

CONFIGURABLE DIGITAL RELATIVE HUMIDITY MONITOR

EC 3-463

GENERAL CHARACTERISTICS

- * Size: 74 x 32 mm.
- * Power supply: 12 or 12-24Vac/dc
- * Three digit display, height: 12,5mm.
- * Indication of relative humidity with decimal point
- * Custom configuration through keyboard or Personal Computer
- * Possibility of field-reconfiguration
- * Easy integration with remote-assistance or remote-measuring

EC 3-463 is a three digit relative humidity monitor designed to work with current output 0-20 mA or 4-20 mA, 2 or 3 wires humidity transducers (for example EC UMD 00 and EC UMD 01 manufactured by Every Control). The electrical solutions of this instrument make it able to power-supply the transducers, as long as they can work inside a range of supply-voltage between 9 and 20 V.

Failure of functioning, defective probe, corrupted memory-data or probe-signal outside the limits are indicated by the flashing display, in order to catch user's attention.

The possibility of field-reconfiguration and the chance of being connected in remote-measuring or remote assistance network, makes it highly flexible in the use and able to meet the most different needs.

MOUNTING

For a proper mounting, take note of the attached indications; be sure that the conditions of use (voltage of power-supply, environment temperature, humidity) are inside the instrument working limits.

Voltage at terminal 12 is not stabilized. If the transducer is powered by the instrument, it should be verified that in all working conditions, especially for high humidity values, **the voltage on the transducer** does not drop below the minimum working value, in order to guarantee a correct measure.

WARNING : according to the source of power-supply, find a protection able to limit the quantity of current absorbed by the instrument in case the failure.

CONFIGURATION

- | | | |
|-------------------|---|--|
| Push |  | and keep it pushed for 4 sec. at least :
"PA" will appear on the display |
| Release |  | and push it straight after:
the first modifiable parameter will appear on the screen |
| Release and push |  | until the requested parameter appears |
| Keep pushed |  | for 4 sec. at least :
the parameter value will appear on the screen |
| Keep pushed again |  | for 4 sec. at least :
the displayed value start increasing at the speed of 1 digit for 1/2 sec. |
| Release |  | at the reaching of the requested value. |

WARNING: The parameter value gets increased at the speed of 1 digit for 1/2 sec., until the upper end of scale reaching, afterwards the instrument returns to the lower end of scale, and from here it keeps increasing.

To exit the configuration

Push  again after the selection of the last available parameter, or wait 50 seconds, or switch the power supply off, and then, switch it on.

SIGNALS AND ALARMS

"E0" flashing on the display means one of the following defects: probe-signal outside the limits, defective probe or wrong connection (in case of not connected probe, the indication "E0" will appear if the parameter is /0=30 (4-20 mA) and "0" if the parameter is /0=31 (4-20 mA)).

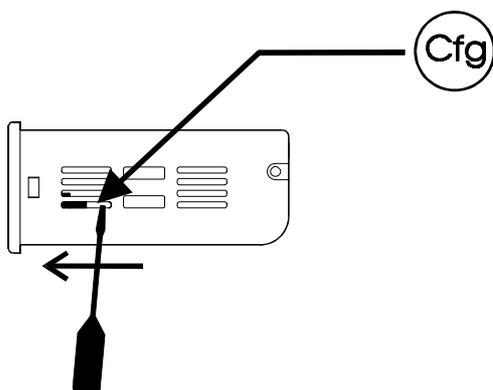
"E2" flashing on the display: failure of memorised configuration-data; try to switch the power-supply off, and then, switch it on.

CONFIGURATION PARAMETERS

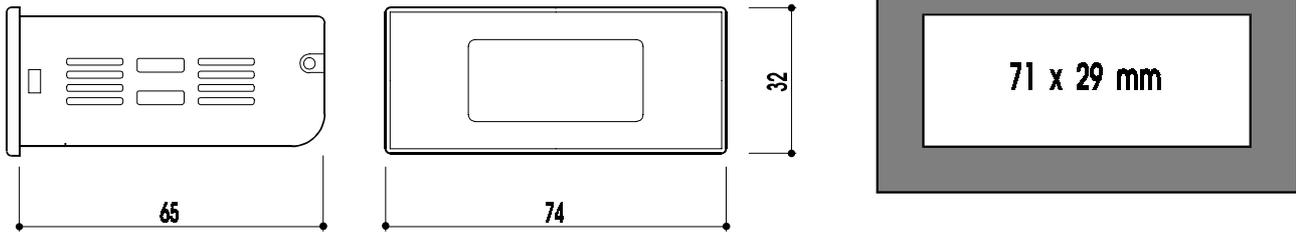
CODE	PARAMETER	DESCRIPTION	MIN	MAX	U.M.	STANDARD
/	PROBE					
/0	kind of probe	30 = 4-20 mA ; 31 = 0-20 mA	30	31	----	30
/1	calibration		-9.0	+10	%rH	0
/2	digital filter(speed response)	0=0s; 1=0.4s; 2=1.2s; 3=3.0s; 4=8.0s; 5=19.8s; 6=48.0s	0	6	----	3
/4	without leading zeros	0=NO; 1=SI	0	1	----	1
/5	with decimal point	0=NO; 1=SI	0	1	----	0
/6	start of scale for input 0-20 mA or 4-20 mA	corrispondent to input's minimum value	-99	999	%rH	0
/7	end of scale for input 0-20 mA or 4-20 mA	corrispondent to input's maximum value	-99	999	%rH	100
L	NETWORK CONNECTION					
L1	instrument address		1	15	----	1
L2	instrument group		0	7	----	0

HOW TO ENTER THE CONFIGURATION KEY

Use a suitable tool (for instance, a small top screw-driver) to operate on the key through the side openings.

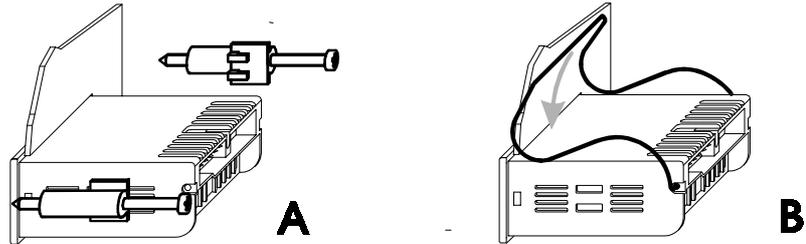


SIZE AND PIERCING TEMPLATE



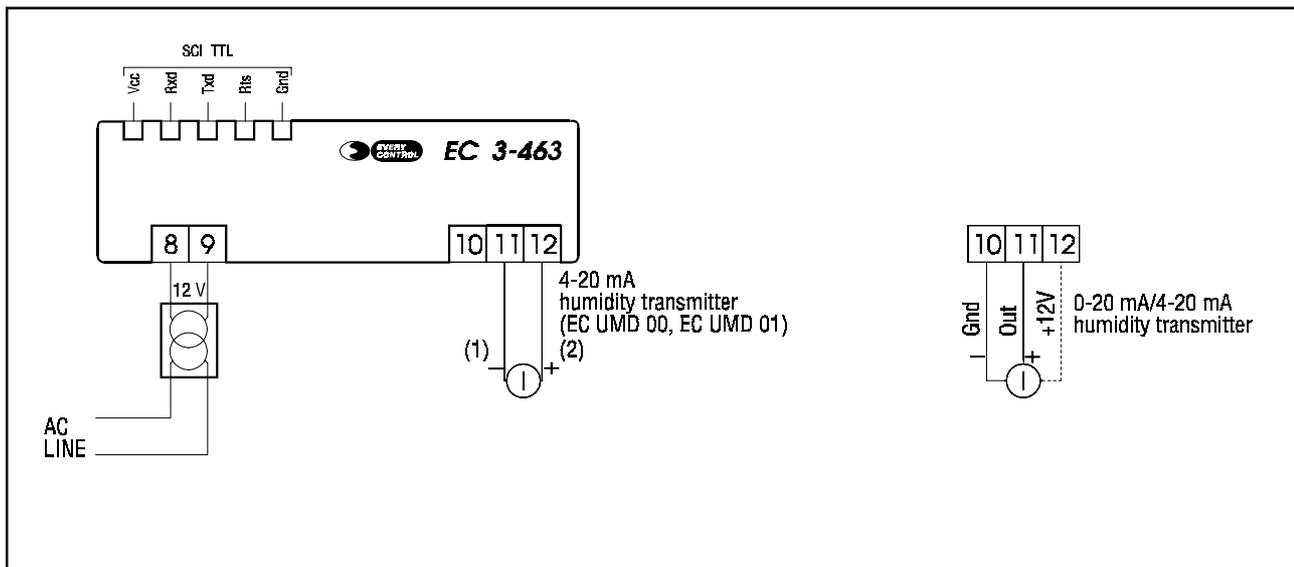
OPTIONS OF MOUNTING

- Screw-brackets (A).
 - Spring-bracket (B).
- The panel thickness will be between 1 and 5 mm.



ELECTRICAL CONNECTIONS

Example of typical application



ELECTRO-MECHANICAL CHARACTERISTICS

- Box:** Self-extinguishing plastic (PC-ABS) according to UL94 V-0.
- Size:** 74 x 32 x 65 mm.
- Mounting:** Panel-mounting through fixing brackets.
- Environment temperature:** from 0 to + 60°C.
- Humidity:** 10...90% not condensing.
- Connections:** Screw connectors.
- Insulation-class:** II (With transformer, according to EN 60742).
- Power-supply:** 12 Vac/dc (Standard) or 12...24Vac/dc (on request); 1 W.
- Inputs for measure:** 1 configurable for humidity transducers with current output (4-20 mA or 0-20 mA).
- Input resistance:** 56 ohm.

- Transducer power-supply:** available at terminal 12 (voltage 12V +30%, -20%).
- Range of measure:** from zero to 100% of relative humidity.
- Resolution:** 0.1%rH.
- Display:** 3 digits display.
- Serial port for data exchange:** TTL with EVCBUS (standard protocol).