

BAMOCOR 759 E - M LOGGER

Flow calculator



INSTRUCTION MANUAL

BAMO MESURES

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759 M1 07 C

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759/1

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SUMMARY

CHAPTER	Page
1 - TECHNICAL CHARACTERISTICS	3
2 - CAUTION	3
3 - PRESENTATION	3
4 - DIMENSIONS	4
5 - WIRERING	5
6 - FRONT PANEL	6
7 - CONSULTATION / MODIFICATION MODE	7
8 - MENU LIST	7
8.1 - Measure display	7
8.2 - About BAMOCOR	7
8.3 - CONSULTATION / MODIFICATION	7
8.4 - MEASURE DATA adjustment	8
8.5 - FLOW ALARM adjustment	8
8.6 - SAMPLER CONTROL adjustment	9
8.7 - FLOW mA OUTPUT adjustment	9
8.8 - CLOCK	9
8.9 - Periode d'enregistrement.	9
8.10 - SERIAL LINK	9
8.11 - LANGUAGE CHOICE : French / English / Italian	10
8.12 - Curves list	10



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759/2

1- TECHNICAL CHARACTERISTICS

Display	: Water column - Instant flow rate - Volume - menu.
Screen	: 16 alphanumeric characters, H = 9,22 mm High - Backlighted.
Visualisation	: By 3 red LED on front panel for relays status.
Data setting	: By 5 press button keyboard on front panel - programmation protection by acces code.
Measure scale	: Water column (mm) - 1 mm resolution. Flow (m3/h) - 0,1 m3/h resolution. Volume (m3) - 1 m3 resolution.
Totalisation	: Per day - 6 digits - reset by menu. Permanent - 8 digits - without reset.
Measure input	: 4 - 20 mA proportionnal from water high.
Memorized curves	: ISO 4959 venturi chanel 94FL series - 92 and 96 FL series. V notch (28, 31, 53 and 90°) and U notch (10, 20, 30, 40, 50, and 60).
Relay	: 1 set to to flow measure. Adjustable hysteresis from 0 to 100% - adjustable timer from 0 to 9999 s. 1 volt free change over contact - breacking capacity : 500VA / 250V / 2A.
Sapler control relay	: Programmation on passed volum (m3). 1 volt free change over contact - breacking capacity : 500VA / 250V / 2A. Contact keeping timer adjustable from 0 to 9999 s.
Puls output	: For puls copy - 1 puls / m3 1 volt free change over contact - breacking capacity : 500VA / 250V / 2A.
Currant output	: 0 / 4 - 20 mA (maxi 600 ohm)proportionnal from flow- adjustable scale. Standard galvanic insulation.
Power supply	: 230V / 60Hz single - Others on request - Consumption 10VA.
Presentation	: Wall housing - IP65 - Connection on screw terminal and cable inlet by CG13,5.
Options (not concurrently)	: Communication : J BUS link - Binary slave mode, RS422 or RS485 output - 2400 to 9600Bps Logger : automatic reccording flow average in setted periode. Max 368000 reccording (ex : 1 mn periode = 6 month reccording). Be car eto the data tranfert time, at 6900 BDS, it will need more than one our. Automatic memory reset after data tranfert.

2 - CAUTION

During installation, BAMOCOR must be fixed on support without vibration, temperature must be between 0 and 50°C and protected from sun rays.

Electrical connections must be done by a specialist. Any damage due to a not good wirering will cancel the waranty.
Befor start up, ensure to have the good voltage.

3 - PRESENTATION

BAMOCOR 759 is a flow calculator for flow with venturi chanel. Flow is directly fonction from water high measured in the chanel. This flow is calculated by a micropocessor which integrate all standard chanel curves and specific curves required by our customers. BAMOCOR exist in two formes, wall housing or enclosure housing. On both case, there is 16 alphanumeric backlighted LCD display. Intuitive and easy-to-use menu. An acces code is necessary to modify any data, to avoide that non authorized person may use it.

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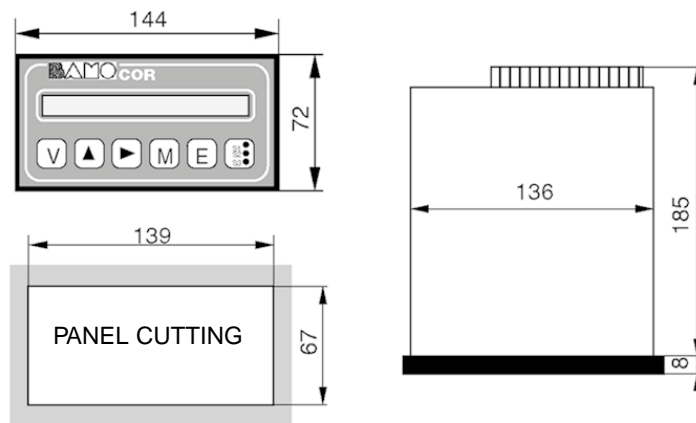
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BAMOCOR 759 E - M
LOGGER
759 M1 07 C

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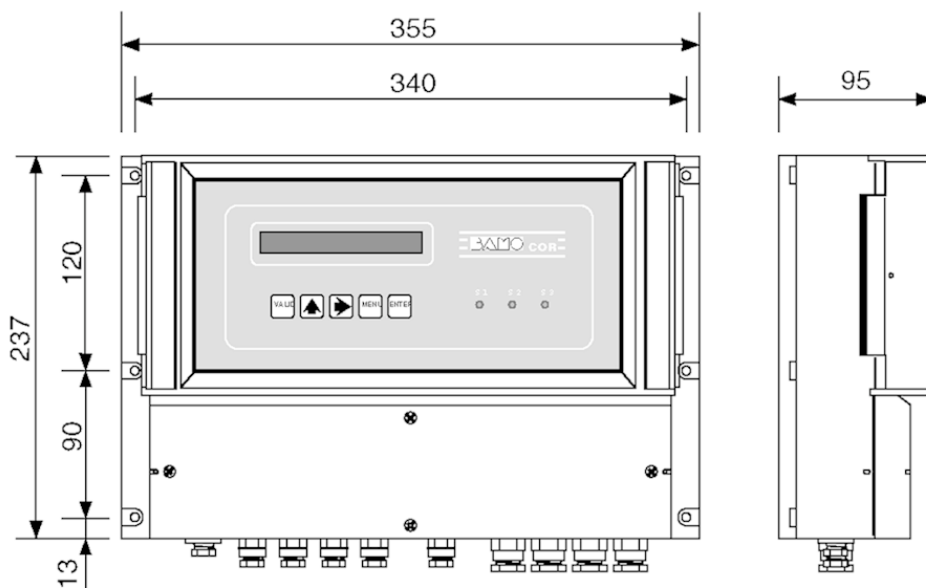
759/3

4 - DIMENSIONS

ENCLOSURE BOX



WALL MOUNTING



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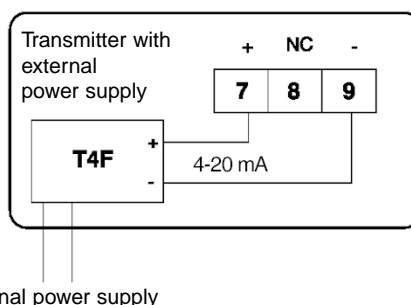
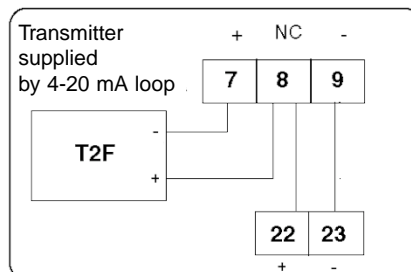
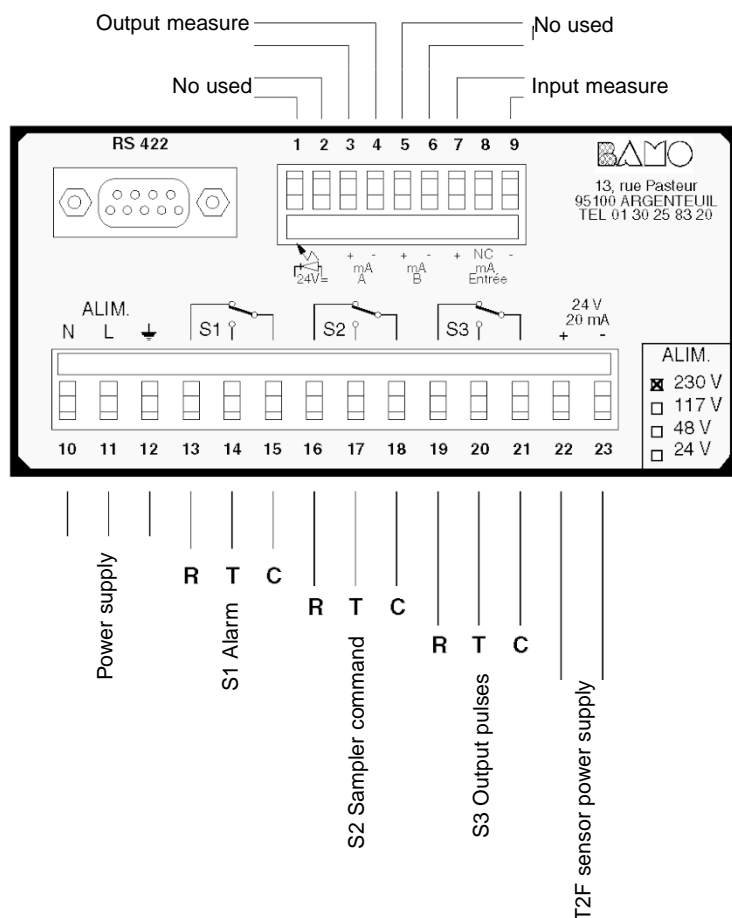
759 M1 07 C

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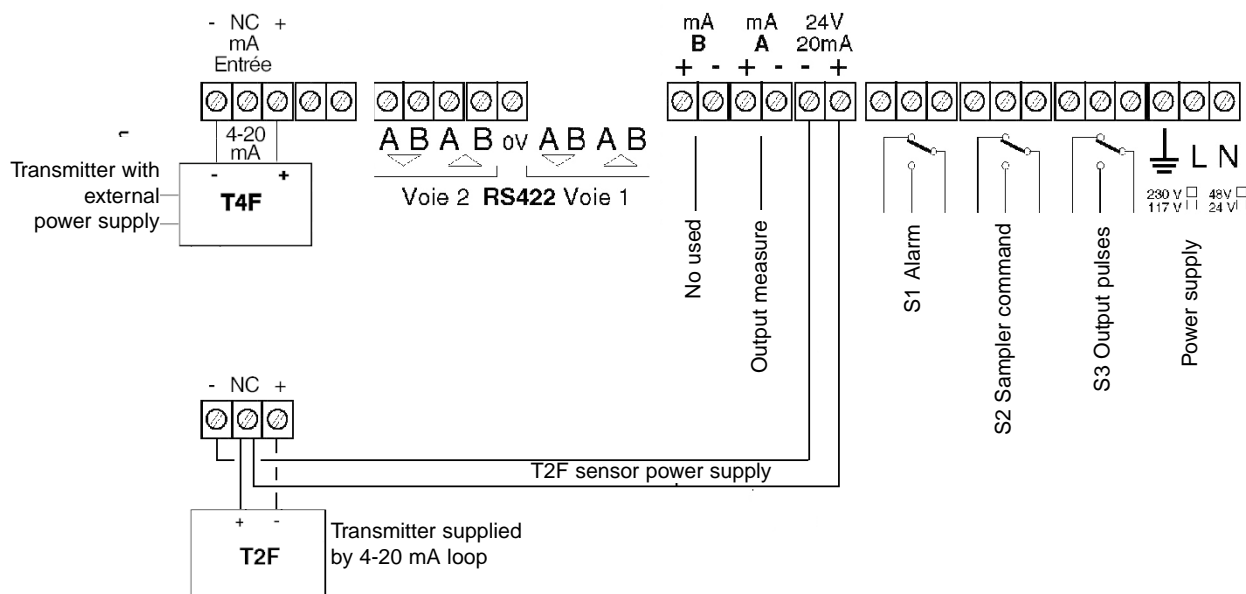
759/4

5 -WIRERING

ENCLOSURE BOX



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759 M1 07 C

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759/5

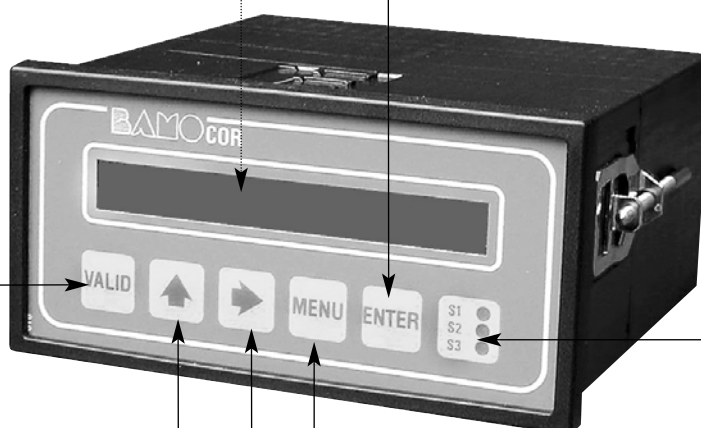
6 - FRONT PANEL

16 alphanumeric characters
H = 9.22 mm - Back lighted

VALID Key to write parameters on the EPROM when the display ask you: **VALIDATION ?**

Take care, when you press this push-button, all the parameters are saved. If you are not sure of our manipulation, dont press VALID key, (previews data programmation will be lost).

ENTER Key to change the step displayed menu. At the last step, it comes back to the first line



Press ↑ to change parameters of data capture:

- Numéric input increase the flashing digit (loop 0 after 9).
- Reverse the choose Yes / No, Up/Donw, 0-20 mA / 4-20 mA etc.

Press ⇒ going to the next display or to change the value.

L.E.D **S1**, **S2** or **S3** indicate relay status.
Red light: Relay ON
No light: Relay OFF
Flashing: Timer

MENU key move the cursor during programmation. At the last digit, comes back on the first one.

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759 M1 07 C

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759/6

7 - CONSULTATION / MODIFICATION MODE

There is two menu mode :

- Consultation mode, the operator may see different programmed data but can not modify it.
- Modification mode, the operator is allowed to modify all parameters (relays, regulation, ...), This mode can be use through an acces code which is four last digits of the serial number. (ex : 12345-67. code will be 4567)

8 - MENU LIST

8.1 : Measure display :

Display menu when you turn on the power is flow rate	FLOW xxxx m3/h
Press ENTER	
Level display	LEVEL xxxx mm
Press ENTER	
Totalized volume display	V. xxxxxx m3
Press ENTER	
Day volume display	V.D. xxxxxx m3
Press ENTER	
To reset day volume	RESET D.V. NO (YES)
Press ENTER	
If your selection is RESET D.V. NO, you go back to flow display	
If your selection is RESET D.V. YES, it is displayed	VALID ?
Press VALID key to resent the counter or press MENU or ENTER to skeep the reset (this counter goes automatically back to 000000 after 999999)	

8.2 : ABOUT BAMOCOR : software version and serial number.

Press MENU untill :	ABOUT BAMOCOR
Press ENTER :	VERSION : 4.xx
Press ENTER :	SERIAL N° :
Press ENTER :	xxxxx-xx

Note : last four (righ) digits are acces code for modofocation menu

8.3 : MODIFICATION / CONSULTATION, acces code dial

Data reading and setting	
How to go to MODIFICATION	
Press MENU untill	CONSULTATION
Press ↑ to display	MODIFICATION
Press ENTER to display	CODE ? 0000
Dial the code ↑ and ⇒ keys	
Press ENTER	
If dialed code is wrong, display is ERROR	
During 3 secondes	
If dialed code is right, display is	TIME : 30 MIN
Press MENU to select data to modified	
CODE : to know access code see chapter 7	

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LOGGER
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759/7

8.4 - MEASURE DATA

To accede to "MEASURE DATA menu
Press MENU untill
Press ENTER to display
This display confirm chanel type for level/flow measure
In MODIFICATION mode press ↑
to select the notch or venturi chanel in reccorded list
Press ENTER to display
Press ENTER to display
In MODIFICATION mode press ↑ and ⇒ to select
Press ENTER to display
In MODIFICATION mode press ↑ and ⇒ to select
Press ENTER to display
This step allows to set scale of level sensor associated to
the BAMOCAL (In MODIFICATION mode press ↑ and ⇒
Press ENTER to display
Press VALID key to save new data

MEASURE DATA
DEVERSOIR V28°
or
AR xxxxxx

LEVEL SENSOR
LOWER : 04,00 mA

HIGHER : 20,00 mA

SCALE : xxxx mm

VALIDE ?

**In case level transmission by BAMOBUL,
HIGHER and LOWER value are allways 4 and 20 mA.**

8.5 - FLOW ALARM

This menu allows to set an alarm on flow
Press ENTER to display
In MODIFICATION mode press ↑
Press ENTER to display
In MODIFICATION mode press ↑
Press ENTER to display
Set value for active S1
In MODIFICATION mode press ↑ and ⇒
Press ENTER to display
Set value for release S1
In MODIFICATION mode press ↑ and ⇒
Press ENTER to display
Set value for active S1 timer
In MODIFICATION mode press ↑
Press ENTER to display
Set value for active S1 timer
In MODIFICATION mode press ↑ and ⇒
Press ENTER to display
Set value for release S1 timer
In MODIFICATION mode press ↑
Press ENTER to display
Set value for release S1 timer
In MODIFICATION mode press ↑ and ⇒
Press ENTER to display
Press VALID key to save new data

ALARM ON

ALARM HIGH

ON xxxx m3

OFF xxxx m3

DELAY UP YES (NO)

TIME : xxxx Sec

DELAY DOWN YES (NO)

TIME : xxxx Sec

VALIDE ?

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759/8

8.6 - SAMPLER CONTROL

This menu allows to set output puls for waste water sampler

Press MENU untill

Press ENTER to display

In MODIFICATION mode press ↑

Press ENTER to display

In MODIFICATION mode press ↑

Press ENTER to display

Press ENTER to display

In MODIFICATION mode press ↑ and ⇒

Press ENTER to display

Press VALID key

SAMPLER CONTROL
SAMP. CONT. ON (OFF)

ON xxxx m3

TIME ON PULSE
TIME xxxx Sec

SAVING ?

8.7 - OUTPUT mA flow

Press MENU untill

Press ENTER to display

In MODIFICATION mode press ↑ and ⇒

Press ENTER to display

In MODIFICATION mode press ↑ and ⇒

Press ENTER to display

Press ENTER to display

Press VALID key

OUTPUT mA FLOW
HIGHER xxxx m3

LOWER xxxx m3

OUTPUT4/20mA
SAVING ?

8.8 - CLOCK

Press MENU untill

Press ENTER to display

Data adjusted in factory

Press ENTER to display

Data adjusted in factory

Press ENTER to display

If you want to modify those data select YES and press ENTER

In MODIFICATION mode press (↑ and ⇒)

CLOCK
26/01/1998

15:36:22

CHANGE NO (YES)

8.9 RECORDING PERIOD

This menu allows to adjust time between two record period

Press MENU untill

Press ENTER to display

Press ENTER to display

In MODIFICATION mode press ↑ and ⇒

Press ENTER to display

Press VALID key

RECORD PERIOD
BETWEEN 1 AND 60
PERIOD : xxxx min

SAVING ?

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759 M1 07 C

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759/9

8.10 - SERIAL LINK

J-BUS link data setting
Press MENU untill
Press ENTER to display
Characters length, this value can not be modify
Press ENTER to display
In MODIFICATION mode press ↑ and ⇒
Press ENTER to display
In MODIFICATION mode press ↑
Press ENTER to display
In MODIFICATION mode press ↑
Press ENTER to display
Station number, adjustable from 1 to 247
In MODIFICATION mode press ↑ and ⇒
Press ENTER to display
Press VALID key

SERIEL COM.
DATA : 8bits

SPEED 2400Bps (4800, 9600)

PARITY NO (EVEN, ODD)

Nb.STOP 1 (1,5 , 2)

STATION 012

SAVING ?

8.11 - LANGUAGE : select French / English / Italian

Press MENU untill
Press ENTER to display
Press ENTER to display
Press VALID key

LANGUAGE
FRENCH (ENGLISH -ITALIAN)
SAVING ?

8.12 - PROGRAMMED CHANEL CURVES

BAMOCOR 759 has, in its memory, an important curves list (over 70) of venturi chanel, V-notch, U-notch which can be delivered by BAMO Mesures. In MEASURE DATA menu (see §8.4 - programmation) it's possible to select a curve which interst you, in MODIFICATION mode.

"SPECIAL CURVES"

In case of special curve for your application
this one will has your order acknowlegment
number as name

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759/10