

*Thank you for choosing a NIVELCO instrument.
We are sure that you will be satisfied throughout its use.*



HART MODEM

SAT - 303
RS 232 / HART modem

1. APPLICATION

SAT-303 HART MODEM provides interface connection between field devices (slaves) with HART and IBM compatible PC.

Due to the test cable terminating in clips there is no need to disconnect the signal (4 ... 20 mA) cable for using the modem.

2. TECHNICAL DATA

Típus	SAT - 303
Operating temperature	-25°C ... +50°C
Enclosure	Polystyrol
Connection to PC	DB-9 – RS232
Cable length to PC	0, 2 m
Connection to HART field	KLEPS 2
Spiral cable length to HART field	0, 6m (1,1m)
Ingress protection	IP 20
Electrical protection	Class III
Weight	0,1 kg

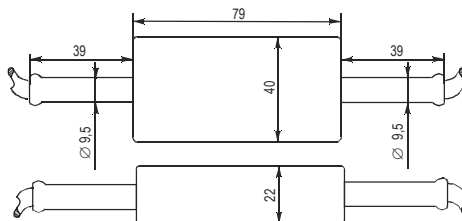
2.1 ACCESSORIES

1 – 1 pc each User's Manual, Warranty

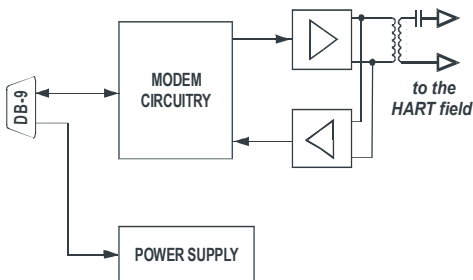
2.2 ORDER CODE

SAT-303 HART MODEM

2.3. DIMENSIONS



2.4 BLOCK SCHEME



3. COMMUNICATION

The SAT-303 is fully conform to the HART communication standards (up to HART FSK-5x revision) thus the modem supports any software provided it complies with data of the table for **Serial Port Connection (DB9) of the modem.**

USER'S MANUAL



Manufacturer:
NIVELCO Process Control Co
1043 Budapest, Dugonics u. 11.
Telephone: (36-1) 369-7575 Fax: (36-1) 369-8585
E-mail: sales@nivelco.com <http://www.nivelco.com>

DB-9 Serial port connection for SAT-303

Input	Pin	Voltage		Network impedance	Function
		+U _{MIN}	-U _{MAX}		
Transmitted data (TxD)	3	5 V	-1 V	3 K	Data to HART slave Data transfer speed: 1200 bps
Request to send (RTS)	7	5 V	-1 V	3 K	Data transfer between PC and HART field
Data terminal ready (DTR)	4	8 V	0 V	200	Power source. For the correct operation the modem has to be in logical „1”
Output					
Receive data (RxD)	2	4 V	-1 V	200	Data to the PC. Data transfer speed: 1200 bps
Data carrier detected (DCD)	1	4 V	-1 V	200	Signal to the PC that the modem detected carrier signal from the HART field
Clear to send (CTS)	8	—	—	—	Connected to RTS within the modem
Data set ready (DSR)	6	—	—	—	Connected to DTR within the modem
Other					
Signal ground (GND)	5	Reference	Reference	Reference	PC commonly grounded with the modem. Grounding is isolated from the HART field (1500 VDC).
Receiver (RI)	9	—	—	—	N.A.

4. WIRING

The modem can be used for any device with HART ability complying with the Communication Conditions as above.

It should be connected to the field device by 2 pieces of KLEPS2. Arrangement of the modem within the HART system is to be seen on the drawing. .

Positioning of the clips is independent from the polarity. SAT-303 is not provided with surge protection, thus the lightning protection of the relevant HART standard has to be used.

5. MAINTENANCE AND REPAIR

The unit does not require any maintenance. Repair under and beyond of the warranty period will be carried out at the manufacturer's premises.

6. STORAGE CONDITIONS

Ambient temperature: -25...+55 °C

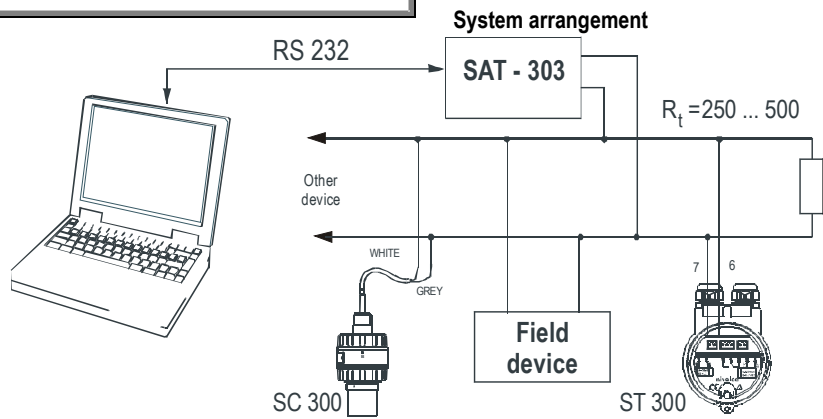
Relative humidity: max. 98 %

7. WARRANTY

Nivelco provides a warranty for the period of 2 (two) years. from the date of purchase. Claims under guarantee will be dealt with on presentation of the User's Manual and a copy of the Purchase Invoice only.

Repairs under guarantee are carried out at the Manufacturer's premises. The Purchaser is liable for costs of dismantling and re-installation as well as transport costs.

Guarantee claims shall not be accepted for defects arising from usage of the equipment contrary to its purpose, from rupture, disaster, from incompetent installation or usage.



sat3030m0600h_01
2002. január

Technical specification may be changed without notice.