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.
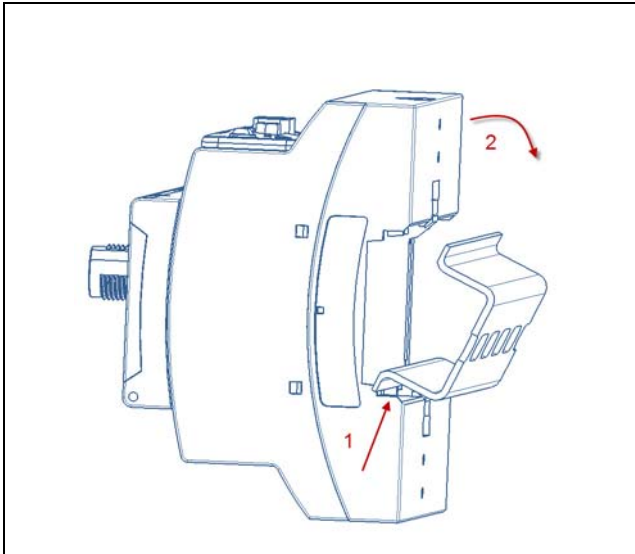
Mounting of I/O module

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.

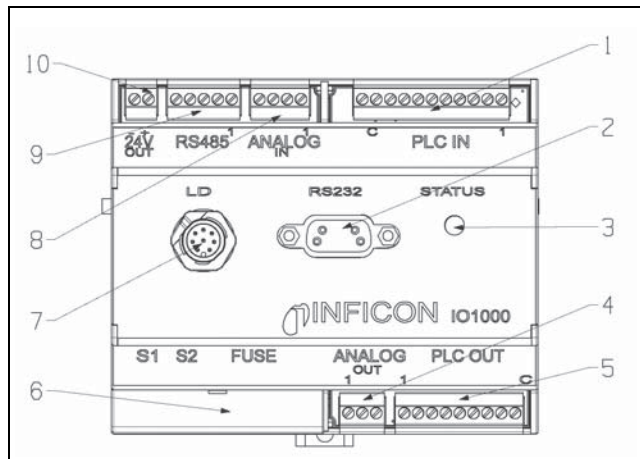## Connecting I/O module with leak detector

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 detectorand 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