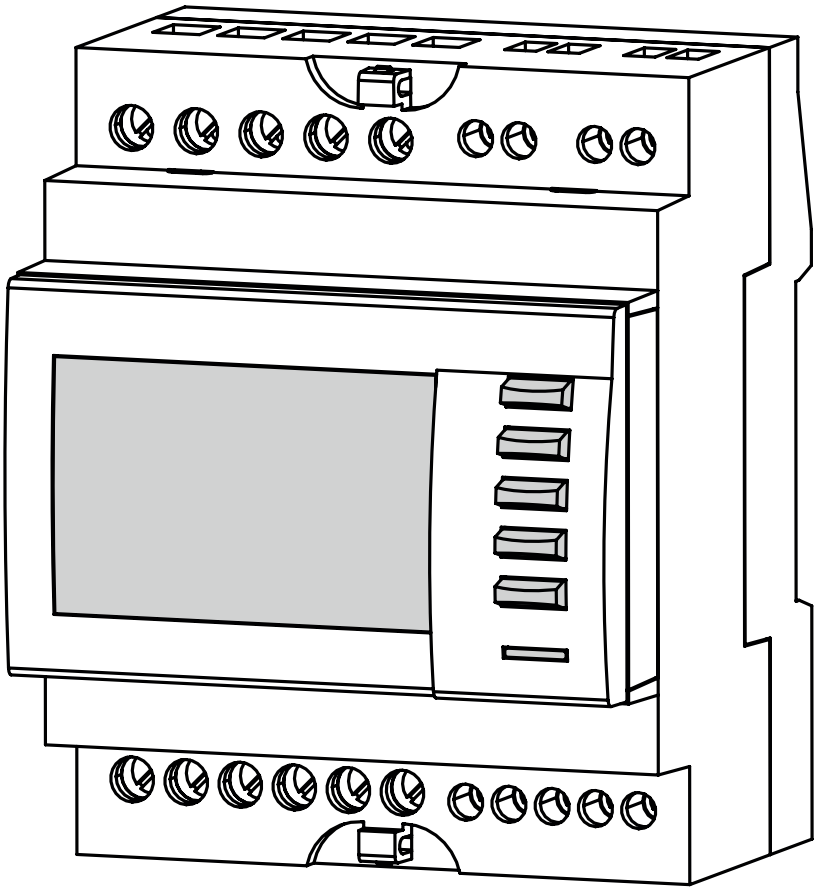
INSTALLATION AND OPERATING MANUAL

EN

Multi-utility pulse concentrator

COUNTIS ECi3



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Contents:

HAZARDS AND WARNING

Qualified personnel and correct operation

The equipment described in this document may only be installed, commissioned and operated by trained,

qualified personnel. Failure to follow the procedures given in these instructions does not imply liability on

the part of the manufacturer.
Standards, directives, legal provisions and local regulations must be complied with.

Risk of electrocution, burns or explosion

- Before working on the device, isolate all dangerous live components
- Always use an appropriate voltage detection device to confirm the absence of voltage
- Replace all components, doors and covers before reconnecting this device to the power supply
- Always use the appropriate specified voltage to supply this device

Failure to comply with these precautions could result in serious injuries.

Risk of damage to the device

Ensure the correct:
- Voltage across the AUX SUPPLY power supply terminals, 110- 400 Vac / 50-60 Hz
- Voltage across the OUTPUT relay, 250 Vac or 30 Vdc

INITIAL CHECKS

For the safety of personnel and equipment, it is essential to read all of these instructions before using the device for the first time.
Confirm the following points upon receipt of the package containing the ***COUNTIS ECi***:
- The packaging is in good condition
- The product is in good condition
- The device part number matches that specified on your order
- The contents of the box:
  1 product,
  1 resistance for line impedencee, ref: 48990019,
  1 mini CD,
  1 quick installation guide.

INTRODUCTION

The ***COUNTIS ECi*** is a pulse concentrator equipped with 7 digital inputs (logical or pulse signal), 2x 0/4-20mA analogue inputs (ECi3 model) and an RS485 link to the
JBUS/MODBUS protocol.
It centralises and memorises pulses or logical signals in the output of electrical
(COUNTIS E), gas, heating oil, water and compressed air meters or measurement units (DIRIS type) in order to:

- Send them via the RS485 communication output to a remote energy management system (ENERGY REPORTING…)
- Display a large number of these items on its local display screen for direct reading of information
- Generate event alarms (1 dedicated relay output).

The ***COUNTIS ECi*** enables advanced customisation of all items, so you can directly read the data gathered in this way:

- Metering unit per input: kWh, m^3
- Currency / input: €, K€, £, $, …
- Logical inputs (NO/NC, time delay) or pulses (size, synchronisation source, time interval for load graphs)
- Logical output: configurable alarm, NO/NC and time delay
- Analogue inputs: 0 or 4/20mA, min/max in physical unit, time interval for load graphs (version ECi3)

It is also possible to see, at any time:

- The physical status of each of the 7 digital inputs (contact open or closed, pulses present or not)
- The physical and functional status of the logical output (contact open or closed, output active or inactive)
- The status of 5 customisable events: date, activation time, duration, type (logical, threshold or a combination of 2 events), severity (4 information levels)
- The relative value (%) and absolute value (in the chosen unit) of the 2 analogue inputs. (version ECi3)

The communication interface of ***COUNTIS ECi*** is a 2-wire RS485 using JBUS/MODBUS protocol and enables:

- Remote access to all information produced by ***COUNTIS ECi*** beyond that shown on its display (see application note or JBUS/MODBUS table)
- The COUNTIS to be operated from a PC or programmable logical controller (API/PLC).

This product can be configured locally (PROG menu) or by remote communication.

The ***COUNTIS ECi*** has the following functionalities, with direct reading on the display and values saved to memory:

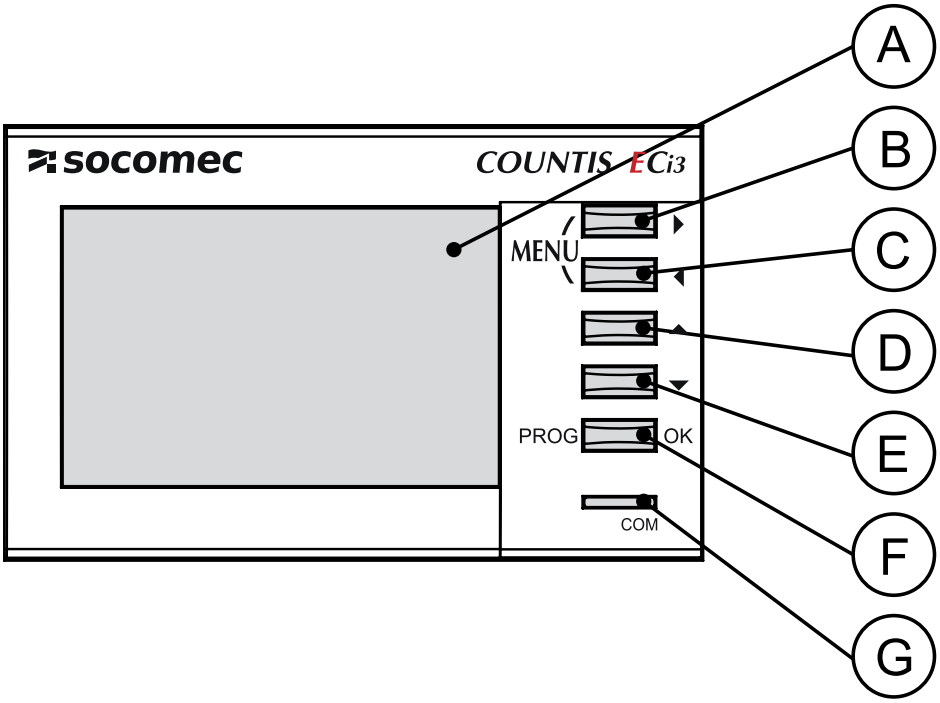
- Total and partial metering in the chosen unit with currency equivalent
- Daily, weekly, monthly or annual metering
- Partial metering from the last synchro trigger (in progress)
- Metering on customised trigger (Perso)
- For each input, it memorises pulses by integrating them over a programmable interval (from 1 to 60 min in 1-min steps) to recreate a load graph.

Whatever the chosen interval, the load graph is created over a sliding period of 17 days.

- All data is accessible via JBUS/MODBUS

It also has 2 analogue 0/4-20mA inputs with the following functionalities:

- Instantaneous relative (%) and absolute (in the chosen unit) values, read directly from the display
- For each analogue input, it memorises values by integrating them over a programmable interval (from 1 to 60 min in 1-min steps) to recreate a load graph
- Whatever the chosen interval, the "analogue input" load graph is created over a sliding period of 17 days
- All data is accessible via JBUS/MODBUS



(A) Backlit LCD display
(B) and (C) Keys to scroll through menu functions (right-left)
(D) and (E) Keys to scroll through menu subfunctions (top-bottom)
(F) Access key for programming functions (PROG)
(G) LED to indicate communication frame on RS485 port addressed by it

JBUS/MODBUS COMMUNICATION

RS485 MEDIA

In a standard configuration, one RS485 connection enables 32 ULs* to be connected to a PC or PLC over 1200 metres using a JBUS/MODBUS® protocol.
* 1 UL = 1 Countis ECi.

Recommendations:

A LIYCY shielded twisted pair must be used.

We recommend using a shielded twisted pair with a general LIYCY-CY shielding in an environment where there is interference.

If the distance is greater than 1200 m and/or there are more than 32 COUNTIS, you need to connect a repeater (1 channel) or a spark arrester (2 channels) to enable the connection of additional COUNTIS (with communication interface over more than 1200 m)

For more information on the connection procedure, refer to the technical bulletin available on the web-site: www.socomec.fr

Important:

You must connect a resistance of 120 ohms to the 2 ends of the connection; this can be found in the product packaging. Other solutions are available (modem, fibre optic, etc.), please ask for details.

JBUS/MODBUS PROTOCOL

The JBUS/MODBUS protocol operates on a master/slave structure:

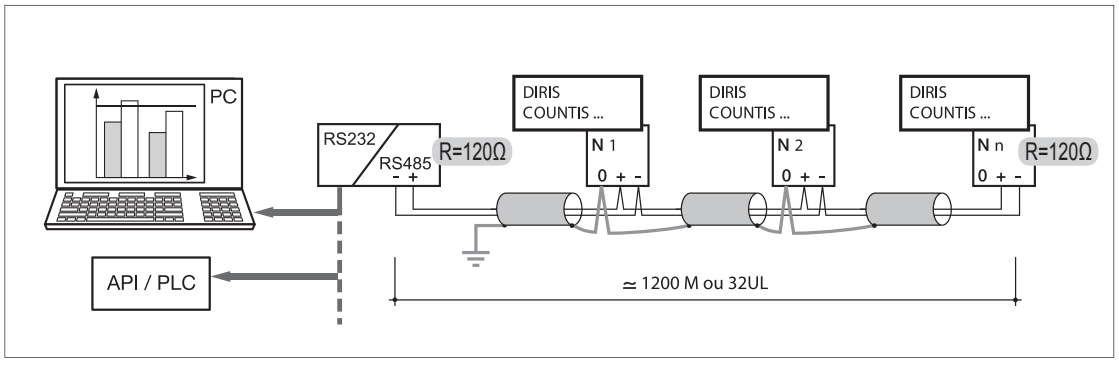
- Reading (function 3)
- Writing (function 6 or 16), broadcast option at address 0.

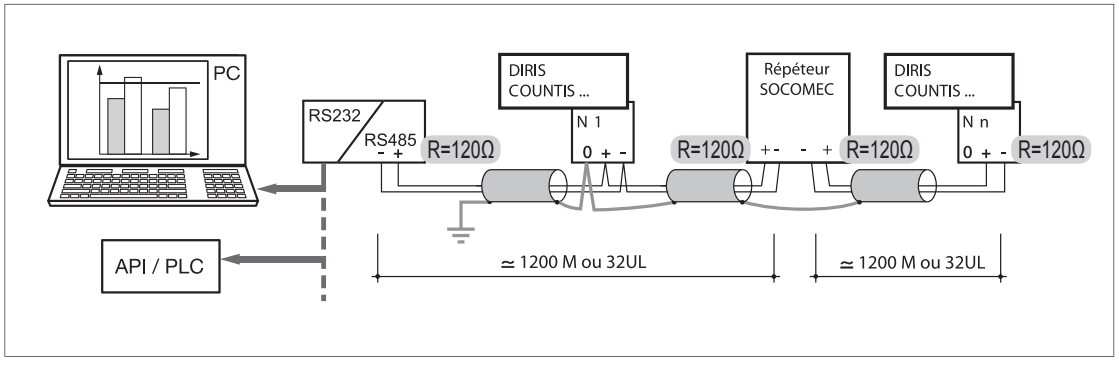
The communication mode is the RTU (Remote Terminal Unit) mode with hexadecimal characters composed of at least 8 bits.

JBUS/MODBUS TABLE

File ref: 538471

Can be downloaded from the website: www.socomec.fr

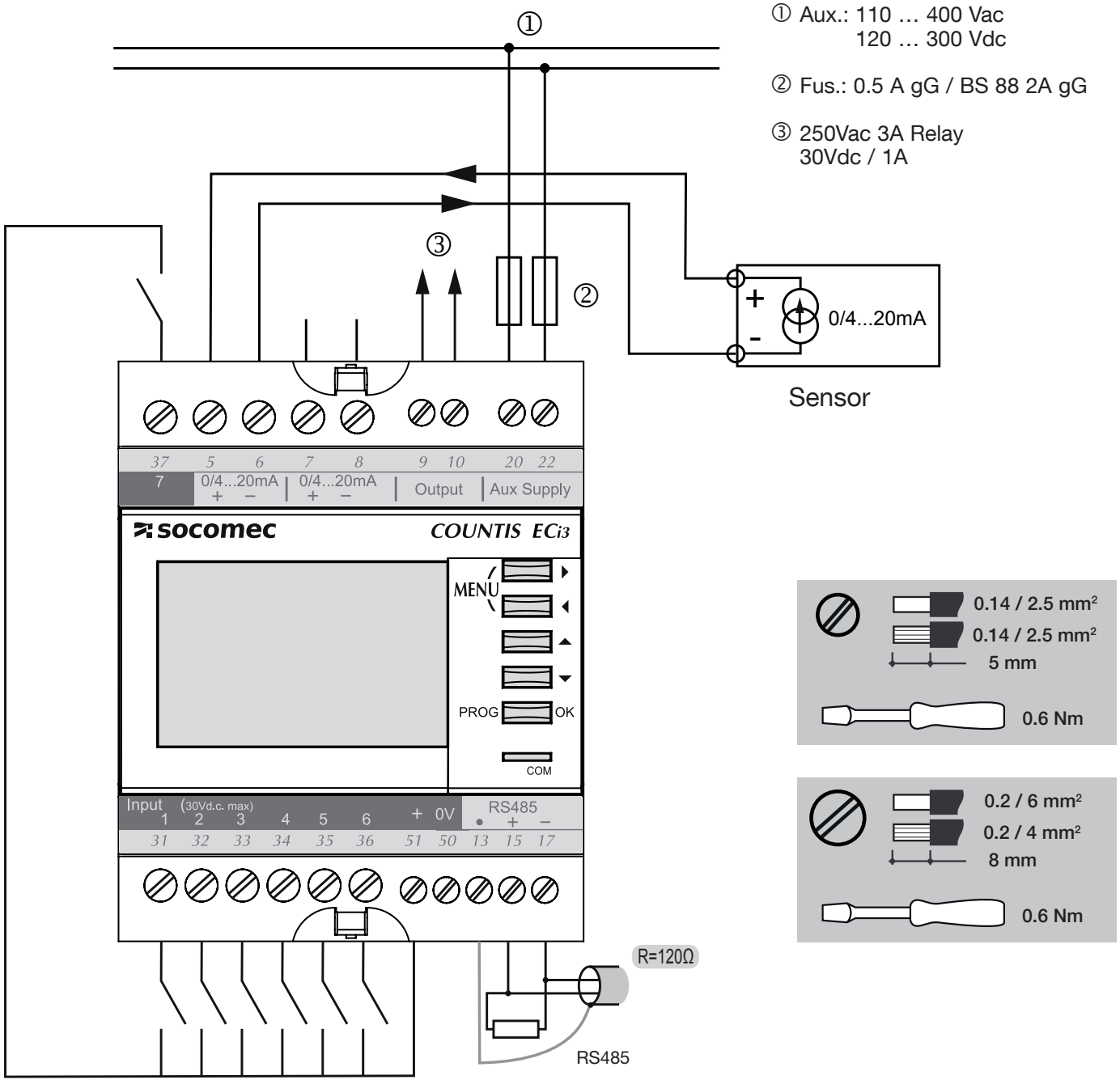




INSTALLATION

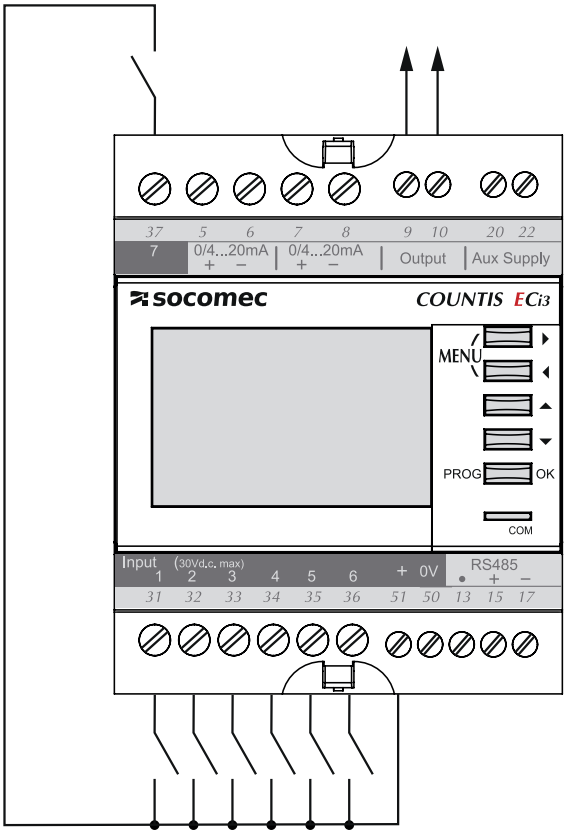
The ***COUNTIS ECi*** can be mounted on a 35-mm rail (EN 60715TH35).
It must be used inside electrical cabinets.

Connection

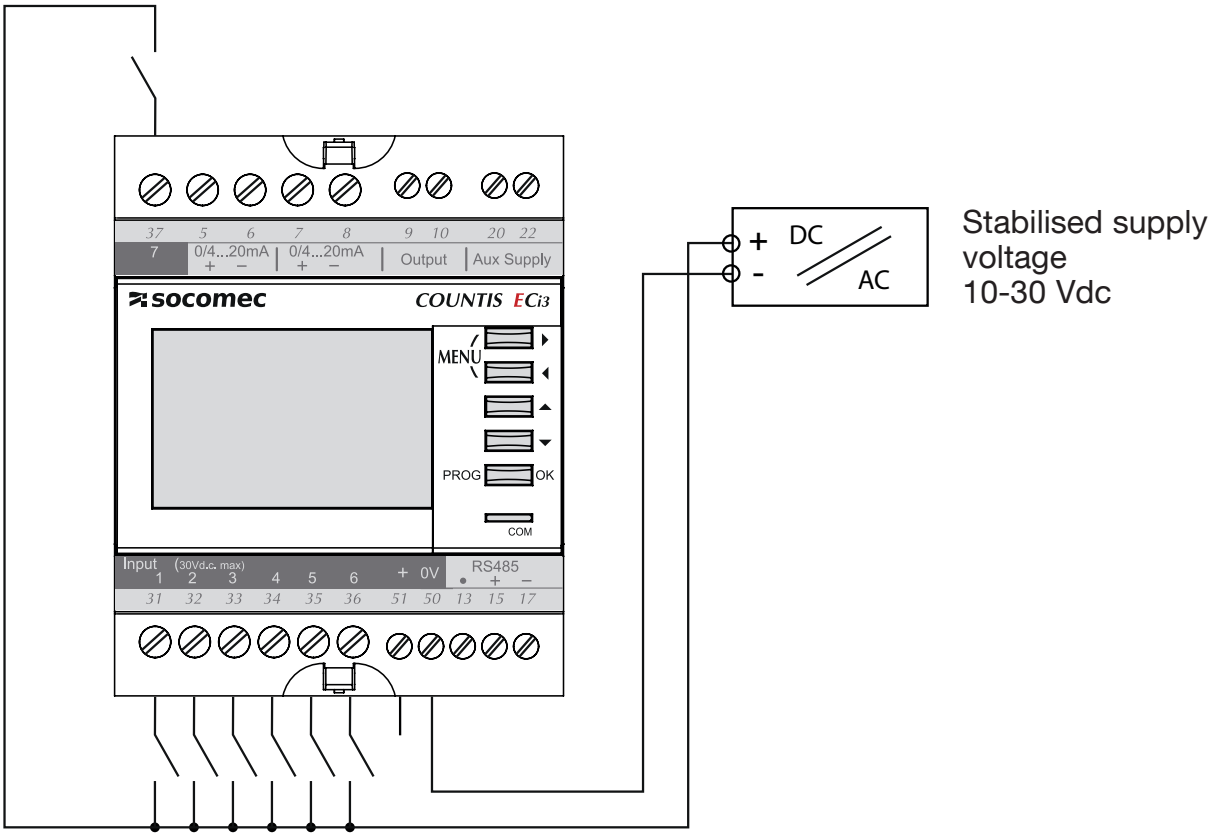


Connecting logical inputs

- Internal polarisation, cable length max. 1000 m, min. 1.5 mm².

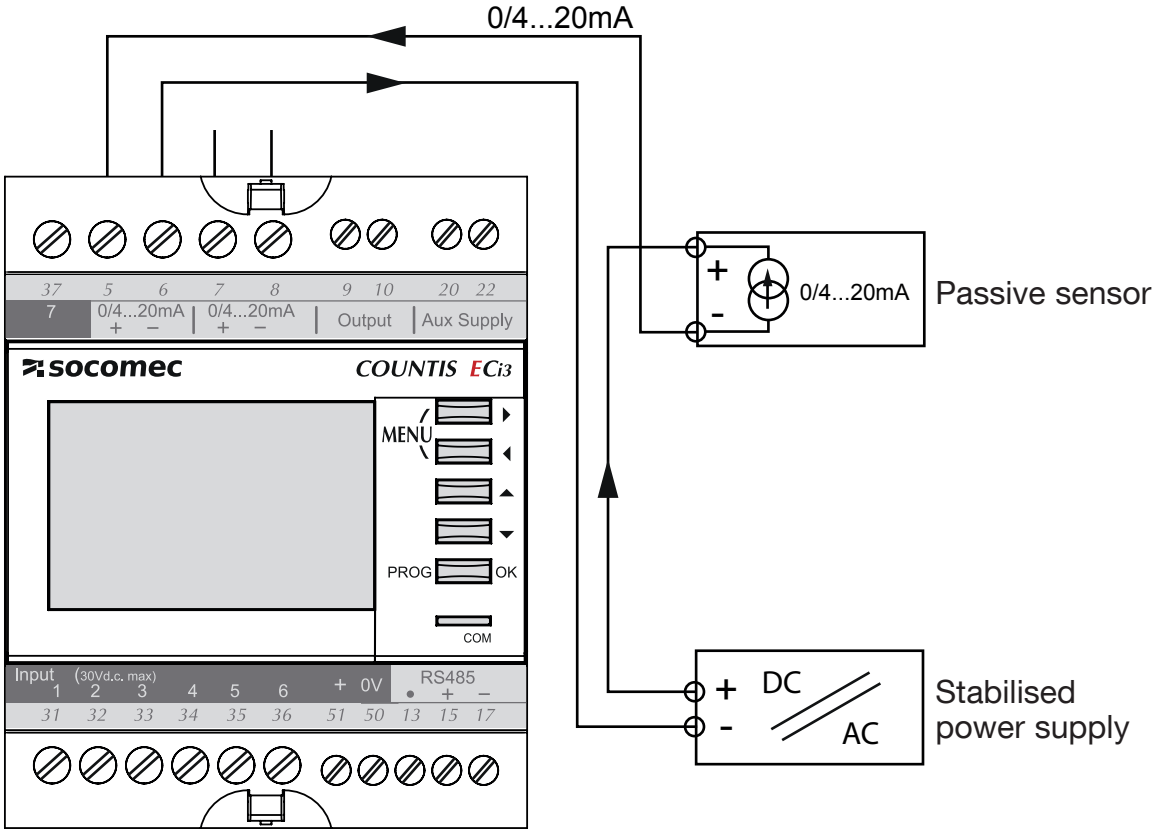


- External polarisation, cable length max. 1000 m, min. 1.5 mm².

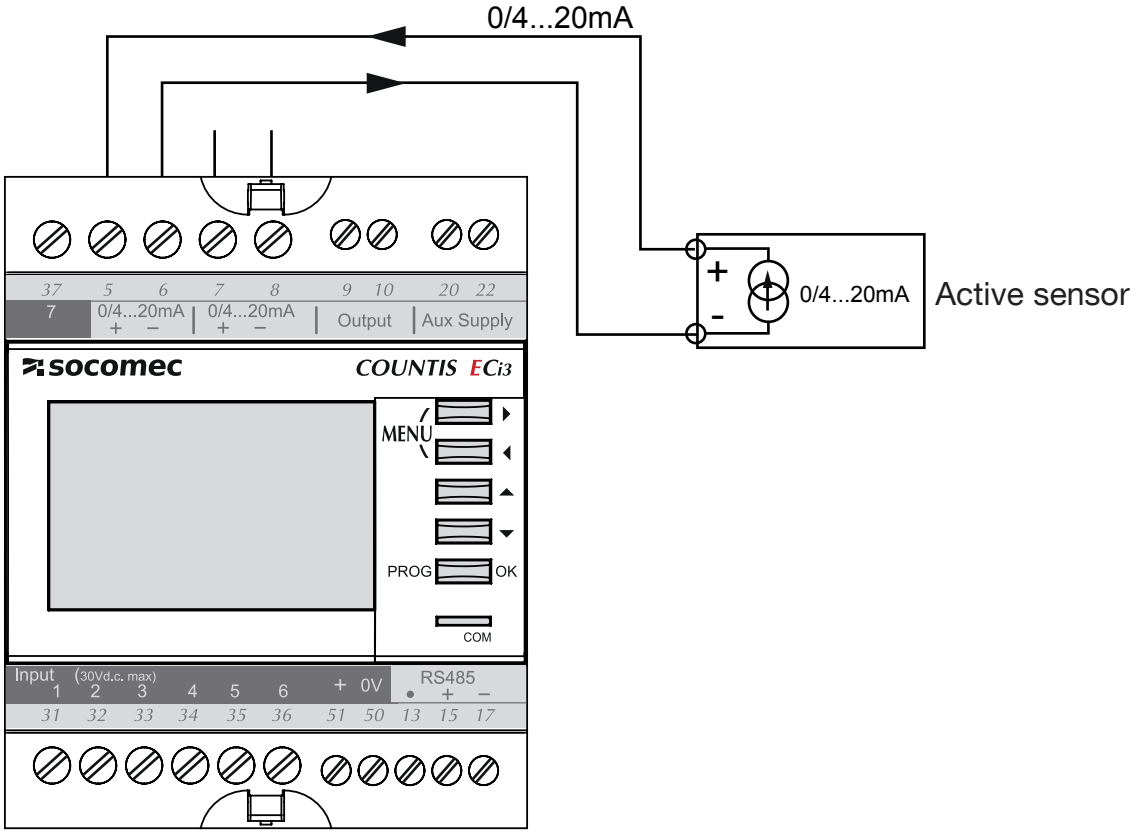


Connecting analogue inputs

- Passive sensor



- Active sensor



CONFIGURATION

To enter configuration mode, press the PROG key for 3 seconds.

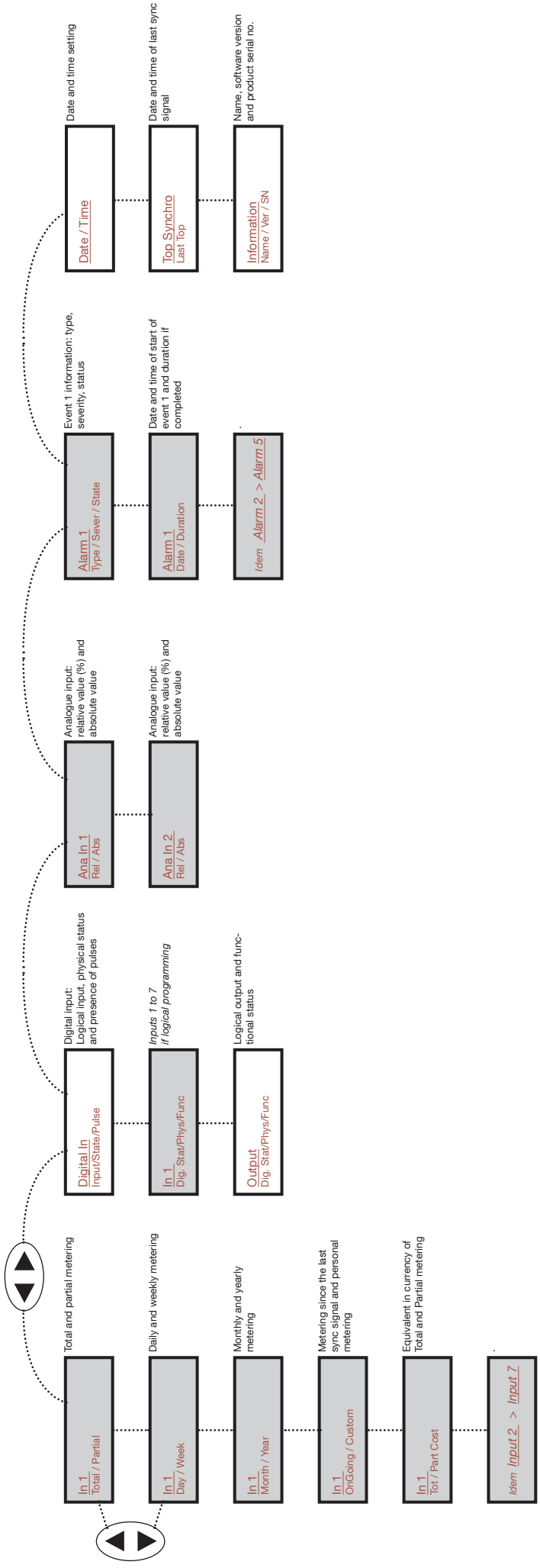
You are asked for a code:

- Normal user: code 1000 (default value, configurable number): all parameters can be modified EXCEPT those locked by the code 6825.
- Advanced user: code 6825 (not configurable): allows access to all parameters accessible with the code 1000, as well as sensitive "maintenance" parameters: Factory settings and Input Reset.

After 1 minute if a key is not pressed = automatic exit from programming mode.

The configuration is not saved.

To save and quit programming mode, press and hold PROG.


In 1
Total / Partial
Total and partial metering
In 1
Day / Week
Daily and weekly metering
In 1
Month / Year
Monthly and yearly metering
In 1
OnGoing / Custom
Metering since the last sync signal and personal metering
In 1
Tot / Part Cost
Equivalent in currency of Total and Partial metering
Idem Input 2 > Input 7
Digital In
Input/State/Pulse
Digital input: Logical input, physical status and presence of pulses
In 1
Dig. Stat/Phys/Func
Inputs 1 to 7 if logical programming
Output
Dig. Stat/Phys/Func
Logical output and functional status
Ana In 1
Rel / Abs
Analogue input: relative value (%) and absolute value
Ana In 2
Rel / Abs
Analogue input: relative value (%) and absolute value
Alarm 1
Type / Sever / State
Event 1 information: type, severity, status
Alarm 1
Date / Duration
Date and time of start of event 1 and duration if completed
Idem Alarm 2 > Alarm 5
Date / Time
Date and time setting
Top Synchro
Last Top
Date and time of last sync signal
Information
Name / Ver / SN
Name, software version and product serial no.

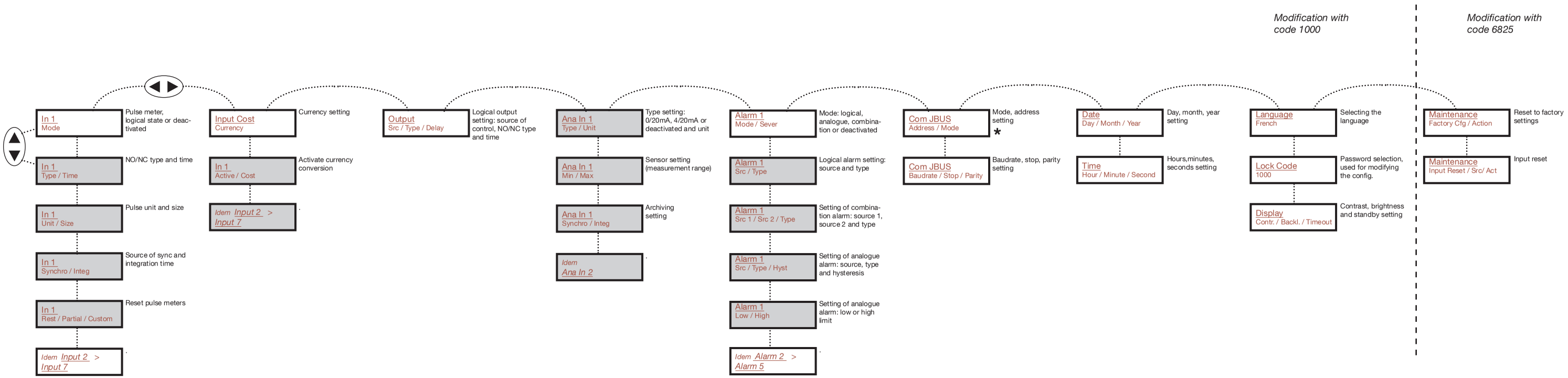
USE MENU

Screen name	Menu	Definition	Comments
Consumption per digital input			
In 1	Total		PULSE inputs only
	Partial	partial since last partial reset	PULSE inputs only
	Day		PULSE inputs only
	Week		PULSE inputs only
	Month		PULSE inputs only
	Year		PULSE inputs only
	In progress	current consumption since last top sync, average value	PULSE inputs only
	Custom	customisable meter, only reads between 10am and 12pm every day	PULSE inputs only
	Total Cost		PULSE inputs only
	Part	value in currency compared to the partial meter	PULSE inputs only
Inputs 2 to 7	idem input 1		PULSE inputs only
This menu gives a detailed display of the consumption for each of the 7 digital inputs configured in PULSE mode.			
Digital inputs			
Digital inputs	Input no.	1234567	if PULSE input
	State	for each contact	if PULSE input
	Imp		if PULSE input
Shows the physical status of each of the 7 digital inputs: contact open or closed, pulses present or not			
In 1	State	ON/OFF	if LOGICAL input
	Phys	Pysical status	if LOGICAL input
	Func	INACTIVE or ACTIVE	if LOGICAL input
Inputs 2 to 7	idem input 1		if LOGICAL input
Shows the physical status of each of the 7 digital inputs: contact open or closed, input active or not. *- The physical state of the contact indicates the presence (closed contact) or not (open contact) of the logical signal at the input.* *- The function indicates the rest of the contact at the input: NO - ACTIVE; NC - INACTIVE.*			
Output	State	ON/OFF	
	Phys	L'	
	Func	INACTIVE	
Shows the physical and functional status of the logical output (contact open or closed, output active or inactive)			
Analogue inputs			
Ana In 1	Rel	00.0%	
	Abs	0 /	
Ana In 2	idem Ana In 1		
Shows the relative value (Rel: %) and absolute value (ABS: in the chosen unit) of the 2 analogue inputs. (Countis ECi3)			
Alarms			
Alarm 1	Type	State	
	Sever	None, Info, Alert, Default	none: if alarm not activated
	Inactive	Inactive, Active	
	dd/mm/yyyy	date alarm was activated	
	hh:mm:ss	time alarm was activated	
	hh:mm:ss:ms ms	length of alarm	
Alarm 2 to 10	idem Alarm 1		
Shows the status of the 5 customisable events: date, activation time, duration, type (logical, threshold or a combination of 2 events), severity (4 information levels).			
Customisable events			
Date		hh:mm:ss	format
Time		dd/mm/yyyy	format
Top Synchro	Last top	hh:mm:ss	hour format
		dd/mm/yyyy	date format
Information	Name	Countis ECI	
	Ver	1.0	example
	SN	11202010096	example
Shows state of customisable events: Date/time of internal clock on Countis Eci, date and time of last top sync, etc. information on the device, software version and serial number.			

PROGRAMMING

PROG OK

Press and hold for 3s.



*

MANU mode

This mode enables manual configuration of all communication parameters
JBUS/MODBUS: Address, Baudrate, Parity, Stop bit.

AUTO mode

This mode enables automatic configuration of most of the communication parameters (Baudrate, Parity, Stop bit).

Only the communication address for the COUNTIS has to be entered. The mode only functions under the following conditions:

- Communication speed between 9600 and 38400 baud.
- JBUS/MODBUS frame format:
- 8 bits + 2 stop + no parity,
- 8 bits + 1 stop + parity.

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PROGRAMMING MENU

Screen name	Menu	Definition	Setting/state ranges	Default value	Comments
Configuring digital inputs					
In 1	Mode	Input operation mode	PULSE, LOGICAL, DISABL	PULSE	
	Mode: LOGICAL				
	Type	Idle state of input 1 contact	NO, NC	NO	LOGICAL inputs only
	Time	time to register change in state	00.0 to 99.9 s	00.0	LOGICAL inputs only
	Mode: PULSE				
	Unit	power: active, reactive, apparent, or other than electric	kWh, kvarh, kVAh, km^3, kNm^3, kJ, klmp, /, Wh, varh, VAh, m^3, Nm^3, J, Imp	kWh	PULSE inputs only
	Size	size of each pulse	de 0000.1 à 1000.1	0000.1	PULSE inputs only
	Synchro	Type of synchronisation	RTC, EXT.	RTC	PULSE inputs only
	Integ	Time of integration, input 1	set from 01 to 60 min	10 min	PULSE inputs only
	Reset	Reset to zero			PULSE inputs only
		Activates the zero reset function of the Partial meter	No, Yes	No	PULSE inputs only
	Custom	Activates the zero reset function of the Custom meter	No, Yes	No	PULSE inputs only
Inputs 2 to 7	idem input 1				
	You can apply **operation mode** to each input individually: - PULSE: pulse metering - LOGICAL: logical signal (0 or 1). - DISABL: used to deactivate non-connected inputs.				
	Power units: - Active power: Wh, kWh - Reactive power: varh, kvarh - Apparent power: VAh, kVAh - Water: m^3, km^3 - Gas /compressed air: Nm^3, kNm^3 - Power: J, kJ - Number of pulses: Imp, klmp - Other (no unit): /				
	Synchronisation is used to synchronise the integration periods of the load graphs to a clock, which can be: - RTC: the internal clock on the Countis ECi - EXT: External, the signal is recovered by a logical input				
Inputs Cost	Currency	-	€, $, £, ¥, /	€	
In 1	Active	Activates currency conversion of input 1	No, Yes	No	
	Cost of 1 kWh	Cost of 1 kWh of energy	set from €00.000000 to €99.999999	€00.100000	
Inputs 2 to 7	idem input 1				
Configuring outputs					
Output	Src	Source: event triggering the activation of the output	NOT DEF, ALARM 1, ALARM 2, …, ALARM 10	NOT DEF	
	Type	Idle state of output contact	NO, NC	NO	
	Time	Activation time of the output contact	set from 00.0 to 99.9 s	00.0 sec	
	The relay output can be operated by one of the 10 configurable alarms and can be used for external signalling, in the control circuit, for example. It supports 250Va.c./3A and 30Vd.c./1A. You can set the time of the output contact activation with the Time setting.				

PROGRAMMING MENU

Screen name	Menu	Definition	Setting/state ranges	Default value	Comments
Configuring analogue inputs					
Ana In 1	Type	Signal type selection at the input	0/20 mA, 4/20 mA, DESACT	0/20 mA	
	Unit	Type of energy measured	/, A, V, W, kW, var, kvar, VA, kVA, °C, °F, mbar, bar	/	
	Min	Min value of the measured power	set from -9999999 to + 9999999	+0000000	
	Max.	Max value of the measured power	set from -9999999 to + 9999999	+0020000	
		Synchronise the clock (RCT) or via an external signal (EXT.)	RTC, EXT.	RTC	
	Integ	Time of integration, analogue input 1	set from 01 to 60 min	10 min	
Ana In 2	idem Ana In 1				

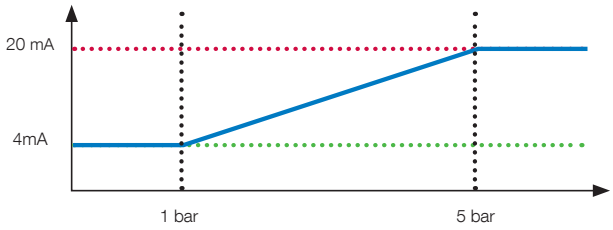
1-gradient analogue inputs. These inputs can be configured for the analogue signal 0/20 mA or 4/20 mA.

⚠ The min is the lower value and corresponds to the lower threshold [0(4) mA] of the analogue signal and the max value is the upper threshold [20 mA] of the analogue signal. You need these settings to use the analogue input for calculating energy used.

E.g: Min = 1 bar; Max = 5 bar»

Synchronisation is used to synchronise the integration periods of the average values on a clock, which can be:

- RTC: the internal clock on the Countis ECi
- EXT: External, the synchronisation signal is recovered by a logical input



Configuring alarms					
Alarm 1	Mode	Alarm operating mode	DISABL, LOGIC, ANALOG, COMBI	DISABL	
	Sever	Severity	None, Info, Alert, Default	None	
			Mode: LOGIC		
	Src1	Source: event triggering the activation of the alarm	In 1 to In 7	In 1	
	Type	Type of signal that triggers the alarm	HIGH, FALLING, RISING, EDGE, LOW	HIGH	
			Mode: ANALOG		
	Src	Source: event triggering the activation of the output	REL IN 1, ABS IN 1, REL IN 2, ABS IN 2, PART IN 1, CUST IN 1, DAY IN 1, WEEK IN 1, MTH IN 1, ON G IN 1, PART IN 2, CUST IN 2, ….7	REL IN 1	
	Type	Type of signal that triggers the alarm	H. & L., HIGH, LOW, MATCH H, MATCH B	H. & L.	
	Hyst	Hysterysis cycle	00% to 50 %	00%	
	LOW		set from -9999999 to + 9999999	72	
	Top		set from -9999999 to + 9999999	+0000000	
			Mode: COMBI		
	Src1	Source 1: event triggering the activation of the alarm	IN 1 to IN 7, ALARM 1 to ALARM 10	In 1	
		Source 2: event triggering the activation of the alarm	IN 1 to IN 7, ALARM 1 to ALARM 10	In 1	
	Type	OR - one of two sources can trigger an alarm; AND - there must be signals from Source 1 and Source 2 to trigger an alarm	OR, AND	OR	
Alarm 2 to 5	idem Alarm 1				
Configuring the communication					

PROGRAMMING MENU

Up to 10 alarms can be configured individually for any digital or analogue inputs: Alarm 1-5 are available via the buttons and screen on the Countis ECi. The other alarms 6-10 are configurable only through the communication system.

There are 3 types of configurable alarm:

Logical alarm

The monitored parameter is a logical parameter:
- Input 1, 2, 3, 4, 5, 6, 7

The different triggering conditions can be as follows:

- **"STATE" alarms** / permanent alarms as long as the trigger condition is met. These alarms will only turn off when the parameter no longer meets the alarm conditions. For example, an alarm to signal an exceeded daily measurement only ends when the next day starts.
  You can associate the digital output with these alarms.

  The different configurations are:

  * HIGH: as soon as the entry is in active mode (depending on the NO/NC configuration => input closed + taking account a configured period, if applicable)
  * LOW: as soon as the entry is deactivated (depending on the NO/NC configuration => input open + taking account a configured period, if applicable)
- **"EDGE" alarms**

  These alarms do not last but are archived in the product.
  The alarm doesn't last even if the parameter always meets the alarm conditions

  * RISING: as soon as the setting changes from inactive to active (+ taking account a configured period, if applicable)
  * FALLING: as soon as the setting changes from inactive to active (+ taking account a configured period, if applicable)
  * EDGE: as soon as the parameter changes state (from active to inactive or inactive to active) + taking account a configured time, if applicable

  There is no need to associate the digital output with this type of alarm because the alarm does not last.

Analogue alarms

These alarms monitor the measured parameters: an exceeded value on a weekly measurement on input 1, an exceeded measurement on a analogue input, etc.
The different triggering conditions can be as follows:

- **"STATE" alarms** / permanent alarms as long as the trigger condition is met.
  These alarms will only turn off when the parameter no longer meets the alarm conditions.
  For example, an alarm to signal an exceeded daily measurement only ends when the next day starts. You can associate the digital output with these alarms.

  The different configurations are:

  * MATCH H: if the parameter goes above a threshold
  * MATCH B: if the parameter drops below a threshold
  * H and B: if the parameter goes above threshold H or below threshold B
- **"EDGE" alarms**
  These alarms do not last but are archived in the product. The alarm doesn't last even if the parameter always meets the alarm conditions:

  * HIGH: if the parameter goes above the High threshold
  * LOW: if the parameter goes below the Low threshold

  There is no need to associate the digital output with this type of alarm because the alarm does not last.

Combined alarm

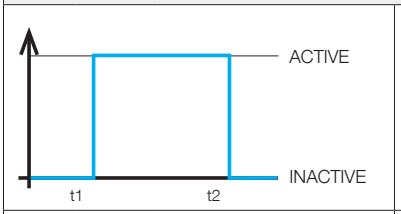
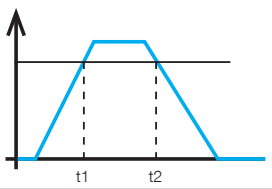
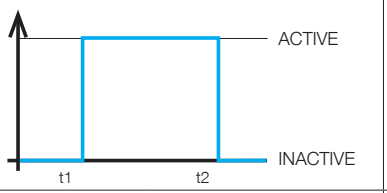
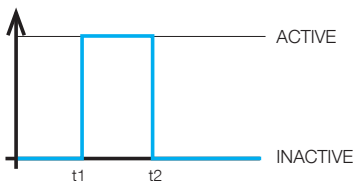
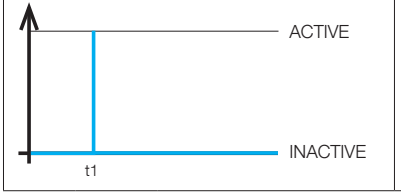
- These alarms are AND/OR combinations or logical variables:
  - The 7 digital inputs
  - The 10 alarms
- For example, the following options are possible:
  - Alarm 1 = Input 1 or Input 2
  - Alarm 2 = Input 3 or Alarm 1

ALARM

CONFIGURATION

LOGICAL			ANALOGUE		
TYPE	STATE	HIGH LOW	TYPE	STATE	HIGH LOW
	EDGE	RISING FALLING EDGE (RISING and FALLING)		EDGE	HIGH MATCH LOW MATCH HIGH MATCH AND LOW MATCH

EXAMPLE

	LOGICAL INPUT t1: The input becomes active t2: The input becomes inactive		ANALOGUE INPUT t1: The input goes above the threshold t2: The input drops below the threshold
	Alarm on logical input Type: HIGH Type: state Start date: t1.date Start date: t1.hour Duration: t2-t1		Alarm on analogue input Type: HIGH Type: state Start date: t1.date Start date: t1.hour Duration: t2-t1
	Alarm on logical input Type: RISING Type: edge Start date: t1.date Start date: t1.hour Duration: 0		Alarm on analogue input Type: HIGH MATCH Type: edge Start date: t1.date Start date: t1.hour Duration: 0

PROGRAMMING MENU

Screen name	Menu	Definition	Setting/state ranges	Default value	Comments
Com JBUS	Address	Device address on the JBUS communication network	set from 001 to 249	005	
	Mode	JBUS network configuration mode	MANU, AUTO	MANU	
	Baudrate	Communication speed	9600, 19200, 38400	9600	Configurable in MANU mode only
	Stop	Stop bit	1, 2	1	Configurable in MANU mode only
	Parity	Parity bit	NONE, EVEN, ODD	NONE	Configurable in MANU mode only
	AUTO mode is in variable speed. Use AUTO mode if you want the system to automatically update the configuration of the existing communication network.				
Setting the date and time					
Date	Day Month Year		set from 1 to 31 set from 1 to 12 set from 00 to 99		
Time	Hour Minute Second		set from 00 to 23 set from 00 to 59 set from 00 to 59		
Setting the interface					
Language		Interface language	English, French	French	
Lock Code		Change the programming menu input code	set from 0000 to 9999	1000	
Display	Contrast		set from 0 to 9	5	
	Brightness		set from 0 to 9	5	
	Timeout	turns off the screen after a period of inactivity	set from 01 to 60 min	05 min	
	⚠ *You do not need a password to change the interface language selection and screen settings menus.*				
Maintenance menu: accessible to advanced users					
Maintenance	Factory Cfg	Reset to factory settings			
	Action	Activate the Reset to factory settings function	No, Yes	No	
	Input Reset	Reset to zero			
	Src	Process the input to be reset	In 1, In 2, In 3, In 4, In 5, In 6, In 7, ANA IN 1, ANA IN 2, ALL	In 1	
	Action	Select and activate the reset input to zero function	NONE, TOTAL, INDEX, LD CURVE, ALARMS, ALL	NONE	
	⚠ *For protection, you need a different password to change these settings.*				
	⚠ *The reset to factory settings function deletes all information and data stored in the internal memory of the product. Any input, output, alarm, etc. settings are erased and the factory settings restored.*				

TECHNICAL DATA

Descriptions	Min	Max.	Units	Comments
Auxiliary power supply				
AC voltage	110	400	Vac	+/-10%, 45/65Hz, 5VA
DC voltage	120	300	Vdc	+/-10%, 5VA
Climate				
Ambient air temperature:	-10	55	°C	IEC 60068-2-1/ -2-2
Ambient storage temperature	-20	70	°C	IEC 60068-2-1/ -2-2
Ambiant humidity		95	%HR	IEC 60068-2-30
Vibration				
Vibration		2	G	IEC 60068-2-6 10 to 100Hz
Switch body				
Dimensions		73x90x67	mm	L x W x H
Size		215	g	
Protection index of enclosure		IP51 / IP20		Front/case
Electrical safety				
Cat. Install. / degree of pollution		III / 2		IEC 61010-1 ed. 3 (300Vac Ph/N)
Updating period				
Display		1	Sec	
RS485 communication		0.5	Sec	
Digital inputs				
Direct voltage	10	30	Vdc	Terminal 50 reference
Current	2	15	mA	According to IEC 62053-31 Class B
Line length		1000	m	Min. cross-section 1.5 mm² (#16AWG)
Pulse duration	30		ms	max. 16Hz
Power consumption per input		0.4	VA	
Internal digital input polarisation power supply				
Voltage	10	15	Vdc	(Max. 35mA)
Analogue inputs				
Current		25	mA	
Accuracy		0.5	%	% full scale
Response time		500	ms	
Input resistance		200	Ω	
Power consumption per input		0.1	VA	
Relay output				
Setup (contact setting)	1 contact (NO, NC)			
Mechanical endurance	105 cycles			
AC breaking		250Vac / 3A		
DC breaking		30Vdc /1A		
RS485 bus communication (JBUS/ MODBUS protocol)				
Line length		1200	m	
Number of devices		32		2 shielded wires + half duplex
Modulation speed	9.6K, 19.2K, 38.4Kbds			

This symbol indicates that the product may not be disposed of with other household waste, so as not to harm the environment or human health (WEEE directive, 2002/96/EC). Please refer to the standard terms of sale of Socomec for more information on the method for disposing of this product.

RoHS Compliant with RoHS directive.

CE *COUNTIS ECi* complies with the following European directives:
- Electromagnetic Compatibility Directive, no. 2004/108/EC (2004/12/15)
- Low Voltage Directive, no. 2006/95/EC (2006/12/12)

Device fully protected with double insulation.

SUPPORT / FAQS

• Device not switched on

Check the power supply cable.

110…400 Vac or 120…300 Vdc between terminals 20 and 22, if there is voltage present and the device

does not switch on, please return the device to us.

• Faulty communication

Check the configuration in MANUAL mode: address, baudrate, parity, stop bit (p.12) and cabling (p.6).

For more information on the RS485 connection procedure, refer to the technical bulletin available on the website: www.socomec.fr

• The meter does not advance incrementally

Poor connection.

Go to the menu Digital Input. (p.11).

Reconnect the input you want to test to the terminal ***+ 51*** (p.8) to check that the "Pulse present" icon changes status.

• Note on application

Please refer to the ***Countis ECi3*** Quick Start Guide (ref. 538472) for more information.

CORPORATE HQ CONTACT:
SOCOMEC SAS
1-4 RUE DE WESTHOUSE
67235 BENFELD, FRANCE

www.socomec.com

538470B

socomec
Innovative Power Solutions