

# Poseidon2 3468

# MANUAL





## Package contents

A complete shipment contains the following items:

- Poseidon2 3468
- Printed manual + datasheet

## Safety information

The device complies with regulations and industrial standards in force in the Czech Republic and the European Union. The device has been tested and is supplied in working order. To keep the device in this condition, it is necessary to adhere to the following safety and maintenance instructions.

**Never remove the device cover if the relay terminals are connected to the electrical network!**

**Using the device in a manner other than prescribed by the manufacturer may cause its safeguards to fail!**

**The power supply outlet or disconnection point must be freely accessible.**

**The device must not be used in particular under any of the following conditions:**

- The device is noticeably damaged
- The device does not function properly
- Unfastened parts can move inside the device
- The device has been exposed to moisture or rain
- The device has been serviced by unauthorized personnel
- The power adapter or power supply cable are noticeably damaged
- If the device is used in a manner other than designed for, the protection provided by the device may fail.
- The local electrical system must include a power switch or a circuit breaker and overcurrent protection.

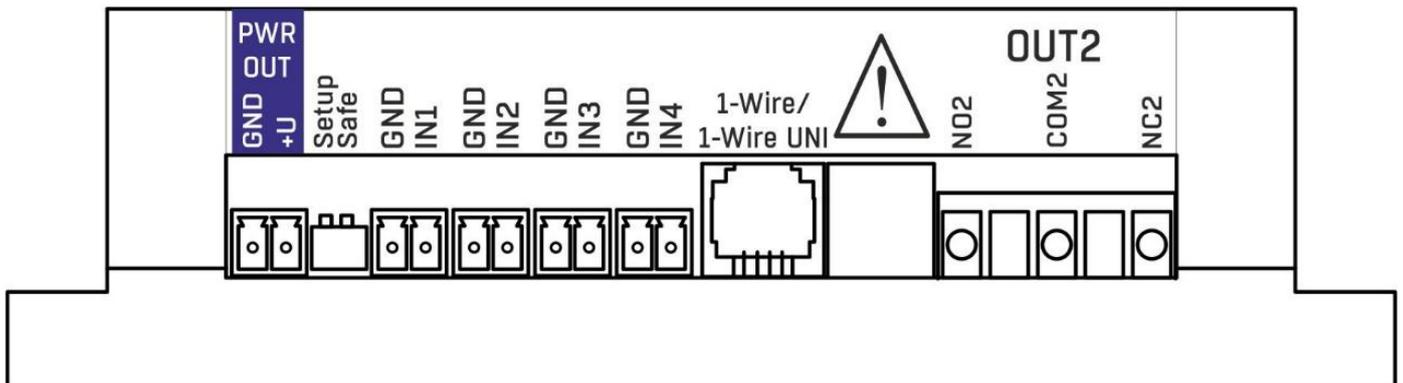
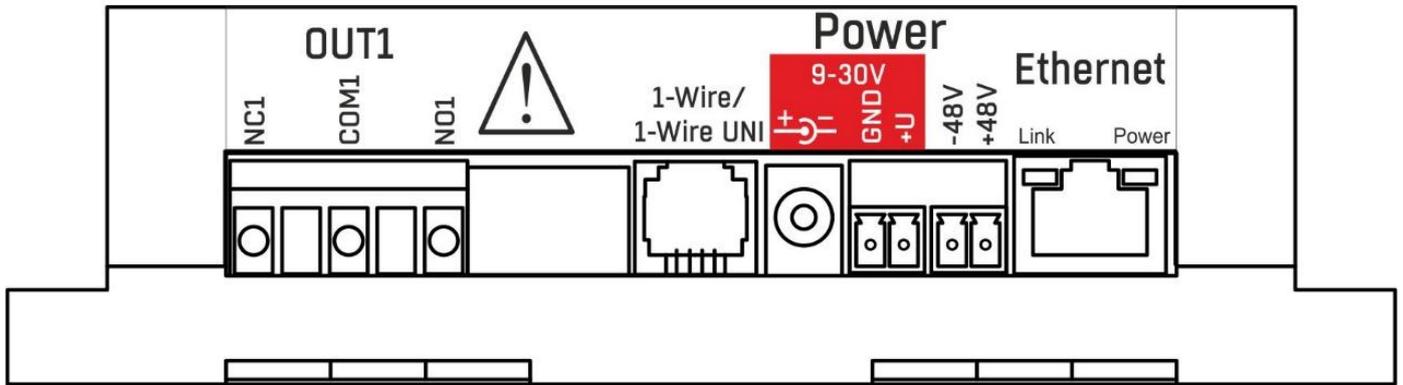
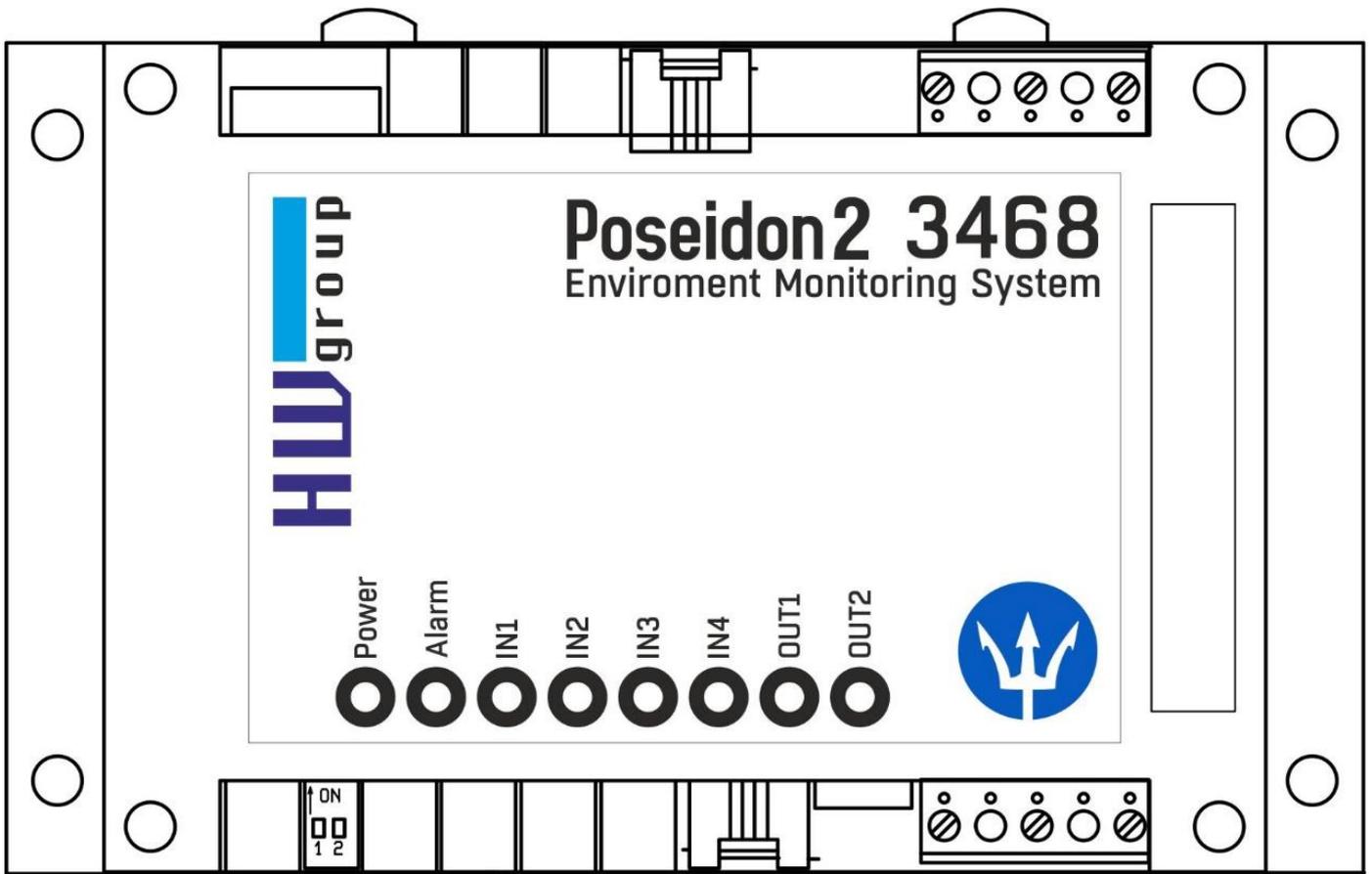
The manufacturer warrants the device only if it is powered by the supplied power adapter or an approved power supply.

If you have any problems with installing or operating the device, please contact technical support:

HW group s.r.o.  
<http://www.hw-group.com>  
Email: [support@HWg.cz](mailto:support@HWg.cz)

U Pily 3  
143 00 Praha 4  
Czech Republic  
Tel. +420 222 511 918

When contacting technical support, please keep at hand the exact type of your device (at the type plate) and, if possible, the firmware version (see later in this manual).



## First steps

### 1) Connecting the cables

- Turn the unit upside down and write down its MAC address that is printed on the label.
- Set the switches: **DIP1=Off, DIP2=Off**.
- Connect the unit to the Ethernet (with a patch cable to a switch, cross-over cable to a PC), RJ-45 port.
- Plug the power adapter into a mains outlet and connect it to the Poseidon2 power jack.
- The green **POWER** LED lights up.
- If the Ethernet connection works properly, the **LINK** LED lights up after a short while, and then flashes whenever data are transferred (activity indication).

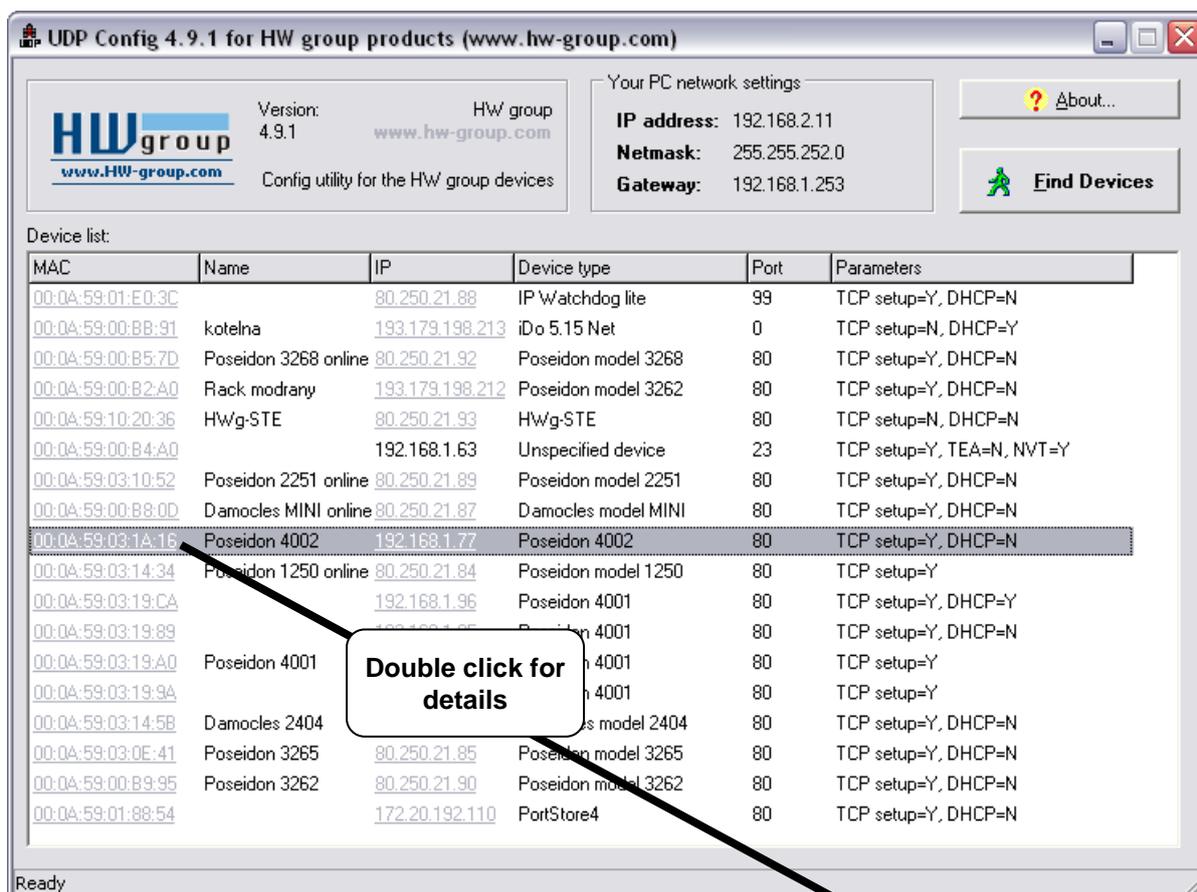


### 2) Configuring the IP address – UDP Config

**UDP Config** utility – root directory of the supplied CD (Windows and Linux versions).

Available for download at [www.HW-group.com](http://www.HW-group.com) Software > UDP Config.

- Click the icon to launch **UDP Config**. The program automatically looks for connected devices.
- Automatic device discovery works only in the local network.
- Individual Poseidon2 units are identified by their MAC addresses (on the label at the bottom).
- Double-click a MAC address to open a basic device configuration dialog.



## First steps

### Configure the network parameters

- IP address / HTTP port (80 by default)
- Network mask
- Gateway IP address for your network
- Device name (optional)

Click the **Apply Changes** button to save the settings.

The screenshot shows a 'Details' configuration window for a device named 'Poseidon 4002'. The window is divided into several sections:

- Name:** Poseidon 4002
- IP address:** 192.168.1.77
- Port:** 80
- Mask:** 255.255.252.0
- Gateway:** 192.168.1.253
- MAC:** 00:0A:59:03:1A:16
- FW version:** 2.0.4
- Device type:** Poseidon 4002 (26)
- DHCP:** Supported
- IP filter value:** 0.0.0.0
- IP filter mask:** 0.0.0.0
- Default values:** Load defaults
- Enable DHCP:**
- Enable IP access filter:**
- Enable NVT:**
- Enable TEA authorisation:**
- Enable TCP setup:**  (with an 'Open' button)
- Check if new IP address is empty:**

At the bottom of the window, there are 'Cancel' and 'Apply changes' buttons. A green arrow points to the 'Apply changes' button.

Alternatively, you may use the following utilities to configure the IP address:

- **UDP Config for Linux**

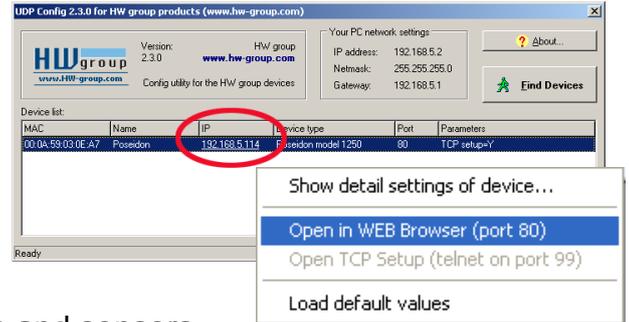
### Important:

- To reset the device to factory defaults, toggle DIP1 several times within 5 seconds after applying power to the device.
- No configuration changes can be stored while DIP2=On.  
To change the IP address, set DIP2=Off.

## First steps

### 4) WWW interface of the device

- To open the WWW interface of the device:
  - Enter the IP address into a web browser
  - Click the IP address in UDP Config
  - Click the underlined IP address in the UDP SETUP utility
- The WWW page displays current states of devices and sensors.



### Web interface of the device

- **General:** Overview of current readings
- **General Setup:** IP address, DNS, security (username/password)
- **SNMP:** SNMP / SNMP Trap configuration (ports and alarm recipients)
- **E-mail:** Configuration and test
- **GSM & RFID:** Configuration and test in order to use a remote SMS-GW
- **Log & Time:** Time configuration, NTP server
- **Sensors:** Device name, sensor names, status overview
- **Inputs:** Control of inputs and alert parameters
- **Outputs:** Control and mode configuration of outputs
- **System:** Firmware upgrade, save/restore configuration, etc.

**POSEIDON2 3468** GENERAL

**DRY CONTACT INPUTS**

| Name           | ID  | Current Value | Alarm Alert  |
|----------------|-----|---------------|--------------|
| Binary 1       | 1   | 0(Off)        | Active if on |
| Binary 2       | 2   | 0(Off)        | Disabled     |
| Binary 3       | 3   | 0(Off)        | Disabled     |
| Binary 4       | 4   | 0(Off)        | Disabled     |
| Comm Monitor 1 | 123 | 0(Off)        |              |

**RELAY OUTPUTS**

| Name     | ID  | Current Value | Mode            |
|----------|-----|---------------|-----------------|
| BinOut 1 | 151 | 0(Off)        | On if any alarm |
| BinOut 2 | 152 | 0(Off)        | Manual          |

**SENSORS**

| Name        | ID    | Current Value | Safe Range   | Hysteresis | Alarm Alert |
|-------------|-------|---------------|--------------|------------|-------------|
| Humidity    | 37912 | 45.4 %RH      | 20.0 .. 80.0 | 0.0        | EMAIL       |
| Temperature | 37656 | 25.0 °C       | 15.0 .. 25.0 | 0.0        | Disabled    |

**DOWNLOAD**

SNMP Management Information Base: [MIB](#)  
 SNMP Object Identifier: [OID](#)  
 XML Schema Definiton: [XSD](#)

For more information try <http://www.hw-group.com/>

**Annotations:**

- User-defined names for sensors and digital inputs (points to 'Comm Monitor 1')
- Alarm thresholds (points to 'Safe Range' in Sensors table)
- Action when value out of range (points to 'Hysteresis' in Sensors table)

**Left Sidebar:**

- General
- General setup
- SNMP
- Email
- GSM & RFID
- Log & Time
- Sensors
- Inputs
- Outputs
- System
- Restart

Reload values every  [s]   
 Values reloaded 5

## E-mail

**POSEIDON2 3468** EMAIL

**EMAIL SETTINGS**

SMTP Server:  [IP Address or DNS Name]  
 SMTP port:   
 Email Sender Address:   
 Authentication:   
 Name/Password:  /   
 Email Subject Text:  ←

**EMAIL DESTINATIONS**

Alarm Email Recipient:   
 Alarm Email Copy:   
 Alarm Email Copy:   
 Alarm Email Copy:   
 Alarm Email Copy:   
 Periodic Log Recipient:

**TEST EMAIL**

State:   
 →

**PERIODIC STATUS SETTINGS**

Periodical Status:  Period:  [minutes]  
 Alarm reminder:  Period:  [minutes]

### Periodic Status Settings

- **Periodical Status**  
When on, sends an e-mail with device status at the specified intervals. For example every 24 hours (1440 minutes).
- **Alarm reminder**  
When active, sends periodic reminders that the device is in the Alarm state. For example every 15 minutes.

#### To send e-mail, check:

- 1) Correct **Gateway IP** address
- 2) **DNS server** in network settings
- 3) **SMTP server** and port
- 4) **Authentication** turned on, correct **username** and **password**
- 5) **Spam filter** for your mailbox is disabled

**NOTE:** Configuration changes must be confirmed by clicking the *Apply Changes* button.

### GSM

**POSEIDON2 3468** GSM AND RFID

**SERIAL PORT SETTINGS**  
Port Function: Disabled

**RFID SETTINGS**  
Remote Destination: Remote Server A

**SOAP DESTINATION**

|    | SOAP Server<br>IP Address or DNS Name | Link /Path | Port | Enable                   |
|----|---------------------------------------|------------|------|--------------------------|
| A. |                                       |            | 0    | <input type="checkbox"/> |

**GSM SMS INTERFACE**  
GSM Function: Remote  
SMS + Ring When Alarm:   
Remote Destination: Remote Server A

**GSM SMS RECIPIENTS**

|                        |  |
|------------------------|--|
| Alarm SMS Recipient 1: |  |
| Alarm SMS Recipient 2: |  |
| Alarm SMS Recipient 3: |  |
| Alarm SMS Recipient 4: |  |
| Alarm SMS Recipient 5: |  |

Send Test SMS

Apply Changes

### Log & Time

**POSEIDON2 3468** LOG AND TIME

**DATE AND TIME**  
Current Date: 01.01.1970 [dd.mm.yyyy]  
Current Time: 01:00:00 [24 hour format]

**TIME SYNCHRONIZATION**  
SNTP Server: time.nist.gov [IP Address or DNS Name]  
Time shift to server time (GMT): +1hour [If you are in different zone]

Synchronize Time

**DEVICE LOGGER SETTINGS**  
Store all actual sensor values to the logfile every 300 [s]  
Total estimated logfile capacity is 215 days, 4 hours and 50 minutes  
Report Log Period [h] 1 Erase log after e-mail

Open log File Clear log File

Apply Changes

# Sensors

**POSEIDON2 3468** SENSORS

SENSORS

Configuration: Autodetect Sensors

| Name        | Sensor ID | Current Value | Safe Range   | Hysteresis Idle Range | Delay [s] | Out of Safe Range SNMP Trap | Out of Safe Range Email & SMS |
|-------------|-----------|---------------|--------------|-----------------------|-----------|-----------------------------|-------------------------------|
| Humidity    | 37912     | 45.4 %RH      | 20.0 .. 80.0 | 0.0                   | 0         | <input type="checkbox"/>    | <input type="checkbox"/>      |
| Temperature | 37656     | 25.0 °C       | 15.0 .. 25.0 | 0.0                   | 0         | <input type="checkbox"/>    | <input type="checkbox"/>      |

Scans connected sensors and displays detected sensors

Sensor name will be shown in e-mails, text messages, and SNMP traps

Sends a **SNMP trap** if the "Safe Range" for this sensor is exceeded

Sends an **E-mail** if the "Safe Range" for this sensor is exceeded

Sends a **text message (SMS)** if the "Safe Range" for this sensor is exceeded

Apply Changes

After connecting sensors or changing RJ11 connections, sensors need to be detected again.

To avoid numerous false alerts (by e-mail or SMS) whenever the reading fluctuates around the threshold, you can use:

1) **Hysteresis Idle Range**  
Tolerance band around the "Safe Range". Prevents multiple alarm alerts.

2) **Delay [s]**  
Delays the information about alarm beginning and alarm end by a specified time. Can be used for dry contacts, too.



**Tip:** For details, see the complete "Poseidon family" manual.

**NOTE:** Configuration changes must be confirmed by clicking the Apply Changes button.

# Inputs



## POSEIDON2 3468

INPUTS

- General
- General setup
- SNMP
- Email
- GSM & RFID
- Log & Time
- Sensors
- Inputs
- Outputs
- System
- Restart

**DRY CONTACT INPUTS**

| Name           | ID  | Current Value | Alarm State   | Delay[s] | Out of Safe Range<br>SNMP Trap      | Out of Safe Range<br>Email & SMS    |
|----------------|-----|---------------|---------------|----------|-------------------------------------|-------------------------------------|
| Binary 1       | 1   | 0(Off)        | Active if on  | 0        | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| Binary 2       | 2   | 0(Off)        | Active if off | 0        | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Binary 3       | 3   | 0(Off)        | Disabled      | 0        | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Binary 4       | 4   | 0(Off)        | Disabled      | 0        | <input type="checkbox"/>            | <input type="checkbox"/>            |
| Comm Monitor 1 | 123 | 0(Off)        | Disabled      | 0        | <input type="checkbox"/>            | <input type="checkbox"/>            |

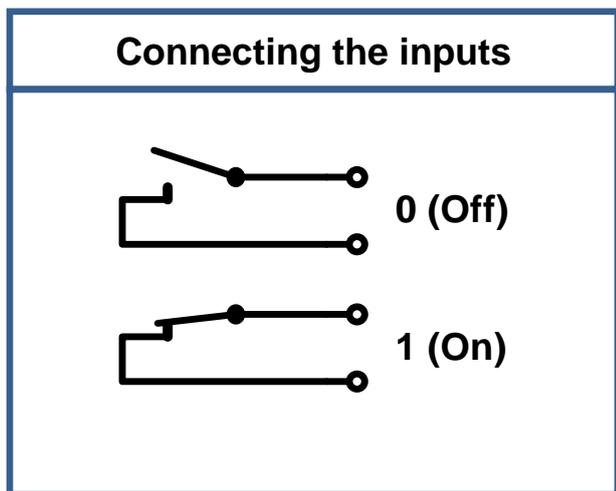
Enter sensor name – will be shown in e-mails, text messages or SNMP traps

**ALARM CONTACT STATUS:**

- Active if On**  
Alarm when the contact **closes** (1 = On)
- Active if Off**  
Alarm when the contact **opens** (0 = Off)
- Disabled**  
No Alarm

**Reaction to digital inputs:**

- Disabled**
- Send a **SNMP Trap**
- Send an **E-mail**
- Send a **SMS**



### FAQ

- Poseidon2 informs about alarm activation and alarm deactivation for each contact and/or sensor.
- E-mail format cannot be changed; sensors may have custom names.
- Yellow background in a line with a sensor or an input means that the safe range is exceeded but alarm notification is off.

**NOTE:** Configuration changes must be confirmed by clicking the *Apply Changes* button.

TIP

- Poseidon family manual**  
For a detailed description of all settings and tabs, see the “Poseidon family” manual. Available on the web or the installation CD.

## Outputs

**POSEIDON2 3468** OUTPUTS

RELAY OUTPUTS

| Name    | ID  | Current Value | Output Control   | Target Value | Depend on          |
|---------|-----|---------------|--|--------------|--------------------|
| Relay 1 | 151 | 1(On)         | <input checked="" type="radio"/> Manual<br><input type="radio"/> Local Condition | 0.0          | none               |
| Relay 2 | 152 | 0(Off)        | <input type="radio"/> Manual<br><input checked="" type="radio"/> Local Condition | 26.0         | Temperature(37656) |

**Manual mode:**  
Output controlled over the WEB or M2M protocols

**Local Condition mode:**  
Controls the output according to the specified sensor

Apply Changes

### Output mode:

#### A) **Manual**

Output can be controlled using the Web interface or externally using M2M protocols. The output cannot be used in “thermostat” mode – local condition.

#### B) **Local Condition**

The output cannot be controlled using the Web interface, it is controlled by the local condition. The output is read-only for all M2M protocols. Hysteresis configured in the sensor settings applies.

The output cannot be controlled remotely.

- **On if any alarm**  
The output is active if at least one input or sensor is in alarm.
- **On if value equal to Trigger**  
The output is active if the selected sensor reading **is equal to** the “Target Value”.
- **On if value higher than Trigger**  
The output is active if the selected sensor reading **is greater than** the “Target Value”.
- **On if value lower than Trigger**  
The output is active if the selected sensor reading **is less than** the “Target Value”.
- **Dependent On – sensor / input to which the condition applies.**

## Software Applications

### HWg-PDMS

Windows application that logs data from all HW group devices into its internal database.

The application runs in the background (NTservice). Data are received from the device over http or e-mail.

Data can be exported over XML or automatically stored to MS Excel.



**License:** Free HWg-PDMS version for 3 sensors  
Paid versions for 8 / 20 / 200 / unlimited sensors

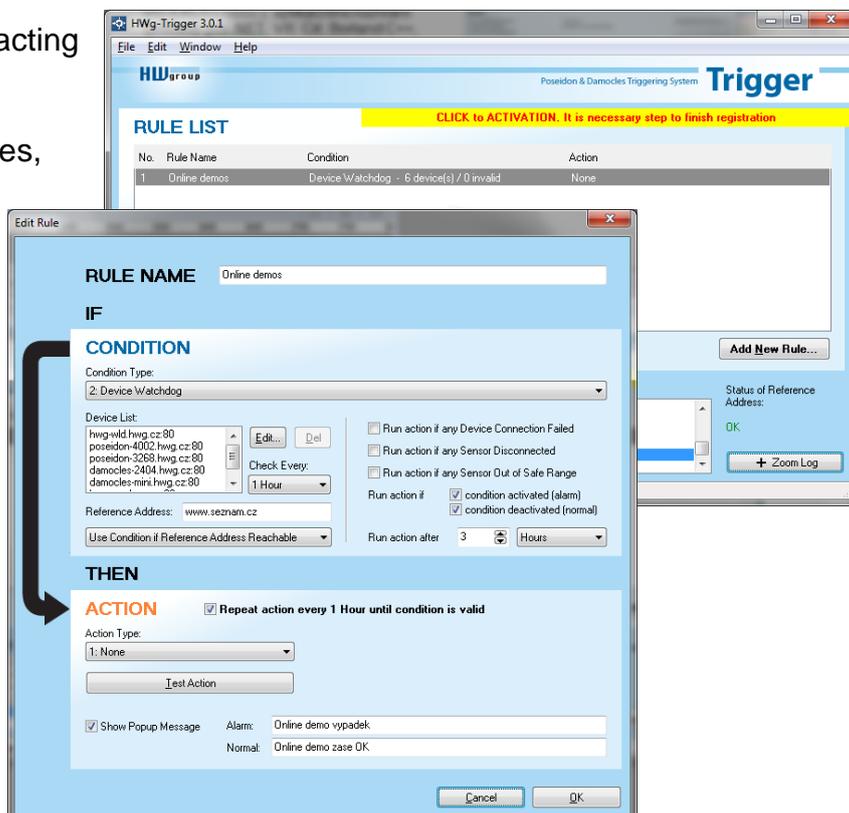
### HWg-Trigger

Windows application for detecting and reacting to events.

Detects, for instance, disconnected devices, failed sensors, values out of range, or incoming SNMP Trap alerts.

Possible responses include sending an e-mail, activating a relay over the network, or sending a text message (SMS) using HWg-SMS-GW.

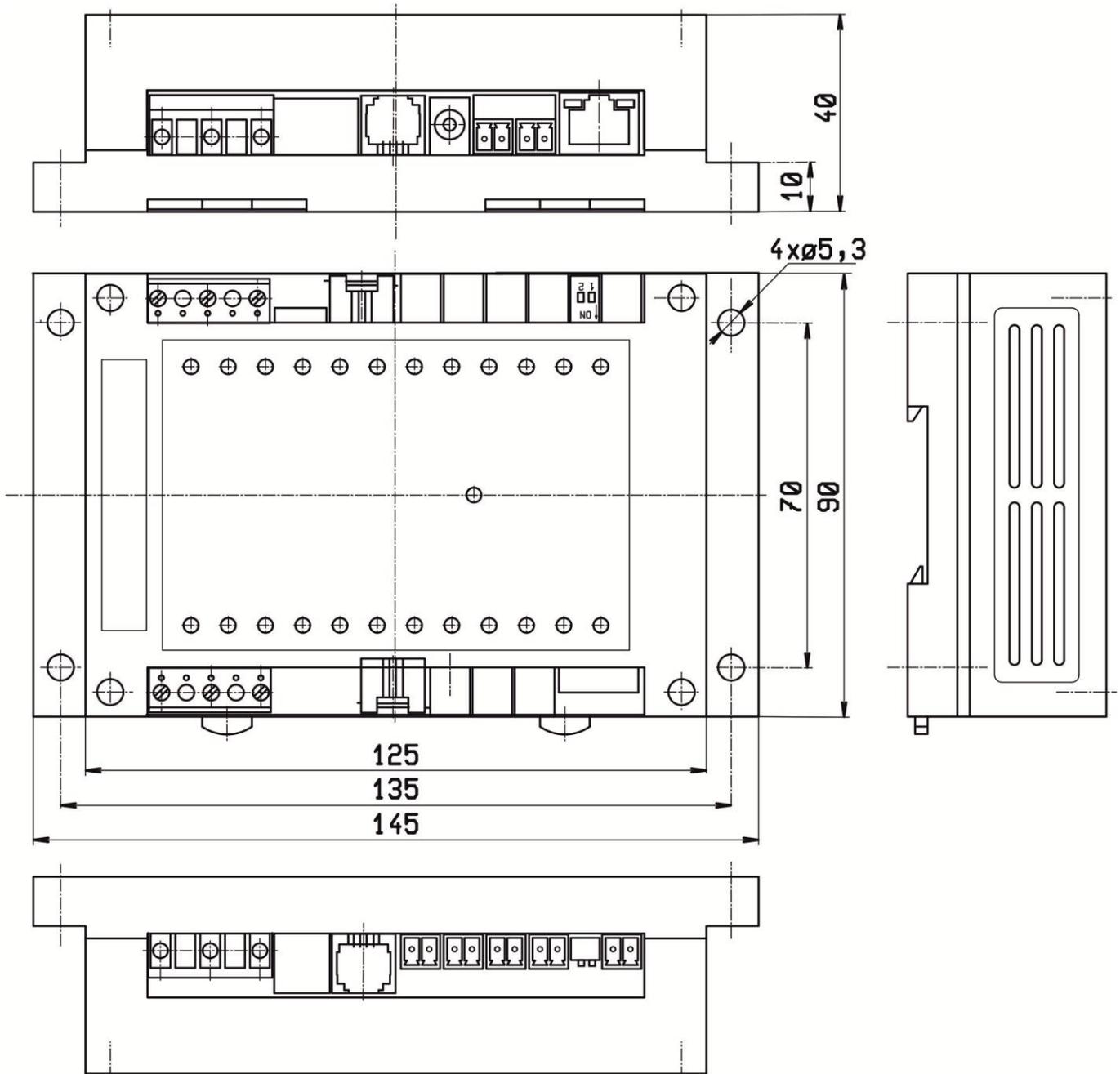
Other responses include displaying a warning message in Windows, starting an application, or shutting down the computer.



**License:** 30-day trial version free of charge



## Mechanical dimensions

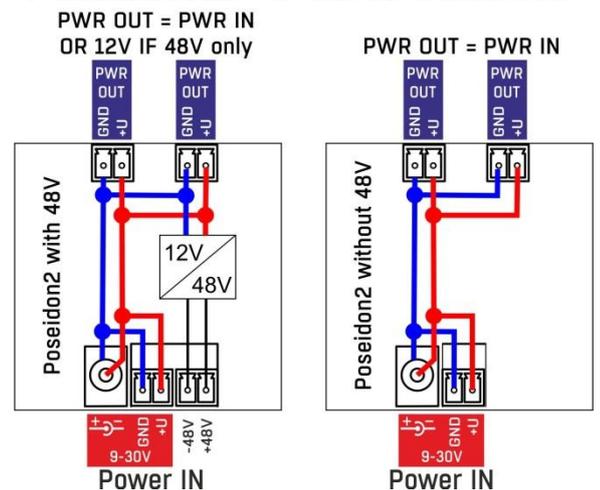


## Power output

Poseidon2 3468 features the PWR OUT terminals for powering connected sensors and detectors.

- **Powered by 9–30V:** PWR OUT = 9–30V
- **Powered by 48V:** PWR OUT = 12V

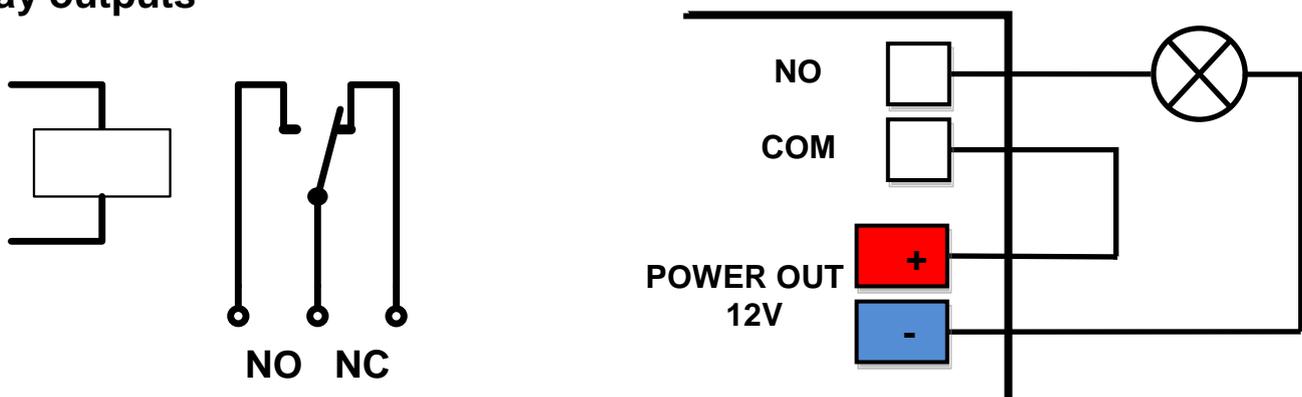
## Poseidon2 - Power scheme



## Specifications

| ETHERNET                |  |
|-------------------------|--|
| Interface               | RJ45 (100BASE-Tx) – 10/100 Mbps network compatible   |
| Supported protocols     | IP: ARP, TCP/IP (HTTP, NTP, SMTP, netGSM, HWg-PUSH), UDP/IP (SNMP)   |
| SNMP compatibility      | Ver.1.00 compatible, partial ver.2.0 implementation  |
| Logger                  |  |
| Internal memory         | 250,000 records in flash memory  |
| Logged items            | Sensors, DI, DO  |
| SENSORS                 |  |
| Type                    | HWg original accessories: 1-Wire & 1-Wire UNI  |
| Connector               | 2xRJ11 (1-Wire UNI)  |
| Sensors                 | Up to 8 sensors in total (temperature + humidity combo sensors count as 2 sensors)                                     |
| Sensor distance         | Up to 60m  |
| DI – DRY CONTACT INPUTS |  |
| Port                    | I1, I2, I3, I4   |
| Type                    | Digital Input (supports NO/NC Dry contact)   |
| Sensitivity             | 1 (On) = 0–500 $\Omega$  |
| Max. distance           | Up to 50m  |
| OUTPUTS                 |  |
| Port / type             | OUT1, OUT2 / Relay contacts (NC-COM-NO)  |
| Max. load               | max. 24V / 16A DC; max. 250V / 16A AC  |
| State                   | Power up state (no state restart memory)   |
| POWER input             |  |
| Type                    | You can power the device from power input 1 or 2.  |
| Power input 1           | POWER 9-30V DC – 2,5W<br>Jack 9–30V DC (barrel, inner 2.5 mm outer 6.3 mm) + Terminal Block                            |
| Power input 2           | Terminal Block 48V DC  |
| POWER output            |  |
| Voltage                 | Power input 1 (9-30V): Power Out = Power IN (9-30V)<br>Power input 2 (48V): Power Out = 12V                            |
| Current / Connector     | Max. 150mA / Terminal Block  |
| LED status indicators   |  |
| POWER (RJ45 + top)      | Green – power OK (top), Ethernet enabled (RJ45)  |
| LINK & Activity (RJ45)  | Yellow - Ethernet connectivity   |
| Setup / Alarm           | Red  |
| Inputs                  | Green  |
| Outputs                 | Yellow   |
| DIP SWITCH              |  |
| DIP1: Setup             | OFF = Normal state<br><b>Load defaults:</b> Set ON, power-up device, toggle 3 times during first 5 seconds             |
| DIP2: Security          | ON = Secure mode (online demo) – remote configuration disabled<br>OFF = Non-secure mode – remote configuration enabled |
| Physical parameters     |  |
| Temperature range       | Operating: -30 to +75 °C (-22 to 167 °F) / Storage: -35 to +85 °C (-31 to +185 °F)                                     |
| Dimensions / Mass       | 145 x 90 x 45 [mm] / 225 g   |
| EMC                     | FCC Part 15, Class B, CE - EN 55022, EN 55024, EN 61000  |

## Relay outputs

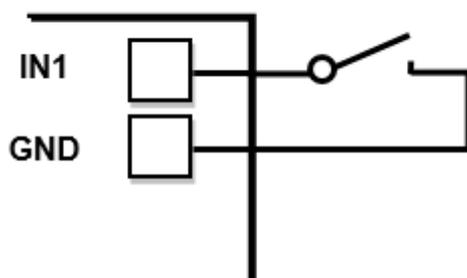


- NO and NC labels apply to Off (0) state, or device turned off
- When the output is On (1), a “**Normally Open**” (NO) relay contact is closed
- **LEDs:** Contact state (closed / open) is indicated by a LED
- **Isolation:** The double-throw contact is electrically isolated from the rest of the device
- **ID range:** Outputs use ID addresses from 151 to 180

## Digital (dry contact) inputs

Digital input terminals may be connected to voltage-free contacts or the GND pin. The inputs are electrically connected to the 12V power supply. Never connect the inputs to the 48V supply voltage!

- Unconnected inputs read as “**0 (Off)**”
- Active inputs read as “**1 (On)**”
- **Supported sensors:** Any contact without external voltage (dry contact)
- **Polling period:** 800 ms
- **Range of sensor IDs:** Inputs use IDs from 1 to 24



## M2M interface

The product is ready to be connected with third-party SW applications.

For a description of the interfaces (XML format, detailed SNMP description, mapping of Modbus/TCP variables), see the detailed “**Poseidon family**” manual.

- **XML** (over HTTP)
- **SNMP** , SNMP traps
- **Modbus/TCP**
- **SMTP** (E-mail)

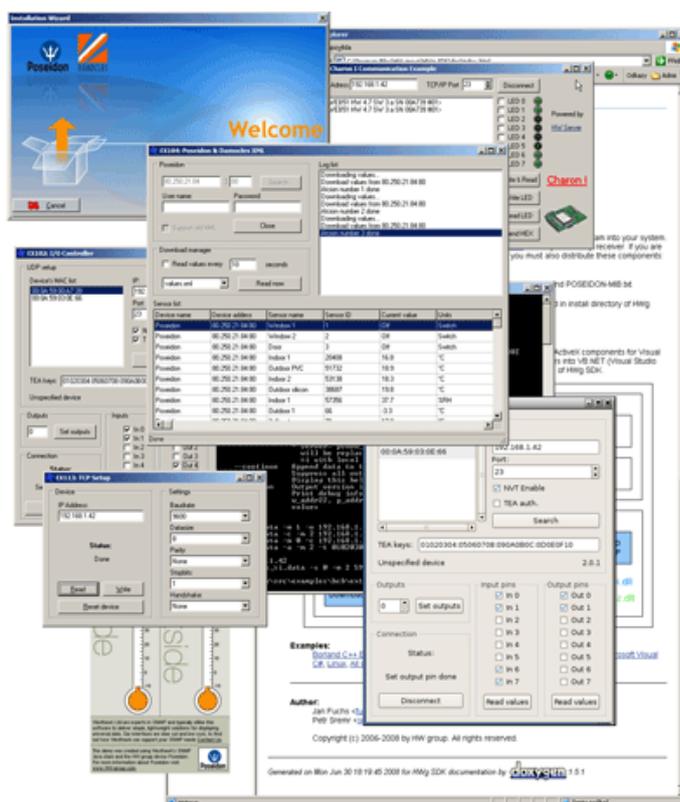
### TIP

- For a detailed description of the M2M communication interface and more details, see the **detailed Poseidon family manual**.

## SDK (Software Development Kit)

Programmers can take advantage of the **HWg SDK** (Software Development Kit) with an ActiveX interface and ready-made examples.

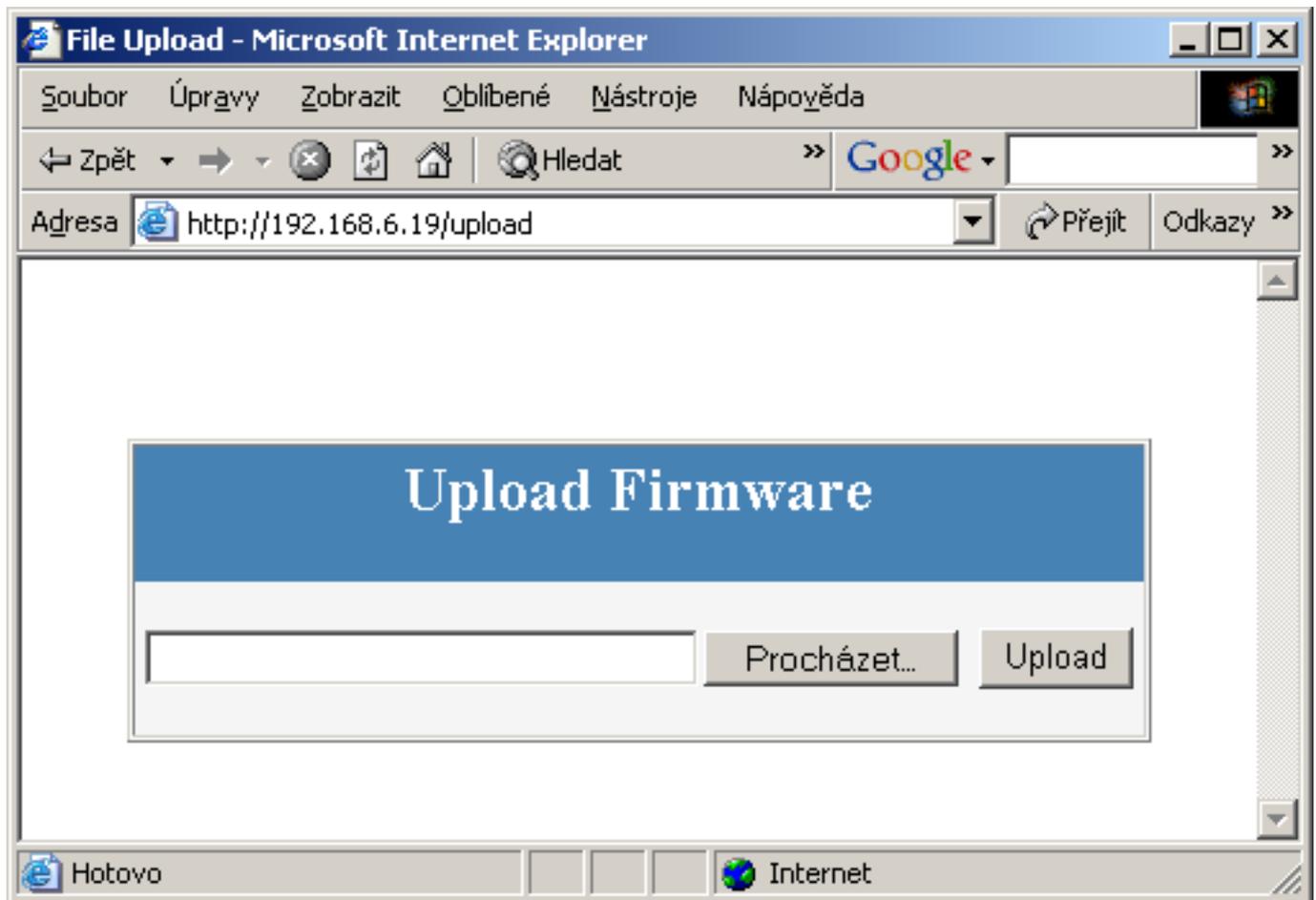
- **VB - Visual Basic (6.0)** - (3xx examples)
- **Borland C++** (1xx examples)
- **Microsoft Visual C++** (2xx examples)
- **C# / .NET** (5xx examples)
- **Borland Delphi** (4xx examples)
- **JAVA**
- **PHP / ASP**
- **other** examples that do not directly use SDK functions (all 9xx examples)



## Updating the firmware over the WEB

Upload the **.hwg** firmware file over http to <http://x.x.x.x/upload/>.

Connection problems etc. must be avoided during file transfer. If the update fails, upload the firmware over RS-232.



Firmware in the .HWg format is available at our website, or on the supplied CD.

## Restoring factory defaults

To restore the factory default configuration (including deleting all passwords):

- 1) Turn the device off by disconnecting power.
- 2) Set DIP1 to ON.
- 3) Turn the device on.
- 4) Toggle DIP1 several times during the first 5 seconds after powering up.

### TIP

- For a detailed product description, see the **detailed Poseidon family manual**.



## Contact

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 Fax. +420 222 513 833

<http://www.HW-group.com>

