

# Damocles 2404i

24 dry contact inputs and 4 relays controlled over an IP network (Ethernet).  
Built-in web server, Box-2-Box mode, alarm alerts (e-mail and SNMP trap).

Damocles 2404i provides access to 24 binary inputs (Dry Contacts) and 4 relay outputs over an IP network. DI can be used as a 32-bit pulse counter (for S0 output).

Upon closing the selected inputs or their combination, Damocles sends an e-mail (2 recipients) or a SNMP trap (up to 4 recipients).

### Box-2-Box mode

A relay can be controlled by SNMP traps sent from another Damocles or Poseidon unit.

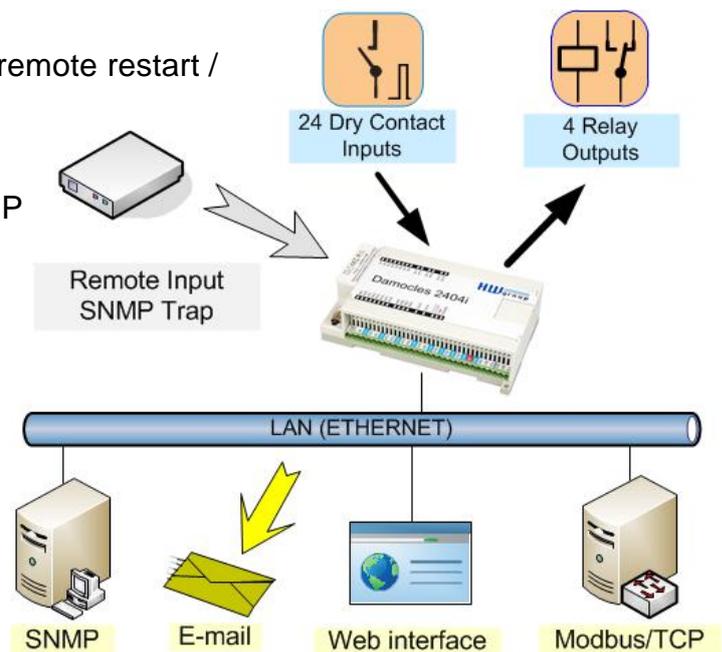
For instance, UPS state (contact closing) can be signaled over an IP network in a monitoring centre in another building, without any SW.



Dry Contact closed / opened	>>	SNMP trap and E-mail is sent
Digital Input 32bit counter	--	Modbus/TCP or SNMP
Input state change on device 1	>>	Switch outputs on device 2 over IP

## Application examples

- Remote rack monitoring**  
 Open door indication, circuit breaker states, remote restart / door unlocking
- Intelligent buildings**  
 Equipment monitoring, building control over IP
- SCADA systems**  
 Connection of external inputs to multiple systems / independent applications
- UPS / back-up generator monitoring**  
 Fuel level, diesel generator status, remote start over IP.
- IP-based security systems**
  - Surveillance systems (sensor states)
  - Equipment & Access Control status



## Basic features

- Installation in 10 minutes, no software is necessary
- Embedded WEB server / graphical UI
- 32-bits pulse counter on each DI with power-off value backup.
- **Control of outputs:**
  - WEB interface
  - Local condition (thermometer / other input)
  - Remote networked output (Box-2-Box mode)
- **Alarm alerts**
  - E-mail
  - SNMP trap
  - Activation of a remote output
  - PD Trigger application: SMS / Pop-Up window / Shutdown Windows / start an application
- Inputs and their states can be named (e.g. I4 “Tank 7” 1 = “full”, 0 = “empty”)
- Different alarm alert recipients can be specified for individual inputs (4 SNMP trap destinations, 2 e-mail destinations)

Damocles 2404i	
• <b>Digital Inputs</b> (dry contacts):	<b>24</b>
▪ Pulse counter 32bit	Yes
• <b>Outputs</b> (relay contacts):	<b>4</b>
▪ Box-2-Box mode	Yes
• <b>SNMP:</b>	<b>Yes</b>
• <b>Modbus/TCP</b>	<b>Yes</b>
• <b>E-mail alerts:</b>	<b>Yes</b>

### Applications in IT:

- Damocles works with more than **60 NMS systems** (LoriotPro, Nagios, SNMPc, HP OpenView, IBM Tivoli, MRTG, Intellipool, ...)
- **HWg SDK** (Software Development Kit): Libraries and examples (VB, C#, .NET, Borland / Microsoft C++, Borland Delphi, JAVA, PHP)

Protocols:
• <b>SNMP</b>
• <b>Modbus/TCP</b>
• <b>XML</b> (over HTTP)
• <b>E-mail</b>
• <b>SNMP trap</b>
• <b>NTP</b>

### Industrial applications:

- Works with most SCADA systems (OPC server and I/O server over Modbus/TCP)
- “Soft-PLC” Windows application for remote access to the units, measuring and control

## Accessories



PowerEgg



Damocles 1208



Door Contact



Damocles 2404i



Damocles MINI

<b>Damocles 2404i SET</b>	Damocles 2404i quick start set (includes AC adapter, CD, etc.)
<b>Damocles 2404i</b>	Damocles 2404i unit only, no accessories
<b>PowerEgg</b>	110/230V mains voltage sensing and control
<b>Damocles 1208</b>	Damocles 1208 unit only, no accessories (12DI, 8 DO – open collectors)