

PERIDECT

Manual Sheet (for SIEZA authorized partners only)

PERIDECT-PVJ evaluation unit

The evaluation unit processes the signals from the single detectors and evaluates the alarm for the single detectors by the mean of the internal algorithm. Furthermore it provides the communication with PIO – Input/Output Modules.

PDS Detection Sensors and PIO – Input/Output Modules are connected with the evaluation unit by the two-core cable. All the components are connected parallel.



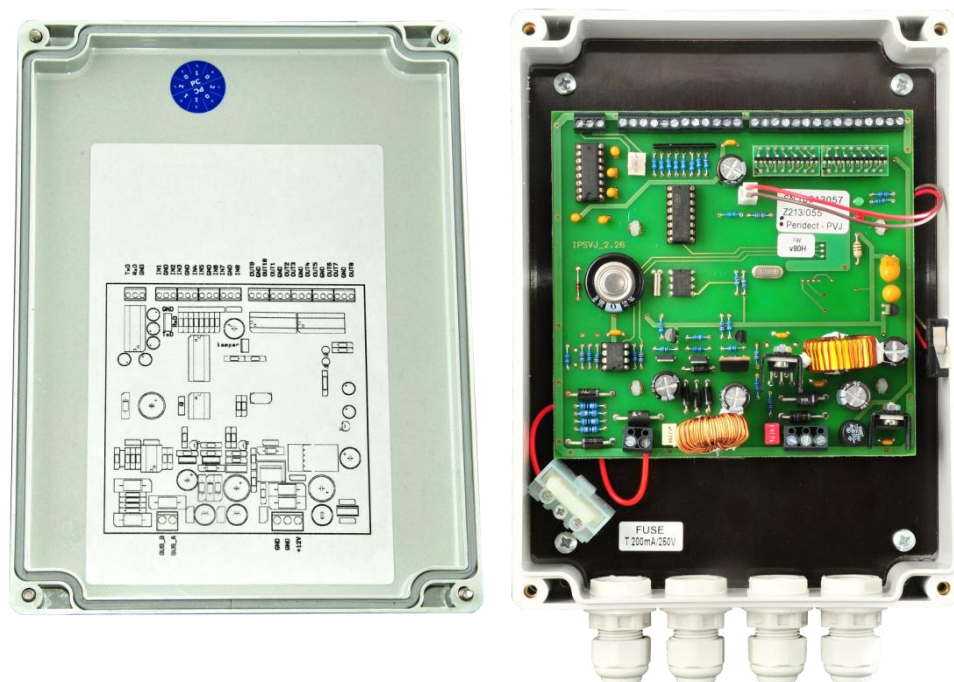
Picture 1: PERIDECT-PVJ evaluation unit

PVJ unit itself is equipped by eight double balanced inputs (balancing resistors 2 x 2,2 k Ω) which enable to connect the close equipment without need of PIO Modules use (it is possible to connect e.g. output of the magnet and IR barrier serving for the detection of opening and

climbing over the gate close to PVJ unit), securing the space with the PVJ unit (tamper contact by the switchboard, magnetic contacts of the doors, windows, motion sensors in the rooms) and introducing the logical inputs for operating the equipment on the line (e.g. the switch operating the lighting located by the fence via PIO Module output).

The PVJ unit is equipped by ten programmable outputs for PERIDECT® integration into other systems, e.g. security central switchboards and CCTV systems. It is possible to assign the status (alarm) of any detector or logical statuses of PIO Module inputs and eight inputs of the PVJ unit to these outputs. Furthermore it is possible to send information about the status of the PVJ unit cover tamper and information about the failure on the detection line (short circuit, lead-in and missing/not communicating detector or PIO Module) to these outputs. PVJ outputs are using the semiconductor switches. We do not recommend to use higher voltage than 30 Vss and switching current 0,25 A. We recommend using the external relay module RM which enables switching the higher voltage and current values and galvanically separates the PVJ outputs from the inputs of the connected equipment.

The evaluation unit is placed in the plastic casing suitable also for the outside installation with IP 65 protection. It is equipped by the bushing for cabling input and we install it in the outside environment always with the bushings downwards. The cover can be removed after unscrewing four screws in the corners, removing the cover is signalled by the micro switch serving as tamper.

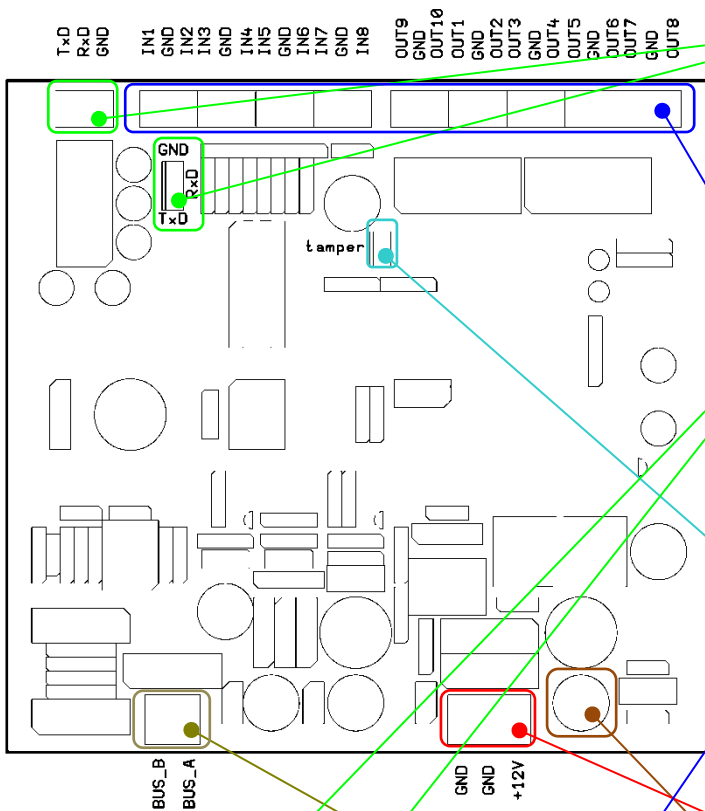


Picture 2: PVJ with removed cover

PVJ standard version

Up to 246 PERIDECT-PDS detectors (addresses from 1 to 246) and 8 PERIDECT-PIO input/output modules (addresses from 247 to 254) can be connected to one evaluation unit.

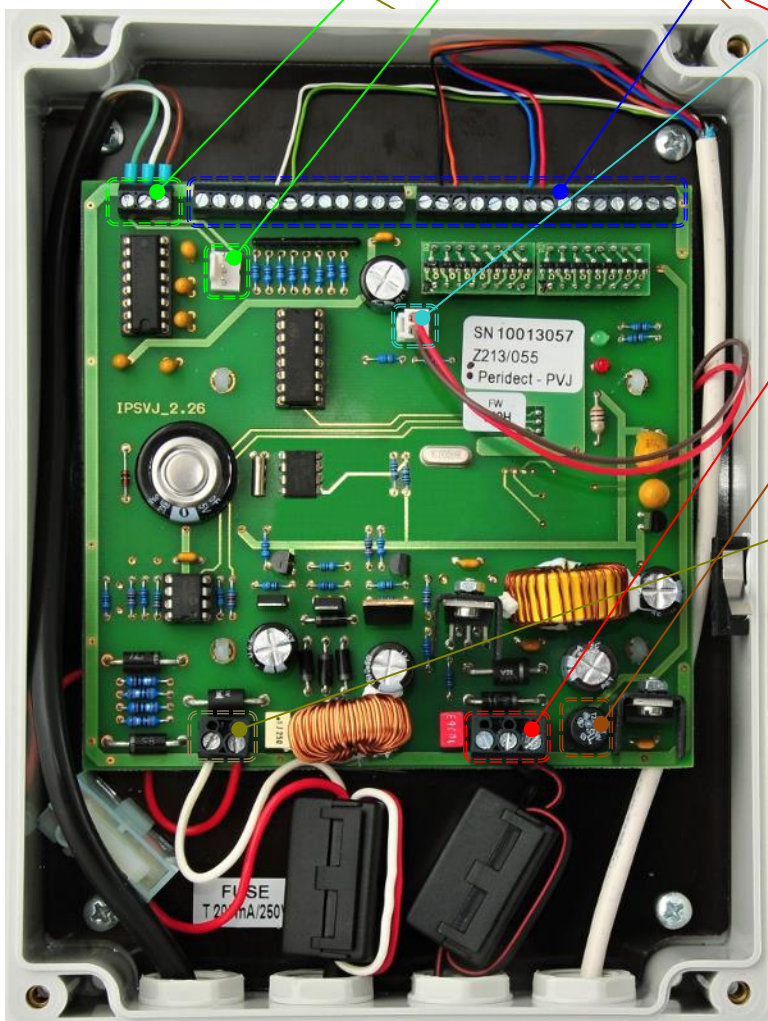
Connecting PVJ Terminal Block



Data line RS 232 – leads in parallel in two points: as the system connector for servicing, and on the terminal block with screwing pins for the permanent installation. Only one line can be connected at the same time.

I/O Terminal Block – inputs and outputs connection uses the connection with the common pin – a common negative pole, for a simple connection taken out always between two inputs/outputs.

Tamper Terminal Block – connection of an external protective contact (tamper) from the assembly box or other cover.



Supply Terminal Block – supply voltage 9 – 16 VDC

Fuse – T2,5A/250V

BUS Terminal Block – for connecting data bus with sensors. Necessary to adhere to the connection polarity of all components (PDS, PIO, PP). BUS_A red, BUS_B white.

PVJ LED signalization

Blinking red LED signals running processor, so the connection to the power supply as well.

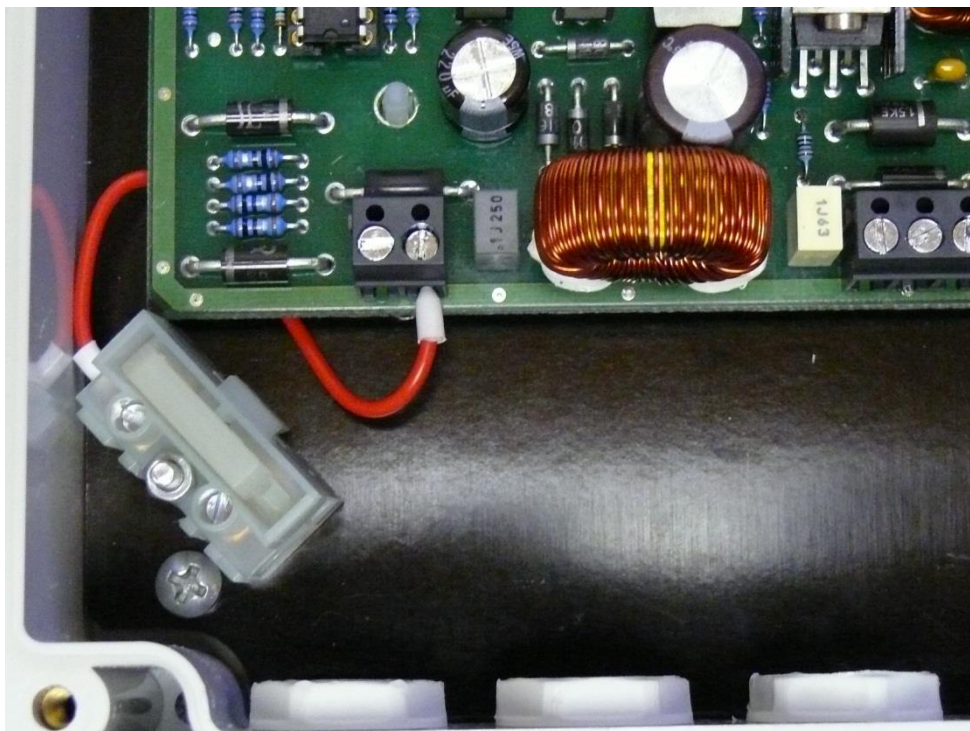
Blinking green LED signals communication on the data bus RS232, when communicating to configuration software it blinks each 0,5 s, when communicating to other equipment, e.g. graphic structure, can blink irregularly.

PVJ unit protection

The fuse T2,5A/250V works as a protection against the false connection of the poles of the power supply of the unit. The fuse is interrupted when connecting the opposite voltage polarity.

BUS Terminal Block uses an electronic protection against the short circuit of the conductor of the line BUS_A and BUS_B between (red – white) – in the case of the short circuit the bus is automatically disconnected and after removing the short circuit the bus is again functional.

The protection fuse against the short circuit of the plus conductor (BUS_A - red) of the line against ground is located separately outside the board and is connected from the production with the output BUS-A.



Picture 3: Detail of the PVJ protection fuse

In the case of the exchange of the polarity of the line BUS_A and BUS_B conductors (red – white) the unit is not damaged, only the connected sensors are not loaded. In the case of the false connection of the power supply to terminals of the lines BUS_A a BUS_B the unit is not damaged in the most of the cases thanks to high inside resistance of these inputs.