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HD 2001 HD 2001.1 HD 2001.2 HD 2001.3

INDICATORS OF TEMPERATURE, HUMIDITY, PRESSURE AND AIR SPEED
ENVIRONMENTAL MEASUREMENTS WITH DIGITAL OR ANALOG OUTPUT

The devices of the HD2001 series…, according to the models, measure temperature, relative humidity, barometric pressure and, for the model HD2001.2, wind speed by hot-wire probes. All the models are provided with RS232C or RS485 serial output and the management of more than one device connected to a network. In addition, all the models are fitted with an open collector type low-activated configurable alarm output.

The HD2001.1 and HD2001.3 model have three configurable analog outputs: 4…20mA or 0…20mA current output, or 0…10Vdc or 2…10Vdc voltage output. The choice of output type is made by means of the jumpers set on the board.

Wind speed measurement is detected by the HD2001.2 model with a hot-wire probe set on the upper part of the instrument.

The large display with dual indication on all models allows one of the process variables on the first line and the temperature on the second line, to be displayed.

The following table describes the characteristics of the three models

MODEL	Imput			Output	
	Temp..	Pres.	Air Speed	RS232 RS485 Open collector	0..20mA 4..20mA 0..10V 2..10V
HD 2001	X	X		X	
HD 2001.1	X	X		X	X
HD 2001.2	X	X	X	X	
HD 2001.3	X			X	X

ORDER CODES

HD2001 Temperature, relative humidity, barometric pressure indicator. Open collector alarm output and RS232C and RS485 PC connection. DeltaMet8 software for PC connection.

HD2001.1 Active indicator/transmitter of temperature range, relative humidity, barometric pressure with selectable 0…20mA, 4…20mA, 0…10V e 2…10V outputs. Open collector alarm output and RS232C and RS485 PC connection. DeltaMet8 software for PC connection.
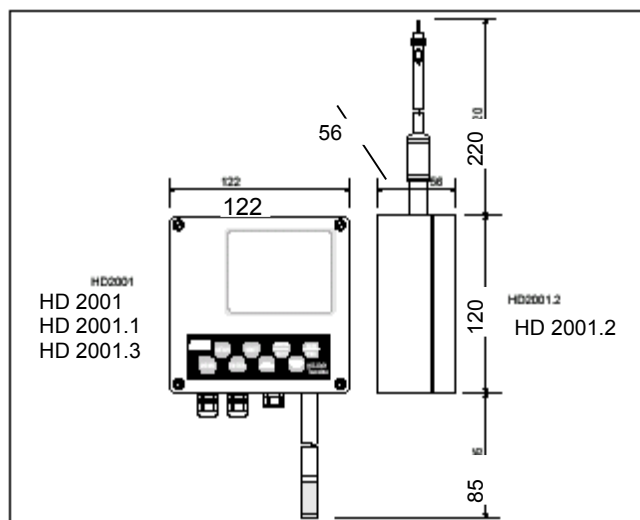
HD2001.2 Temperature range, relative humidity, barometric pressure and wind speed indicator. Open collector alarm output and RS232C and RS485 PC connection. DeltaMet8 software for PC connection.

HD2001.3 Temperature, relative humidity active indicator/transmitter with selectable 0..20mA, 4..20mA, 0..10V and 2..10V outputs. Open collector alarm output and RS232C and RS485 PC connection. DeltaMet8 software for PC connection.

HD2001.2.30: Wall mounting support for HD2001.2.
HD75 Saturated salt solution 75% R.H. Adapter M 12x1.
HD33 Saturated salt solution 33% R.H. Adapter M 12x1

TECHNICAL INFORMATION (@ 24Vac and 25°C)

		HD 2001	HD 2001.1	HD 2001.2	HD 2001.3
Imputs					
Temperature	Sensor	NTC 10 kΩ			
	Working range	-20... 80 ºC			
	Accuracy	±0.3°C in the range 0…+70°C ±0.4°C outside this range			
Humidity	Sensor capacity	300 pF			
	%R.H. Working range	5...98 %HR			
	TD Working range	-20... 80 ºC			
	Accuracy	± 2,5 % HR			
Pressure	Working range	600...1100 mbar – 600...1100 hPa 60,0...110,0 kPa			-
	Accuracy	± 0,5 mbar @ 25 ºC			-
	Fluid contacting the membrane	Air – Non corrosive gas - **No liquids**			-
Air speed	Type of sensor	-	-	Hot wire	-
	Working range	-	-	0...5 m/s	-
	ºC Working range	-	-	-20... 80 ºC	-
	Accuracy	-	-	±1 m/s @25ºC	-
Outputs					
Communications	Type	RS232C and Multidrop RS485			
	Maximum Baud Rate	9600 baud			
Alarm	Type of output	Open collector (low-activated)			
	Maximum voltage	30 Vcc			
	Maximum power	200 mW			
Analog	Variables	Temperatura, %HR, Punto de rocío TD, presión barométrica, caída de presión		Temperatura, %HR Punto de rocío TD Presión barométrica caída de presión Velocidad del aire	Temperatura, %HR Punto de rocío TD
	Type of outputs	-	4...20 mA 0...20 mA 0...10 Vcc 2...10 Vcc	-	4...20 mA 0...20 mA 0...10 Vcc 2...10 Vcc
	Load resistance	-	Current output 500 Ω max. Voltaje output 1000 Ω max.	-	Current output 500 Ω max. Voltaje output 1000 Ω max.
	Resolution	-	16 bit	-	16 bit
Power		24 Vac ± 10% 50..60 Hz (230Vac ± 10% on request)			
Software		Delta Met8			
Environmental conditions	Temperature range	-20 ... 80 ºC			
	Humidity range	0...90 %HR (without condensation)			
	Protection degree	Electronic IP67			

CE CONFORMITY

Security	EN61000-4-2, en61010-1 nivel 3
ESD	EN61000-4-2 nivel3
Fast electrical transients	EN6100-4-4 nivel 3, en61000-4-5 nivel 3
Voltage variations	EN61000-4-11
Susceptibility to electromagnetic interference	IEC1000-4-3
Emisión to electromagnetic interference	EN55020 clase B

ORDER CODES

MODELO	DESCRIPCION
HD 2001	Relative humidity, temperature and barometric pressure indicator. RS232C, RS485 and open collector output. Wall mounted. Electronic Dimensions 122x120x57 mm. Barometric pressure sensor inside. Vertical fixed probe (Humidity and temperature) Ø 14 x 130 mm
HD 2001.1	Relative humidity, temperature and barometric pressure indicator and transmitter.RS232C, RS485 and open collector output.. Wall mounted. Electronic Dimensions 122x120x57 mm. Barometric pressure sensor inside. Vertical fixed probe (Humidity and temperature) Ø 14 x 130 mm Outputs 0 ... 20 mA, 4 ... 20 mA, 0 ... 10V, and 10V selectables
HD 2001.1 TC2	Relative humidity, temperature and barometric pressure indicator and transmitter.RS232C, RS485 and open collector output.. Wall or duct mounted. Electronic Dimensions 122x120x57 mm Barometric pressure sensor inside. Separed probe (Humidity and temperature) Ø 14 x 130 mm 2 m cable Outputs 0 ... 20 mA, 4 ... 20 mA, 0 ... 10V, and 10V selectables
HD 2001.1 TC5	Relative humidity, temperature and barometric pressure indicator and transmitter.RS232C, RS485 and open collector output.. Wall or duct mounted. Electronic Dimensions 122x120x57 mm Barometric pressure sensor inside. Separed probe (Humidity and temperature) Ø 14 x 130 mm 5 m cable Outputs 0 ... 20 mA, 4 ... 20 mA, 0 ... 10V, and 10V selectables
HD 2001 TC10	Relative humidity, temperature and barometric pressure indicator and transmitter.RS232C, RS485 and open collector output.. Wall or duct mounted. Electronic Dimensions 122x120x57 mm Barometric pressure sensor inside. Separed probe (Humidity and temperature) Ø 14 x 130 mm 10 m cable Outputs 0 ... 20 mA, 4 ... 20 mA, 0 ... 10V, and 10V selectables
HD 2001.2	Relative humidity, temperature, barometric pressure and air speed (Hot wire sensor) active indicator. RS232C, RS485 and open collector output. Wall mounted. Electronic Dimensions 122x120x57 mm Barometric pressure sensor inside.. Vertical fixed probe (Humidity, temperature and air speed) L = 230 mm
HD 2001.3	Relative humidity and temperature indicator and transmitter. Wall mounted. Electronic Dimensions 122x120x57 mm Vertical fixed probe (Humidity and temperature) Ø 14 x 130 mm Outputs 0 ... 20 mA, 4 ... 20 mA, 0 ... 10V, and 10V selectables
HD 2001.3 TO2	Relative humidity and temperature indicator and transmitter.. Duct mounted. Electronic Dimensions 122x120x57 mm Horizontal fixed probe (Humidity and temperature) Ø 14 x 330 mm Outputs 0 ... 20 mA, 4 ... 20 mA, 0 ... 10V, and 10V selectables
HD 2001.3 TO3	Relative humidity and temperature indicator and transmitter.. Duct mounted. Electronic Dimensions 122x120x57 mm Horizontal fixed probe (Humidity and temperature) Ø 14 x 530 mm Outputs 0 ... 20 mA, 4 ... 20 mA, 0 ... 10V, and 10V selectables
HD 2001.3 TC2	Relative humidity and temperature indicator and transmitter... Wall or duct mounted. Electronic Dimensions 122x120x57 mm Separed probe (Humidity and temperature) Ø 14 x 530 mm 2 m cable Outputs 0 ... 20 mA, 4 ... 20 mA, 0 ... 10V, and 10V selectables
HD 2001.3 TC5	Relative humidity and temperature indicator and transmitter... Wall or duct mounted. Electronic Dimensions 122x120x57 mm Separed probe (Humidity and temperature) Ø 14 x 530 mm 5 m cable Outputs 0 ... 20 mA, 4 ... 20 mA, 0 ... 10V, and 10V selectables
HD 2001.3 TC10	Relative humidity and temperature indicator and transmitter... Wall or duct mounted. Electronic Dimensions 122x120x57 mm Separed probe (Humidity and temperature) Ø 14 x 530 mm 10 m cable Outputs 0 ... 20 mA, 4 ... 20 mA, 0 ... 10V, and 10V selectables
ACCESSORIES	
P5	Stainless steel grid protection for probes diam. 14, thread M12x1
P7	20µ PTFE protection for probes diam. 14, thread M12x1
HD 2001.2.30	Wall fixing bracket for HD2001.2
HD 9008.21.1	Flange with support , Ø 26mm hole for vertical probes, 250mm distance from the wall
HD 9008.21.2	Flange with support , Ø 26mm hole for vertical probes, 125mm distance from the wall
HD 9008.26/14	Reduction Hole Ø 26-14 mm. Support for HD and HD 9008.21.1 9008.21.2
HD 9008.31	Wall flange with cable outlet for 14 to fix all combined °C and R.H. probes of the series TO and TC.
HD 11	Saturated solution 11% H.R. for calibrating RELATIVE HUMIDITY probes Probe fixing adapter diam.14, M12x1, thread M12x1 included.
HD 33	Saturated solution 33% H.R. for calibrating RELATIVE HUMIDITY probes Probe fixing adapter diam.14, M12x1, thread M12x1 included.
HD 75	Saturated solution 75% for calibrating RELATIVE HUMIDITY probes Probe fixing adapter diam.14, M12x1, thread M12x1 included.