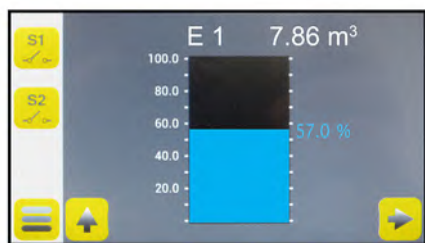


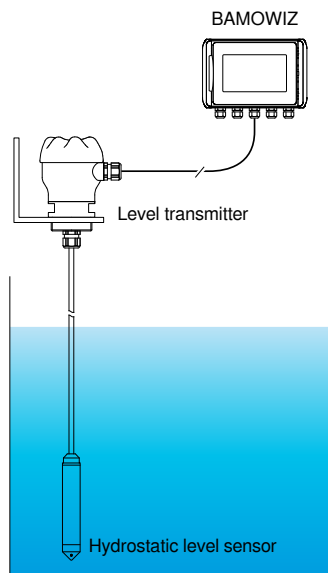
# Digital and graphical display BAMOWIZ



Digital display



Graphical display (Bar Graph)



Operating, example

- Graphic color touch-sensitive screen
- Multilingual end-user interface
- 2 (3) Inputs, 4-20 mA
- Setting of 8 thresholds for 2 (3) relays
- Units: set on keyboard
- 1 (0) Output 4-20 mA
- 1 (0) Serial interface RS485 MODBUS
- 1 (0) Frequency input

## APPLICATIONS

- Local display of any process (Level, turbidity, pressure, etc.)
- Flow counter and totalizer through frequency input
- Display and monitoring of measurements
- Display of level or volume with possibility of linearization
- Differential between two input signals (example: differential pressure with 2 sensors)

## DESCRIPTION

The instrument has a colour touch-sensitive screen to navigate through an intuitive and multilingual menu. BAMOWIZ converts analogue input signals (4-20 mA) and delivers clear information on its large digital and graphic (Bar Graph) display for an easy reading of measurements and thresholds status.

2 versions of BAMOWIZ available to cover different applications . Version 302 comes with 3 inputs, 2 relays, 8 thresholds to assign on 1 or 2 relays. Version 213 comes with 2 inputs 4-20 mA, 1 output 4-20 mA, 8 thresholds to assign at 2 or 3 relays, 1 frequency input and a serial interface RS485 MODBUS.

Settings are keyword protected.

BAMOWIZ has a flexibility of use for analysis of input data such as the display of level, volume or a specific parameter (pressure, temperature, turbidity, etc.). The keyboard on the touch screen allows you to set the measuring unit (Example:  $\mu\text{S}$ , Ohm,  $\Omega$ ,  $^{\circ}\text{C}$ , bar, etc.).

### To resume, BAMOWIZ allows:

- To choose the language
- To set the measurement range
- To choose the unit to display for each input
- To calculate and display the volume inside square or cylindrical tanks, or specific tanks (Linearization with 20 steps).
- To calculate and display the differential between inputs 1 and 2
- To set each of the 8 thresholds
- To assign each thresholds to relay outputs
- Counter and totalizer through the frequency input

### From graphic display you can access to:

- For each input: Identification (TAG) - Value - Unit
- Synoptic of measurements (Bar Graph)
- Identification and status of each relay
- Display of minima and maxima

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Digital and graphical display  
**BAMOWIZ**

16-10-2020

D-217.01-EN-AG

RE

217-01 /1

**TECHNICAL FEATURES**

User interface                   Graphic color touch-sensitive screen, 4/3  
Resolution of 480 x 272 pixels  
Languages                        English; French; German;  
Polish; Portuguese; Spanish  
Alphanumeric touch keyboard   Dedicated for each language  
Displayed measuring units       By type writing, according to the process

**BAMOWIZ ... 302**

Input signal                      3 Inputs 4-20 mA, 2-wire, with power supply to sensors 12 ... 11 V DC / 0 ... 20 mA (input load 50Ω)  
Relay outputs                    2 relays, N.O. contacts, potential free  
Thresholds                       Up to 8 thresholds to assign to both relays  
Switching power                 3 A / 250 V AC  
Hysteresis                        To set between 0 and 100 %  
Delay                              To set between 0 and 9999 s

**BAMOWIZ ... 213**

Input signal                      2 Inputs 4-20 mA, 2-wire, with power supply to sensors 24 V DC / 0...20 mA (input load 50Ω)  
1 Frequency input (0.04 Hz up to 10 kHz)  
Output signal                    1 output 4-20 mA (with or without linearization)  
Relays                             3 relays, N.O. contacts, potential free  
Thresholds                       Up to 8 thresholds to assign to 2 or 3 relays  
Switching power                 3A / 250 V AC  
Hysteresis                        To set between 0 and 100 %  
Delay                              To set between 0 and 9999 secondes  
Communication                  Serial interface RS485 MODBUS

Other features                    Linearization through 20 steps  
Graphical display (Bar Graph) of measurements  
Display of min. and max. values  
Differential [ input 1 - input 2 ]; Available on display, thresholds  
Flow counter and totalizer with pulse signal (0.04 Hz up to 10 kHz)

Main power                      100 ... 240 V AC 50/60 Hz  
Consumption                    Max. 5 VA  
Cable connections               Screw terminals  
Cable inlets                      5 Cable glands, PG 9

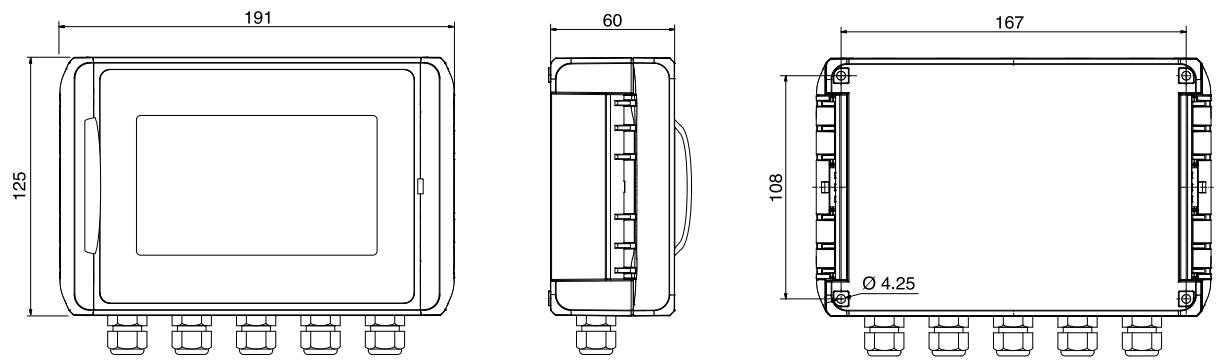
Mounting                         IP 65 cabinet, in ABS  
Operating temperature         -10 ... +50 °C

**EC Conformity: The instrument meets the legal requirements of the current European Directives.**

**CODE NUMBERS AND REFERENCES**

Code	Reference	Description	Output signal	Relay output	Communication
217 302	BAMOWIZ 302	3 Inputs 4-20 mA /12 V DC	-	2 Outputs N.O. contacts	-
217 213	BAMOWIZ 213	2 inputs 4-20 mA / 24 V DC 1 Frequency input	4-20 mA	3 outputs N.O. contacts	RS 485 Interface, MODBUS

**DIMENSIONS**



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**Digital and graphical display  
BAMOWIZ**  
16-10-2020 D-217.01-EN-AG

**RE**  
**217-01 /2**

# 2 Channels, 4 thresholds, Relay EVEREST 214S



- 4 adjustable thresholds, one is available as a timer
- Adjustable hysteresis
- 24 V DC power supply to 2 sensors
- 2 Inputs 4-20 mA
- Built-in timer: 1 s up to 24 h, e.g. for venting operation on MEMPRO

## APPLICATIONS

Control device for standardized 4-20mA transmitters in industrial applications

## DESCRIPTION

The two-channel measuring amplifier EVEREST 214S is a processor-controlled display device for DIN rail mounting. It has a built-in timer; It supplies 2-wire sensors with 24 V DC voltage. It allows a simple conversion of analog signals to limit values remote controls. Free scalable inputs and relays allows a wide domain of application.

## TECHNICAL FEATURES

Main power	100 ... 240 V AC 50/60 Hz or 10 ... 30 V DC or 12 ... 24 V AC
Consumption	1 to 5 W
Measuring loops	2 Input channels, 4-20 mA (adjustable from 0 to 25 mA)
Power supply to sensors	24 V DC max. 100 mA and 5 V DC max. 100 mA
Accuracy	0.5 % ±0.5 digit
Input signal filter	Adjustable from 0.1 to 9.9 s
Hysteresis	Adjustable from 1 to 99 %
Relay outputs	250 V AC, 2 A / 30 V DC, 1 A

### Recommendation:

The contacts are not protected against overloads: Provide an external protection device.

Threshold contacts S1, S2, S3	Common shared by the 3 contacts N.O. and N.C. by setting
Relay output S4	N.O. or N.C. by setting, or As a timer: 1 s up to 24 h
Indicator	2½ digit LED 5x7 dot matrix display 4 LED = Threshold status 1 blue LED = Channel 1 1 green LED = Channel 2
Resolution	1%
Setting	Via push and rotary button
Electrical connection	Screw terminals (cable cross section Max. 1.5 mm <sup>2</sup> )

### Recommendation:

Protection against accidental contact according to DIN EN 61010-1 is only guaranteed when installed in a closed housing with at least protection class IP54.

Ambient temperature	-10 ... +45 °C
Case	DIN rail mounting 35x7.5 mm (EN 50 022), IP40 according to EN 60 529

**EC Conformity: The instrument meets the legal requirements of the current European Directives**

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2 Channels, 4 thresholds,  
Relay  
**EVEREST 214S**

20-02-2020

D-232.04-EN-AD

RE

232-04/1

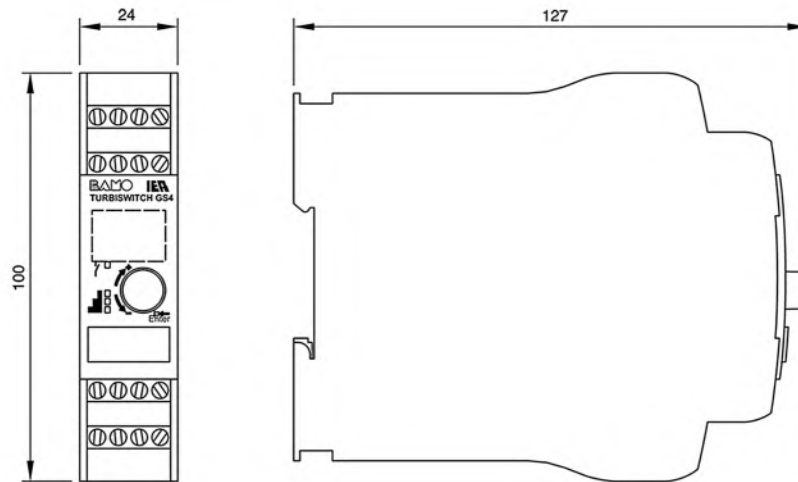
## CODE NUMBERS AND REFERENCES

Code	Reference	Description
232 116	EVEREST 214S G	100 ... 240 V AC - 50/60 Hz
232 113	EVEREST 214S D	10 ... 30 V DC and 12 ... 24 V AC

## Accessory

Code	Reference	Description
232 122	Cabinet	Wall-mounted, protection IP65

## DIMENSIONS



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2 Channels, 4 thresholds,  
Relay

**EVEREST 214S**

RE

232-04/2

20-02-2020

D-232.04-EN-AD

# Amplifier relay ES 2001

- Protection of Reed contact
- Outputs: 2 change over contacts, voltage free; 5A / 250 V AC / 500 VA
- Status relay display
- Regulation between two trigger points
- Adjustable time delay



## PRINCIPLE

All Reed contacts suffer of inductive or capacitive charge due to starting pumps or motors, leading to early aging and malfunction.

A solution is to protect Reed contacts with a relay amplifier, to insure greater switching power and lifetime.

ES 2001 amplifies commutation signals on low current and low voltage detection loops, e.g. by use of Reed contacts. Mounting: on DIN rail for easy integration in industrial cabinets. On the front a LED displays the output relay status. This relay ES 2001 is also perfect for liquid detection or liquid level regulation (documentation 530-01).

## APPLICATIONS

ES 2001 relays are designed for:

- Reed contact, models included in BRK60, MNR6, MNR7 etc.
- Flow switch, such as Z42 (IDP - PDP), CDP etc.

Each relay allows a regulation between two trigger points. For instance to fill in or emptying a tank by automation of a pump (or a valve). Each relay has 2 outputs change over contacts, potential free to allow driving for example, a power loop or an automate.

## TECHNICAL FEATURES

Power input	230 V AC $\pm 10\%$ , 50-60 Hz (standard); others on request
Consumption	2 VA
Ambient temperature	-15...+45 °C
Housing	IP40 cabinet
Galvanic insulation	Between main line and electrodes circuit
Mounting	Rail DIN 46277
Outputs	2 changeover contacts AC: 250 V, 5 A, 500 VA / max. DC: 125 V, 1 A, 40 W / max.
Time delay	Adjustable from $t = 0.5$ to 5 s for increasing level, $1/2 t$ for decreasing level
Measuring loop	6 V AC; < 1,5 mA

## CODES AND REFERENCES

Code	Reference	Description
530 200	ES 2001/230	Power supply 230 V AC / 50-60 Hz
530 210	ES 2001/115	Power supply 115 V AC / 50-60 Hz
530 220	ES 2001/48	Power supply 48 V AC / 50-60 Hz
530 230	ES 2001/24	Power supply 24 V AC / 50-60 Hz
530 252	ES 2001/12 V DC	Power supply 24 V DC
530 254	ES 2001/24 V DC	Power supply 24 V DC

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Amplifier relay  
**ES 2001**

04-07-2018

D-250.02-EN-AB

RES

250-02/1

# Flow-rate and totalizer BIF 6040



- For flow-rate sensors
- Fast programming
- Input signal: NPN, PNP, TTL contact
- Low frequencies: from 0.03 up to 30 000 Hz
- Main power supply: 95 ... 265 V AC
- Display: 6 digits
- Resolution: Adjustable
- OPTIONS : 2 or 4 alarms on relay NO/NC;  
Analogue output 4-20 mA

## DESCRIPTION

The concept BIF 6040 is without menu, this provides direct and simplified access to parameters setting.

The intuitive configuration allows an easy programming for decimal point position, alarms setting, analogue output calibration and linearization functions.

BIF 6040 accepts input signal from a BAMOFLU (up to 30 kHz) and counters M series.

Scaling is assumed, entering a scale factor, to display total volume in the desired unit (m<sup>3</sup>; l; else), or instant flow rate in volume per hour, minute or second.

Display switches from total volume to flow rate through a single push button.

A scan rate setting allows damping of transient phenomena in order to obtain a stable display.

The microprocessor allows the end-user to modify the range and the calibration frequency directly from the front plate.

The saved settings are protected by a locking-switch on the rear panel of the device.

## TECHNICAL FEATURES

Input frequency	0.03 ... 30 000 Hz
Input signal type	NPN, PNP, potential free contact (mV level selectable)
Input voltage	24 V DC, 100 mA max. (Code 282 200) 12 V DC, 30 mA max. (Code 282 201)
Accuracy	Frequency: $\pm 0.01$ % of input at 25 °C Delay: $\pm 100$ pulse/min / °C
Display	6 Digits; Red LEDs; 14.2 mm high, High brightness; Decimal point setting
Counter reset	Through external potential free contact or through keyboard
Safeguard	On EEPROM (10 years)
Mains power supply	95 ... 265 V AC
Consumption	8 VA max.
Temperature	Operating: 0 ... +50 °C; Storage: -10 ... +70 °C

HOUSING	Panel mounting, 48 x 96 mm, DIN Black polycarbonate, 300 g, Terminals: DIN / EN 50027, Front: IP 65
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OPTIONS	PCB extra for thresholds; relay outputs (SPST) protected 5 A at 250 V AC, resistive load, Hysteresis selection 2 alarms (code 282 202) or 4 alarms (code 282 204) Analogue output 4-20 mA (flow-rate); 0/10 V; $\pm 5$ V; isolated 250 V AC
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Flow-rate and totalizer  
**BIF 6040**

29-06-2018

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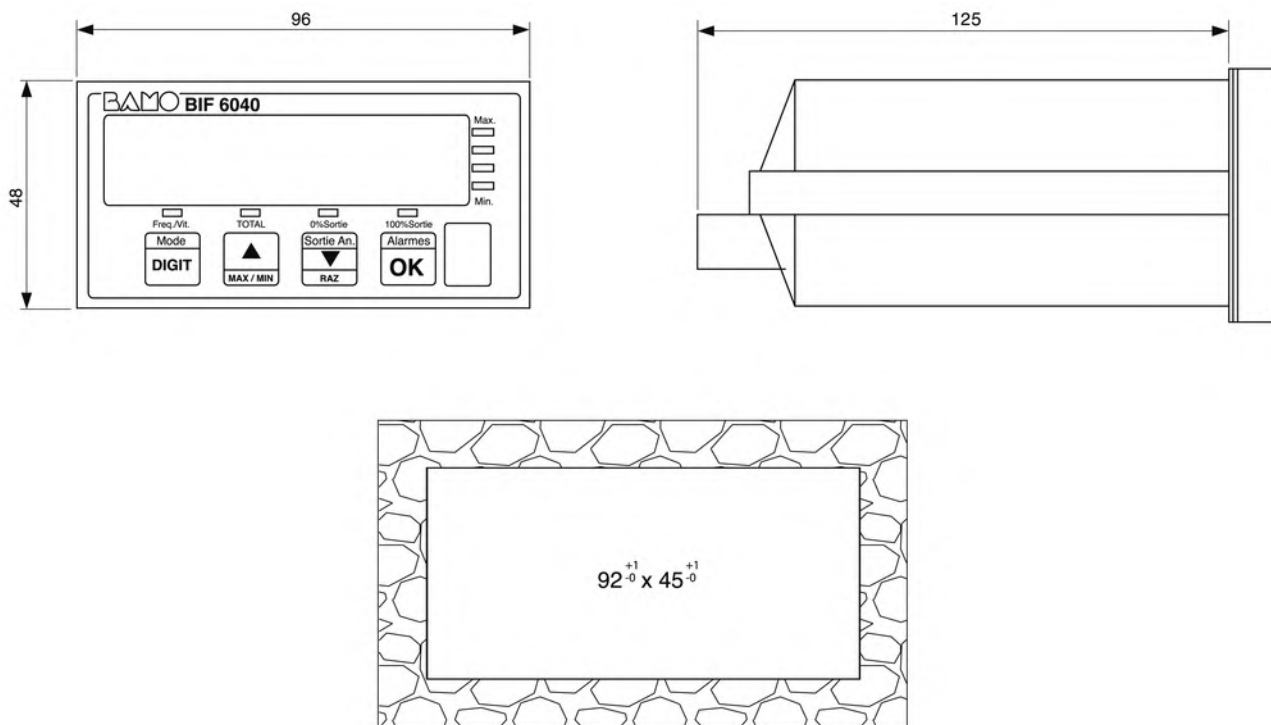
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282-01 /1

## CODE NUMBERS AND REFERENCES

Code	Reference	Description
282 200	BIF 6040 - A24V	Standard flow-rate and totalizer indicator with power supply to sensor 24 V DC
282 201	BIF 6040 - A12V	Standard flow-rate and totalizer display with power supply to sensor 12 V DC
282 202	AL2	PCB extra for 2 alarms, relay outputs
282 204	AL4	PCB extra for 4 alarms, relay outputs
282 210	ANA	PCB extra for analogue output 4-20 mA (flow-rate)

## DIMENSIONS



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Flow-rate and totalizer  
**BIF 6040**

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282-01 /2