

Data logger for weather station

HD33MT.4

INTRODUCTION

Discover the **HD33MT.4** data logger – your solution for remote monitoring of critical physical quantities across a wide range of applications. Whether you need to track temperature, humidity, wind speed, rainfall, solar irradiance, this powerful device equipped with a 4G module (backward compatible with earlier technologies) offers **real-time data transmission** without the hassle of physical retrieval.

Designed to deliver performance and convenience, the HD33MT.4 transforms your ability to monitor environmental conditions remotely, making it the perfect tool for industries ranging from agriculture and meteorology to smart cities and industrial applications.

FEATURES

Versatile Data Inputs

- Equipped with 4 analog inputs, it offers multiple configuration options (0–50 mV, Pt100, Pt1000, thermocouples, etc.) for a wide array of sensor types.
- 2 counting contact inputs to connect rain gauges and anemometers.
- RS485 port with Modbus-RTU protocol, configurable as Master or Slave, for easy integration into existing systems, with the option for Ethernet connectivity.
- A SDI-12 Master port allows compatibility with advanced environmental sensors.

Real-Time Data Access

4G transmission to automatically send data via email, FTP, or upload directly to a cloud server

Customizable Alerts & Alarms

Two alarm thresholds (high and low), with customizable hysteresis and delays, to ensure you receive timely alerts for critical changes via SMS or email. The logger also features two alarm outputs for added flexibility.

Seamless Remote Control

Remote control via SMS commands or through a direct TCP/IP connection, enabling you to monitor and configure the device from anywhere in the world. Moreover, with the ability to power the device via solar panels or external DC supplies, you can deploy the HD33MT.4 in even the most remote and power-challenged environments without concern for downtime.

Superior Design & Power Efficiency

The data logger comes with an optional 12 V/3.4 Ah rechargeable backup battery, integrated battery charger, and low power consumption design. It can operate for extended periods even with minimal solar recharging. The IP65 housing ensures durability in harsh environments, while the optional custom LCD display provides at-a-glance insights.

CONFIGURATION & MEASUREMENT

Simple and flexible set up

The free of charge PC application software allows to easily configure the device, visualize real-time data in both numerical and graphical formats, and download all measurements directly to your computer for detailed analysis.



SENSORS COMPATIBILITY

Connect various sensor types via 4 analog inputs, 2 contact inputs, RS485 MODBUS-RTU, and SDI-12 digital inputs.



4G/3G/GSM(2G)/GPRS CONNECTIVITY

Enables remote monitoring for data collection from distant locations.



DATA TRANSMISSION

Send data via e-mail, FTP, or HTTP server for easy access and analysis.



LOW POWER CONSUMPTION

Operates for weeks without recharging the internal battery, ideal for off-grid setups.



FLEXIBLE POWER OPTIONS

Operable on mains with an external power supply or powered by a solar panel for energy efficiency.

General specifications

Power supply	
with rechargeable battery	18...30 Vdc
without rechargeable battery	7...30 Vdc (12...30 Vdc with Ethernet module)
Power consumption @ 12 Vdc	
without mobile network activity	< 4 mA without Ethernet module ~ 200 mA with Ethernet module
during mobile network activity	< 1 A peak
Battery	Optional internal lead 12 V / 3.4 Ah Maximum charge current 1 A
Measuring and logging interval	From 1 s to 1 hour
Internal memory	Circular management or stop logging if memory is full.
Alarm	E-mail and SMS Two voltage-free normally open (NO) contact alarm outputs.
Display	Optional custom LCD
Cellular connectivity	4G/3G/GSM(2G)/GPRS
Analog inputs	<ul style="list-style-type: none"> 4 analog independently configurable inputs (0...50 mV, -50...+50 mV, 0...1 V, 0...10 V, 0...20 mA or 4...20 mA, Pt100, Pt1000, thermocouple, potentiometer, pyrometer) 2 voltage-free counting contact inputs
Digital ports	<ul style="list-style-type: none"> 1 RS485 port with Modbus TCP/IP or Modbus-RTU protocol, configurable as "Master" or "Slave" 1 SDI-12 "Master" port
Communication ports	<ul style="list-style-type: none"> mini-USB connector (for connection to PC) RJ45 connector (only if the optional ETHERNET module is present)
Operating conditions	
version without LCD	-40...+70 °C / 0...100 %RH
version with LCD	-20...+70 °C / 0...100 %RH
Weight	2.8 kg approx.
Housing	
Dimensions	270 x 170 x 110 mm (excluding external antenna)
Material	Polycarbonate (PC)
Protection degree	IP 65
Installation	Fixing to a max 60 mm diameter mast.

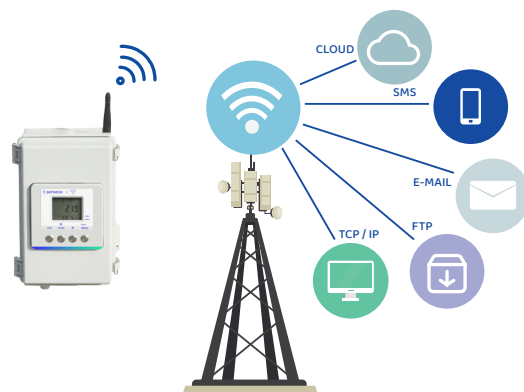
Ordering codes

HD33	MT	
		Connectivity 4 = 4G/3G/GSM(2G)/GPRS 4/E = 4G/3G/GSM(2G)/GPRS + ETHERNET
		Internal barometric sensor Blank = without internal barometric sensor 4b = with internal barometric sensor
		LCD Blank = without LCD L = with custom LCD

The datalogger is supplied with the HD35AP-S software, which can be downloaded from the website. Battery, probes, sensors, and USB cable CP23 must be ordered separately. SIM card and Ethernet cable (for models with Ethernet communication) are not included.

Communication description

Thanks to 4G/3G/GSM(2G)/GPRS transmission, the instrument can send the data via e-mail or FTP and can upload the data on an HTTP server.



PC application software & Cloud

The HD35AP-S PC software allows you to configure the data logger, view real-time measurements, and download data at regular intervals or on demand. Data is stored in a remote database on the local network, accessible from any PC via the software. The data logger also automatically transmits data to an HTTP server at customizable intervals, so you can monitor it from anywhere using a smartphone, tablet, or laptop with an Internet connection. Stay connected and in control, anytime, anywhere!

