

PD 951 General purpose LF Dual Band RFID reader

- High performance Dual band RFID Reader 125 kHz / 134.2 kHz.
- Supported Transponder types:
ISO 11784 and 11785 (read only), EM 4102 (read only).
- The PD 951 is capable of providing excitation signals to, and receiving and decoding signals from, HDX and FDX-B transponders.
- The module complies with ISO 11784 in terms of a having a 64-bit dataformat, for official registration and identification of - Country code, National farm code, Animal No.
- Automatic self-tuning for simple and easy installation - no maintenance or adjustment required.
- Advanced internal self-testing.

APPLICATION

In order to meet the demands for real time identification and registration, PROCES-DATA has developed an electronic RFID Reader module using the latest transponder technology.

The PD 951 is a general purpose LF Dual Band RFID reader.

Application Examples:

- Identification of livestock animals.
- Building automation / Access control.
- Waste management.
- Vehicle control.
- Warehousing and logistics.
- Cargo terminals.
- Tracking containers and pallets in the supply chain.
- Specific Features

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Read range: 10 – 150 cm.

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- no maintenance or adjustment required.
Advanced internal self-testing.
Wide power supply range.
Very low power consumption.
Wide temperature range.

SPECIFICATIONS

Operation frequency: 125 kHz / 134.2 kHz
Transponder: Read only
Transmission mode: HDX, FDX
Read range: HDX and FDX-B, 10 – 150 cm.
(Depends on antenna design, type of transponder used and surroundings)
Antenna tuning range: 208 μH +/- 5%
Cable length from antenna to PD 951: max. 10 meters
(Depending on antenna design)

The PD951 module is not producing any radio field, 0 dBμV/m (0 dbu) but it is the loop antenna, which creates the radio frequency field.
The field strength is dependent of the antenna construction. Please see the maximum field strength in the antenna data sheet.

Antenna
Inductance nom.: 208 μH

Power supply
Power supply DC: nom. 24.0 V, min. 18.0 V, max 32.0 V
Ripple: max. 5%

Power consumption @ 24Vdc
Scanner OFF: max. 55 mA
Scanner ON: max. 420 mA
Current requirement at power up: max. 420 mA

Temperature
Operating temperature: -25 °C – 70 °C
Storage temperature: -40 °C – 85 °C

Humidity
Relative humidity: max. 95%

EMC
EN 61000-6-2, EN 61000-6-3

Vibration
Test method: IEC 60068-2-6
Frequency range: 2-100 Hz
Frequency/amplitude: 2-10 Hz : +/- 5.0 mm, 10-100 Hz: +/- 2g
Sweep rate: max. 1 octave/min
Number of axes: 3 mutually perpendicular Analog input

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MECHANICAL DETAILS

The PD 951 module is housed in a black plastic case. The module is designed for plugging directly on to a mounting rail (EN 50 022 / DIN 46277).

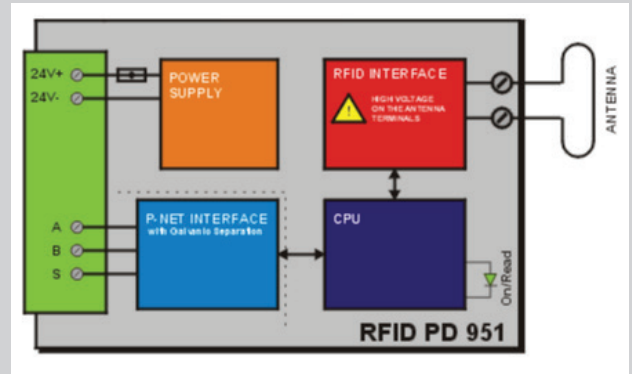
The module incorporates two snap connectors, which provide the terminals for field connection, power and communications.

The module may be DIN rail mounted for a panel mounted configuration and contained in a sealed box designed for the plant environment. It may be removed for service, without interfering with operational activities on the rest of the network.

Dimensions: (WxHxD): 130.0 x 112.0 x 50.9 mm
 Case material: Black NORYL GFN (injection moulded)
 Front foil: Polycarbonate
 Back plate: Black anodized aluminium
 Weight: 400 gram

Connection of antenna

There is HIGH VOLTAGE on the antenna terminals and it is therefore important that the 24 V DC is disconnected before the antenna is connected to the module.



MECHANICAL (mm)

