

Supply separation Amplifier

AD-STV 24 GVB

Description

The supply separation amplifier AD-STV 24 GVB serves the galvanic separation and amplification of transmitter signals (0/4–20 mA). The 2- or 3-wire transmitter is supplied direct through a galvanically separated and current limited supply voltage. The output signal follows the input magnitude linear and is independent of the connected burden up to a limiting value.

Input, output and the supply voltage are separated galvanically from each other with high insulation. An integral, electronic power pack is designed with a voltage range of 11 to 30 VDC, also for 12V battery voltage.

With the combination of connection terminals, which can be pulled off, and a construction width of 13 mm, a high packing density and high working ergonomics are achieved.

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 separation amplifier for a 3-way separation of 0/4-20 mA signals (output follows input 1:1)
- ! With integral current limiting supply voltage
- ! 13 mm narrow housing with connection terminals, which can be pulled off
- ! Suitable for battery voltage of 12VDC

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. 18 V
current limiting	approx. 30 mA

Output current

output range	0-20 mA; 4-20 mA (1:1 to input)
max. burden	300 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	11-30 VDC
power consumption	max. 1,35 W

Housing

dimension (WxHxD)	13x110x128mm
type of protection	IP 20
connection method	detachable terminal clamp
connectors	clamping torque 0,5 Nm (EN 60999)
manner of fastening	DIN rail 35 mm (EN 50022)
weight	approx. 80 gr.

Environmental conditions

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

EMC

product family standard	EN 61326
error transmission	EN 55011, CISPR11 Kl.B

During checking, slight signal deviations are possible

Galvanic separation, test voltages

input/output	3,75 kV RMS (1 min.)
signal/power-supply	4 kV RMS (1 min.)

Protective systems

input/output	over voltage and over current
power-supply	over voltage, over temperature reverse voltage protection

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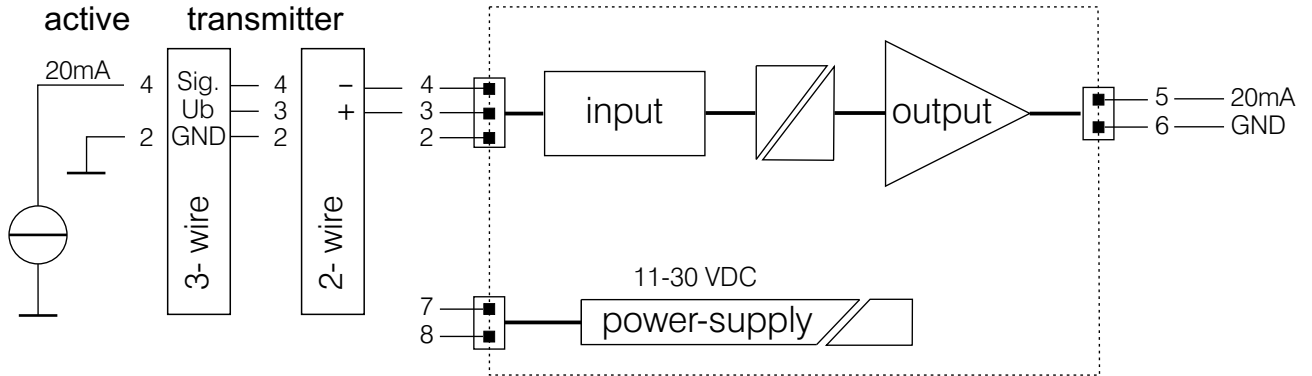
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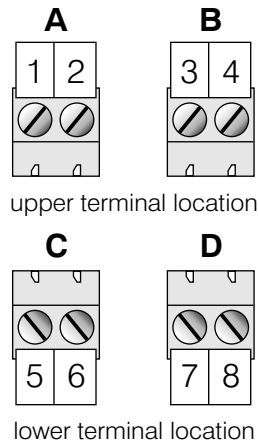
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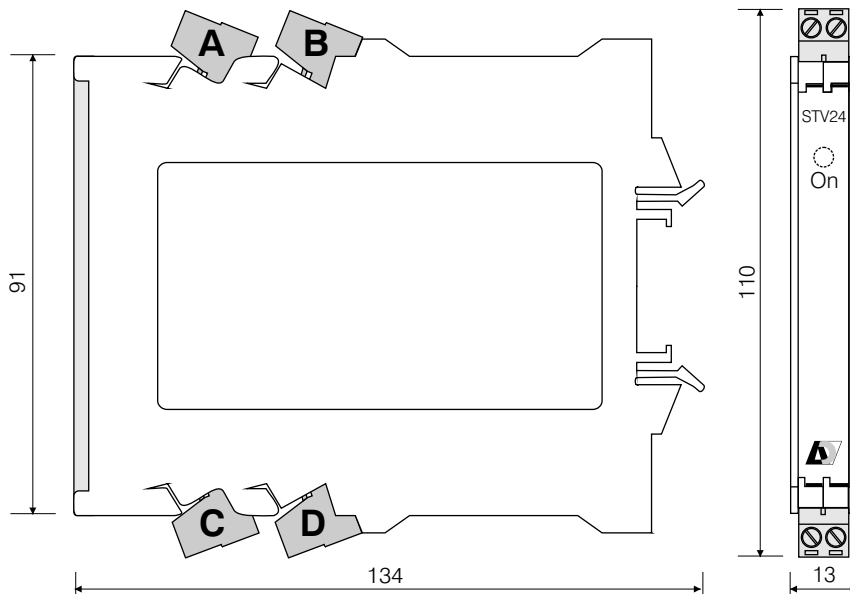
Block and wiring diagram



Terminal location



Dimension



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