

COUNTIS ECix

Multi-utility pulse concentrator

Single-circuit metering, measurement & analysis



COUNTIS ECi3

The solution for

- Data centres
- Industry
- Infrastructure



Strong points

- Up to 7 multi-utility meters and 2 analogue sensors
- Load curves
- RS485 MODBUS communication
- Improved customisation

Management software

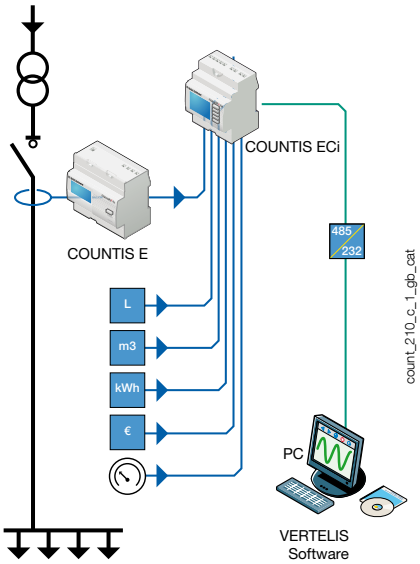
- To get the most effective use from your Socomec measurement and metering devices, we offer a range of dedicated software tools. See page 142.

Function

The **COUNTIS ECix** is a multi-utility pulse concentrator which communicates via an RS485 link using MODBUS protocol.

It enables pulses from water, gas, compressed air, electricity meters and, for the COUNTIS ECi3, the output of analogue sensors (light, temperature, wind etc.) to be registered and stored. All data, ie. total and partial meters and load curves (available for all logical and analogue inputs) can be centralised via RS485 communication using MODBUS protocol.

Principle diagram



Advantages

Up to 7 multi-utility meters and 2 analogue sensors

- 7 logical inputs + 2 analogue inputs.
- Total, partial and programmable metering (day, week, month, year).

Load curves

Load curves are available for each of the 7 logical inputs.

A history of average values are available for the 2 analogue inputs (ECi3).

RS485 MODBUS communication

- Centralisation and transmission of pulse and analogue data to a supervision station.
- Remote configuration of COUNTIS ECi device.

Improved customisation

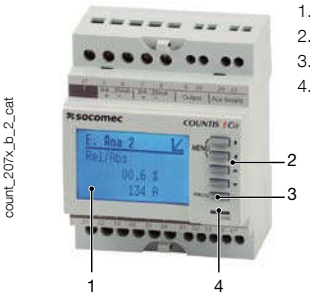
- Selection of the measuring unit: kWh, m^3, liters.
- Selection of the currency unit: €, K€, £, $.

Values can be displayed in the unit of your choice and energy costs can be directly calculated.

Models	Key characteristics
ECi2	7 insulated inputs
ECi3	7 insulated inputs + 2 analogue inputs.

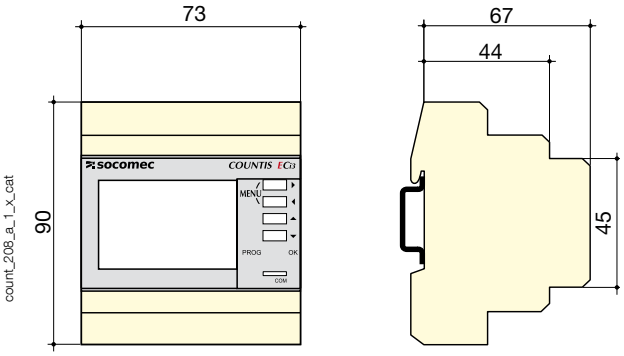
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Front panel



1. Backlit LCD display.
2. Navigation keys.
3. Validation pushbutton in programming mode.
4. Communication status indicator (COM).

Case

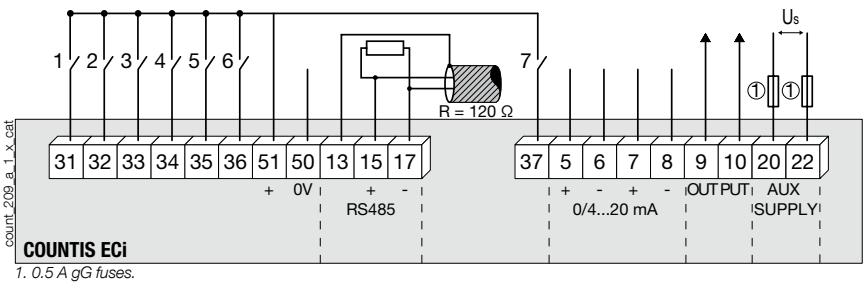


Type	modular
Number of modules	4
Dimensions W x H x D	73 x 90 x 67 mm
Case degree of protection	IP20
Front degree of protection	IP51
Display type	backlit LCD display
Terminal blocks type	fixed
Rigid cable cross-section	1… 10 mm²
Flexible cable cross-section	0.5… 6 mm²
Weight	215 g

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	RS485
Type	2 … 3 half duplex wires
Protocol	MODBUS RTU
MODBUS® speed	9600… 38400 bauds
Inputs	
Number	7
Control voltage (integrated)	10…30 VDC
Minimum signal width	10 ms
Maximum signal width	2 s
Minimum duration between 2 pulses	30 ms
Edge triggering	rising
Analogue inputs (ECi3)	
Number	2
Current	25 mA
Accuracy	0.5 %
Response time	500 ms
Input resistance	200 Ω
Consumption	0.1 VA
Operating conditions	
Operating temperature	-10… +55 °C
Storage temperature	-20… +70 °C
Relative humidity	95 %

Connection



1. 0.5 A gG fuses.

31: logical input n°1.
32: logical input n°2.
33: logical input n°3.
34: logical input n°4.
35: logical input n°5.
36: logical input n°6.
37: logical input n°7.

51-50: Inputs internal/ external power supply.

13-15-17: RS485 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

Auxiliary power supply U_s	**COUNTIS ECi2 Reference**	**COUNTIS ECi3 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**
Management software for COUNTIS	See page 142	