

# Quick-start installation guide for I/O1000 I/O module

## Safety instructions

**This quick-start guide does not replace the installation manual for the I/O1000 I/O module. Safe use of the module is ensured only by reading the installation manual.**

**Additional important information is provided in the installation manual for the I/O1000 I/O module. The manual can be found either on the USB memory stick or on the INFICON website. The USB memory stick is included with the shipment of the I/O module.**

### Intended use

The I/O module is a device interface between the MSB box of the mass spectrometer module LDS3000 and an external controller, for example.

- ▶ Install, operate and service the unit only in compliance with the installation manual.
- ▶ Comply with the limits of application.

### User requirements

- ▶ Operate and install the unit only if it is in perfect working order and as intended, in a safety-conscious manner and fully aware of dangers, in compliance with this manual.
- ▶ Fulfill and ensure compliance with the following regulations:
  - Intended use

- Generally applicable safety and accident prevention regulations
- International, national and local standards and guidelines
- Additional provisions and regulations that are specific to the unit

- ▶ Use only original parts or parts approved by the manufacturer.
- ▶ Keep the installation manual available at the operating site.
- ▶ All work must be performed only by technical specialists who have been trained on the unit.
- ▶ Allow personnel in training to work with the unit only under the supervision of technical specialists.
- ▶ Make sure that the authorized personnel have read and understood this manual and all other applicable documents, especially the information on safety, maintenance and repairs, before starting work.
- ▶ Define responsibilities, authorizations and supervision of personnel.

### User requirements

- ▶ Read, observe and follow the information in the installation manual and the working instructions created by the owner, especially the safety instructions and warnings.
- ▶ Perform all work based on the complete manual.

## Mounting of I/O module

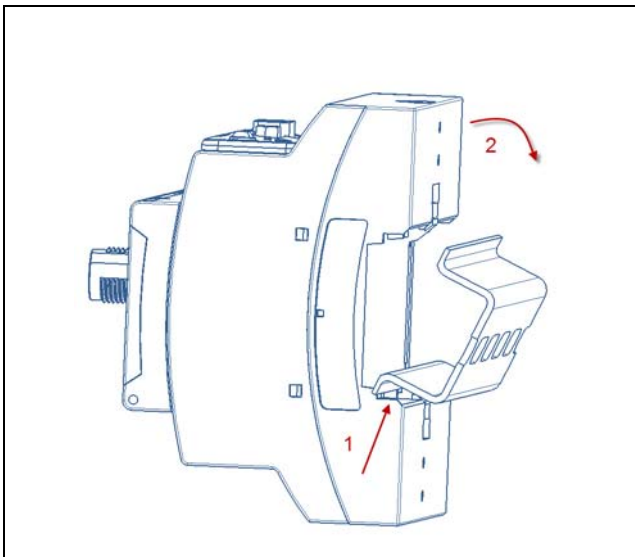


Fig: 1 Mount I/O module on DIN-TS35 top hat rail

× DIN-TS35 top hat rail

- 1 Hook unit on top hat rail at bottom.
- 2 Press unit onto top hat rail at top.

## Connecting I/O module with leak detector

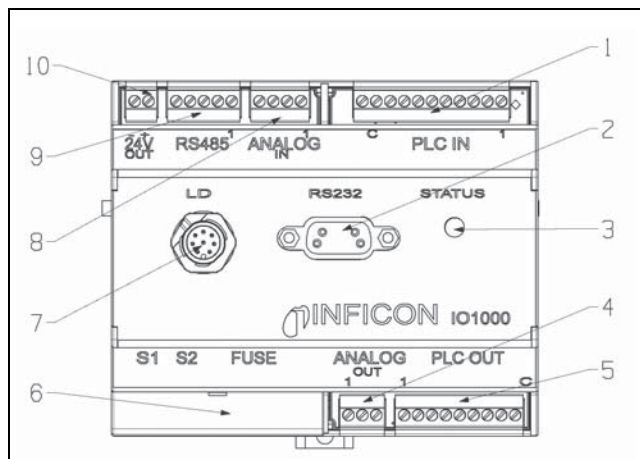


Fig: 2 Rear view of I/O module

- |   |            |    |                 |
|---|------------|----|-----------------|
| 1 | PLC IN     | 6  | S1, S2 and FUSE |
| 2 | RS232      | 7  | LD              |
| 3 | STATUS     | 8  | ANALOG IN       |
| 4 | ANALOG OUT | 9  | RS485           |
| 5 | PLC OUT    | 10 | 24V OUT         |

The I/O module communicates via data cable with the leak detector and is supplied with voltage by the data cable.

× Data cables from INFICON

- 1 Connect I/O module (connection LD) via data cable with leak detector.
- 2 Connect I/O module via desired interfaces with external controller:
  - RS232 (RS-232 interface)
  - RS485 (RS-485 interface)
  - ANALOG IN (analog input)
  - ANALOG OUT (analog outputs)
  - PLC IN (digital inputs)
  - PLC OUT (digital outputs)

## Description of the layout

see Installation Manual for I/O module, jiqc10.

## FUSE and DIP switch S1, S2 ⑥

Fuses for digital outputs and DIP switches (under the cover)

Fuses for digital outputs 1 ... 4 and 5 ... 8:  
2 x 0.75 A (Schurter: 7010.9800.xx)

DIP switch S1	LDS 3000	HLD 6000	Contact			
			4	3	2	1
Factory setting (default value of the interface protocol by the leak detector or control unit)	•	•	0	0	0	0
ASCII protocol	•	•	0	0	1	0
LD protocol	•	•	0	0	1	1
Binary protocol	•		0	1	0	1
LDS1000 protocol	•		0	1	1	0
Normal protocol		•	0	0	0	1
Simple protocol		•	0	1	0	0

1 = ON, 0 = OFF

DIP switch S2	Contact			
	4	3	2	1
Activate boot mode for software update	X	+	0	0
Disable bus terminator 120 Ω for RS-485	1	X	0	0

1 = ON, 0 = OFF, + = switching from OFF to ON during operation,  
X = random