

## Weather Station Sirius-NBC



### Features

- \* Robust and reliable integrated weather station for wind speed, wind direction, air temperature, barometric pressure, relative humidity, with no moving parts technology
- \* Incorporates an innovative wind velocity and direction sensor that detects Thermal Aura Variation (TAV) caused by the wind flowing past a heated cylinder
- \* Compact and completely self-contained meteorological instrument. All components are enclosed in a sealed, waterproof cylinder
- \* Maintenance-free measuring element with permanent air density compensation
- \* Operation under severe climatologically conditions and wind speed up to 60m/s
- \* Simple installation on a 50 mm standard pipe and central plug connector or customized mechanical extension for fixing on a vehicle
- \* Operational condition from  $-40\text{ }^{\circ}\text{C}$  to  $+70\text{ }^{\circ}\text{C}$
- \* Rugged and corrosion-free housing with integrated plug connector
- \* Serial interface RS485
- \* MTBF of 10 years
- \* Automatic cyclic self-testing and reporting

### Applications

- \* The Sirius-NBC is especially designed for NBC applications. The system provides information concerning the effects due to the nuclear, biological and chemical combat substances and makes it possible to define their propagations

### Standards

- \* Standard of construction: VDE 100
- \* Low voltage guideline: 73/23 EWG and VDE 100
- \* EMV: DIN EN 50081-1  
VG 95373  
EC 630004-3,-6
- \* ESD / Burst: EC 630004-2,-4
- \* Vibration: BV 0440, diagram 1,8,9
- \* Shock resistance: BV 0430, diagram 3
- \* Salt spray test: MIL STD 810 D
- \* Class protection: IP 67
- \* Message format: HEX or NMEA 0183
- \* Interface: RS485 (EIA standard)

## Technical Data & Dimensions

### General

Operation temperature range	-40 °C to +70 °C
Storage temperature	-50 °C to +90 °C
Interface	RS485
Power supply	12 to 30 VDC / 15 Watt
Isolation voltage	500 VDC

### Measurement Specifications

#### Wind speed

Range	0...60 m/s
Accuracy (RMS)	0.5 m/s ±5 % of actual wind
Resolution	0.1 m/s

#### Wind Direction

Azimuth	0...360° (no electrical gap)
Accuracy (RMS)	± 5°
Resolution	1°

#### Air Temperature

Range	-40...70 °C
Accuracy (RMS)	±1°C at wind speed ≥ 2m/s
Resolution	0.1°C

#### Barometric Pressure

Range	600...1100 mbar
Accuracy (RMS)	± 1.5mbar at 20°C ±3 mbar, -40°C to +70°C
Resolution	0.1 mbar

#### Relative Humidity

Range	0...100 %
Accuracy (RMS)	± 3 % at 20...80 % ±4 % for <20 % and >80 %
Resolution	0.1 %

### Option

#### Powder Temperature Input

Range	0-10 VDC
Resolution	2.44 mV

#### Digital Counter

Range	16-bit counter
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#### Mechanical extension for fixing on the vehicle

This mechanical extension is adapted to the customer (see next column for an example)

### Mechanical

Class of protection:	IP 67
Height:	308 mm
Diameter:	83 mm
Weight:	1.5 Kg
Mast adapter:	51 mm

Note: See also mechanical drawings for installation

### Accessory (not included)

Mating connector for cable



### Version

#### Sirius-NBC

Robust and reliable integrated weather station for wind speed, wind direction, air temperature, barometric pressure and relative humidity, with serial interface RS485; for installation on 50 mm standard pipe

#### Sirius-NBC/Largo

Robust and reliable integrated weather station for wind speed, wind direction, air temperature, barometric pressure and relative humidity, with serial interface RS485; with mechanical extension for fixing on the vehicle (contact us for more information)

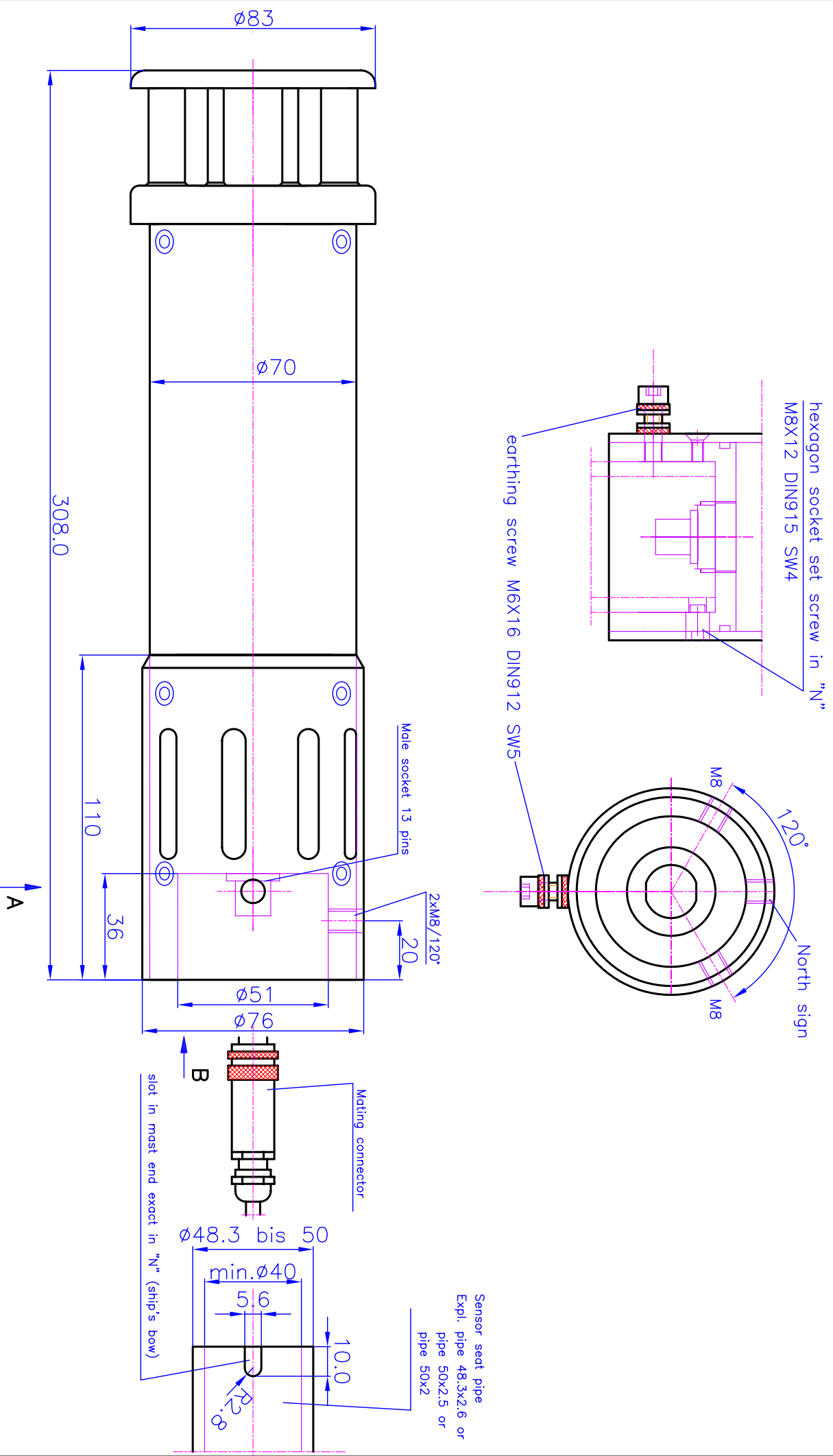
#### Note:

For powder temperature input and digital counter, please specify in the request

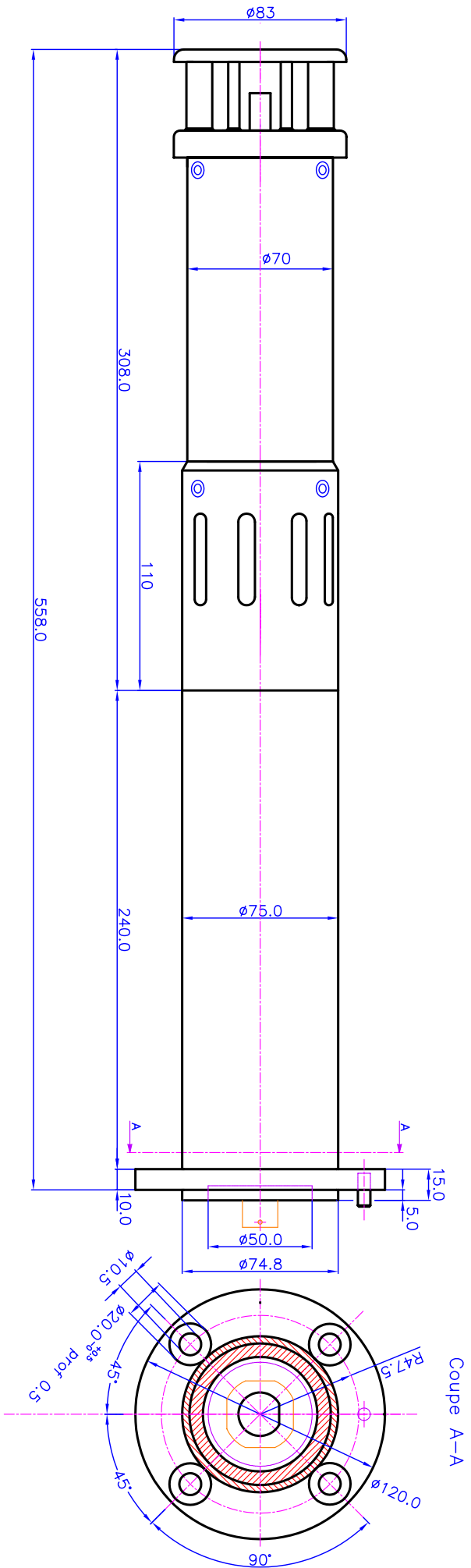
The standard communication protocol is in HEX, but it is also available in NMEA 0183 (send us a request for detail about communication protocol)

View from A

View from B



19.07.02	YS	-	Serie SIRIUS-MIL / NBC
		4.40.031	
		B	



21.03.03	Modif.: Position des 2 trous de la base de 85° à 90°	Ind.:A
30.12.02	YS	
Ensemble SIRIUS-MIL/Largo & -NBC/Largo		
4.11.310		A

