COUNTIS *ECi2 / ECi3*

Active energy meter and concentrator


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Pulse concentrator

➲ Function

The **COUNTIS ECix** is a multi-fluids pulse concentrator communicating via an RS485 link using JBUS/MODBUS®. Through 7 insulated on/off inputs and 2 analogue inputs (COUNTIS ECi3 version), it counts the number of pulses from different energy meters (water, air, gas, electricity...) and transmits this information to a PC equipped with ENERGY REPORTING software or to a PLC.

➲ Conformity to standards

• IEC 61010-1	• IEC 61000-4-8
• IEC 61000-4-2	• IEC 61000-4-11
• IEC 61000-4-3	• IEC 60068-2-6
• IEC 61000-4-4	• IEC 60068-2-11
• IEC 61000-4-5	• IEC 60068-2-30
• IEC 61000-4-6	

➲ Applications


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appli_223_a
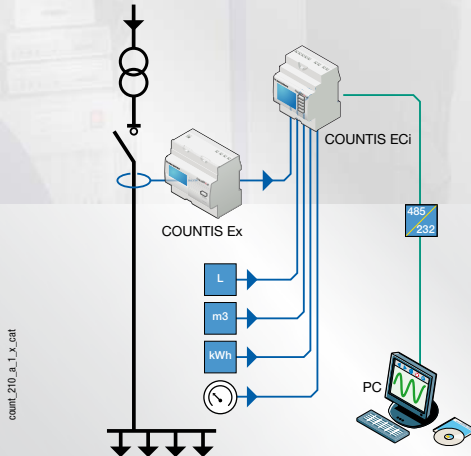
In the knowledge that electricity is not the only energy consumption source, COUNTIS allows centralising of other units such as water, air or gas.

ENERGY REPORTING software, via the **COUNTIS ECix** concentrator and its RS485 link JBUS/MODBUS® protocol, allows centralising all these consumptions whilst guaranteeing an optimal accuracy and ease of exploitation (Windows environment).

The **COUNTIS ECix** provides:
• Easy to use: a wide LCD screen with 4 lines and 5 direct access keys.
• 7 partial, overall, daily, weekly or monthly totalisers to account for the kWh or other type of quantities (liters, cubic meters, Euros…).
• Status of the 7 inputs (to centralize dry contacts information from the installation).
• 2 analogue inputs 0/4 ... 20mA to centralize the analog sensor value (flow, pressure…)
• The 7 logical inputs and the 2 analogue inputs can reconstitute an average value as required over a period of 8, 10, 15, 20 or 30 minutes. Stored in 10-minute segments for 170 days.
• A configurable logical output (configurable alarm, logical equation…)

➲ Front panel
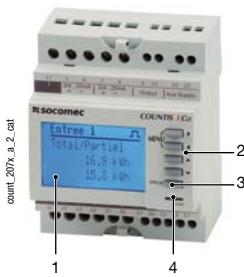
1. *Backlit LCD screen.*
2. *Navigation keys.*
3. *Validation pushbutton in programming mode.*
4. *Communication status indicator (COM).*

➲ Case
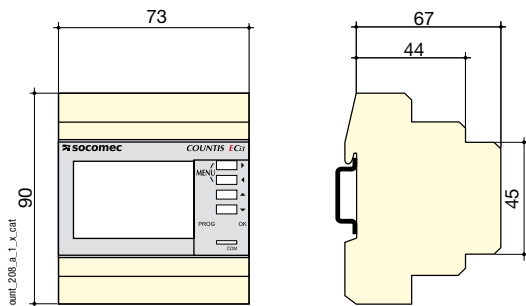
Type	Modular
Number of modules	4
Dimensions W x H x D	73 x 90 x 67 mm
Case protection index	IP20
Front protection rating	IP51
Display type	LCD
Terminal blocks type	Fixed
Rigid cable connection section	1 … 10 mm²
Flexible cable connection section	0.5 … 6 mm²
Weight	215 g

➲ Characteristics

Auxiliary power supply	
Self supplied	no
Alternating voltage	110 / 400 VAC
Direct voltage	120 / 300 VDC
Tolerance	± 10 %
Frequency	45 / 65 Hz
Consumption	5 VA
Insulation voltage	3.5 kV

Communication	
Link	RS-485
Type	2 … 3 half duplex wires
Protocol	JBUS/MODBUS® in RTU mode
JBUS/MODBUS® speed	9600 … 38400 bauds

On/off inputs	
Number	7
Control voltage (integrated)	10 … 30 VDC
Minimal signal width	10 ms
Maximum signal width	2 s
Minimum length between 2 impulses	30 ms
Edge triggering	rising

Analog inputs	
Number	2
Current	25 mA
Accuracy	0.5 %
Response time	500 ms
Input resistance	200 Ω
Absorbed power	0.1 VA

Operating conditions	
Operating temperature	-10 … +55 °C
Storage temperature	-20 … +70 °C
Relative humidity	95 %

➲ Terminals and connections

① = Fus. 0.5 A gG
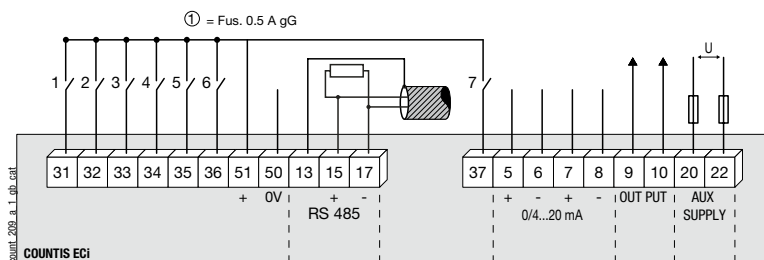
31: *on/off input n°1.*
32: *on/off input n°2.*
33: *on/off input n°3.*
34: *on/off input n°4.*
35: *on/off input n°5.*
36: *on/off input n°6.*
37: *on/off input n°7.*

51-50: *Inputs internal/ external power supply*

13-15-17: *RS 485 link*

5-6: *Analogue input n°1*
7-8: *Analogue input n°2*
9-10: *Output*
20-22: *Power supply U=110…400 VAC ± 10%*

➲ References

	COUNTIS ECi2	COUNTIS ECi3
Auxiliary power supply U$_s$	Reference	Reference
230 / 400 VAC	4853 **0000**	
230 / 400 VAC + 2 analogue inputs		4853 **0001**

Description of accessories	Reference	Reference
Panel mounting kit	192J **8015**	192J **8015**