



CRN TECNOPART, S.A.

Sant Roc 30
08340 VILASSAR DE MAR (Barcelona)
Tel 902 404 748 - 937 591 484 Fax 937 591 547
e-mail: crn@crntp.com [http:// www.crntecnopart.com](http://www.crntecnopart.com)



MINIDATALOGGERS DELTA OHM

HD207. / HD227.

Temperature

HD206. / HD226.

Temperature / Relative Humidity

DESCRIPTION

HD206.../HD226... and HD207.../HD227... series data loggers are low-cost, rugged instruments, for a long-term reliable monitoring of temperature and temperature/relative humidity measurements.

They are available in different versions: with or without LCD display, with temperature sensor either inside or outside the instrument housing, or with cable connection.

The analysis of acquired data is made using Delta Log2 software for Windows.

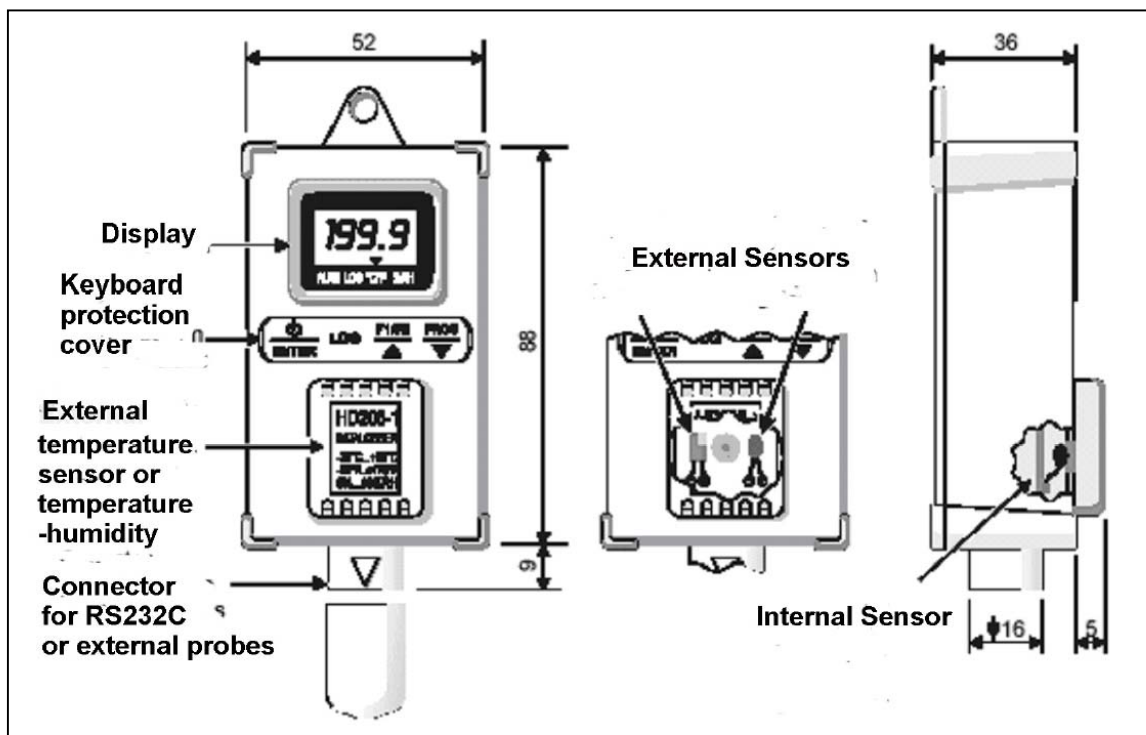
The datalogger functions of Start, Stop, Configuration, Data Download and Setting of storage interval are selectable either from keyboard or from a computer. Through a computer, you can define a password to enable the access to configuration data.

Typical applications are: monitoring of temperature/humidity during transportation, storage of fresh or frozen foods, fruit, vegetable products and flowers, pharmaceuticals, sensitive and photographic products, paper, explosives, as well as laboratory activities in general.

Configuration and data download to a PC are very easy: DeltaLog2 dedicated software guides the operator step by step.



All versions can be certified in our laboratory, classified as center SIT (Italian Calibration Service).



FEATURES

Excellent protection against atmospheric agents.

Temperature and relative humidity high accuracy all over the range.

Resolution: 0.1°C, 0.1% RH.

Sampling freely selectable by the user.

Manual control of acquisition start and stop either through a pushbutton or a clock.

Fast download of stored data.

240.000 data capacity on a single channel and 80.000 data capacity on three simultaneous channels.

Flash memory for holding data storage even when the instrument is without battery or with battery low.

Battery replaceable by the user.

Indication of flat battery.

All models provide a visual indication while the instrument is acquiring.

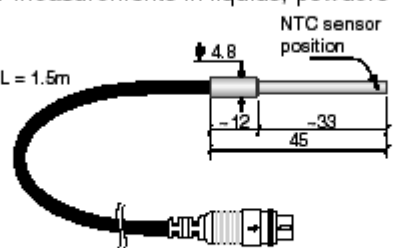
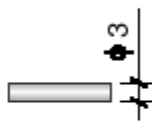
TECHNICAL SPECIFICATIONS

Versions with LCD Versions without LCD		HD207 HD227	HD207-1 HD227-1	HD206-1 HD226-1	HD206-2 HD226-2
Temperature sensor		NTC 10K @ 25°C			
RH sensor		Capacitive 150pF @23°C e 30%HR			
Sensor Location	Temperature	Internally mounted Additional temperature probe available as an option	Mounted under the front cover Additional temperature probe available as an option	Mounted under the front cover Additional temperature probe: optional for HD226-1 model, not available for HD206-1 model	Internal temperature sensor on HD226-2 model Temperature and relative humidity combined probe with cable
	Relative humidity	-	-	Mounted under the front cover	
Measuring and Operating range	Temperature	-30.+80°C instrument -40.+105°C probe with cable	-30.+80°C instrument -40.+105°C probe with cable	-30.+80°C instrument -40.+105°C probe with cable	-30.+80°C instrument -40.+105°C probe with cable
	Relative humidity	-		5%.98%HR	5%.98%HR
Accuracy	Temperature	± ±0.3°C in the 0...70°C range ±0.4°C outside the above range			
	Relative humidity			±2.5%HR	±2.5%HR
Resolution	Temperature	0,1 °C	0,1 °C	0.1 °C	0,1 °C
	Relative humidity	-	-	0,1 %HR	0,1 % HR
IP Protection		67	54 instrument 67 probe with cable	54 instrument 67 probe with cable	67 instrument 54 probe temp/%HR
Number of channels		1 + 1 external probe (optional)	1 + 1 external probe (optional)	2 (HD206-1) 2+1 (HD226-1)	2 (HD206-2) 2+1 (HD226-2)
Storage capacity		240.000 measurements with one active channel 120.000 measurements per channel with two active channels 80.000 measurements per channel with three active channels			
Reading Interval		Selectable among 1, 5, 10, 15, 30sec, 1, 5, 10, 15, 30min, 1hour			
PC interface		Through a passive optoisolated RS232 serial port, 9600 bauds			
Software		DeltaLog2 Compatible with Windows 95, 98, NT, 2000, ME and Xp..			
Display (where provided)		3 1/2 digit LCD, low battery symbol, 4 indicators of functional modes			
LED (where provided)		LED for operating status indication (HD226... and HD227... models)			
Power supply		3.6V – 1Ah Replaceable lithium battery			
Battery: typical life		3 years (with a measurement every 10sec)			
Dimensions / Weight		52x88x36mm / 240g			
Housing		Polycarbonate / rubber			
Instrument Connector		8-pole female minidin			
Probe Connector		8-pole male minidin			

SONDAS OPCIONALES Y ACCESORIOS PARA LOS MINIDATALOGGERS DELTA OHM

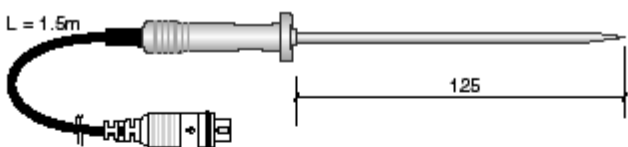
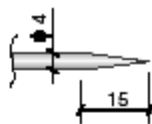
TP207

immersion temperature probe with NTC sensor for measurements in liquids, powders and gas;
total length: 45mm,
diameter: 3mm,
cable L = 1.5m,
material: stainless steel.

CODE	IMMERSION PROBE (NTC)	TERMINATION
TP207	<p>Probe for measurements in liquids, powders and gas</p> 	

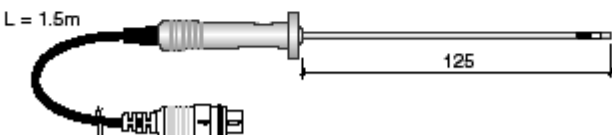
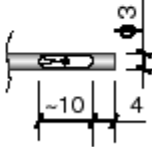
TP207P

pointed/immersion temperature probe with NTC sensor for food industry applications;
sheath length: 125mm,
diameter: 4mm,
cable L = 1.5m;
material: stainless steel.

CODE	POINTED PROBE (NTC)	TERMINATION
TP207P	<p>Pointed/Immersion stainless steel probe for food industry applications</p> 	

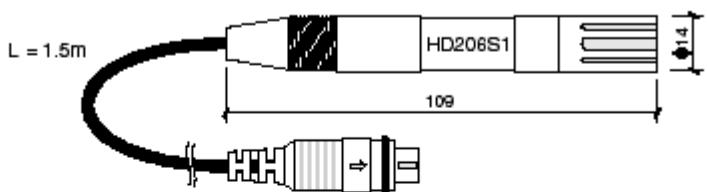
TP207A

temperature probe with NTC sensor for a fast measurement of the air temperature;
sheath length: 125mm,
diameter: 3mm,
cable: L = 1.5m;
material: stainless steel.

CODE	AMBIENT TEMPERATURE (AIR) PROBE (NTC)	TERMINATION
TP207A	<p>Probe for ambient temperature (air) fast measuring</p> 	

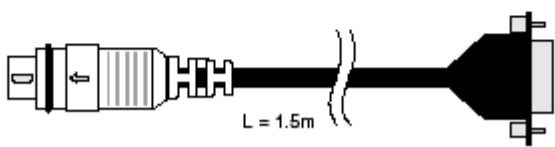
HD206S1

relative humidity/temperature combined probe,
length: 109mm,
diameter: 14mm;
cable: L = 1.5m.

CODE	TEMPERATURE AND RELATIVE HUMIDITY COMBINED PROBE
HD206/S1	

HD206/54

RS232C serial connection cable; cable: L=1.5m; 9-pole standard connector/ 8 pole minidin

CODE	PC - MINI DATALOGGER ↔ RS232C CONNECTION CABLE
HD206/54	

HD75: Calibration saturated solution at 75%RH

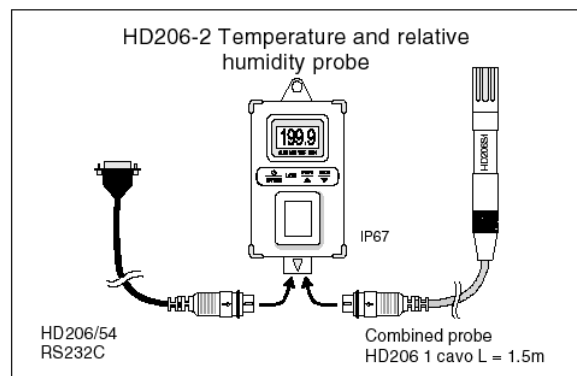
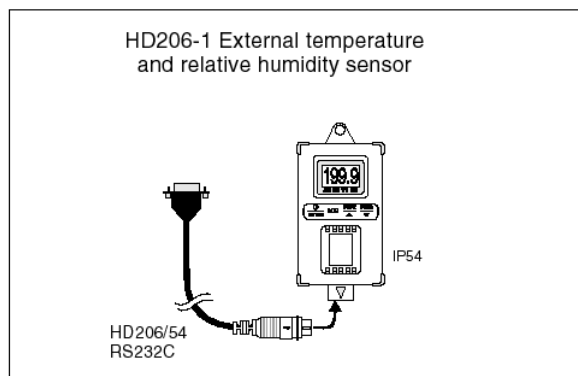
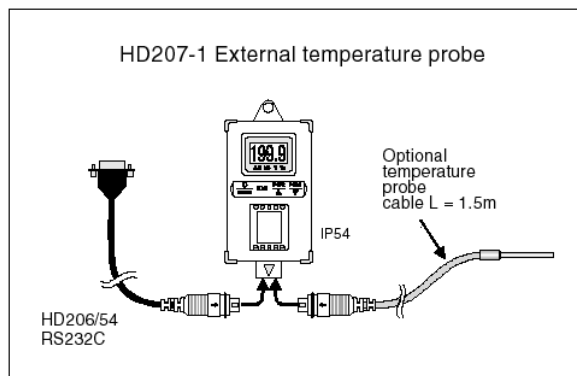
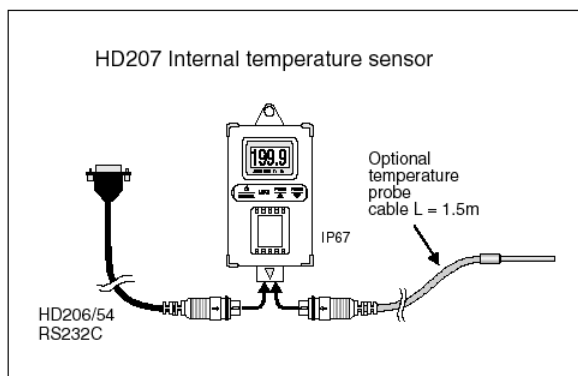
HD33: Calibration saturated solution at 33%RH

DeltaLog2: Software to download and show data on PC for HD 206/226 – HD 207/227 series minidatalogger.

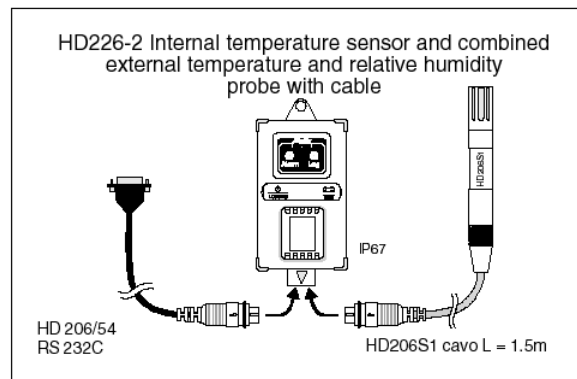
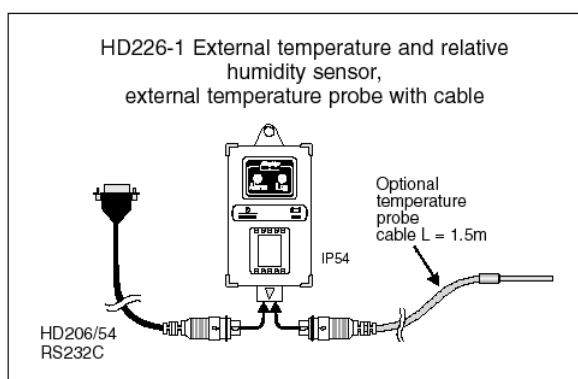
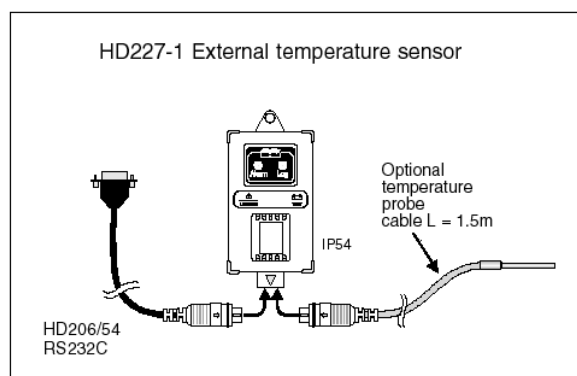
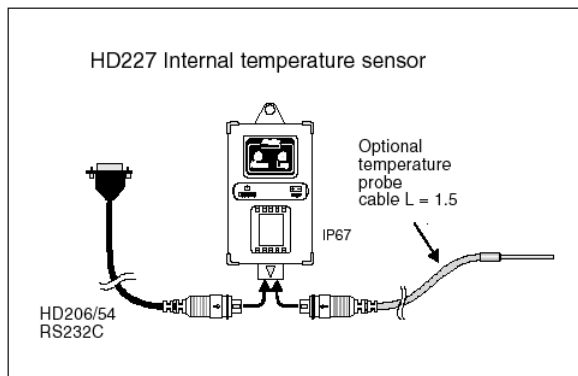
Supplied with HD206/54 serial cable to connect the minidatalogger to a PC. Minidin 8-pole male connector and Sub D 9-pole female connector. Cable L= 1,5 m.

BL.1: Li-SoCl2 3.6V 1Ah battery

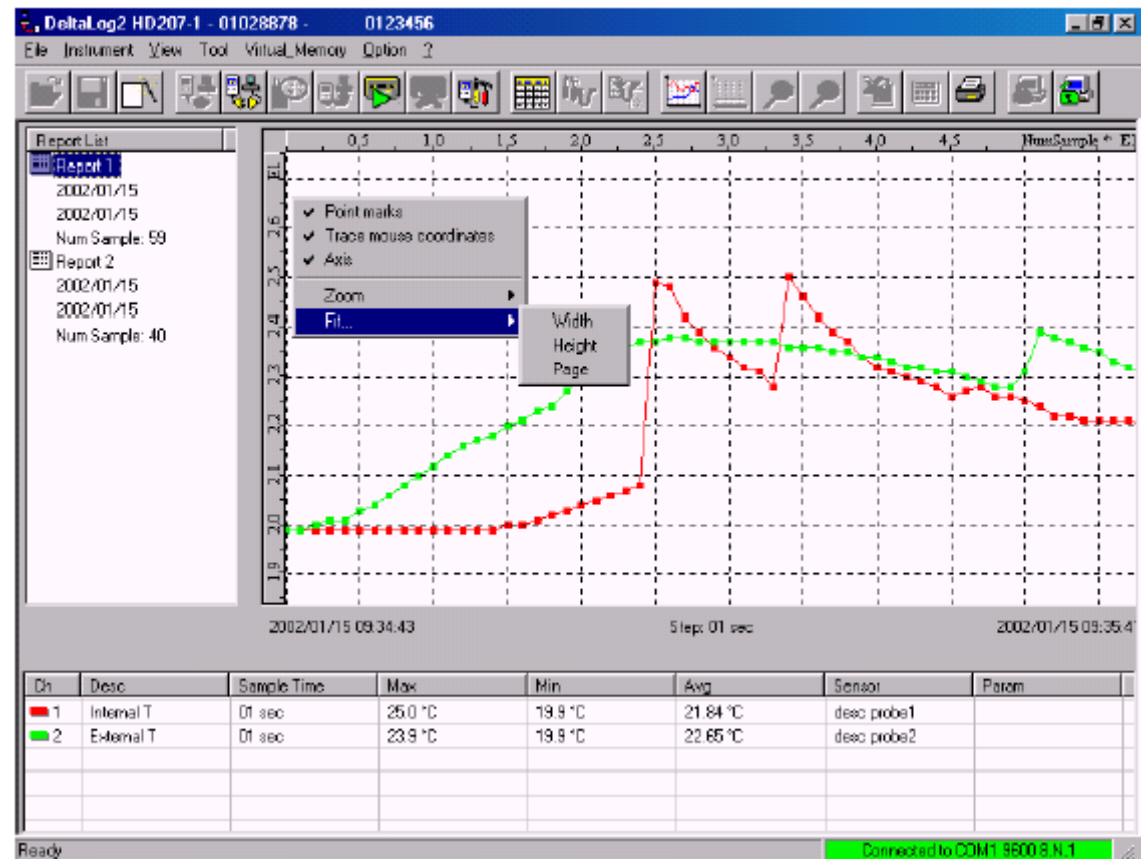
Models with LCD Display



Models without LCD Display



DATA DISPLAY IN GRAPHIC FORM.



DATA DISPLAY IN TABULAR FORM.

T: 2002/01/15 18:04:00					
File: Downloaded					
Date: 2002/01/15 18:04:00					
Time: 18:04:00					
Max: 25.0 °C					
Min: 19.9 °C					
Avg: 21.84 °C					
Sensor: desc probe1					
Param: Internal T					

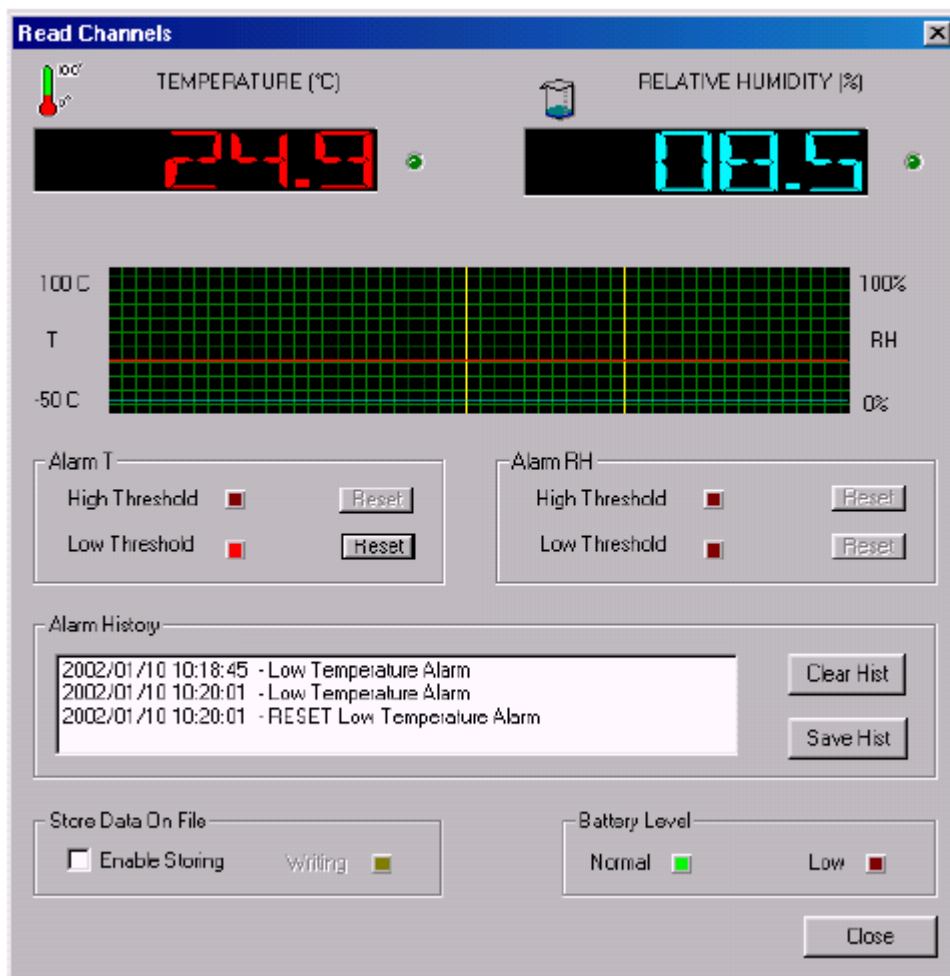
Measurement registered by the two input channels of the instrument.

Diagram of the two channels. The vertical yellow lines represent the storage interval activated through the "Store Data On File" command.

Alarm current status. The red LED turns on when the setpoint is exceeded. Press the Reset key to clear it.

Alarm history: it registers all the alarms occurred since the "READ CHANNELS" window was opened.

Select. Enable Storing. for record measurements through two channels. Turning off or leaving the control function, a screen display will ask if you want to save the data in a file.



CE CONFORMITY

Safety	EN61010-1 level 3
Electrostatic discharges	EN61000-4-2 level 3
Electrical fast transient	EN61000-4-4 level 3
High Energy Transient	EN61000-4-5 level 3
Voltage variations	EN61000-4-11
EMI Susceptibility	IEC1000-4-3 10V/m
EMI Emission	EN55020 class B