**UMARS - MINI**

Is a universal metering and regulation equipment.

**Technical Data**

The control PLC system is the central unit. The input signal is digital or analogue from a designated device. UMARS-MINI contains 6 digital, user-programmable inputs, and 8 analogue inputs.

Communication may be provided via Ethernet, DB-Net protocol, or via RS485, either by DB-Net protocol, or MODBUS. The optional input signals can be programmed in AMIT-DetStudio, which can be downloaded from the Internet for free.

The equipment is approved by the PHYSICAL-TECHNICAL TESTING INSTITUTE, a state enterprise in Ostrava-Radvanice, and it can be used in Zone 2 in an environment with explosion hazard of the gaseous atmosphere. The equipment meets the requirements of standards CSN EN 60079-0, ed.4, CSN EN 60079-11, ed.2, and CSN EN 60079-15, ed.3.

**UMARS-MINI wiring diagram**

The equipment may be installed and commissioned only by a qualified employee who has to be knowledgeable about the methods of protection against explosion, and regulations and provisions for devices in areas with explosion hazard.
### UMARS - MINI

#### CABINET TECHNICAL DATA

<table>
<thead>
<tr>
<th>Dimension (w/h/d)</th>
<th>310x400x110 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (approx)</td>
<td>9.5 kg</td>
</tr>
<tr>
<td>Material</td>
<td>Aluminium</td>
</tr>
<tr>
<td>Protection</td>
<td>IP54</td>
</tr>
</tbody>
</table>

#### EQUIPMENT TECHNICAL DATA

- **Can be used in Zone 2 in an environment with explosion hazard of the gaseous atmosphere**
  (meets the requirements of standards CSN EN 60079-0, ed.4, CSN EN 60079-11, ed.2, and CSN EN 60079-15, ed.3)

- **II 3(2)G Ex nA nC [lb Gb] IIB T4 Gc**
  - CE 1026

- **Operating Temperature**
  - From -30°C to +60°C

- **Power Voltage**
  - 230V

- **Rated Current**
  - 10A

- **Frequency**
  - 50-60Hz

- **Analog Inputs**
  - 8x 0-10V / 0-5V / 0-20mA / Ni1000

- **Analog Outputs**
  - 2x 4-20mA

- **Protection of Analog Inputs**
  - Diodes + Resistor 10kΩ

- **AC/DC Universal Digital Inputs**
  - 6x 24V AC/DC

- **Intrinsically Safe Digital Outputs**
  - 4x 24V/0.6 A (2A) (switching relay)

- **Outputs with Solenoid**
  - 2x 205V DC (0.6A)

- **230V Digital Outputs**
  - 2x 230V (2.5A) (switching relay)

- **Protection of Digital Inputs and Outputs, Analog Outputs**
  - Transil 600W

- **Display**
  - VFD green, 4x20 characters

- **Galvanic Separation of Analog Inputs**
  - No

- **RAM Backup**
  - 5 years

- **RAM Memory**
  - 1MB

- **Programming**
  - DetStudio (NOS)

- **Wi-Fi**
  - Stand. 802.11 b/g – connector RJ45

- **Communication Channel**
  - Galvanic Separation: Yes
  - Transmission Speed: 10/100Mbps
  - Connector: RJ45

- **RS485-Db-Net/Modbus-RTU**
  - Transmission Speed: 9600, 19200, 38400, 57600 Bd
  - Connector: WAGO s GO

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**UMARS-Mini in the odorisation assembly**