

# 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 (for contacts) and 4 relay outputs over an IP network. The 2404i model supports one temperature sensor connected to the RS-232 interface.

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

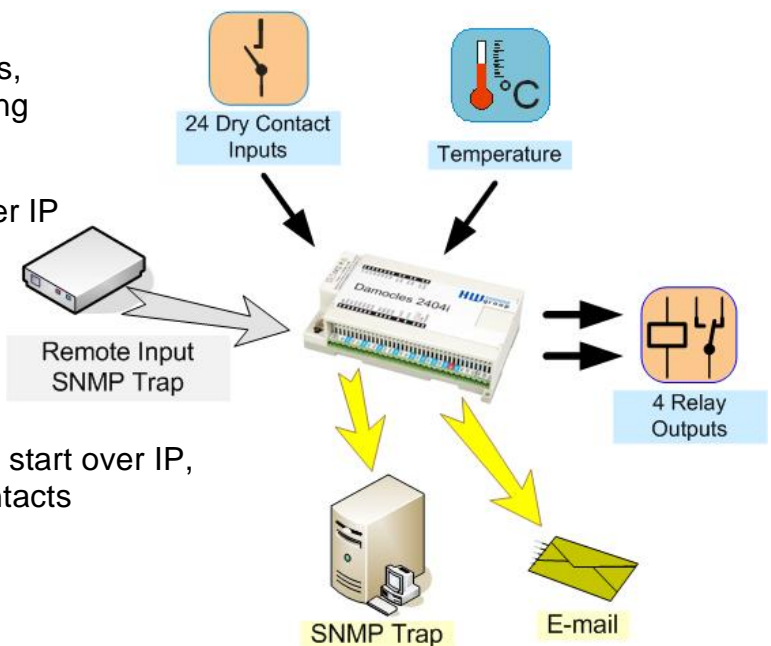
A relay can be controlled by SNMP traps sent from another Damocles or Poseidon unit. For instance, UPS state (contact closing) can be signaled over an IP network in a monitoring centre in another building, without any SW.



|                                |    |                                    |
|--------------------------------|----|------------------------------------|
| Contact closed / opened        | >> | SNMP trap and E-mail is sent       |
| Temperature too high           | >> | Specified relay is activated       |
| Input combination appears      | >> | SNMP trap and E-mail is sent       |
| Input state change on device 1 | >> | Switch outputs on device 2 over IP |

### Application examples

- Remote rack monitoring**  
 Open door indication, circuit breaker states, temperature, 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, monitoring of temperature and service contacts
- IP-based security systems**
  - Surveillance systems (sensor states)
  - Equipment status, access control systems



## Basic features

- Installation in 10 minutes, no software is necessary
- Embedded WEB server / graphical UI
- **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")
- Group alarms – e.g. "Warning - overheating" alarm is raised when Door = Closed, Temperature exceeds 40 °C for at least 5 minutes, AirConditioning = Off
- Different alarm alert recipients can be specified for individual inputs (4 SNMP trap destinations, 2 e-mail destinations)

| Damocles 2404i                     |            |
|------------------------------------|------------|
| • <b>Inputs</b> (relay contacts):  | <b>24</b>  |
| ▪ Pulse counter                    | Yes        |
| • <b>Outputs</b> (relay contacts): | <b>4</b>   |
| ▪ Box-2-Box mode                   | Yes        |
| • <b>Temperature sensors</b>       | <b>1</b>   |
| • <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**  
600 237



**Temp-232**  
600 051



**Door Contact**  
600 119



**Damocles 2404i**  
600 374



**Damocles MINI**  
600 250

|                         |                           |  |
|-------------------------|---------------------------|--|
| <a href="#">600 374</a> | <b>Damocles 2404i SET</b> | Damocles 2404i quick start set (includes AC adapter, CD, etc.) |
| <a href="#">600 341</a> | <b>Damocles 2404i</b>     | Damocles 2404i unit only, no accessories                       |
| <a href="#">600 237</a> | <b>PowerEgg</b>           | 110/230V mains voltage sensing and control                     |
| <a href="#">600 051</a> | <b>Temp-232</b>           | RS-232 temperature sensor for indoor use                       |