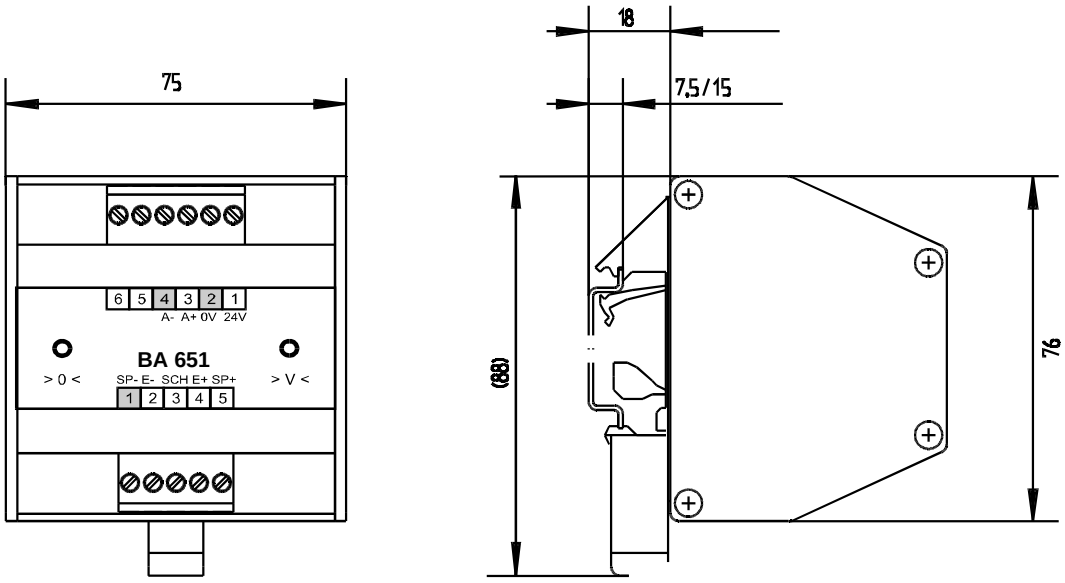
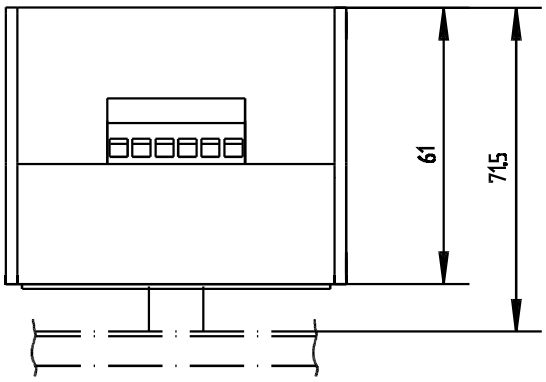
BA651 Strain Gage Amplifier
in DIN Rail Mount Housing

Description

The BA651 is a instrumentation amplifier in rail mount housing according to DIN 50022-35. It is designed to provide a low drift signal conditioning for full bridge strain gage sensors. The ±10V analog output is fully bi-directional. A internal voltage reference provides the excitation for a 350 ohms sensor. An optional version to connect up to four parallel 350 ohms sensors is available. The BA651 requires a basic 19 to 28 VDC power supply. The zero and span adjustment is performed by a zero and span potentiometer with a wide adjustment range.





Features:

- Bi-directional output (voltage version only)
- 19 to 28 VDC power
- Wide range span adjustment
- Wide range zero adjustment
- DIN-rail mount

Specifications

Power supply	VDC	24V (19 to 28V)
Accuracy class at 2mV/V	%	0,1
Potentiometer adjustment range (approx.)		
- Span	mV/V	0,5 to 2,05 (Version 01 .. 03)
	mV/V	0,8 to 3,5 (Version 08 .. 10)
- Zero	mV/V	-0,4 to +0,4
Bridge excitation	V	Approx. 10
Bridge resistance	Ω	350 to 1000 Ω (Standard)
	Ω	>87 Ω (for Option XP4 only)
Power supply current	mA	Approx. 10 (with no sensor connected)
Output		
- Voltage (Version 01, 08)	V	±10V , Load ≥10 KOhms
- Current (Version 02, 09)	mA	0 to 20, Load ≤ 300 Ohms
- Current (Version 03, 10)	mA	4 to 20, Load ≤ 300 Ohms
Bandwidth (-3dB)	Hz	5000
Temperature coefficient at 2mV/V		
- Span	%/10K	≤0,07
- Zero	%/10K	≤0,05
Mounting		DIN-Rail mount: 35 x 7,5 or 35 x 15
Dimensions	mm	75 x 72 x 76 (LxHxW)
Protection class	%	IP20
Operating temperature	°C	-20 to +60
Storage temperature	°C	-40 to +70

Ordering examples

BA 651.01, Input 2mV/V, Output ±10V
BA 651.02, Input 2mV/V, Output 0 bis 20mA
BA 651.03, Input 2mV/V, Output 4 bis 20mA
BA 651.08, Input 3,5mV/V, Output ±10V
BA 651.09, Input 3,5mV/V, Output 0 bis 20mA
BA 651.10, Input 3,5mV/V, Output 4 bis 20mA

Add “XP4” to above designation if you wish the to order the option for 87 Ohms bridge resistance (i.e. to connect 4 x 350 ohms load cells).

Vishay Measurements Group GmbH
Tatschenweg 1
DE-74078 Heilbronn
www.vishaymg.de
Email: info@vishaymg.de
Fon +49 (0) 7131 39099-0
Fax +49 (0) 7131 39099-29