

Supply Isolation Amplifier

AD-STV 22 GVB

Description

The supply buffer amplifier AD-STV 22 GVB serves the galvanic separation and amplification of transmitter signals (0/4–20 mA). Here the 2- or 3- wire transmitter is supplied directly through a galvanically separated and current-limited supply voltage. The output signal follows the input variable linear and is independent of the connected burden up to a limiting value.

Input, output and the supply voltage are galvanically separated from each other with high insulation. An integral high-efficiency power pack prevents high temperature rises and permits high output loads.

A high packing density and high working ergonomics are achieved in combination with pull-out connecting terminals and a construction width of 13 mm.

Application

Supply and measuring value recording of 2- or 3- wire transmitter, such as pressure transmitter, temperature transmitter amongst others, with simultaneous amplification and galvanic separation.



Specific characteristics

- Supply buffer amplifier for 3-way separation of 0/4–20 mA signals (output follows input 1:1)
- With integral current-limited supply voltage
- 13 mm narrow housing with pull-off connecting terminals

Specification

Input current

measuring range 0–20 mA; 4–20 mA
input resistance 50 Ohm

Transmitter supply

no-load running approx. 23 V
with 20 mA approx 17 V
current limiting approx. 30 mA

Output current

output range 0–20 mA; 4–20 mA
max. burden 400 Ohm
residual ripple < 50 μ Ass

Accuracy

unit < 0,2%
linearity error < 0,2%
temperature influence < 100 ppm / K
response time < 1 ms

Supply

supply voltage 20–253 VDC or 50–253 VAC
power consumption max. 1,5 W / 2,8 VA

Housing

dimensions (WxHxD) 13x110x128mm
type of protection IP 20
connection method detachable terminal clamp
manner of fastening DIN rail 35mm (EN 50022)
weight approx. 101 gr.

Environmental conditions

ambient temperature 0... +50°C
storage and transport -10... +70°C

EMC

Product family standard EN 61326
Emitted interference EN 55011, CISPR11 Cl. B
During checking, slight signal deviations are possible

Electrical safety requirements

Product family standard EN 61010-1

Galvanic separation. test voltages

input/output 3,75 kV RMS (1 min.)
signal/auxiliary voltage 4 kV RMS (1 min.)

Protective systems

input/output over voltage and over current
power supply over voltage, over current and over temperature

please turn over --->

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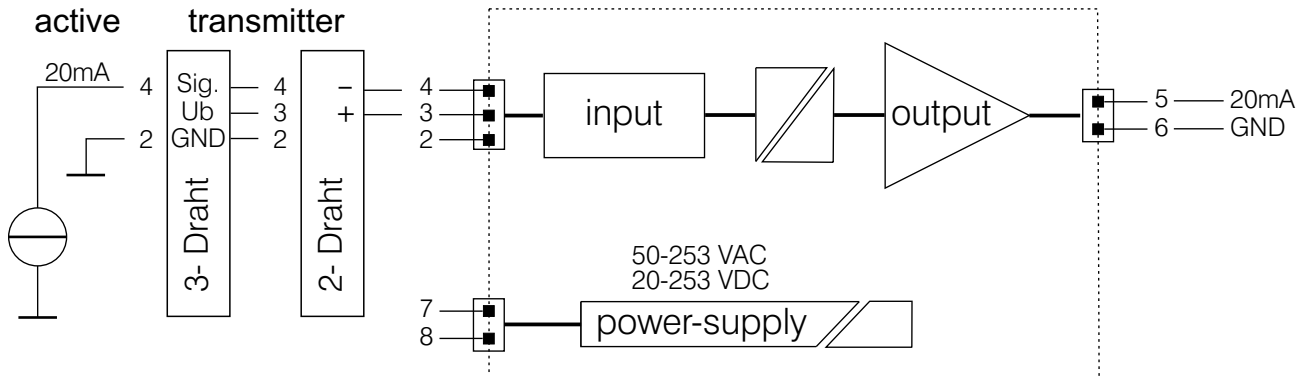
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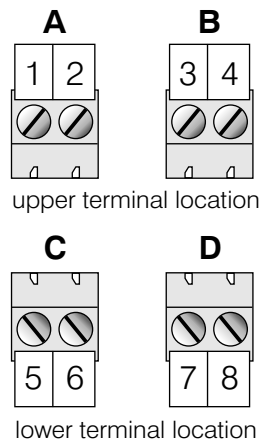
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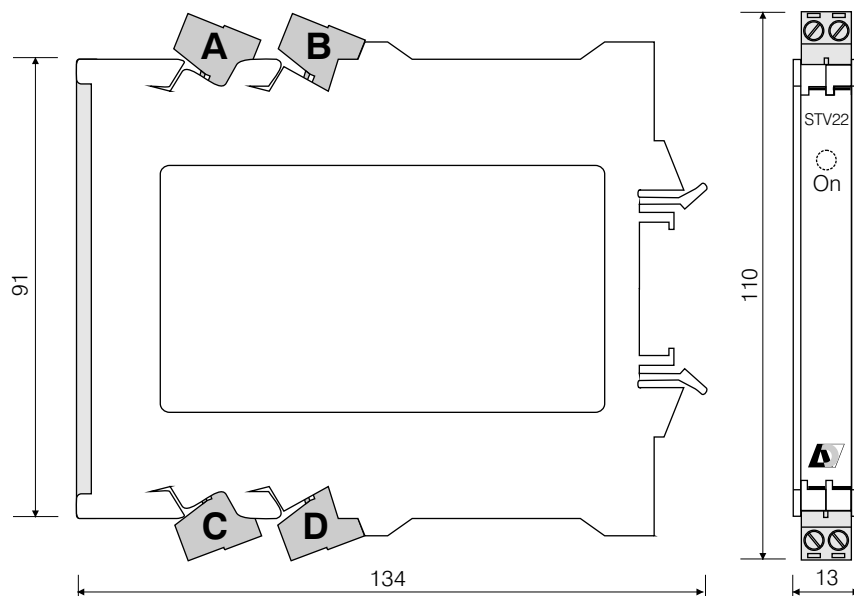
Block and wiring diagram



Terminal location



Dimensions



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