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# AMS 159P PORTABLE METEOROLOGICAL STATION

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The AMS 159P is a small, lightweight, computerized, low power meteorological station intended for ground level measurements in even the most adverse conditions. It replaces and improves upon the previous model, the PMP 124A.

## Main Features:

- Easily transportable
- Easy and quick to assemble
- Ready to work immediately after assembly
- Measures parameters important for ballistics, chemical and radiological protection, and aviation meteorology
- Integrated compass makes orientation of the mast unnecessary
- Highly accurate
- Simple to operate
- Long autonomy with the built in rechargeable battery (24+ hours)
- Internal data storage
- Data transfer to external device
- Optional wireless communications
- Suitable for militaries, coast guards, firemen, rescue workers etc.

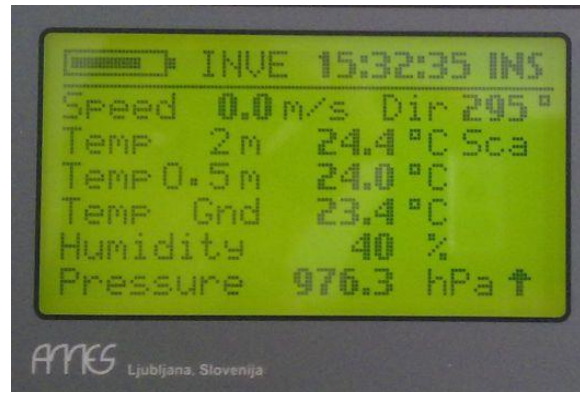
## Station components:

- Meteorological mast with accessories (guy-wires, pegs, carry-bag)
- Main measuring unit, the AMS 159P
- Battery charger
- VMT 107 wind sensor / anemometer
- DTE 75A air temperature sensor
- DTV 124 air temperature and humidity sensor
- Additional sensors for rain/sunshine duration, global / long wave radiation, precipitation, cloud ceiling, visibility... are available upon request.





Components of the AMS 159P



Display of the AMS 159P with data



A (previous generation) PMP 124 station in use during the "Northern Light" Campaign on the Kola peninsula, Russia, 1995 (Used by the Austrian Army)

## Technical Data:

### General:

<b>Dimensions of carrying case</b>	550 mm x 420 mm x 160 mm
<b>Mass of carrying case</b>	8,8 kg

### Data Logger:

<b>Dimensions</b>	190mm x 160mm x 50mm
<b>Mass</b>	1600g
<b>Operating temperature</b>	-30°C to +50°C
<b>Environmental protection</b>	Hermetically sealed case
<b>Data logging memory</b>	128kB internal memory, up to 2GB on optional compact flash card
<b>Display</b>	Graphical LCD, illuminated
<b>Connectors</b>	SOURIAU, ruggedized, waterproof
<b>Analog sensor inputs</b>	Up to 8 analog sensors
<b>Function keys</b>	Sealed, with mechanical contacts
<b>Power supply</b>	Internal 12V battery or external source
<b>Autonomy</b>	24 hours
<b>Power consumption</b>	Less than 30mA with the standard set of sensors
<b>Battery charging</b>	Voltage and current limiter
<b>Data transfer (distances)</b>	RS232 (25m max) RS485 (5km max) Bluetooth (~100m max)
<b>Air pressure sensor</b>	Built in, accuracy 1hPa
<b>RS232 default settings</b>	Baud rate 9600 8 data bits 1 STOP bit No parity

### VMT 107A Wind sensor:

<b>Operating temperature:</b>	-3 °C to +50 °C
<b>Wind speed transducer</b>	Stroboscope, Robinson's cross
<b>Wind direction transducer</b>	6-bit Gray code encoder, wind vane
<b>Type of transducers</b>	optoelectronic
<b>Wind speed range</b>	0 ... 60 m/s
<b>Wind speed constant</b>	20 imp./m
<b>Wind speed accuracy</b>	+/- 0.5 m/s
<b>Resolution of wind direction part</b>	+/- 5.6 °
<b>Starting threshold</b>	0.5 m/s
<b>Wind direction range</b>	0° ... 360°

**Meteorological mast:**

<b>Height</b>	Telescopic, 2m
<b>Number of sections</b>	2
<b>Sensors</b>	Temperature at 0.35m and 1.85m, relative humidity at 1.85m, wind at 2m
<b>Cabling</b>	Included
<b>Orientation</b>	Automatic with built in electronic compass

**Relative Humidity:**

<b>Sensor type</b>	Capacitive
<b>Measuring range</b>	0% to 100% RH
<b>Accuracy</b>	+/- 5% RH

**Barometric pressure:**

<b>Measuring range</b>	800 mb to 1050 mb
<b>Accuracy</b>	0.5 mb

**Temperature:**

<b>Sensor type</b>	Thermoliner thermistor
<b>Accuracy</b>	+/- 0.15°C
<b>Measuring range</b>	-40°C to +60°C
<b>Protection (air temp)</b>	UV resistant radiation shields
<b>Protection (ground temp)</b>	Stainless steel penetrating probe

**Battery Charger:**

<b>Input voltage</b>	220V to 240V; 50 / 60Hz AC
<b>Output voltage:</b>	13.8V, stabilized

Version 3

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