



High Volume Sampler + Real Time PM **ECHO EMERGENCY^{HV}**

MAIN CHARACTERISTICS

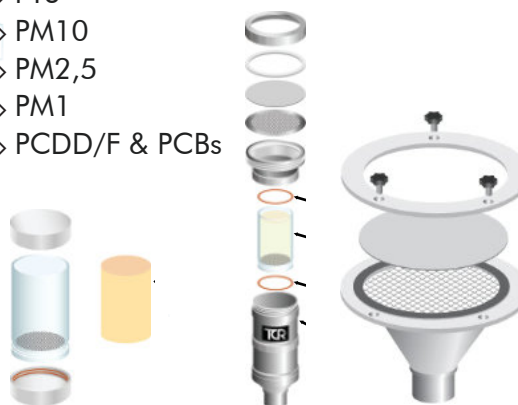
- ⊗ High volume sampler with battery and Vac supply in a single device;
- ⊗ SINGLE LINE or independent DUAL LINE versions;
- ⊗ Working parameters control by Docking Station;
- ⊗ Battery charge's automatic control and continuous monitoring;
- ⊗ PM10-PM2,5-PM1 up to 2000 µg/m³;
- ⊗ OPC (0.35 a 40 µm) - 24 size classes - max count 10000 p/s;
- ⊗ Real time data;
- ⊗ Integrated GPS;
- ⊗ Sample conditioning depending on wind direction and velocity;
- ⊗ RS-485 remote programming;
- ⊗ Remote control of the device;
- ⊗ Fast charging of the battery and a safety parameters control by Docking Station;
- ⊗ Flow rate up to 1000 l/min.

ECHO EMERGENCY^{HV} is the new TCR Tecora® high volume sampler for particulate and micropollutants sampling and monitoring in extreme conditions. TCR Tecora® research division highlighted the need to design a sampling system that can offer a viable solution in emergency or remote situations such as fires, high mountain, isolated areas, contaminated environments to allow PTS/PM10/PM2,5/PM1 sampling on a filter with a backup sorbent trap (PUF) for gaseous organic micropollutants (PCDD/F, PCBs and PAH's) with the possibility to monitor PM 10 - PM 2.5 - PM1 real time trend concentrations, 24 sizes classes particle distribution, CO₂ and relative humidity.

ECHO EMERGENCY^{HV} is also available in Dual configuration for sampling on two independent lines, also as conditional sampling, based for example on wind speed and / or wind direction.

Sampling HV Sampling Head:

- > PTS
- > PM10
- > PM2,5
- > PM1
- > PCDD/F & PCBs



ECHO EMERGENCY^{HV}
Top panel and Keyboard



System detail **ECHO EMERGENCY^{HV}**
and Docking Station.

Winner Product of
Air Quality Contest
2020

Obiettivo **aria** Imprese **2030**
In accordo con le strategie europee

Milan and Monza
Chamber of Commerce



Standard version

TCR Tecora®
ECHO HV
Single 230 Vac



Real Time

OPC:

- > PM10
- > PM2,5
- > PM1
- > 24 channel's OPC (with humidity and temperature sensors)
- > CO₂
- > Relative Humidity





Battery Charge

One of the biggest limitation of portable samplers is the management of battery charge and its maintenance for ready use.

ECHO EMERGENCY^{HV} can be used at 230 - 110 Vac in case of power supply near the sampling point or otherwise battery-powered.

TCR Tecora[®] designed a docking station dedicated to control the instrument, its features and battery charging.

Docking Station according to a user-defined programming by means of the operator panel allows to control **ECHO EMERGENCY^{HV}** in a cyclical and continuous mode, providing a daily and/or continuous report to the operator.

Clear Test information on user display

Flow rate Temperature Pressure

Test sampling report

Battery charge Volume

Anomalies Available memory



ECHO EMERGENCY^{HV} can be decontaminated at the end of the monitoring campaign, thanks to its special container, it allows you to avoid contamination of the storage/ laboratory environment.

Docking station



Operator panel's touch screen allows to view and set **ECHO EMERGENCY^{HV}**'s control modes.

Reports are stored in internal memory and can be exported using USB memory or RS-485 serial memory.

The Docking Station is small and allows for up to 4 units to be controlled.

Power 230 - 110 Vac, 24 Vdc.



PM Gravimetric Sampler
(Battery Powered)

+

PUF / XAD2

+

Real Time OPC

+

Dual Line

ALL in One!

- ③ Single and dual line HV gravimetric sampler, with particle size preselector (PM10, PM2.5 or PM1 sampling head).
- ③ OPC for real time monitoring of PM10, PM2.5 and PM1 trends, CO₂, relative umidity, particle number concentration and particle size distribution (range 0,35-40 µm; 24 channels).
- ③ Portable battery pack, with charge indicator, operating autonomy 24h.
- ③ Convenient transport container with trolley that allows the decontamination of the whole system.

TECHNICAL CHARACTERISTICS

Range	100 - 1000 l/min
Power Supply	230-110 Vac 24 Vdc and battery
Battery Duration (Single Line)	24 hours
Weight and size (w x d x h) mm	15 KG 500 x 280 x 400
Codes:	
ECHO EMERGENCY ^{HV}	AA99-020-0002SP
ECHO EMERGENCY ^{HV} DUAL	AA99-020-0003SP
PM real time option	AA99-101-0000SP
Docking station (4 units)	AA99-200-0000SP
Wind direction / Speed Interface	AA99-009-9920SP(+9921SP)
Battery Pack (DUAL)	AA99-020-9980SP (+9981SP)
ECHO Hi-Vol PUF Module PM10 Head 13m ³ /h	AA99-020-0030SP
ECHO Hi-Vol PUF Module PM2.5 Head 13m ³ /h	AA99-020-0031SP

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