

Weather Station Sirius-MET



Features

- * Integrated weather station for wind speed, wind direction, air temperature, barometric pressure, with no moving parts technology
- * Maintenance-free measuring element with permanent air density compensation
- * Operation under severe climatologically conditions and wind speed up to 80 m/s
- * Solid-state controlled sensor heating device to prevent icing (optional)
- * Simple installation on a 50 mm standard pipe and central plug connector
- * 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 MET is especially designed for harshest environmental conditions in deserts, in the mountains and in arctic or tropic areas

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 or 24 VDC / 15 Watt |
| Isolation voltage | 500 VDC |

Measurement Specifications

Wind speed

| | |
|----------------|----------------------------------|
| Range | 0...80 m/s |
| Accuracy (RMS) | 0.5 m/s $\pm 5\%$ of actual wind |
| Resolution | 0.1 m/s |

Wind Direction

| | |
|----------------|------------------------------|
| Azimuth | 0...360° (no electrical gap) |
| Accuracy (RMS) | $\pm 3^\circ$ |
| Resolution | 1° |

Air Temperature

| | |
|----------------|--|
| Range | -40...70 °C |
| Accuracy (RMS) | $\pm 1^\circ\text{C}$ at wind speed $\geq 2\text{m/s}$ |
| Resolution | 0.1°C |

Barometric Pressure

| | |
|----------------|--|
| Range | 600...1100 mbar |
| Accuracy (RMS) | $\pm 1.5\text{mbar}$ at 20°C $\pm 3\text{ mbar}$, -40°C to +70°C |
| Resolution | 0.1 mbar |

Option

Heating

| | |
|--------------|-------------------|
| Power supply | 24 VDC / 100 Watt |
|--------------|-------------------|

Analog Input

| | |
|------------|----------|
| Range | 0-10 VDC |
| Resolution | 2.44 mV |

Digital Counter

| | |
|-------|----------------|
| Range | 16-bit counter |
|-------|----------------|

Mechanical

| | |
|----------------------|--------|
| Class of protection: | IP 67 |
| Height: | 300 mm |
| Diameter: | 105 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-MET

Compact and robust weather station for wind speed, wind direction, air temperature and barometric pressure, with serial interface RS485

Sirius-METH

Heated, compact and robust weather station for wind speed, wind direction, air temperature and barometric pressure, with serial interface RS485

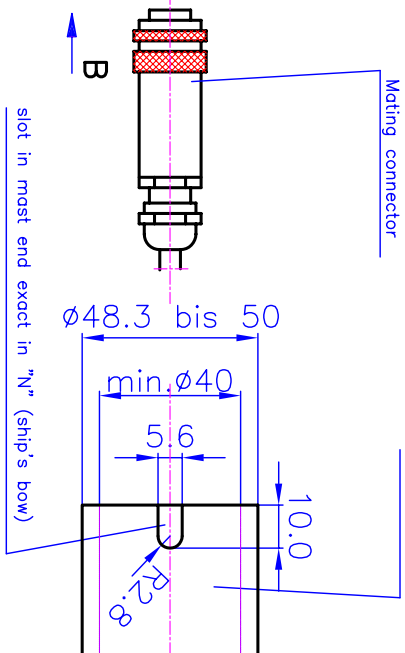
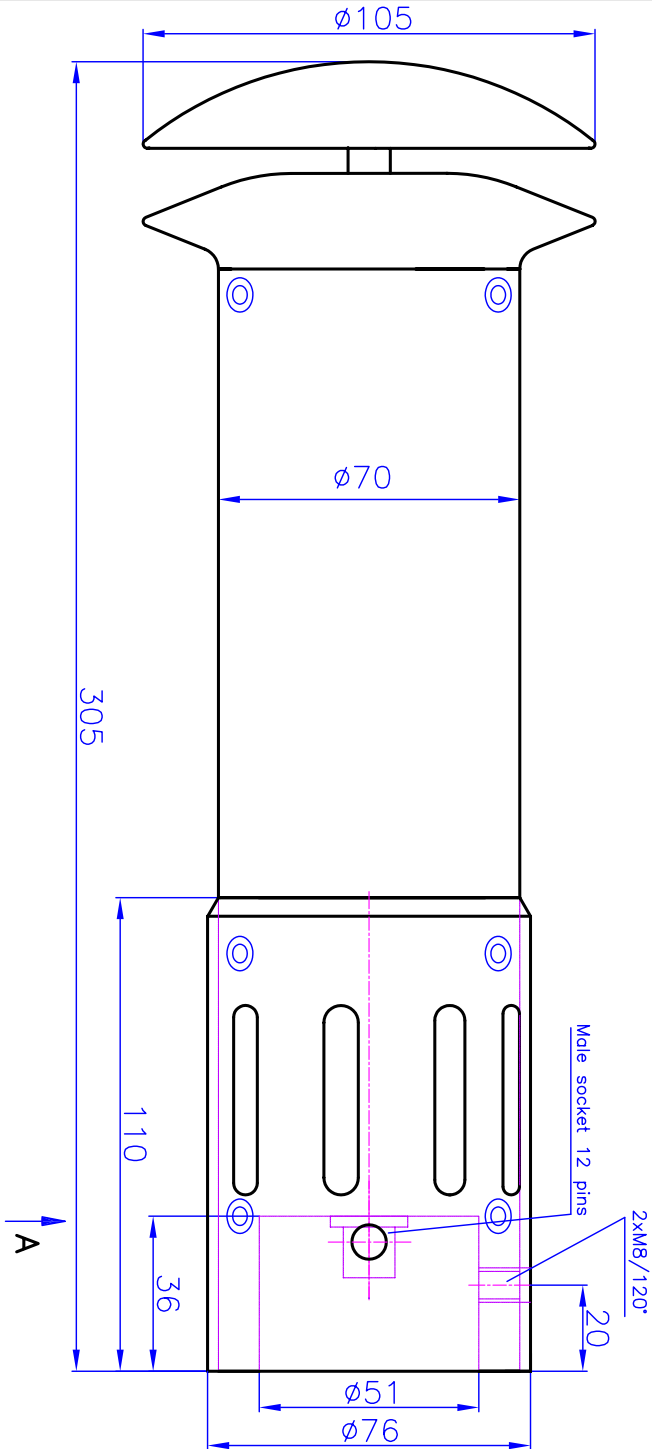
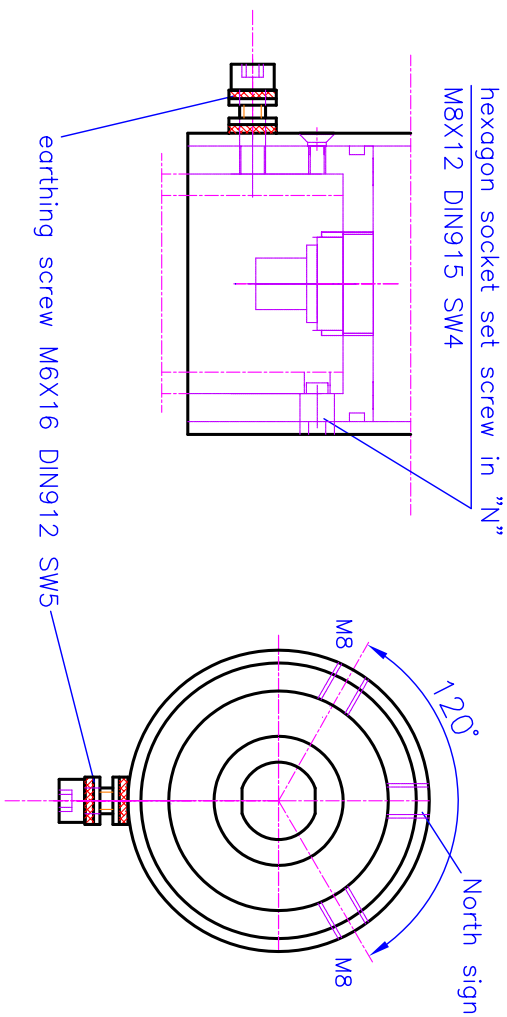
Note:

For analog 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



Sensor seat pipe
Expl. pipe 48,3x2,6 or
pipe 50x2,5 or
pipe 50x2

| | | | | | |
|----------|----|---|-------------------------|----------|---|
| 19.07.02 | YS | - | Series SIRIUS-MET / NAV | 4.40.000 | B |
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