

BA 661 Programmable Strain Gauge Measuring Amplifier

Applications

- Strain gauge measuring
- Process control
- Industrial automation
- Testing machines

Features

- Universal applicable via wide input range
- High accuracy by 24 bit A/D-converter
- Conversion rate up to 3200 Hz
- Filter from 0.8 Hz to 2000 Hz
- Power supply 9 to 36 V galvanic isolated
- 4- or 6-wire technology
- Trigger input for zero point adjustment
- Simple handling
- Standard signal interface to SPS
- Configurable including multipoint calibration via USB interface and PC (software included)



BA661/ IP20

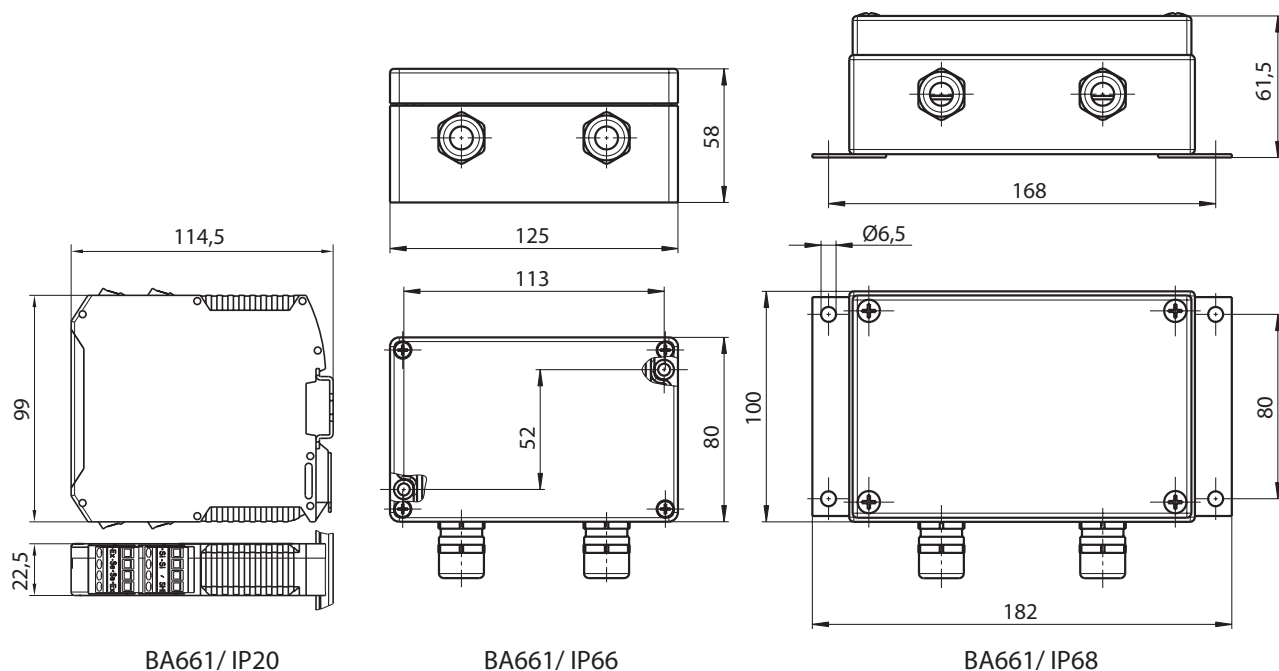


BA661/ IP66

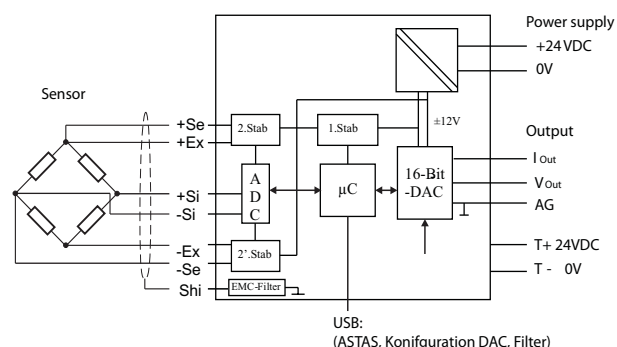


BA661/ IP68

Dimensions/ Connections



Principle Overview



Specifications

Class of Accuracy at Input Signal 2mV/V	% FSR	< 0.02 (typ.)		
Connection for strain gauge sensor Bridge resistance/ range of input impedance Input signal range (+Si/-Si) Excitation voltage (+Ex/-Ex)	Ω mV/V VDC	4- or 6-wire 58 ... 2000 (up to 6 loadcells each 350 Ω) 0.1/ 0.25/ 0.5/ 1.0/ 1.5/ 2.0/ 3.0/ 4.0/ 5.0/ 7.0 ± 2.5		
Standard Output Signal ^{*)}				
Current output Voltage output Load resistance	mA V Ω	0/ 4 ... 20/ 0 ... 24 ≤ 500	-10/-5 ... 0 ... +5/+10 ≥ 1000	
Measurement Characteristics ^{*)}				
Resolution of the A/D Converter Filter (programmable via USB)	Bit Hz	24 0.8 ... 2000		
Error at S=2mV/V				
Nonlinearity Noise (at measurement rate) Input sensitivity for 1 LSB Zero drift	% FSR % FSR nV %/10K	0.0025 0.002 (0.8Hz) ... 0.009 (2000Hz) 150 <0.01		
Power Supply				
Voltage range Power consumption (without sensor)	VDC W	9 ... 36 1		
Environmental Conditions				
Operating temperature range Storage temperature range	$^{\circ}\text{C}$ $^{\circ}\text{C}$	-20 ... +60 -25 ... +85		
Construction		BA 661/ IP 20	BA 661/ IP 66	BA 661/ IP 68
Case		Plastic housing/ DIN rail	Aluminium die-cast	Stainless steel AISI304/ AISI316
Weight	kg	0.2	0.5	0.8
Dimensions (W x H x D)	mm	22.5 x 114.5 x 99	125 x 80 x 57	150 x 100 x 60
Environmental protection EN 60529 / DIN 40050-9		IP 20	IP 66	IP 68
Terminal block, wire size	mm ²	0.14 ... 2.5	0.13 ... 2.5	0.13 ... 2.5

^{*)} Configurable via standard USB (USB-A) interface and PC (software included)

Order Example

Type Code	Description
BA 661/ IP 20	Programmable strain gauge measuring amplifier for DIN rail mounting
BA 661/ IP 66	Programmable strain gauge measuring amplifier aluminium die-cast
BA 661/ IP 68	Programmable strain gauge measuring amplifier stainless steel