RFID readers on the market. The SH4 already supports the most common models and others can be added upon request. The SH4 features a relay output that can be programmed to mark a door open in a rack row or to trigger an alarm in case of a breach.

HWg-SH4

Any RS-232/Wiegand RFiD reader and lock compatible

E-mail alert | SMS gateway | Web server | Buffer data loger | SNMP trap | LAN

Main control unit for access control systems, compatible with any RS-232/Wiegand RFID reader and lock.

HWg-SH4 supports 2 independent locks (modules) and 2 RFID readers. The system can be extended over a LAN with up to 16 HWg-SH4e or HWg-SH4s units. HWg-SH4 can work online as well as offline. The HWG-DCD2 central database and control SW is included free of charge.

Protocols	HTTP, SNMPv1, SNMP Traps, Modbus/TCP, XML, NetGSM
Software	HWg-DCD2, HWg-DCD2 mobile

HWg-SH4e

Expansion unit for the HW group access control system.

HWg-SH4e is an expansion to the HWg-SH4 main control unit. The HWg-SH4e unit controls 2 additional door locks. Requires a master SH4 control unit.

HWg-SH4s

Expansion unit for the HW group access control system.

HWg-SH4s is an expansion to the HWg-SH4 main control unit. The HWg-SH4s unit controls 1 additional door lock. Requires a master SH4 control unit.

Examples of 3rd party compatible equipment

Electronic locking swinghandle with reader

The H3-EM electronic locking swinghandle can easily accommodate a variety of rack sizes and configurations with its simple, single-hole panel preparation.
- HID SE® card reader that accepts 125 kHz Prox, HID 13.56 MHz iCLASS® and MIFARE® cards
- Efficient gear motor design for low power consumption
- Fits industry standard panel preps
- Integrated sensors for lock and latch status, monitoring and alarm functions
- Biometric fingerprint option

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RFID reader

- EM4100 (125 kHz) compatible RFID reader, with keypad
- Wiegand interface
- RJ45 jack for simple installation
- IP67

RFID reader

- 125 kHz and 13.56 MHz RFID reader
- Weather resistant
- Read UID of 125 kHz EM compatible and 13.56 MHz ISO 14443A MIFARE, DESFire®, Ultralight® and FeliCa format cards

Electronic rotary latch

- Lightweight, extended housing for added security and tamper resistance
- Accommodates existing control systems
- Integrated connector and snap-on manual override bracket simplify installation

Electronic slide bolts

- Works with a variety of door-mounted mechanical latches
- Electronic signal permits electronic monitoring, remote monitoring, audit trails, alarms

HWg-DCD2

Windows application for access management and database.

Allows doors to be opened remotely with a RFID chip, a SMS message, or on operator's command. Door management takes advantage of a central database with event logging, entry alerting, etc. Access permissions can be differentiated by users or sites and categorized into groups. In addition to data centers, the system is suitable for all premises where access to individual boxes, sections etc. must be controlled and authorized.

- License: the software is **FREE OF CHARGE**

IP Serial

IP Serial devices convert a full (9-pin) RS-232/485 serial port to Ethernet and vice versa. The serial port of the device can be connected to a PC over a LAN and accessed in Windows as a Virtual Serial Port (VSP). Digital inputs and outputs of the device can be controlled over the Web or using Modbus/TCP or NVT/Telnet. Two IP Serial devices can connect to each other (Box-2-Box mode) in order to tunnel serial communication and I/O, or up to 8 devices can be connected to transfer I/O signals.

Typical applications include:
• Connecting RS-232 devices to a LAN – barcode / RFID scanners, serial printers, displays
• Remote control of power supplies, gates, horns and other equipment over RS-232 and RS-485
• Connecting buttons/switches to a SW application

PortStore5

PortStore5 is a RS-232 and RS-485 serial port to Ethernet converter with internal memory.

The RS-232 port of PortStore5 can be simultaneously used for data capture (CDR/SMDR, PBX call accounting) and for remote access (virtual serial port). With the freeware PS Eye application, data from the PortStore5 can be saved as txt files for further processing.

Serial port RS-232	1× full serial port (9 pin: RxD, TxD, GND, CTS, RTS, DSR, DTR, RI, CD)
Serial port RS-485	Max. 115.200 Bd

I/O Controller 2

I/O Controller2 converts a serial port, digital inputs and digital outputs to Ethernet.

Two units can connect to each other over a LAN (Box-2-Box mode); 8 digital inputs and 8 digital (open collector) outputs can be controlled over the Web or using Modbus/TCP. With the freeware HW VSP3 application, up to 100 remote serial ports can be connected to a single PC.

| Serial port RS-232	1× full serial port (9 pin: RxD, TxD, GND, CTS, RTS, DSR, DTR, RI, CD)
Serial port RS-485	Max. 115.200 Bd

IP Relay HWg-ER02b

IP Relay HWg-ER02b connects a full RS-232/485 serial port as well as two digital (binary) inputs and two digital outputs to the Ethernet.

IP Relay HWg-ER02b connects a full RS-232/485 serial port as well as two digital (binary) inputs and two digital outputs to the Ethernet. The digital inputs and outputs can be controlled over the Web or via Modbus/TCP. IP Relay is fully certified to control 110/230V and fits on a DIN rail.

	Web Interface	Digital Input	Relay Output	Modbus / TCP	Logger	NVT	Telnet
I/O Controller 2	✔	✔	✔	✔		✔	✔
PortStore5	✔			✔	✔	✔	✔
IP Relay HWg-ER02b	✔	✔	✔	✔		✔	✔

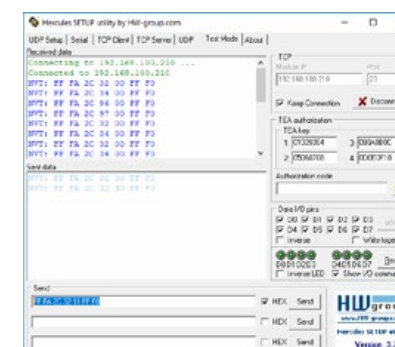## HW VSP3 Virtual serial port
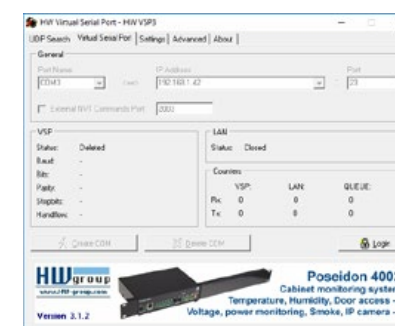
HW VSP3 – Single

HW VSP3 is a software driver that adds a virtual serial port (e.g. COM5) to the operating system and redirects the data from this port via a TCP/IP network to another hardware interface, which is specified by its IP address and port. HW VSP3 supports NT services, Windows 8, Windows 10 and Windows Server 2016.

HW VSP3 – Multi

Supports up to 254 remote serial ports. Works with HW group products only.

Hercules

Debugging and testing tool for products with a serial port (PortBox, I/O Controller, IP Relay, PortStore).

Includes: UDP setup, Serial (RS-232 terminal), TCP client (telnet), TCP Server, UDP (UDP terminal) and Test (test mode with I/O functions support).

Protocols

HW group monitoring and control units have been designed from the beginning to use the Ethernet. The expanding Internet of Things (IoT) market needs devices that are able to communicate over multiple platforms used in public and private networks. Innovations in our units respond to this need.

1-Wire
Digital bus from the Dallas Semiconductors company. Each sensor has its own unique ID. 60m total length per each active RJ11 port.

RS-485
A bus for industrial environments. Sensors can be up to 1000 m away. ASCII-based communication.

M-Bus
M-Bus is designed for data transfer in the area of measurements, HVAC control, as well as gas, water and electricity metering.

IPv6
Successor of IPv4. The protocol extends the address field from 32 to 128 bits. Integrated security and mobility functions.

HTTPs
HTTPs is a secure (encrypted) version of the HTTP communication protocol that is used to display WWW pages.

MQTT
MQTT is a simple way of transferring small volumes of data over a standard TCP/IP network.

SMTP
SMTP (Simple Mail Transfer Protocol) is used to transfer electronic mail (e-mail) messages.

SNMP
Simple protocol for exchanging basic system information. Most well-known 3rd party SNMP SW: Nagios, PRTG, Cacti, CapTemp, Zabbix, SolarWinds.

SNTP
Protocol for synchronizing a device's internal clock with a time server over the Internet. Allows all devices in a network to use the same and accurate time.

GPRS
A service for connecting mobile devices to the Internet via the GSM mobile network.

netGSM
The netGSM function allows to share one GSM modem connected to one of the devices with other devices in the same network.
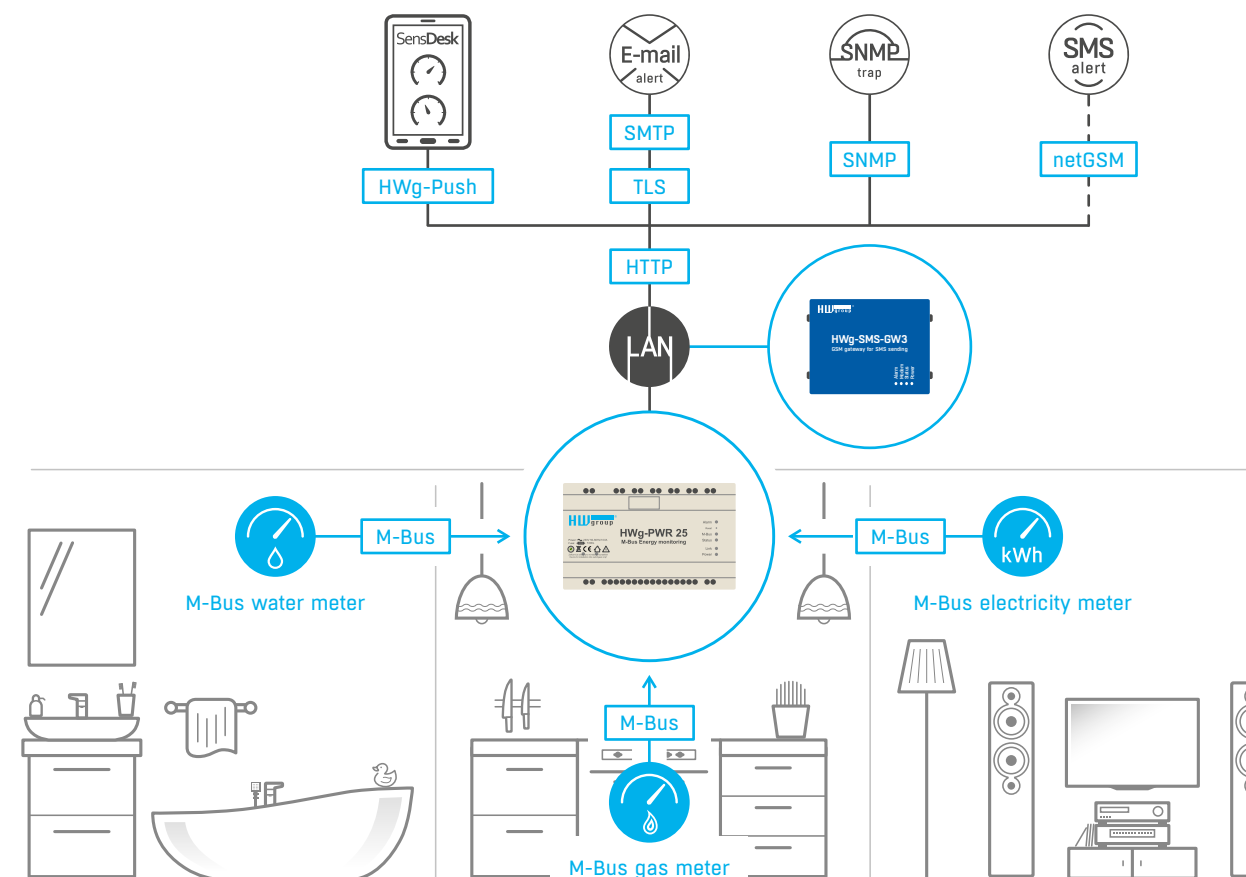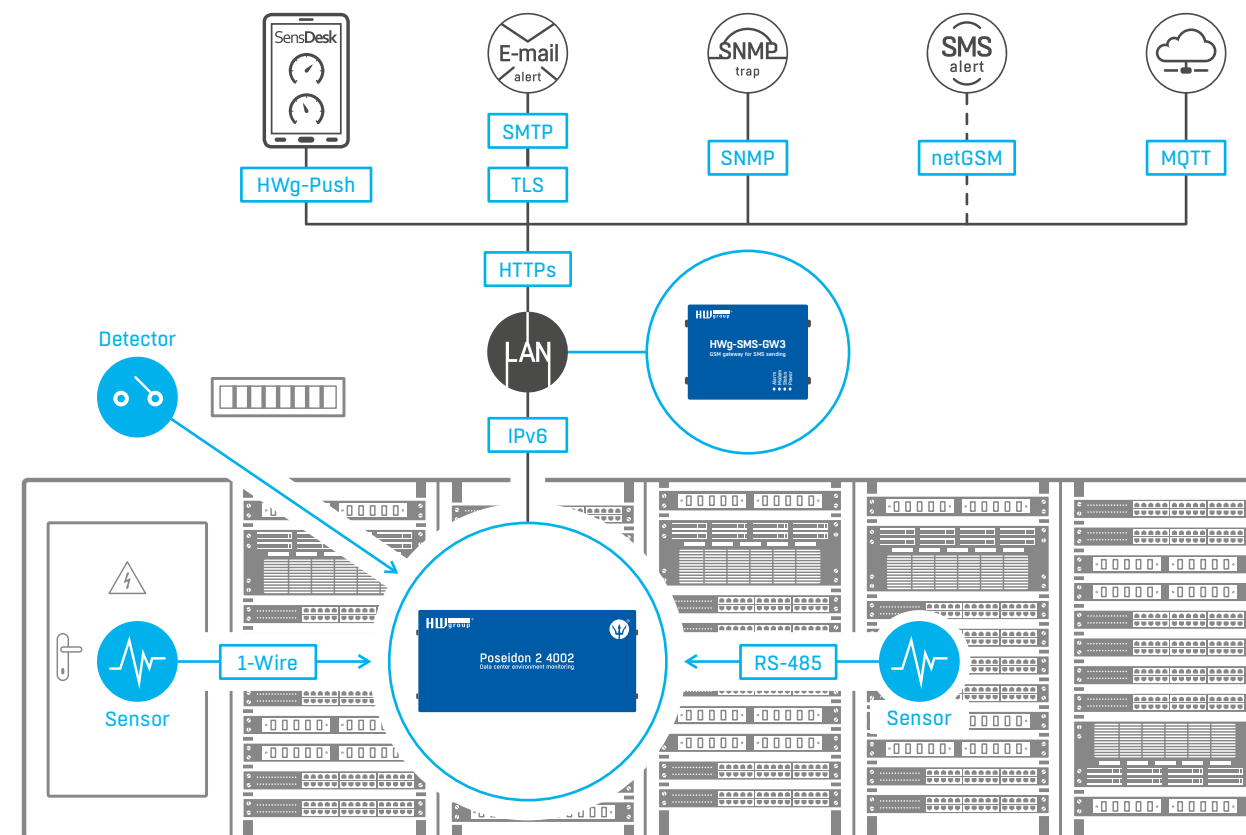
HWg-Push
is a protocol for active communication from a device (IP sensor) to a central server. This protocol is used for Sensdesk.com.

TLS
TLS protocol provides for secure communication over the Internet (for WWW, e-mail and other types of data transfer).

Modbus/TCP
is an extension of Modbus RTU protocol. Supported in 3rd party SCADA SW e.g. Wonderware-In Touch, Citect, Siemens-WinCC.

XML
Used to exchange structured data with applications and as a format of configuration files. Available files are XML setup and XML values.

2003–2019

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