

# Damocles family

*Inputs and relay outputs over network via WEB, SNMP, XML and Modbus/TCP*

Damocles family products contain up to 32 inputs and outputs. You can monitor the state on the inputs and control the relay from your web browser or using the software communicating over standard network protocols.

Damocles unit alerts the defined changes of the states on the inputs by sending the E-mail (up to 4 recipients) or SNMP Trap (up to 4 IP addresses). Using SW you can log the online values and send Alarm alert via SMS (over GSM modem).

The inputs have pulse counters. You can directly connect impulse output from electrometer (for counter) and remotely over IP subtract the data about energy consumption (electricity, water, gas).

The difference between the models from Damocles family consists in the number of inputs and outputs. Some models contain serial port RS-232 for configuration and support the connection of temperature sensor (Temp-232) to this port.

- **up to 32 inputs** – 32 bits impulse counters
- **up to 32 relay outputs** controlled over network
- **up to 4 recipients** can be informed about input switch on/off (Alarm alert) by Email or SNMP Trap.
- **Alarm groups** contain the condition for Alarm alert and it enable transmit the part of intelligence into the device (for example, Alarm of sensor of opened window is activated only if the area is locked and security system is active).



model 2404



model MINI



model 0808e



model 0816

## Applications

- **Relay control over the network:** switch relay by three clicks on the mouse
- **Measurement of energy consumption over IP:** reading of the consumption in time from electrometers, flow meters, gas meters, ..
- **Monitoring of sensors:** temperature, opened door, motion detectors, dangerous gas, ..
- **SCADA systems:** connecting of inputs and external value counters, outputs for signalization
- **Remote control:** back-up power supply like UPS or Diesel engines, optionally other technologies over SNMP
- **Remote control over IP:** opening of entry points - doors, gates, pikes
- **System control:** fire (EZS), security (EPS) or Access systems
- **Intelligent buildings:** control of the conditions of elevators, air-conditioner, heating etc...
- **Camera systems:** connecting of external sensors (door contacts, PIR), device control over intuitive graphic WWW interface

## Basic features

- **up to 32 digital inputs** – (voltage, contacts)
- **up to 32 digital outputs** – NO and NC relay contacts
- **Impulse counters** for the inputs (32 bits)
- Ethernet 10 MBit, WEB server
- Supports **temperature sensor** - [Temp-232](#) (-10..+80°C)
- **No specialized SW necessary**
- **From web** you can check the current state of all inputs and **configure the outputs**.
- You can configure **Alarm state** for On and Off values of digital inputs. It's possible qualify Alarm alert by **length of time** (Alarm is alerted, for example, 3 seconds after the relay is switched off).
- **Conditions for Group Alarm**  
The condition is defined by AND group and OR group, to which particular inputs can be assigned. Group Alarm sends SNMP Trap and Email to defined recipients, furthermore it can control one of the outputs.
- Damocles uses open communication protocols (**SNMP, XML, Modbus/TCP**)



## Models from Damocles family

- **Damocles model 2404**  
is designed for the applications with the requirement of many inputs (24 galvanic isolated inputs, 4 relay outputs), supports one temperature sensor
- **Damocles model 0808e**  
Embedded Damocles version supports 8 TTL inputs and 8 TTL outputs, supports temperature sensor on the serial port. OEM module operates as the component which is placed on your PCB in your device.
- **Damocles model MINI**  
Mini Damocles for connecting of several inputs and outputs to IP network.
- **Damocles model 0816**  
Model for applications with the requirement of many outputs (16 relay outputs, 8 galvanic isolated inputs), supports one temperature sensor



| Damocles model            | 2404                  | MINI                  | 0808e      | 0816                   |
|---------------------------|-----------------------|-----------------------|------------|------------------------|
| <b>OID (ordering ID)</b>  | 600 231               | 600 250               | 600 241    | 600 284                |
| <b>WEB interface</b>      | Yes                   | Yes                   | Yes        | Yes                    |
| <b>Digital Inputs</b>     | 24<br>(Dry contacts)  | 4<br>(Dry contacts)   | 8<br>(TTL) | 8<br>(Dry contacts)    |
| <b>Digital Outputs</b>    | 4<br>(Relay contacts) | 2<br>(Relay contacts) | 8<br>(TTL) | 16<br>(Relay contacts) |
| <b>Temperature sensor</b> | Temp-232              | No                    | No         | Temp-232               |
| <b>SDK (SW dev. kit)</b>  | Yes                   | Yes                   | Yes        | Yes                    |
| <b>Power</b>              | 12V                   | 12V (jack)            | 5V         | 12V                    |