PRODUCT DESCRIPTION

Commeters of Dxxxx family are (depending on the device type) designed for measurement and recording of temperature and relative humidity around the device (or external probe), atmospheric pressure and the pressure tendency with the possibility of displaying the dew point temperature and atmospheric pressure value corrected to the sea level. Measured values are displayed on a dual line LCD display and can be stored in selectable time interval (10 s to 24 h) to internal non-volatile memory from where it can be transferred to a personal computer. The measured values (except pressure tendency) are compared with two adjustable levels for each measured quantity. Breaking the level is indicated by blinking the proper value on display and by audio indication (switchable). Devices are equipped with memory of minimum and maximum values and Hold function. Minimum and maximum values and Hold value are possible to display on the LCD anytime.

OPERATION

Switching ON and OFF the device

The device turns on and off with the button „ON/OFF“. Then the all symbols appear on the display to verify proper function. If there has been a decline in battery voltage or battery disconnection (longer than 1 min), the new device initialization will be performed (may take up to 12 s).

Displaying of actual measured values

Use button „DISPLAY“ to select the actual measured values you wish to view on LCD display (does not apply to D0211 type).

device	D0211	D0221	D3120	D3121	D3121P	D3631	D3633	D4130	D4141
upper line lower line	T_1 ---	T_1 T_2	T RV	T RV	T RV	T_{INT} RV	T_{INT} RV	T RV	T_{EXT} RV
upper line lower line		T_1 $T_1 - T_2$	T T_{DP}	T T_{DP}	T T_{DP}	T_{EXT} T_{DP}	T_{EXT} T_{DP}	P T_{DP}	T_{INT} T_{DP}
upper line lower line						T_{EXT} $T_{EXT} - T_{DP}$	T_{EXT} $T_{EXT} - T_{DP}$	*„tEnd“* TEND	P $T_{DP\ EXT}$
upper line lower line									*„tEnd“* TEND

T	*temperature*
RV	*relative humidity*
P	*atmospheric pressure*
DP	*dew point*
INT	*internal sensor*
EXT	*external sensor*
TEND	*pressure tendency*

Press button „HOLD” in the default mode (displaying of actual measured values) to store all actual measured values to internal memory. Press „MIN” („MAX”) buttons (in the default mode) to display the minimum (maximum) value of the currently displayed measured quantity.

Functions and settings available from menu

Press button „MENU” to enter into the mode of viewing all menu items. The required item select using the arrow buttons. To return to the default mode (displaying of actual measured values) press button „MENU”.

Strt after pressing the button „ENTER” you can: clear the memory, modify the storing interval, select the logging mode, start the logging
StOP press the button „ENTER” to stop the logging mode
ALAr after pressing the button "ENTER" it is possible to set lower (**ALLO**) and upper (**ALHI**) limit for each measured quantity (except pressure tendency). To set limits of the D0211 device press button “ALARM”.
AUdI by pressing the button „ENTER“ switch on (**On)** or switch off (**OFF)** audio signalling of alarm indication
CLr after pressing the button „ENTER“ is cleared memory of minimum and maximum values (this is confirmed by reading **YES**)
HOLd press the button „ENTER“ to display values stored in the HOLD memory (the measured quantity select by button „DISPLAY“)
CLOC device time is displayed (for date displaying press button „ENTER“)
bAt voltage value of partially loaded battery is displayed (this value illustrates battery condition)
d.rEF by pressing the button „ENTER“ select the fast (**FASt**) or dynamic (**dYn**) refresh mode
InFO gradual by pressing the button „ENTER“ are displayed: storing interval – the actual logging mode – the memory occupation – service information about software version together with device configuration

CONNECTION TO PC AND SOFTWARE

Use personal computer with installed user software for memory content reading (software is available at www.cometsystem.com). Use delivered USB cable for interconnection of the device with PC.

WARNING

- It is not allowed to touch the sensors under the cover to prevent damage the sensors.
- The sensors (under the cover) should not be exposed to direct contact with water or other liquids.
- Devices contain electronic components, it needs to liquidate them according to currently valid condition.
- To complement the information in this data sheet read the manuals and other documentations that are available in the Download section for a particular device at www.cometsystem.com.

TECHNICAL SPECIFICATIONS

Device type	D0211	D0221	D3120	D3121, D3121P	D3631	D3633	D4130	D4141
Temperature measuring range - around the device	---	---	-10 to +60 °C	---	-10 to +60 °C	-10 to +60 °C	-10 to +60 °C	-10 to +60 °C
Temperature measuring range - surface contact probe	---	---	---	---	---	-10 to +60 °C	---	---
Temperature measuring range - external RH+T probe	---	---	---	-30 to +105 °C	---	---	---	-30 to +105 °C
Accuracy of temperature measurement	---	---	± 0.4 °C	± 0.4 °C	± 0.4 °C	± 0.4 °C	± 0.4 °C	± 0.4 °C
Temperature measuring range - Pt1000/3850 probe *	-200 to +500 °C	-200 to +500 °C	---	---	---	---	---	---
Temperature measuring range - Ni1000/6180 probe **	-50 to +250 °C	-50 to +250 °C	---	---	-50 to +250 °C	---	---	---
Relative humidity measuring range	---	---	5 to 95 %RH	0 to 100 %RH	5 to 95 %RH	5 to 95 %RH	5 to 95 %RH	0 to 100 %RH
Accuracy of humidity measurement ***	---	---	± 2.5 %RH	± 2.5 %RH	± 2.5 %RH	± 2.5 %RH	± 2.5 %RH	± 2.5 %RH
Atmospheric pressure measuring range	---	---	---	---	---	---	800 to 1100 hPa	800 to 1100 hPa
Accuracy of atmospheric pressure measurement at 23 °C	---	---	---	---	---	---	± 2 hPa	± 2 hPa
Dew point temperature measuring range	---	---	-40 to +60 °C	-60 to +80 °C	-40 to +60 °C	-40 to +60 °C	-40 to +60 °C	-60 to +80 °C
Accuracy of dew point temperature measurement ****	---	---	± 1.5 °C	± 1.5 °C	± 1.5 °C	± 1.5 °C	± 1.5 °C	± 1.5 °C
Total memory capacity for manual logging mode	1 000 value sets	1 000 value sets	1 000 value sets	1 000 value sets	1 000 value sets	1 000 value sets	1 000 value sets	1 000 value sets
Total memory capacity for automatic noncyclic mode	16 248 values	8 124 values	8 124 values	8 124 values	5 416 values	5 416 values	4 062 values	4 062 values
Total memory capacity for automatic mode	14 400 values	7 644 values	7 644 values	7 644 values	5 198 values	5 198 values	3 938 values	3 938 values
Temperature operating range of the device	-30 to +65 °C	-30 to +65 °C	-10 to +60 °C	-10 to +60 °C	-10 to +60 °C	-10 to +60 °C	-10 to +60 °C	-10 to +60 °C
Relative humidity operating range (without condensation)	5 to 95 %RH	5 to 95 %RH	5 to 95 %RH	5 to 95 %RH	5 to 95 %RH	5 to 95 %RH	5 to 95 %RH	5 to 95 %RH
Temperature operating range of the external probe	according to probe	according to probe	---	-30 to +105 °C	according to probe	---	---	-30 to +105 °C
Relative humidity range of the external probe	according to probe	according to probe	---	0 to 100 %RH	according to probe	---	---	0 to 100 %RH
Average current consumption from battery *****	0.08 to 0.3 mA	0.08 to 0.3 mA	0.15 to 0.7 mA	0.15 to 0.7 mA	0.2 to 0.8 mA	0.2 to 0.8 mA	0.3 to 1.3 mA	0.3 to 1.3 mA
Protection class	IP20	IP20	IP20	IP20	IP20	IP20	IP20	IP20
Weight without external probe	150 g	150 g	155 g	150 g	155 g	200 g	155 g	150 g
Dimensions [mm]	146 x 71 x 27	146 x 71 x 27	191 x 71 x 27	141 x 71 x 27	191 x 71 x 27	191 x 71 x 39	191 x 71 x 27	141 x 71 x 27

* Accuracy of the PT1000 input without probe
± 0.6 % from reading from -200 to -50 °C
± 0.3 °C from -50 to +100°C
± 0.3 % from reading from +100 to +500 °C

** Accuracy of the Ni1000 input without probe
± 0.2 °C from -50 to +100 °C
± 0.2 % from reading from +100 to +250 °C

*** from 5 to 95 %RH at 23 °C

**** at temperature T < 25 °C and RH > 30 %
(for more details see graphs in the manuals)

***** the value of the average current consumption is in the mode of FAST higher than in the mode of the dynamic

if you are using external ac/dc adapter 12 Vdc, the internal battery 9V should be replaced with NiMH 9V accumulator