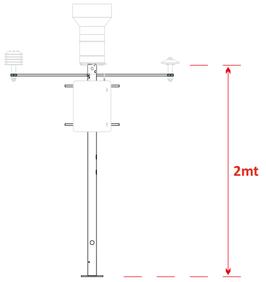
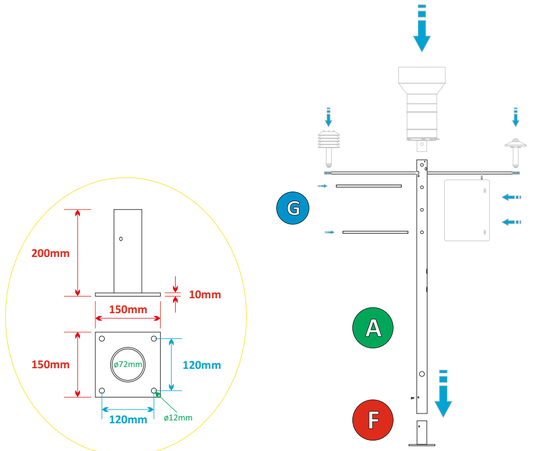
PAL 2A

Composition for weather aluminum pole h = 2m

Composizione palo meteo Alluminio h = 2mt



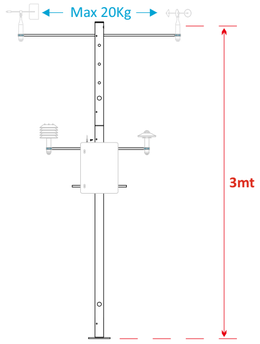
Weight 9Kg
Peso 9Kg



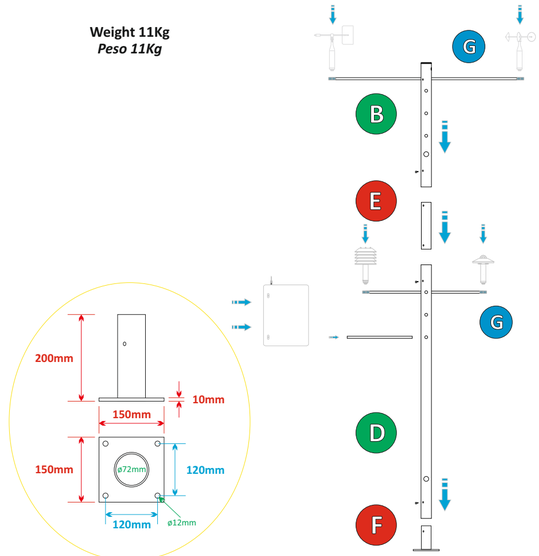
PAL 3A

Composition for weather aluminum pole h = 3m

Composizione palo meteo Alluminio h = 3mt



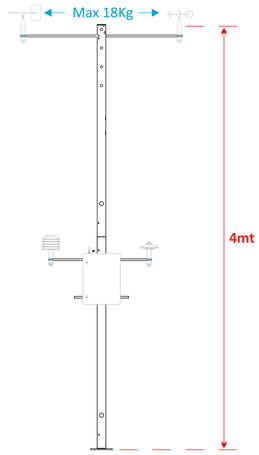
Weight 11Kg
Peso 11Kg



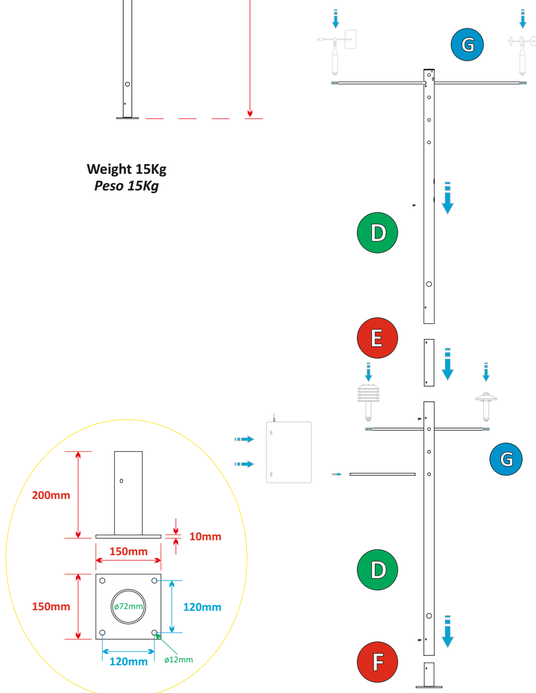
PAL 4A

Composition for weather aluminum pole h = 4m

Composizione palo meteo Alluminio h = 4mt



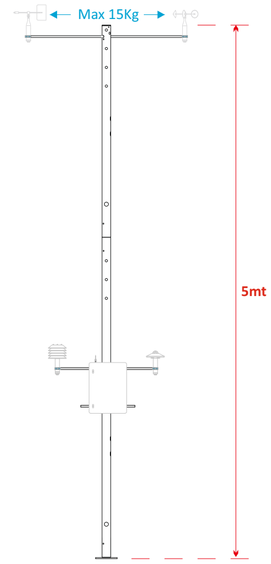
Weight 15Kg
Peso 15Kg



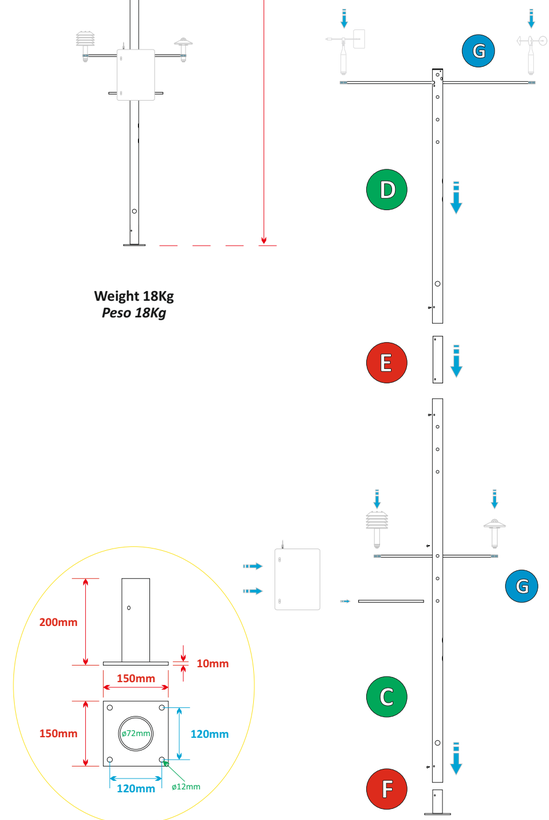
PAL 5A

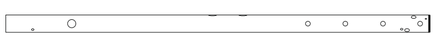
Composition for weather aluminum pole h = 5m

Composizione palo meteo Alluminio h = 5mt



Weight 18Kg
Peso 18Kg



A 

Primary pole ø80mm x 2m *(Elemento Base da ø80mm x 2mt)*

B 

Extension pole ø80mm x 1m *(Elemento prolunga da ø80mm x 1mt)*

G 

Arms support sensors 50, 90,150cm

(Supporti da 50, 90, 150cm)

C 

Extension pole ø80mm x 3m *(Elemento prolunga da ø80mm x 3mt)*

D 

Extension pole ø80mm x 2m *(Elemento prolunga da ø80mm x 2mt)*

E 

Joint ø75mm x 30cm *(Giunto da ø70mm x 30cm)*

F 

Base plate 15x15cm *(Piastra base 15x15cm)*

Aluminum poles *Pali in Alluminio*

	Code	*Rev.*	*Date*
Nesa Srl Sistemi di monitoraggio ambientale	PAL2A - PAL3A PAL4A - PAL5A	2.0	10 August 2011

NESA Srl - Via Sartori 6/8 - 31020 Vidor TV - Italy Tel. +39.0423.985209 www.nesasrl.it

Your is the environment Your is the knowledge

Mod. WMP6

Multiparametric Probe with 6+1 parameters

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Highlighted specs

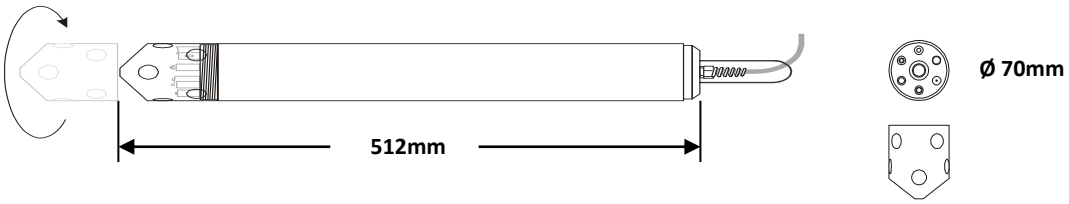
- Up to 6+1 parameters in real time (Ph, Level, Temperature, Conducibility, Redox, Oxigen +1 additional in option)
- Suitable for clear or semi-clear fresh and salt waters
- RS485 and USB interface for PC or datalogger
- Operative water depth max 20mt (300mt on req.)
- Easy to clean, calibrate and maintain
- According to CE norms

The **WMP6 probe** has been developed for monitoring of **water-bearing stratums, rivers, basins, rubbish dumps, seas or however clear or semi-clear waters**. Easy to use in measure campaigns or in continuous mode, thanks to an **USB or RS485 interface** and a **web program** which permits to turn your PC into a datalogger.
Available **with or without the inside datalogger** (**WMP6-DL and WMP6**), allows to analyze **several parameters simultaneously** and **compare data in real time** (through interface RS485 or USB), **memorize local data** (WMP6-DL) and **transfer** them in a center data storage by **GSM, GPRS, UMTS, satellite, wireless or cable**, using an external Nesa datalogger.
Useful for monitoring mobile or fixed locations and for remote control stations. It's possible to manage the data acquisition in **continuous**, or **at specific programmable intervals**. Thanks to the **reduced dimensions**, with **only 70mm of diameter** where is possible to have **up to 7 parameters**, and using specific materials, the probe is perfectly suitable in piezometric tubes with small diameter.

Fixed parameters	**PH:** 0÷14 **Level:** 0÷20mt / 0÷50mt (up to 300m on request) **Temperature:** -5 ÷ +60 °C	**Conducibility:** 0÷6.000 µS (0÷60.000µS Autorange) **Oxigen:** 0÷200%Air (optical oxigen on request) **Redox:** ±1100 mV
Optional parameter	**Torbidity:** 0 ÷ 4000 NTU	
Interface	RS485 or USB (Optional)	
Working conditions	-5 ÷ +60°C max 3 bar (30bar optional)	
Protections	Isolated data interface	
Made of	PVC	
Power supply and consumption	10.8 ÷ 16Vdc (rechargeable internal battery - WMP6-DL model) max 30mA @ 12Vdc	
Dimensions	512x70 mm (Lxø)	
Standard Cable	30mt with barometric compensation and IP68 connector	
Weight	< 2000g	

Size and connections

Pin	Wire	WMP6-C
1		
2	Grey or Black	D+
3	Red	D-
4	Blue	Gnd
5	Green	Vdc



Measurement principle

The probe **WMP6**, available also with an inside datalogger (**WMP6-DL**), is the most efficient and compact system for measuring the quality of surface water or groundwater, either fresh or salt. Through six independent electrodes, each one calibrated separately managed by a specific electronic, **you can see in real time the values of the main physic-chemical parameters of water**. The connection of the probe is very simple and it is possible or via RS485 protocol with a simple command line, or via USB interface by IS485/USB module that, thanks to an effective web program, allows to view data, record them on the PC as if it was a data logger, traces charts or download datalogger's memory of the probe (model DL-WMP6) obtaining a file directly in Excel format. This software also allows you to calibrate each parameter of the probe with the corresponding chemical solutions.

Calibration of the sensor

Each probe has been **calibrated in the lab** with specific solutions. This calibration is maintained over time, the cleanest the waters in which the probe is immersed are, the longer the calibration will last, it can last from several months to more than 12 months. In most cases, a **new calibration is possible directly in the field**, except in case where it is necessary to replace the single electrode or the corresponding membrane.

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Maintenance

The probe needs to be **verified and cleaned** on the electrodes periodically, more often if the water in which it is immersed is dirty or muddy. The cleaning consist in **washing it with distilled water** and with a soft brush which won't damage the electrodes membranes. On average we recommend a cleaning schedule from one to three months. If the probe is removed from the water to be disabled, even temporarily, it is necessary to **cover the electrodes with the supplied caps, filled with distilled water**.

How to use

All models of Nesa probes, may be with or without internal datalogger, and can be used in different ways:

a) Measurements for stand-alone monitoring campaigns:
In this way, the probe can be **connected to a laptop** and powered through the **interface IS485/USB** that **turns PCs into a datalogger**. Through the special software "**Sonda-Web**" (optional) is possible to **display data** from each electrode of the probe **in real time**, store the acquired data in **ASCII** format or directly into an **Excel file**, follow the **trend graph** of each parameter and **recalibrate probe** when necessary by using the special page dedicated in the software.

b) Continuous measurement from a fixed location:
in this way the probe or the **probes (up to 10 at the same time**) can be **connected to a data logger** Nesa, managed in a **completely automatic** way and powered by it. The datalogger, via RS485, periodically calls each sensor and processes the data by storing them locally. If you have a line of **remote communication** GPRS, UMTS, satellite, etc**., it transfers all acquired data to an internet area using the FTP protocol** (File Transfer Protocol). Each probe can be connected by cable or by radio to the datalogger.

c) Measurements campaigns for medium to long term non-invasive:
In this way, **the probe has internal data logger**. The **power supply** may be given by the **internal rechargeable batteries** that provide **up to three months autonomy**, or by a **small external power supply unit** (about 10x10x8cm LxPxH) composed by flashlight batteries that carry the **autonomy of more than 15 months**. In this second case it's not necessary to remove the probe from its position in water for replacing or recharging the batteries, since it operates from the surface. Having internal datalogger, **each sensor stores the data acquired in a special memory** that can be periodically emptied through the specific Web software (optional). All the timing of acquisition and processing can be programmed with this software.

"Sonda-Web" Software

Multilingual Web application which allows an easy management of the probes WMP series, by USB interface (IS485/USB). **It turns your PC into a datalogger** as it allows the visualization of data in real time with selectable update intervals, the recording of data in Excel format, the graphical display and calibration of each probe's parameter through wizards.
It also allows the **geolocalization** of the sites for the management of small monitoring networks. For sensors with built-in datalogger (WMP6-DL), it downloads the data directly to Excel files.
Suitable for operating systems with UTF 8 encoding.

Options available

The probe is supplied complete with **cable plywood** (from barometric pressure) with **standard length of 30 meters** with **terminations or IP68 connector**, different lengths of cable must be requested separately. The probe supports the **six standard parameters** for the water quality analysis: **pH, conductivity, ORP, level, temperature and oxygen**, on which can be added a **seventh parameter** selected from the measurement of **turbidity**.
The models with **internal data logger**, are available with **internal rechargeable battery** (maximum autonomy 3 months) and external battery charger, or with **external batteries** in an IP65 enclosure with **autonomy up to 15 months.** In this case there is also a connector on the same enclosure that allows to interrogate the probe and download the data without removing it from the site of installation. The version with external batteries permits to replace them without removing the probe. For **uses as standalone** or spot measurement campaigns, we recommend the use of IS485/USB interface for connection to a PC and the software "Sonda-Web".
For use in **monitoring networks** or **campaigns** of long duration is recommended to connect the probe to an external Nesa data logger that manages the probe and can directly transfer data via GPRS, UMTS, cable or satellite with FTP protocol.

Order code

Sensor	Multiparametric Probe without datalogger RS485 on 30mt self-supporting cable	WMP6	
	Multiparametric Probe with datalogger RS485 on 30mt self-supporting cable	WMP6-DL	
Accessories	IS485/USB interface		IS485/USB
	Sonda-Web software		Sonda Web
	Turbidity		TORB-WMP6x
	Optical Oxygen		Optical
**specify the length for no standard measures*		*example of order code*	WMP6 IS485/USB

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