

## ADQUIO IOS EXPANSION MODULE

Input and output expansion module for adquio pro and lite



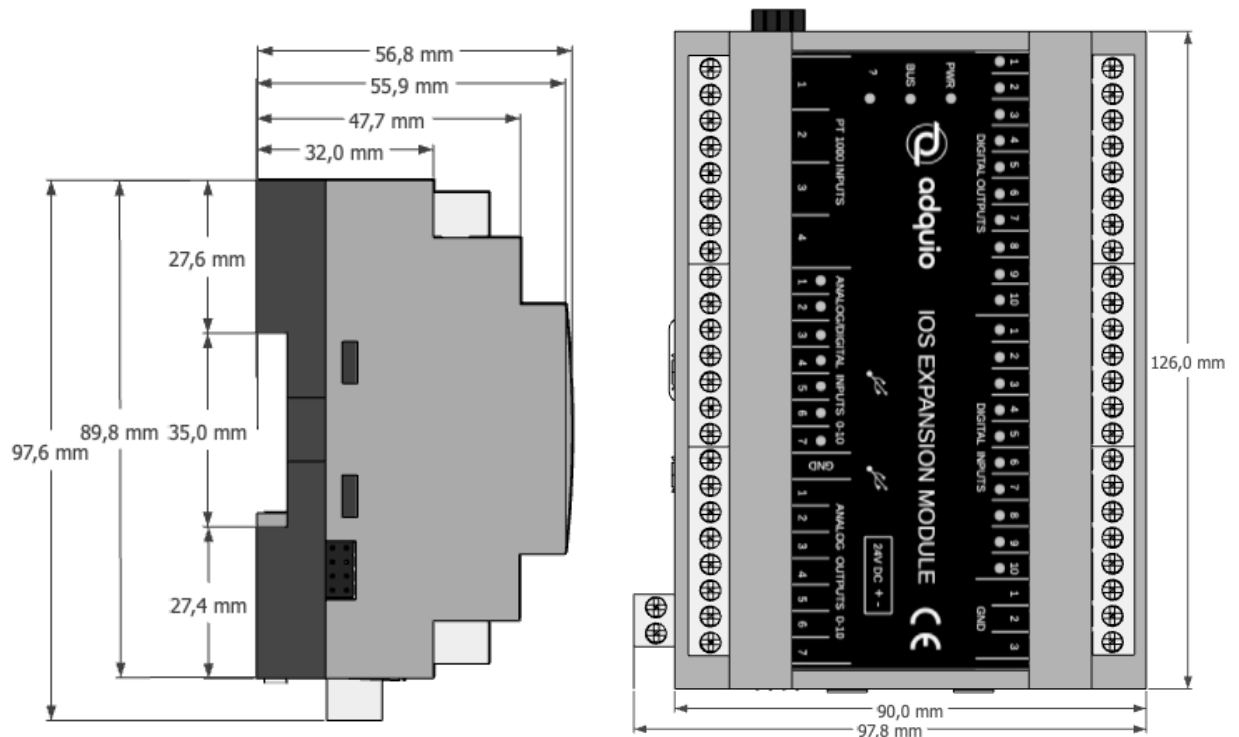
### 1 Ordering information

| Reference                       | Description                                                                                                                                                  | Life cycle * |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| ADQ-EXPIOS-2USB-4PT / 10/10/7/7 | Adquio IOs expansion module, module expansion for adquio pro and lite with 10 DO, 10 DI, 7 AO, 7 AI, 4 PT1000, 2 USB, 2 expansion ports on the same DIN rail | Active       |



\* For planning and commissioning of new installations use modules in Active state only

## 2 Dimensions



## 3 Technical data

### sketterminal

| Parameter       |                                     | Value                                 |
|-----------------|-------------------------------------|---------------------------------------|
| Process voltage |                                     |                                       |
|                 | Connections                         | Removable Block 5.08 Pitch 2 contacts |
|                 | Nominal value                       | 24 VDC                                |
|                 | Maximum supported                   | 28 VDC                                |
|                 | Protection against voltage reversal | Yes                                   |
|                 | Nominal protection fuse up to       | 3 A                                   |
| Consumption     |                                     |                                       |
|                 | From a 24V power supply             | 10 mA                                 |

|  |                                      |                                                 |
|--|--------------------------------------|-------------------------------------------------|
|  | Maximum consumption                  | 20 mA + Consumption of loads on digital outputs |
|  | Maximum consumption peak at start-up | 12 mA                                           |


**CAUTION!**

Exceeding the maximum power supply voltage for process or supply voltages could cause irrecoverable damage to the system. The system could be destroyed.


**CAREFUL!!**

Improper connection cables cause overheating at the terminals. Acquio pro, they can be destroyed if the wrong cable type, cable size or cable temperature rating is used.

### 3.1 Technical data of the analog inputs

| Parameter              | Value                                          |
|------------------------|------------------------------------------------|
| Number of inputs       | 7                                              |
| Connections            | Removable terminal block 5.08 Pitch 7 contacts |
| Range                  | 0-10 V                                         |
| Resolution             | 12 bits                                        |
| Input signal indicator | No                                             |
| Overvoltage protection | Yes                                            |

### 3.2 Technical data of the analog inputs (if are used as digital)

| Parameter        | Value                                          |
|------------------|------------------------------------------------|
| Number of inputs | 7                                              |
| Connections      | Removable terminal block 5.08 Pitch 7 contacts |
| Input signal     | 24 VDC                                         |

|  |                        |                       |
|--|------------------------|-----------------------|
|  | Signal for 0           | from 0 to 5V          |
|  | Signal for 1           | > 5.1V > = 24V        |
|  | Input signal indicator | Yes, led on top panel |
|  | Overvoltage protection | Yes                   |

### 3.3 Technical data of the analog outputs

| Parameter               | Value                                          |
|-------------------------|------------------------------------------------|
| Number of outputs       | 7                                              |
| Connections             | Removable terminal block 5.08 Pitch 7 contacts |
| Maximum load            | 10 mA                                          |
| Resolution              | 12 Bits                                        |
| Range                   | 0-10V                                          |
| Output signal indicator | No                                             |
| Overvoltage protection  | Yes                                            |

### 3.4 Technical data of the PT1000 inputs

| Parameter              | Value                                          |
|------------------------|------------------------------------------------|
| Number of inputs       | 4                                              |
| Connections            | Removable terminal block 5.08 Pitch 8 contacts |
| Resolution             | 15 Bits                                        |
| Adjustable by software | Yes                                            |

### 3.5 Technical data of digital outputs

| Parameter              | Value                                           |
|------------------------|-------------------------------------------------|
| Number of outputs      | 10                                              |
| Connections            | Removable terminal block 5.08 Pitch 10 contacts |
| Voltage                | 24 V                                            |
| Maximum load           | 2 A                                             |
| Input signal indicator | Yes, led on top panel                           |
| Overvoltage protection | Yes                                             |

### 3.6 Technical data of digital inputs

| Parameter              | Value                                           |
|------------------------|-------------------------------------------------|
| Number of inputs       | 10                                              |
| Connections            | Removable terminal block 5.08 Pitch 10 contacts |
| Activation voltage     | 3-24 V                                          |
| Input signal indicator | Yes, led on top panel                           |
| Overvoltage protection | Yes                                             |

## 4 System data

### 4.1 Environmental conditions

| Parameter   | Value                                                |
|-------------|------------------------------------------------------|
| Temperature |                                                      |
| Operation   | 0 ° C ... + 60 ° C (Horizontal mounting on DIN rail) |
| Storage     | -40 ° C ... + 70 ° C                                 |
| Transport   | -40 ° C ... + 70 ° C                                 |
| Humidity    | Max. 95% non-condensing                              |

|              |           |                     |
|--------------|-----------|---------------------|
| Air pressure |           |                     |
|              | Operation | > 800 hPa / <2000 m |
|              | Storage   | > 600 hPa / <3500 m |
| Insulation   |           | IP20                |

## 4.2 Mechanical data

| Parameter                          | Value                          |
|------------------------------------|--------------------------------|
| Mounting                           | Horizontal                     |
| Protection level                   | IP20                           |
| Housing material                   | ABS UL-94-HB Dark gray         |
| <b>Mounting alternatives</b>       |                                |
| Rail DIN according to DIN EN 50022 | 35 mm, depth 7.5 mm or 15 mm   |
| Mounting with screws               | Screws with a diameter of 4 mm |
| Tightening torque                  | 1.2 Nm                         |

## 4.4 Communications

| Parameter |                                         | Value |
|-----------|-----------------------------------------|-------|
| USB       |                                         |       |
|           | Number                                  | 1     |
|           | Technology                              | 2.0   |
| Lateral   |                                         |       |
|           | Number                                  | 2     |
|           | expansionsMaximum devices per expansion | 4     |
|           | Total direct expansions                 | 8     |

## 4.5 Certifications

| Parameter         | Value                                                                                                                      |
|-------------------|----------------------------------------------------------------------------------------------------------------------------|
| Safety and Health | EN ISO 13849-1: 2015<br>EN ISO 13849-2: 2012<br>EN 62061: 2005 + A1: 2013 + A2: 2015<br>EN 60950-1: 2006<br>EN 62311: 2008 |
| EMC               | EN 61000-6-4: 2007 + A1: 2011<br>EN 61000-6-2: 2005<br>ETSI EN 301 489-1 v2.2.0<br>ETSI EN 301 489-17 v3.2.0               |
| RoHS              | EN 50581: 2012                                                                                                             |

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