PROCES-DATA

PD 947, GPS Navigation Receiver

- High sensitivity GPS receiver for fast and accurate positioning
- High quality GPS receiver that can track up to 22 satellites
- Exceptional Cell/PCS-Band rejection
- Multi-Tone Active Interference Canceller
- Ephemeris prediction to achieve faster cold start
- Fast Time To First Fix at low signal level
- The accuracy is improved by using correction data from: SBAS (WAAS, EGNOS, GAGAN, MSAS), QZSS or DGPS (RTCM)
- Programmable in COPP
- Designed for rugged operating conditions, waterproof to IP67
- P-NET via RS485 or Ethernet

APPLICATION

The PD 947 GPS Navigation Receiver has been designed as a general purpose P-NET GPS Navigation Receiver. The PD 947 features a high quality GPS receiver with superior sensitivity and performance. PD 947 features exceptional rejection at Cell/PCS-Band frequencies.

The device is programmable in COPP, which means that a part of, or complete automation application can be built and downloaded by the user. The program can make use of ready-made components to control and monitor any process or machine application, both locally in the device but also via the network interacting with other devices.
Designed to withstand rugged operation conditions and suitable to be used in any indoor/outdoor environment.

Typical application areas:
- Milk collection systems
- Agriculture systems
- Fleet tracking (tracking, identification, registration of supplier/consumer and destination)

PD 947 is relevant in all applications where a positive identification of the supplier/consumer by use of an exact GPS position is required. Additional security is achieved since the location of each transaction can be recorded.

PD 947 holds the UTC date and time. As soon as the first valid GPS packet has been received, the update of date and time continues until the device is reset. The time continues even if the signals from the satellites are interrupted.

When PD 947 is located in a network together with other devices that are programmable in COPP, PD 947 will keep all the devices updated with the correct UTC time and date.

The PD 947 has 2 communication interfaces: A standard P-NET RS485 and a P-NET Ethernet (LAN 10/100 Mbit/s) communication interface.

The PD 947 GPS Navigation Receiver is equipped with one red LED status indicator, which is mounted in the top of the device. The status indicator can be configured to various functions, e.g. after power up it can be detected that the GPS is operational and the LED status indicator automatically turns off after a defined period of time.

SPECIFICATIONS

Power Specifications
Supply voltage nominal...24 VDC
Supply voltage ....12 - 32 VDC
Typ. power consumption (@ 24 VDC) ....0.5 W

Environmental Conditions
Operation temperature....................................-25 °C to +70 °C
Storage temperature......................................-40 °C to +85 °C
Protection class IP67

![PROCES-DATA logo] **PROCES-DATA**

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PD 947

Pin RJ45	Signal name	T568B Pair	T568B Colour	
1	TX+	2		white/orange stripe
2	TX-	2		orange solid
3	RX+	3		white/green stripe
4	Power supply -	1		blue solid
5	Power supply +	1		white/blue stripe
6	RX-	3		green solid
7	"A", P-NET RS485	4		white/brown stripe
8	"B", P-NET RS485	4		brown solid
Shield	"S", P-NET RS485	shield		shield

PD947
GPS Navigation Receiver

1x ETHERNET
1 x P-NET (RS-485)

P-NET, RS485 and Power

Connecting the PD 947 to P-NET at RS485 requires that the selected cable is a shielded twisted pair (STP).
The shield is connected to the 'S' terminal.

STATUS LED
RESET

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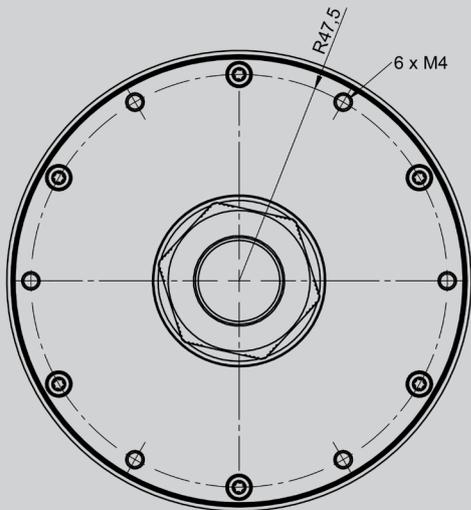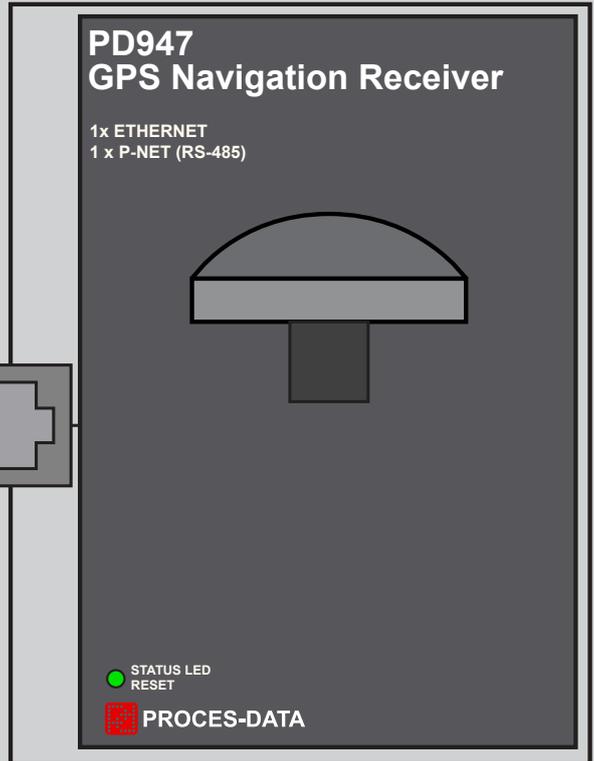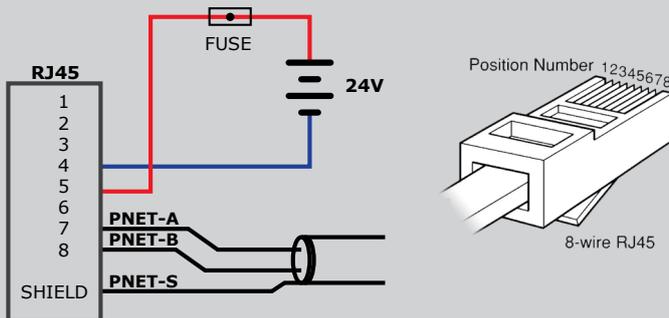
Mechanical Details and Mounting

From factory, the PD 947 comes with a M25 gland mounted in the centre of the unit. The PD 947 can easily be mounted by the use of six metric M4 screws.

PD 947 is equipped with a RJ45 plug inside the cable gland. This connector is used for both power, P-NET RS485 and Ethernet. The RJ45 male connector can easily pass through the M25 gland and sealing nut.

The gland seal can be opened and attached the cable and placed just below the RJ45 male connector before assembling. Removing the M25 gland enables the PD 947 to be mounted on a pipe or bracket.

MECHANICAL (mm)
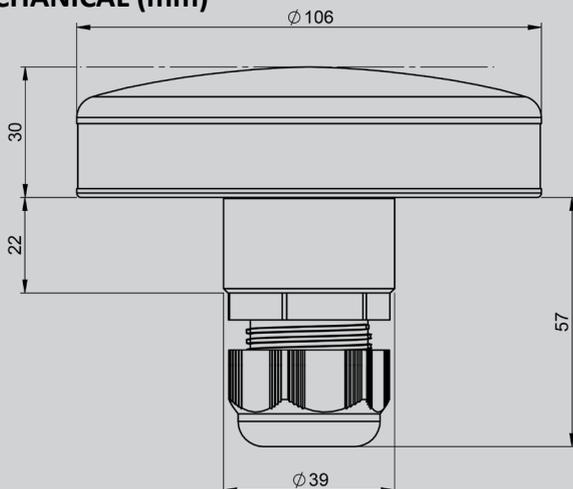
Mechanical Specifications

Dimensions (HxWxD)...................................87 x Ø106 x 30 mm
Weight approx...400 g
Vibration ....IEC 60068-2-6 : 2007

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