



# Damocles2 MINI

Smart I/O controlled over a LAN



Digital inputs



Relay outputs



Pulse counter



Web server



E-mail notifications



SNMP protocol



MQTT protocol



Modbus TCP protocol

*Damocles2 MINI provides 4 digital dry contact inputs. All digital inputs feature **SO pulse counters with a memory** to connect water, gas, electricity or other meters. Damocles2 MINI controls **2 digital relay outputs (DO)**.*

*A built-in **web server** is used for configuring. The device can be **monitored remotely over the Internet** using the SensDesk portal or the SensDesk Mobile app. Damocles2 MINI is a **compact Ethernet I/O device with enhanced IP security**.*

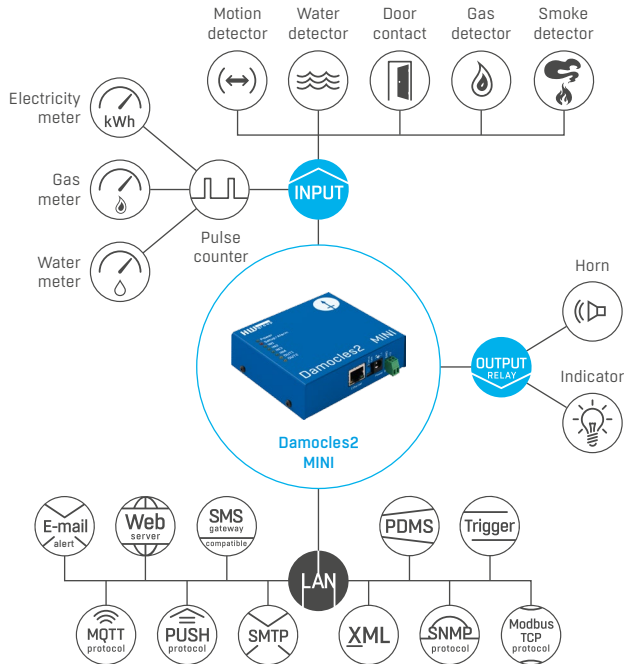
*Damocles2 devices are designed to monitor and control digital I/O over the network using **secure M2M protocols (HTTPs, IPv6, SNMPv3)**. With support for **over 50 SNMP and SCADA applications**, Damocles2 devices can be integrated in a wide range of monitoring and control systems. **MQTT protocol** enables integration in IoT solutions.*

## Basic features of Damocles2 devices:

Web-based configuration	All inputs feature 32-bit pulse counters that retain their value even if the power fails	Supports "SMS + Ring" function
When a DI state changes, the device sends an e-mail, SMS, SNMP Trap, or activates a remote relay at another Damocles2 unit	With the HWg-PDMS software, SO pulses can be converted to cost per time period and exported to MS Excel	MQTT compatibility allows connecting to IoT Hub, MS Azure, AWS IoT, Bluemix Internet of Things and other cloud services
To send an alarm SMS whenever a DI state changes, use the HWg-Trigger software, or a HWg-SMS-GW gateway in the same LAN	Examples for programmers on using the product are available in the HWg-SDK (Borland C++, MS Visual, VB, C#, PHP, JAVA and more)	Supports up to 8 virtual digital outputs (VDO) that can be mapped to physical digital outputs (relays) of other Damocles2 units on the network

## Typical application examples

- Remote equipment monitoring
- Smart buildings
- UPS monitoring
- Security and surveillance systems
- Alarm indication
- Energy consumption metering
- Connecting external inputs to SCADA systems



## Main changes in the 2<sup>nd</sup> generation

	1 <sup>st</sup> generation Damocles	Damocles2 MINI
Extended IP Filter	✗	✓
SNMPv3	✗	✓
HWg-PUSH (SensDesk portal)	✗	✓
NetGSM (HWg-SMS-GW3)	✗	✓
Virtual Output (XML)	✗	✓
Pulse counter (S0 pulse)	✗	✓
HTTPS	✗	✓
IPv6	✗	✓
MQTT (IoT portals)	✗	✓
Group Alarm	✓	✗

## Versions and related products



**Damocles2 MINI**  
4x DI, 2x DO DO relay,  
stand-alone device



**Damocles2 MINI set**  
4x DI, 2x DO relay,  
includes a power adapter



**Damocles2 1208 set**  
12x DI, 8x DO OC,  
includes a power adapter



**Damocles2 2404 set**  
24x DI, 4x DO relay,  
includes a power adapter



**HWg-SMS-GW3**  
GSM gateway for ring and  
SMS notification



**Back-Up UPS Lite**  
Backup power supply.  
12V, 1,3Ah

Ethernet	
Interface	RJ45 (100BASE-Tx) –10/100 Mbps
Supported protocols	Modbus/TCP, HTTP, NTP, SMTP, netGSM, HWg-PUSH, SNMP, XML
SNMP compatibility	ver. 1, partial ver. 2, ver. 3

Digital Inputs (DI)	
Port	I1, I2, I3, I4
Type	4x digital input (supports NO/NC Dry contact)
Pulse counter	4x 32-bit

Digital Outputs (DO)	
Type	OUT1, OUT2/relay contacts (NC-COM-NO)
Max. load	Max. 2 A / 24V (2A/12V or 0.5 A / 48 V)

Logger	
Internal memory	250,000 records
Recorded values	DI, DO
Power	9–30 VDC

Supported software	
HWg-Trigger	Alert redirection to SMS, pop-up messages, PC shutdown
HWg-PDMS	Logging of values, graphs, export to MS Excel
More software	Third-party software, HWg-SDK

Dimensions / mass	
Dimensions	106×31×94 mm
Mass	300 g

## Configuration interface

The screenshot shows the configuration interface for the Damocles2 MINI device. The main content area is titled 'Damocles2 MINI GENERAL'. It displays the 'Digital Inputs (DI)' section with a table:

Name	ID	Current Value	Alarm Alert	Counter
Binary 1	1	0(OFF)	Disabled	11
Binary 2	2	0(OFF)	Disabled	7
Binary 3	3	0(OFF)	Disabled	10
Binary 4	4	0(OFF)	Disabled	2
Comm Monitor 1	123	0(OFF)	Disabled	0

Below this is the 'Digital Outputs (DO)' section with a table:

Name	ID	Current Value	Mode
BinOut 1	151	0(OFF)	Manual
BinOut 2	152	0(OFF)	Manual

At the bottom, there is a 'Download' section with fields for 'SNMP MIB', 'SNMP Object Identifier', and 'XML Schema Definition', and a 'Terminal Config (TCP Setup)' section with fields for 'Connect with telnet to:' and 'Port'.