

BIR 8004

NUMERICAL INDICATOR 4 ALARMES



INSTRUCTION MANUAL

BAMO MESURES

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19-06-2006

NUMERICAL INDICATOR
BIR 8004

222 M1 01 E

MES

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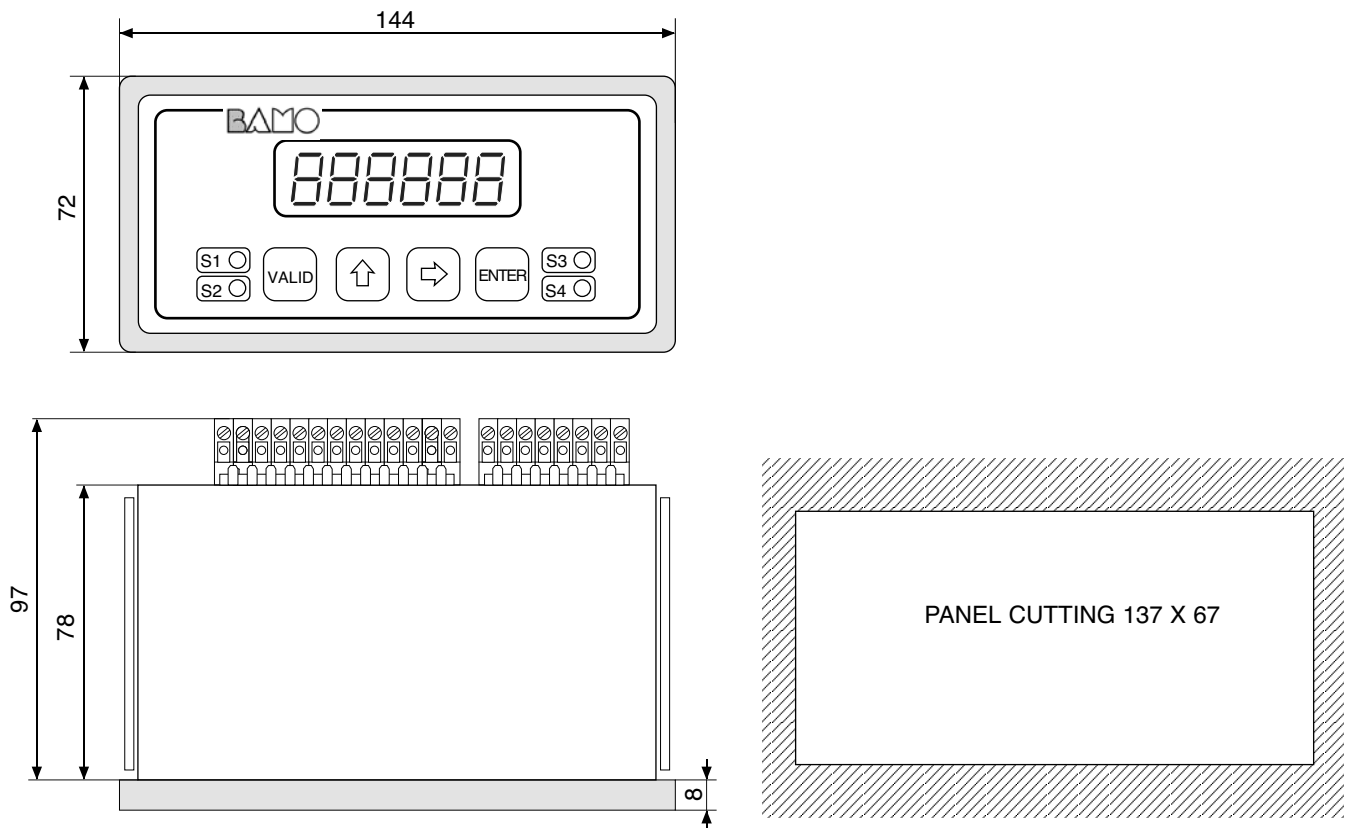
SOMMURY

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1 - TECHNICAL CHARACTERISTICS

Power supply	: 230V +/- 10% 50-60HZ mono (117V, 48V and 24V on request)
Sensor supply	: 20V +/- 5% - 25mA
Consumption	: 3VA
Accuracy	: $\pm 0,1\%$ display ± 3 digits
Display	: Numerical LCD 6 digits display height 12,5 mm
Built in housing	: Dimensions: 72 x 144 x 97 Weight: 535g Protection: IP65 for front panel Materials: Noryl polycarbonate Connexion: removable screw terminals
Temperature	Stock: -25°C + 85°C Operating: -10°C + 60°C
Measure input	: 4 - 20 mA
Relays output	: 4 NO contacts
Set point	: On full measure scale
Timer	: Adjustable from 0 to 999 secondes
Hysteresis	: Adjustable on full scale (regulation between two points fonction)
Visualisation	: On front panel by red LED for relays status
Programming	: On front panel by 4 push-button, programm pritection by acces code

2 - DIMENSIONS



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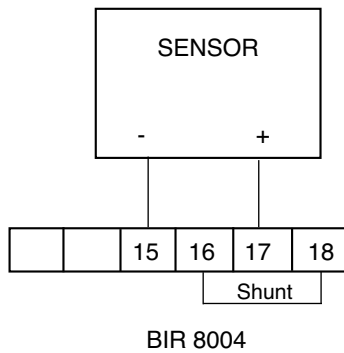
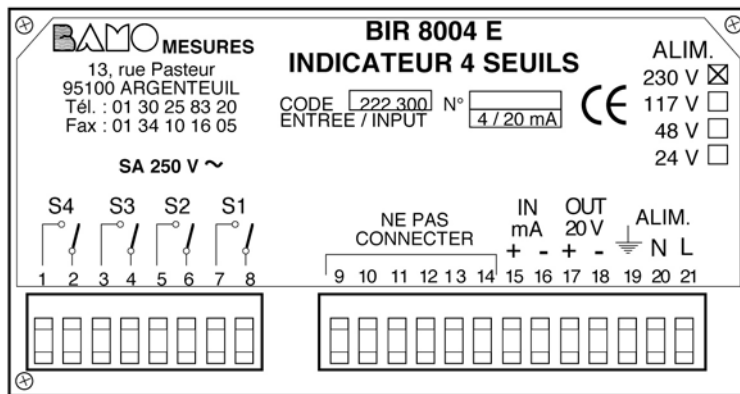
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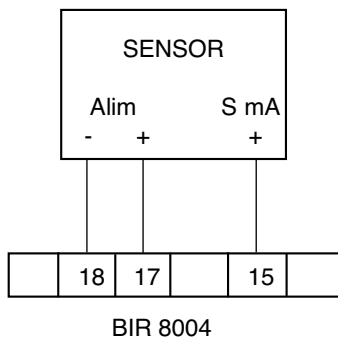
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3 - SENSOR CONNECTION



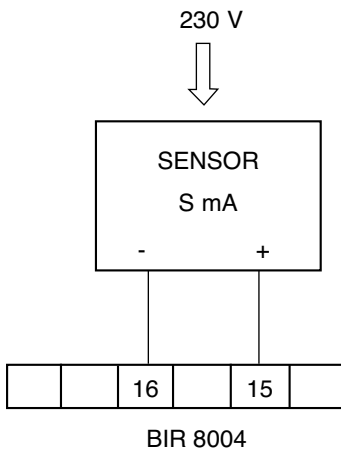
A 4-20 mA two wires sensor



B Three wires sensor (supply + 4-20 mA output)

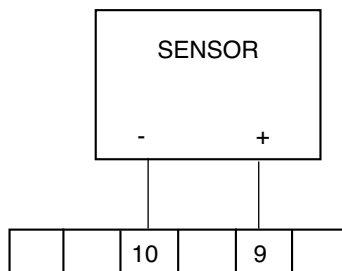
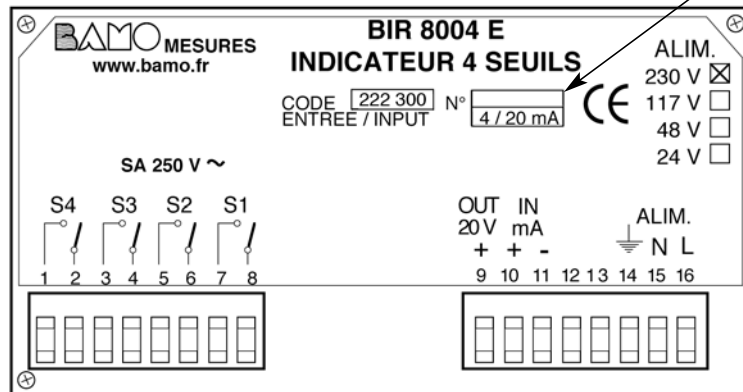
Nota: Sensor "-" of mA output must be connected to the supply "-"

* max sensor consumption: 40 mA



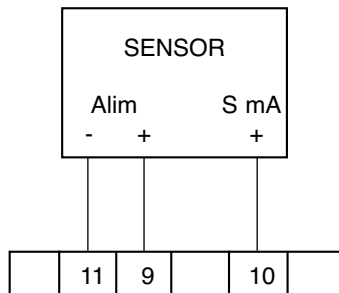
C Separated sensor supply

From serial N° 20937-01



A 4-20 mA two wires sensor

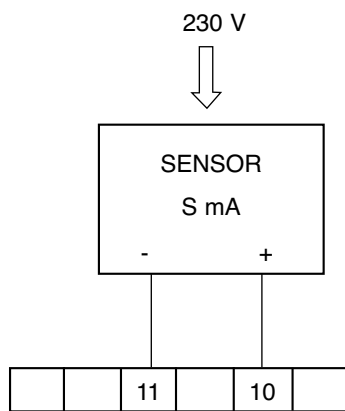
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B Three wires sensor (supply + 4-20 mA output)
Nota: Sensor “-” off mA output must be connected to the supply “-”

* max sensor consumption: 40 mA

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C Separated sensor supply

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4 - FRONT PANEL

16 alphanumeric characters
H = 9.22 mm

L.E.D **S1**, **S2**, **S3**, or **S4**
indicate relay status.
Red light: Relay ON
No light: Relay OFF
Flashing: Timer

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



VALID Key to write parameters on
the EPROM when the displayer
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).

The ↑ touch allows the movement
of the cursor flashing during the
seizure of a numeric datum.

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

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5 - PROGRAMMING



* 012.9

Measure display
Flashing point (*) indicate Measure Mode
To open Programming Mode
Press on "VALID" + "ENTER"



PASS

Display indicate PASS menu is open
Press "ENTER"



1234

To enter in programming mode,
Display require the access code. (fixe code : 1234)

Push **↑** to select a numerical character
Push **→** to move the cursor on righth side.
Press "VALID"



dP

Display indicate Decimal Point menu
Press "ENTER"



003.4

Display propose to modify decimal point position
Push **→** to move the point on righth side.
Press "VALID"



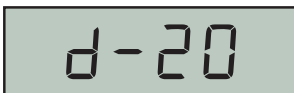
d--4

*** During this time, relays status do not change,
It's automatically go back to Measure Mode if there is dial during 20 secondes.**
Display indicate 4 mA input programming menu
Press "ENTER"



0000

Display propose to set a value for 4 mA
Set the value with arrow keys
Press "VALID"



d-20

Display indicate 20 mA input programming menu
Press "ENTER"



2000

Display propose to set a value for 20 mA
Set the value with arrow keys
Press "VALID"



Filt

Display indicate Filter menu
Press "ENTER"



0002

Display propose to set a filter value measure input
Press "VALID"

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51 no

Display indicate S1 relay normally open
Press "ENTER"

1000

Display propose to set a value for S1 open position
Set the value with arrow keys
Press "VALID"

51 nc

Display indicate S1 relay normally closed
Press "ENTER"

1000

Display propose to set a value for S1 closed position
Set the value with arrow keys
Press "VALID"

52 no

Display indicate S2 relay normally open
Press "ENTER"

1000

Display propose to set a value for S2 open position
Set the value with arrow keys
Press "VALID"

52 nc

Display indicate S2 relay normally closed
Press "ENTER"

1000

Display propose to set a value for S2 closed position
Set the value with arrow keys
Press "VALID"

53 no

Display indicate S3 relay normally open
Press "ENTER"

1000

Display propose to set a value for S3 open position
Set the value with arrow keys
Press "VALID"

53 nc

Display indicate S3 relay normally closed
Press "ENTER"

1000

Display propose to set a value for S3 closed position
Set the value with arrow keys
Press "VALID"

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Display indicate S4 relay normally open
Press "ENTER"



Display propose to set a value for S4 open position
Set the value with arrow keys
Press "VALID"



Display indicate S4 relay normally closed
Press "ENTER"



Display propose to set a value for S4 closed position
Set the value with arrow keys
Press "VALID"



Display goes to Measure Mode

6 - MINI / MAXI DISPLAY



Mode mesure
Measure Mode
Press **↑** arrow



Display indicate MINI menu
Press "ENTER"



Display indicate last memorised MAXI value
Press "ENTER"



Display indicate MINI menu
Press "ENTER"



Display indicate last memorised MAXI value
Press "ENTER"



Display propose to RESET MAXI and MINI value with return to measure mode by pressing simultaneous "VALID" and arrow **↑**, or cancel reset by pressing "ENTER".

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7 - CONSULTATION MODE



Measure display
Flashing point (*) indicate Measure Mode
To open Consultation Mode
Press "ENTER"



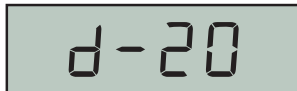
Display indicate Version N° menu is open
Press "ENTER"



*** During this time, relays status do not change.**
It's automatically go back to Measure Mode if there is dial during 20 secondes.
Display of 4 mA menu
Press "ENTER"



Display 4 mA value
Press "ENTER"



Display of 20 mA menu
Press "ENTER"



Display 20 mA value
Press "ENTER"



Display indicate Filter menu
Press "ENTER"



Display filter value
Press "ENTER"



Display indicate S1 relay normally open
Press "ENTER"



Display S1 setted value for open position
Press "ENTER"



Display indicate S1 relay normally close
Press "ENTER"



Display S1 setted value for closed position
Press "ENTER"

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52 no

LDisplay indicate S2 relay normally open
Press "ENTER"

1000

Display S2 setted value for open position
Press "ENTER"

52 nc

Display indicate S2 relay normally close
Press "ENTER"

1000

Display S2 setted value for closed position
Press "ENTER"

53 no

Display indicate S3 relay normally open
Press "ENTER"

1000

Display S3 setted value for open position
Press "ENTER"

53 nc

Display indicate S3 relay normally close
Press "ENTER"

1000

Display S3 setted value for closed position
Press "ENTER"

54 no

Display indicate S4 relay normally open
Press "ENTER"

1000

Display S4 setted value for open position
Press "ENTER"

54 nc

Display indicate S4 relay normally close
Press "ENTER"

1000

Display S4 setted value for closed position
Press "ENTER"

. 0 12.9

Display goes to Measure Mode

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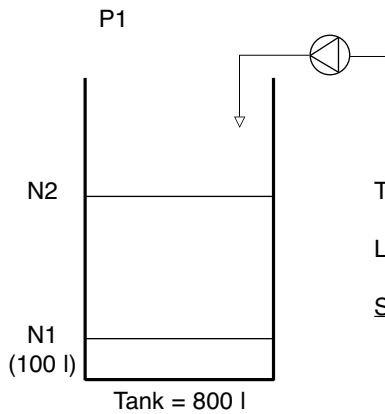
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8 - PROGRAMMING EXEMPLE

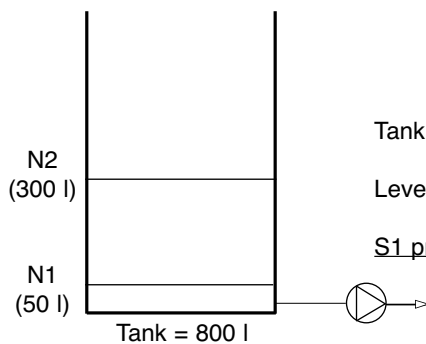


Remind: **no** = normally open (NO)
nc = normally closed (NC)

Tank fill up between N1 and N2 with S1 output

Level sensor = **4-20 mA** for 0 l to 800 l.

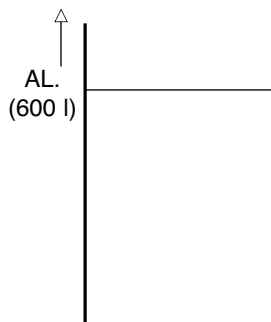
S1 programming: **N2 = no = 500**
 N1 = nc = 100



Tank drain between 300 l and 50 l

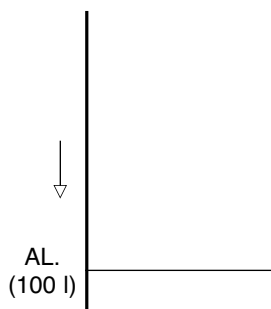
Level sensor = **4-20 mA** for 0 l to 800 l

S1 programming: **N1 = no = 50**
 N2 = nc = 300



High alarm

S1 programming: **N1 = no = 580**
 N2 = nc = 600



Low alarm

S1 programming: **N1 = no = 120**
 N2 = nc = 100

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NUMERICAL INDICATOR 4 ALARMES BIR 8004 PROGRAMMATION

Company:
Order N°:
Serial N°:

Supply :	230 V <input type="checkbox"/>	117 V <input type="checkbox"/>	48 V <input type="checkbox"/>	24 V <input type="checkbox"/>
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	BAMO	CLIENT
Code:	1234	
Decimal point:		
4 mA value:		
20 mA value:		
Filter time:		
S1 open value:		
S1 closed value:		
S2 open value:		
S2 closed value:		
S3 open value:		
S3 closed value:		
S4 open value:		
S4 closed value:		
Mini value:		
Maxi value:		

Date :
Name :
Signature :



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