GNSS25N

General

The GNSS receiver GNSS25N can directly be connected to a signal converter and data logger SICOLOG and signal converter SICO3. It forwards the NMEA messages GGA, VTG and ZDA of the integrated GNSS receiver unit with a refresh rate of 25 Hz.

Figure 1: GNSS receiver GNSS25N.

Scope of Delivery

The scope of delivery of a GNSS receiver GNSS25N includes:

- GNSS receiver GNSS25N
- GNSS antenna for GNSS25N

Pin Assignment

The socket cable is of type Binder Series 719. The socket pins are (in frontal view) numbered clockwise, starting with the first pin after the notch.

POWER/RS232: This socket cable connects the GNSS25N with the voltage supply and the serial interface for NMEA output. This cable is compatible to SICOLOG/SICO3, and can directly be connected to the corresponding RS232 connection.

Pin	Assignment
1	n/a
2	Ground
3	Serial receiving wire to program and configure the GNSS receiver unit.
4	Voltage supply (5 V DC to 16 V DC; inverse-polarity protected)
5	Serial transmitting wire to transmit the NMEA messages with 115200 baud.

LNA: The LNA-connector is of type SMA and connects the GNSS25N with an active GNSS antenna.

The LNA connector is temporarily short circuit protected. The active GNSS antenna is supplied with 3.3 V DC.

Technical Data

Property	Description
Box dimensions:	72 mm × 23 mm × 8 mm
Voltage supply:	5 V DC to 16 V DC
Typical current consumption:	70 mA
Typical power consumption:	0.8 W at 12 V DC
Refresh rate:	25 Hz
NMEA output:	VTG, GGA and ZDA messages with 115200 baud
Status LED:	**Green permanent light:** no GNSS data. **Green blinking:** valid GNSS data.
GNSS receiver unit:	NEO-M9N (from u-blox)

GNSS receiver unit (according to u-blox):

Property	Description
Chip set:	u-blox NEO-M9N
Sensitivity:	Tracking & navigation: -167 dBm Reacquisition: -160 dBm Cold/warm start: -148 dBm Hot start: -159 dBm
First sample:	After 2 s (and in worst case after 42 s)
Speed accuracy:	0.05 m/s (50 % @ 30 m/s)
Direction accuracy:	0.3°
Position accuracy:	2.5 m CEP

See also
https://www.u-blox.com/en/product/neo-m9n-module