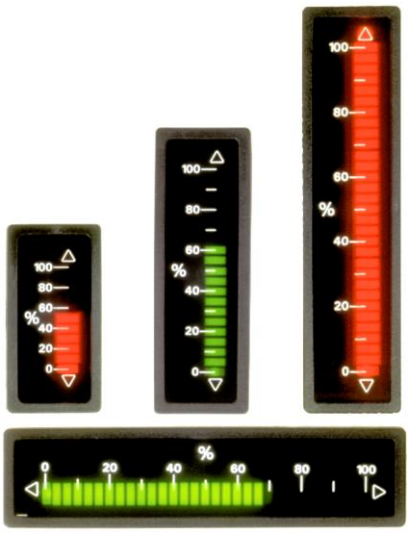
GENERAL CHARACTERISTICS

Bargraph indicators with one-color display used for the visual monitoring of the trend of the most common signals used in industrial processes. Due to the small size, they are easily usable both for installation in control unit and on control panels. These indicators are capable to accept input signals such as standard mA, V and resistance up to 100 kOhms. There is also a version for multipurpose use with a wide range of input signals.
The configuration is easily performed using 4 DIP switches.



- Programmable input signals.
  0/4 ÷ 20 mA, 0/2 ÷ 10V, and potentiometer.
- Galvanic isolation between input signal and power supply.
- Measurement range adjustable from 50 **....** 200%.
- Number of LED segments 13, 23 or 33.
- Green or red display.
- Versions for vertical or horizontal mounting.
- Overflow, positive and negative indication.
- Plug-in screw terminals.

TECHNICAL DATA Tab.1

Description		BA.13	BA.23	BA.33
Power supply	**24V**	24 Vac/dc ± 20%	24 Vac/dc ± 20%	24 Vac/dc ± 20%
Frequency		47 ÷ 63 Hz	47 ÷ 63 Hz	47 ÷ 63 Hz
Current		≤ 60 mA	≤ 75 mA	≤ 90 mA
Test voltage		500 V	500 V	500 V
Working temperature		-10 ÷ +50°C	-10 ÷ +50°C	-10 ÷ +50°C
Accuracy		≤ 0,5% ± 1 segment	≤ 0,5% ± 1 segment	≤ 0,5% ± 1 segment
Temperature coefficient		≤ 100 ppm/K	≤ 100 ppm/K	≤ 100 ppm/K
Voltage error		0,1% - 19,2 ÷ 28,8 Vac/dc	0,1% - 19,2 ÷ 28,8 Vac/dc	0,1% - 19,2 ÷ 28,8 Vac/dc

Inputs	Voltage	**ISS**	0 ÷ 10 Vdc	Ri = 4 KΩ/V - max. 3 times the rated voltage - max. 48V	
	Current		0/4 ÷ 20 mA	Ri ≤ 0,5 Ω/A - max. 3 times the rated voltage – multipurpose version Ri =125 Ω	
	Resistance		0 ÷ 1/100 KΩ	Ri ≥ 10 MΩ - reference voltage 2,5V - max. load 5 mA	
Bargraph Indicator	Red	**R**	13 segments	23 segments	33 segments
	Green	**G**	11 segments + 2 overflow	21 segments + 2 overflow	31 segments + 2 overflow
Dimension - segment pitch			2 x 5 mm. - 2,54 mm	2 x 5 mm. - 2,54 mm.	2,54 mm - 2,54 mm.

Housing		Slide- in type - According to DIN 43700 - Noryl SE1 GFN2 material		
Mounting	**H**	Horizontal mounting version		
	V	Vertical mounting version		
Weight		75 g	100 g	125 g
Electrical connection		Plug-in screw terminals - max. 1,5 mm^2		
Front panel protection	**IP54**	IP20 protected Terminals - According to BVG A3 standard		
	IP65	IP20 protected Terminals - According to BVG A3 standard		On request

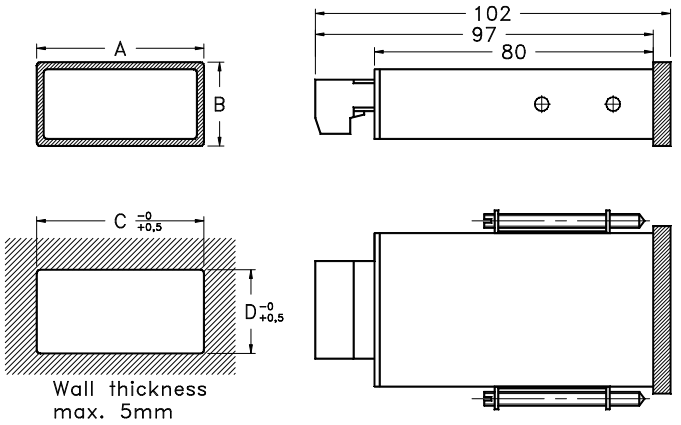
0/100 SCALE Tab.2

Each indicator is supplied with a standard scale 0 to 100%.
Special scales can be supplied on request.

ADJUSTMENT

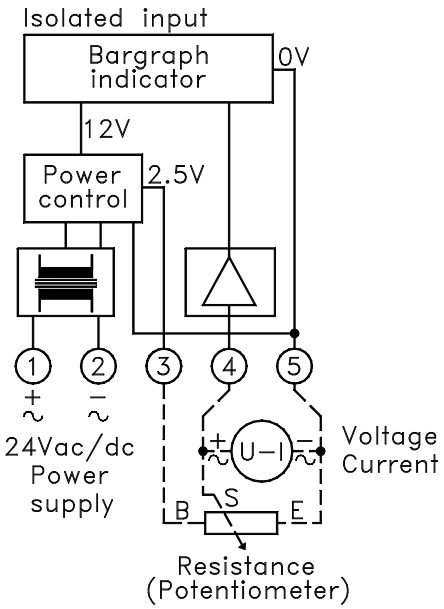
The full scale indication can be adjusted in the range 50% ÷ 200% of the input signal value by means of an appropriate potentiometer.
For example: With an input signal of 0 ÷ 10 Vdc, the display can be adjusted in the range 5 ÷ 20 Vdc

DIMENSIONS mm.



	A	B	C	D
BA.13	48	24	44	21
BA.23	72	24	68	21
BA.33	96	24	92	21

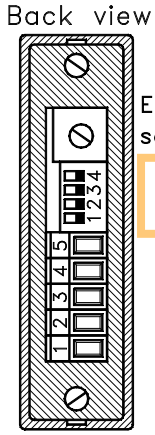
WIRING



CONFIGURATION

BA.13 = The adjustment potentiometer is located on the left side, the configuration DIP-switches are located on the rear panel.

BA.23/33 = The adjustment potentiometer (and the configuration DIP-switches of the input signals of the multipurpose version) are located on the rear panel of the indicator.



◄ **DIP-switches for inputs configuration**
◄ **only for multipurpose version**

MULTIPURPOSE VERSION CONFIGURATION Tab. 3

Code	MPD	DIP-switches settings			
Input		S1	S2	S3	S4
0 ÷ 2,5 Vdc		ON	OFF	OFF	OFF
2 ÷ 10 Vdc		OFF	OFF	ON	ON
(*) 0 ÷ 10 Vdc		**OFF**	**OFF**	**ON**	**OFF**
4 ÷ 20 mA		OFF	ON	OFF	ON
0 ÷ 20 mA		OFF	ON	OFF	OFF
0 ÷ 1/100 KΩ		OFF	OFF	OFF	OFF

(*) Standard condition

NOMENCLATURE

BA.13	H	G	24V	ISS	0/100	IP54		
•							Tab.1	Type
	•						Tab.1	Mounting
		•					Tab.1	Bargraph color
			•				Tab.1	Power supply
				•			Tab.1-3	Standard input signals or multipurpose
					•		Tab.2	Graduated scale
						•	Tab.1	Degree of protection