Nano Environmental Technology SIL2 Innovative Gas Sensing

CYBER TTL

Smart gas sensing transmitter

DS3637 rev.5 dated 18/03/2019

Key Features

- 32 mm diameter, to fit industry standard 4- or 7-series EC sensors and pellistors
- Single board with 0.8-4V analogue output
- MODBUS protocol on TTL level, for short-distance digital communication
- Supplied complete with sensor, configured and pre-calibrated
- Simple calibration in the field, with software, calibration pad or Modbus commands
- Local Threshold alarm outputs
- Watchdog and local fault outputs
- Special ranges supplied on request

General description

N.E.T. CYBER TTL is a microprocessor driven electronic interface to turn any gas sensor in a legitimate detector, with voltage and digital (TTL) output, contacts for fault and alarms.

It fits virtually any technology of gas sensing device with standard 4- or 7-series built, will sample and process signals from it, linearize it and compute it in a standard voltage and digital Modbus TTL output.

The combination of CYBER and a gas sensor is a preconfigured and pre-calibrated unit with a standard, high-level interface, sparing the user the need to calibrate the detector for the specific sensor employed and hiding the need of dealing with low level signal acquisition and processing.

CYBER TTL features 3 fully user-configurable alarm contacts and one watch-dog-activated fault alarm contact.

The CYBER software, supplied with every unit, will allow you to easily recalibrate the sensor, change alarm thresholds, recalibrate the analogue output, change digital communication parameters, print calibration reports, verify sensor lifetime and plot live readings. The unit calibration can also be performed via specific Modbus commands.

Warranty and warning

The WARRANTY of CYBER Boards is 3 years from the purchased date against defects in materials or production. This warranty however is not valid for articles that have been broken, repaired by a third person or not used according to the instructions contained in this document or supplied with the products, related to the storage, installation, operation, maintenance, or servicing of the products.

The WARRANTY on the specific sensor coupled with the CYBER board is specified in the relevant data sheet available at www.nenvitech.com

Recalibration of the sensor will void the calibration warranty

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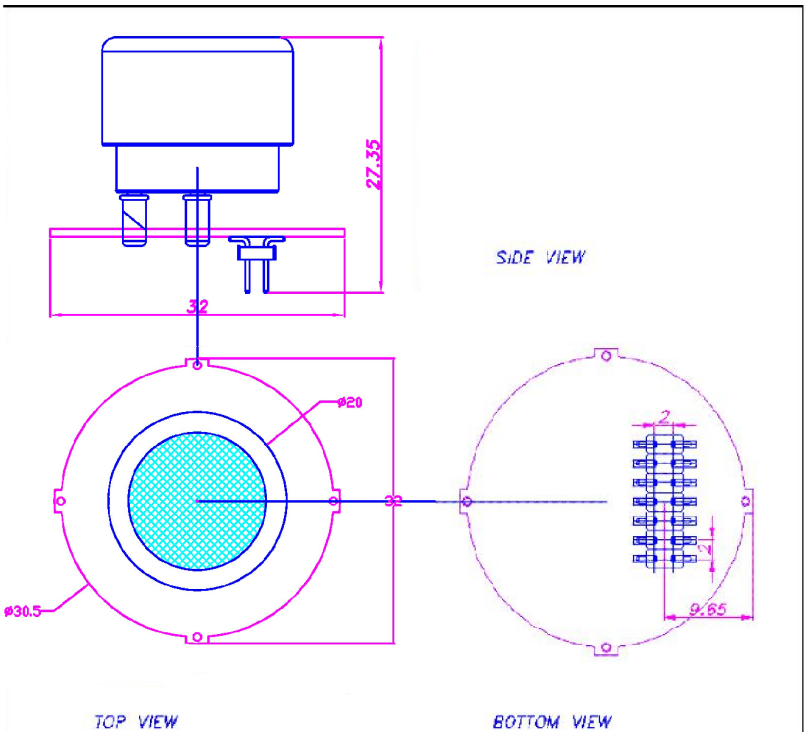
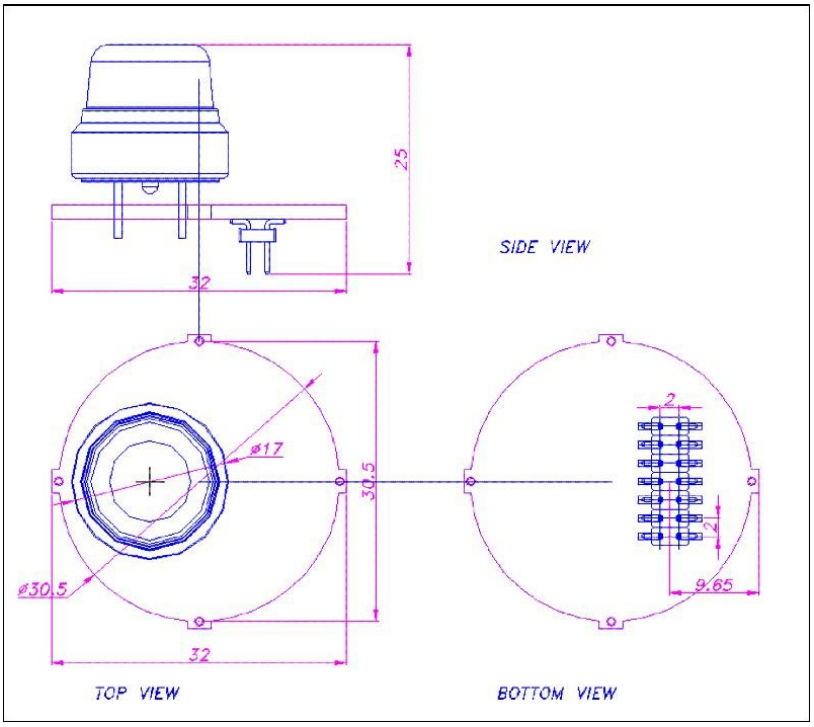
Pinout and Mechanical specifications





Pinout

Mechanical specifications

Product specifications

	Product type:	Cyber TTL
General	**Sensing Element:**	EC cell, Catalytic bead
	Operating temperature range	Depend by the sensor technology (See Sensor specification)
	Storage temperature range	Depend by the sensor technology (See Sensor specification)
	Maximum temperature cycle variations	± 1°C/min
	Operating humidity range	0-95% catalytic 20-90% EC cell
	Operating pressure range	900-1100 mBar
	Output signals	3 Threshold Alarms Fault Alarm Watchdog
	Calibration	Individually calibrated with temperature compensation. Test report supplied.
Measurement	**Range**	ppm;%lel
	Response time	Depend by the sensor
	Digital to analog error	±3%F.S
	Digital error	±5%F.S
Electrical	**Power Voltage**	5Vdc ±5%
	Current Consuption	60-70mA EC cell 90-110mA Catalytic
	Warm up time	90 s for full operation @ 25 °C 1 hour for full specification @25°C
	Max output current	20mA
	DC output impedance	2KΩ
Signal Output	**Analog output**	0.8-4V
	Digital communication	Modbus protocol UART TX and RX at TTL levels
	Baud Rate	9600 bps

Ordering details

CY-DFL-[catalytic sensor part no]	Cyber module supplied with standard pellistor
CY-DTX-[electrochemical cell part no]	Cyber module supplied with electrochemical sensor
CY-DO2-[oxygen sensor part no]	Cyber module supplied with Oxygen Sensor range 0-25%

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