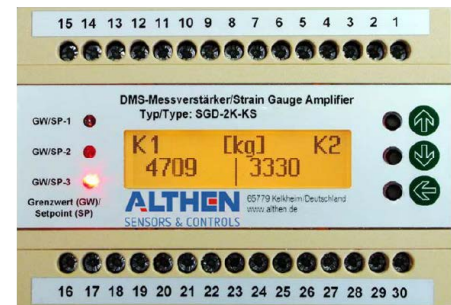


SGD-2K-KS

Dual Channel Strain Gauge Amplifier for DIN Top Hat Rail Mounting

- Supply voltage 10 ... 18 VDC / 18 ... 30 VDC
- Analogue output 4 ... 20 mA
- Plastic enclosure for DIN-top hat rail mounting (IP20)
- Dimensions (W x H x D) 100 x 73.2 x 118.2 mm



This programmable dual channel strain gauge amplifier offers supply and signal evaluation for two strain gauge transducers. With the respective setting this amplifier can be used for differentiation, for summation or for displaying one or both channels. Furthermore 3 programmable limit switches (potential free relay contacts max. 30 V, 0.5 A) can be set over the total measuring range. For further analysis a 4 ... 20 mA analogue output signal is available.

Via the menu the following setting can be made:

- Displayed unit
- Channel scaling
- Display (K1 and K2, SUM K1+K2, DIFF K1-K2, Channel 1, Channel 2)
- Switching point of the channel
- Switching characteristics
- Switching delay
- Menu language (German or English)

This amplifier is built into a plastic enclosure (IP20), suitable for DIN-top hat rail mounting.

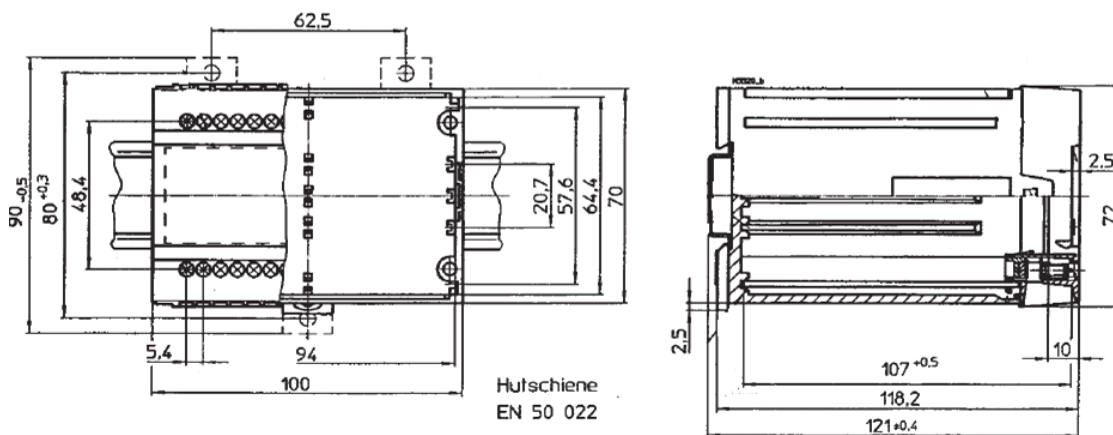
Specification

Number of measuring channels:	2 (Strain gauge full bridge >300 Ω)
Supply voltage:	10 ... 18 VDC; 18 ... 30 VDC; reverse voltage protection
Isolating proof voltage between input and output	200 V (higher isolated proof voltage on request)
Power consumption:	8 W max.
Stain gauge excitation:	±2.5 VDC, ±5 VDC
Analogue output / max. load:	4 ... 20 mA / 500 Ω max.
Limit frequency (-3 dB):	1 kHz, optional up to 30 kHz
Input resistance:	>3 MΩ
Max. input sensitivity:	100 mV/V at ±5 VDC strain gauge excitation
Non-linearity:	±0.05 % FS
Electrical connection:	Screw clamps
Enclosure:	Plastic enclosure for DIN-top hat rail mounting (IP20)
Dimensions (W x H x D):	100 x 73.2 x 118.2 mm
Weight:	450 g
Storage temperature range:	-20 °C ... +60 °C
Operating temperature range	0 °C ... +50 °C

Ordering Description

SG-2K-KS...	Dual channel strain gauge amplifier in DIN top hat rail enclosure (IP20)
...-12E-...	Supply voltage: 10 ... 18 VDC
...-24E-...	Supply voltage: 18 ... 30 VDC
...-010-...	Analogue output: 0 ... 10 V
...-B10-...	Analogue output: ± 10 V
...-420-...	Analogue output: 0 ... 10 V und 4 ... 20 mA
...-GFxx	Option: limit frequency up to 30 kHz
[blank]	Standard limit frequency 1 kHz

Dimensions



Terminal Wiring

Electrical connections are made via screw clamps located on the enclosure. The maximum cable cross section is 2.5 mm². The maximum interference immunity is achieved with direct connecting of the cable screen with "clean" and "low resistant" protective ground (PG). A lengthening of the cable screen with a cable worsens the interference immunity considerably. The cable screen connection must be done directly by a cable clamp. If a connection with protective ground (PG) isn't possible, the cable screen can be connected to terminal clamp 30 (Analogue ground/screen). Anyhow enough interference immunity has to be ensured.

Terminal	Description
1	+ Supply voltage (+Ub)
2	Supply ground
3	Supply ground
Galvanic isolation	
4	Analogue ground
5	Not connected
6	Not connected
7	Not connected
8	Analogue ground
9	Analogue output K-2 4 ... 20 mA (option -420)
10	Analogue ground
11	Analogue output K-2 0 ... +10 V or. ± 10 V
12	Analogue ground
13	Analogue output K-1 4 ... 20 mA (option -420)
14	Analogue ground
15	Analogue output K-1 0 ... +10 V or ± 10 V

Terminal	Description
16	Analogue ground / screen
17	+ SG signal - transducer K-1
18	- SG signal - transducer K-1
19	+ SG excitation - transducer K-1
20	+ SG excitation - transducer K-2
21	+ SG excitation
22	+ SG sense
23	Analogue ground / screen
24	- SG excitation - transducer K-1
25	- SG excitation - transducer K-2
26	- SG excitation
27	- SG sense
28	+ SG signal - transducer K-2
29	- SG signal - transducer K-2
30	Analogue ground / screen

When connecting in 4-wire technology terminal No 21 and 22 as well as 26 and 27 have to be connected externally. For 6-wire technology strain gauge transducers, these connections are already set in transducer electronics. The terminals "supply ground" and "analogue ground" are galvanically isolated. Connect terminal 3 and 4 to eliminate galvanic isolation.

Alignment/Calibration

On request, a pre-setting of the measuring system or a factory calibration certificate with traceable references can be carried out for an extra charge.

Customized Requirements

Technical modifications according to customized requirements are available on request. Moreover, we deliver customized special solutions for a lot of measuring tasks in the section pressure, force, position and tilt measuring using our measuring transducers. Do not hesitate to contact us.