

Multi-functional Clean Room Logger / Transmitter

HD50CR

FOREVER HIGH **ACCURACY AND STABILITY**

Low pressure sensor using **auto-zeroing** feature

TO CONNECT TO **ANY SYSTEM**

Analog / Modbus-RTU / Ethernet outputs available

CAN ALSO BE USED AS **STAND-ALONE**

Direct access to the built-in webserver

IMMEDIATE **WARNING**

Direct **alarms** if exceeding a threshold

YOUR DATA **ANYWAY, ANYTIME**

Local PC - Cloud - local server - e-mail

FLEXIBLE IN APPLICATIONS

Software FDA 21 CFR part 11 available



Main Applications

Monitoring of clean rooms
Control of air conditioning and ventilation
Control of filters
Pneumatic controls

The quality of work being performed in Clean Rooms depends on maintaining the correct values!

Any critical Clean Room situation with regards to differential pressure or even temperature and humidity, needs monitoring. To always maintain the correct values, the conditions need monitoring. In this way, assuring the correct values that need to be documented for quality purposes. Any measurement out of the requested range should trigger an alarm so that immediate actions can be taken.

The **HD50CR** provides the ideal solution for the application, keeping track of any out of range values and providing the perfect evidence for any quality audit. The stainless steel flush-mounted style guarantees that the instrument is easy to clean.

Configuring the instrument is very simple: if both connected to the same network, this can be done through any device that has been granted access to the instruments **webserver**. From a smartphone, PC or laptop. Of course this is password protected to avoid mistakes and misuse. The configuration can also take place offline, by connecting the instrument to a PC where the free downloadable software can be installed.

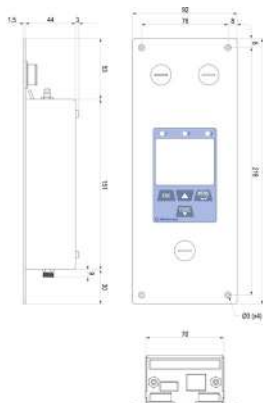
Delta OHM has developed the **HD50CR** specifically for Clean Room applications. For specific FDA regulations that can apply in the Pharmaceutical industry, we can provide optional modules to our standard HD35AP-S and HDServer1 software to fully operate conform **21CFR part 11** regulations.

Technical Specification

GENERAL CHARACTERISTICS

Display and Keyboard	Red electroluminescent - 4 Keys
Configuration	Front keys, USB, Ethernet, PC software, RS485 Modbus
Alarm	Buzzer, LED, E-mails
Analog output	3 x 0/4...20 mA (active, max. load 500 Ω) or 3 x 0...5/10 V (min. load 10 k Ω) galvanically isolated
USB	HID type with front Mini-USB type B connector
RS485	Modbus-RTU Slave
Ethernet	RJ45 connector
Wi-Fi	Optional
Protocols	Proprietary, Modbus-RTU, Modbus TCP/IP, SMTP, FTP, HTTP, NIST
Measuring / logging intervals	1, 2, 5, 10, 15, 30 s 1, 2, 5, 10, 15, 30, 60 min
Internal memory	Circular management or stop logging if memory is full. Storable samples from 420,940 to 906,640 depending on the number of quantities selected
Power supply	24 Vac / Vdc $\pm 10\%$ (Max 5 W)
Electrical connections	Screw terminal block (max. 1.5 mm ²)
Operating temperature	-10...+50 °C
Storage temperature	-10...+70 °C
Housing material	Stainless steel (AISI 316 front panel)
Weight	640 g approx.
Installation	Flush-mount
Protection degree	IP 65 (front panel)

Dimensions

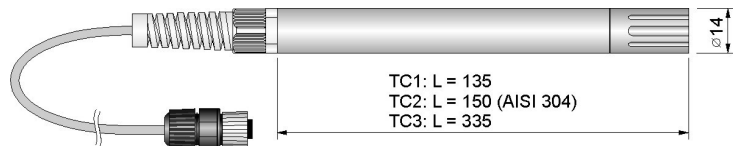


DIFFERENTIAL PRESSURE

Measuring range	± 125 Pa (0.01 Pa Resolution)
Accuracy	$\pm 0.35\%$ typ. of measuring span
Zero drift	Self-calibration
Temperature drift	$\pm 0.5\%$ typ. of measuring span
Units of measurement	Pa, mmH ₂ O, mbar, inH ₂ O, mmHg, hPa
Type of use	For air and neutral gases

OPTIONAL T / RH PROBE

HP3417E... is a temperature and relative humidity combined probe. Pt100 temperature sensor. R.H. sensor measuring range 0...100%. Pt100 sensor measuring range -40...+150 °C. R.H. sensor operating temperature -40...+150 °C. 8-pole M12 female connector.



Ordering Codes

HD50CR	Relative or differential low pressure transmitter / data logger designed for wall flush-mounting.
HD35AP-S	free downloadable software for configuring the instrument, viewing the real time measurements, downloading and viewing the data into a database
HDServer1	free downloadable software for basic configuring of the instrument, managing of multiple devices on the same network, viewing the real time measurements, database management
HP3517E...	Temperature and relative humidity combined probe.

Accessories

HD35AP-CFR21	Advanced version of the software in accordance with the FDA 21 CFR part 11 recommendations. For Windows® operating systems.
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In order to ensure the quality of our instruments, we are constantly re-evaluating our products. Improvements can imply changes in specification; we advise you to always check our website for the newest version of our documentation.

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