HW group

Damocles2
2404

Secure industrial I/O with PoE and telco -48V power options

24 DIGITAL input — Digital inputs

4 RELAY output — Relay outputs

Pulse counter

Web server — Web server

5 E-mail alert — E-mail notifications

SNMP protocol — SNMP protocol

MQTT protocol — MQTT protocol

Modbus TCP protocol — Modbus TCP protocol

Damocles2 2404 provides **24 digital inputs** (DI) for dry contact detectors. All digital inputs feature **S0 pulse counters with a memory** to connect water, gas, electricity or other meters. Damocles2 2404 controls **4 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. Thanks to **9–30 V DC, -48 V and PoE** power options, Damocles2 2404 can be deployed in a wide range of scenarios.
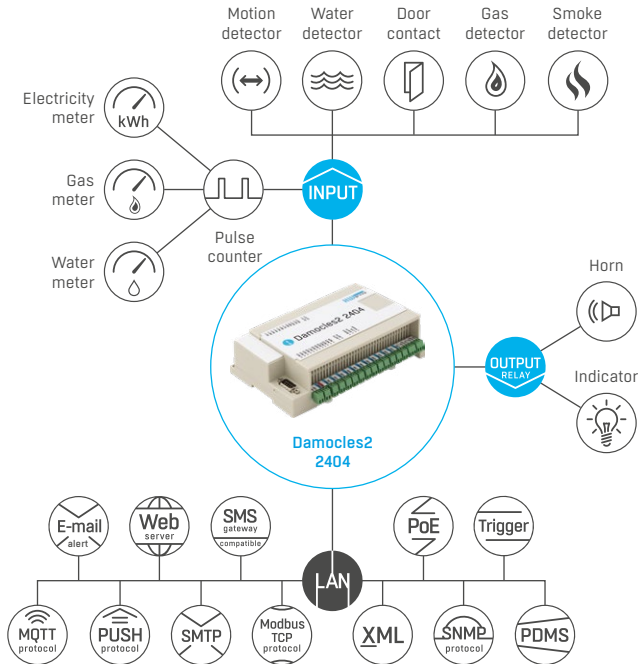
Damocles2 devices are designed to monitor and control digital I/O over the network using **secure M2M protocols (HTTPs, IPv6, SNMPv3)**. With support for **over 50 SNMP and SCADA applications**, Damocles2 devices can be integrated in a wide range of monitoring and control systems. MQTT protocol enables 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, S0 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

Ethernet	
Interface	RJ45 (100BASE-Tx) – 10/100 Mbps, supports PoE (Power over Ethernet)
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 – I24
Type	24× digital input (supports NO/NC Dry contact)
Pulse counter	12× 32-bit

Digital Outputs (DO)	
Type	OUT1, OUT2, OUT3, OUT4 / relay contacts (NC-COM-NO)
Max. load	Max. 4 A / 24 V

Logger	
Internal memory	250,000 records
Recorded values	DI, DO
Power	9–30 V DC, -48 V, PoE

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	179×46×116 mm
Mass	400 g

Configuration interface

Main changes in the 2nd generation

	1st generation Damocles	Damocles2 2404
Extended IP Filter	✘	✔
SNMPv3	✘	✔
HWg-PUSH (SensDesk portal)	✘	✔
NetGSM (HWg-SMS-GW3)	✘	✔
Virtual Output (XML)	✘	✔
Pulse counter (SO pulse)	✘	✔
HTTPS	✘	✔
IPv6	✘	✔
MQTT (IoT portals)	✘	✔
Group Alarm	✔	✘

Versions and related products

Damocles2 2404
24× DI, 4× DO relay, stand-alone device

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

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

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

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

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