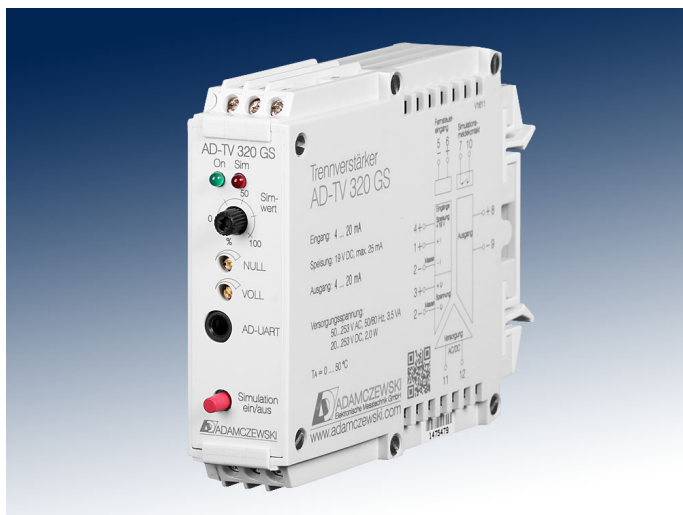


Description

The set value buffer amplifier AD-TV 320 GS serves the galvanic separation, transformation and amplification of DC current and voltage signals (0/4-20mA or 0/2-10V). The device has additionally a transmitter supply and a set value function, which can be switched on. The activation of the set value function is carried out selectable with a brief depression of the key at the front or with a control signal (24V active or contact) at the remote control input. Any output set value is set with the potentiometer at the front. Activation of zero trimmers and full trimmers is possible with longer depression of the set value key. With this, the signal magnitudes are adjustable in the range of $\pm 25\%$. An integral electronic wide range power pack allows operation in a wide supply area.

Application

Transformation, burden amplification and galvanic disconnection of impressed transmitter signals, current signals and voltage signals with additional simulation function via set value specification, which can be activated.

**Specific characteristics**

- Restoration of the last device condition on supply connection (i.e. after power cut).
- Setting of a set value is carried out undamped and independent of the trimmer positions between 0...100% of the specified output range.
- Check back contact in set value condition (closer).
- The output signal remains even with missing input signal at the output start (i.e. 4 mA).
- Configurable via AD-STUDIO.

Business data**Order number**

AD-TV 320 GS

Information**Downloads**

Tender text

[tv320gs.zip](#)

Safety instructions

[ad-safety-instructions.pdf](#)**Technical specifications****Transmitter supply**

Feeding voltage 26 ... 19 V (4 ... 20 mA)
Current limit ~ 25 mA

Input current

Measuring range 0 ... 20 mA ¹⁾
Input resistance 50 Ohm

Input voltage

Measuring range 0 ... 10 V ¹⁾
Input resistance 100 kOhm (10 kOhm / Volt)

Output current

Output range 0 ... 20 mA ¹⁾
Max. burden 500 Ohm
Max. residual ripple 40 μ Ass

Output voltage

Output range 0 ... 10 V ¹⁾
Min. burden 1 kOhm
Max. residual ripple 20 mVss

Supply

Voltage range AC 50 ... 253 V AC, 50/60 Hz
Nominal voltage AC 230 V AC
Voltage range DC 20 ... 253 V DC
Nominal voltage DC 24 V DC
Input power AC/DC 3,5 VA / 2,0 W

Transmission behaviour

Basic accuracy < 0,2 % of full scale
Temperature influence 100 ppm/K of full scale
Response time 50 ms
Damping (optional) 0,1 %/s (linear max. ~950 s)
Trimmer function +/- 25%
Linearization (optional) 24 x/y, interpoliert
Setpoint encoder 0 ... 270° = 0 ... 100 %

Remote control

Input Optokoppler
Voltage 10 ... 30 V DC
Pulse controlled 200 ... 1000 ms
Static > 1000 ms
Front button ~ 200 ms

Housing

Dimensions (WxHxD) 23x78x103 mm
Type of protection IP 20
Connection method screw clamp
Terminals, wire cross section 2,5 mm² flex wire / 4 mm² one wire
Bolting torque terminals 0,5 Nm
Weight ~ 100 g
Manner of fastening 35 mm DIN rail 35mm

Environmental conditions

Ambient temperature -10 ... 50 °C
Storage and transport -10 ... 70 °C (no condensation)



Technical specifications

EMC

Product family standard	EN 61326-1 ²⁾
Emitted interference	EN 55011, CISPR11 Cl. B, Gr. 1

Electrical safety requirements

Product family standard	EN 61010-1
Overvoltage category	II
Pollution degree	2

Galvanic isolation, test voltages

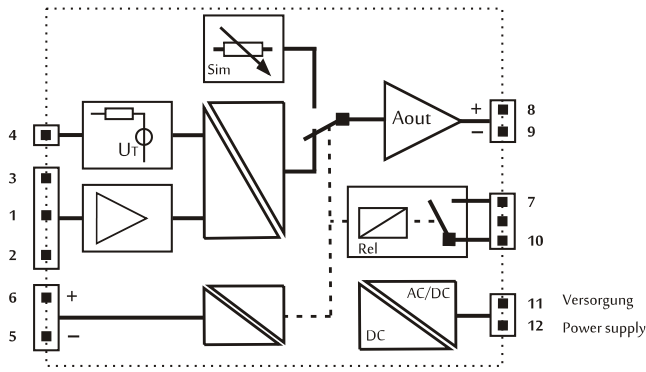
Input / output	1,5 kV, 50 Hz (1 min.)
Signal / supply unit	3 kV, 50 Hz (1 min.)

Protection circuits

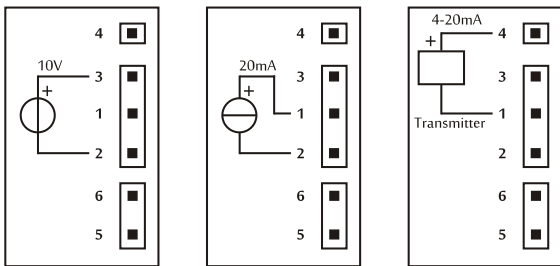
Input	electrical surge protection
Output	electrical surge protection
Power supply	Protection against overvoltage reverse polarity

1) Values must be advised by order.
2) During checking, slight signal deviations are possible.

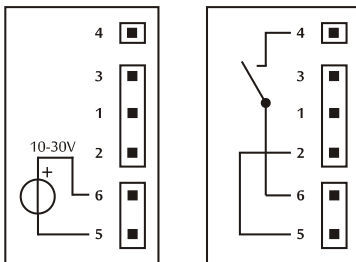
Block and wiring diagram



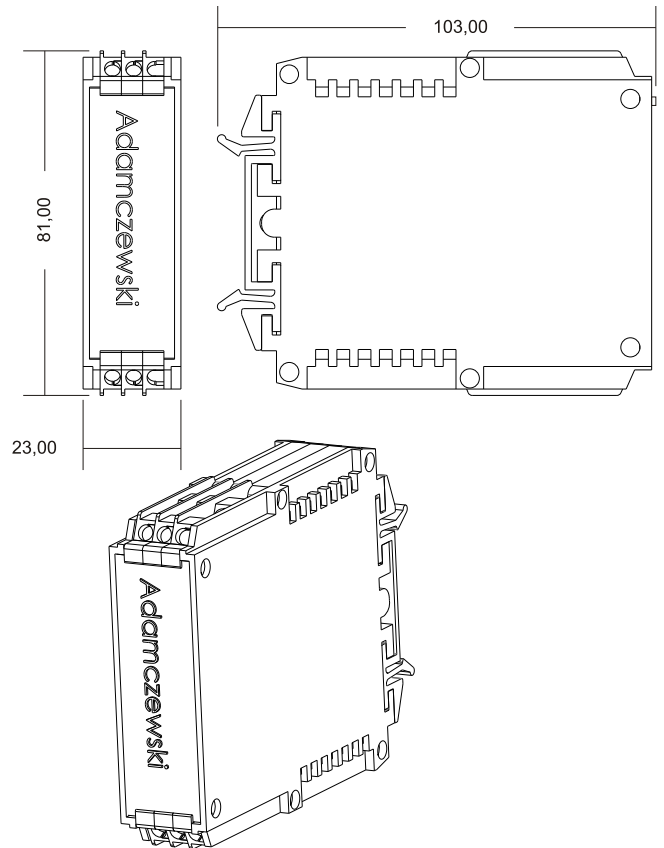
Eingangsbeschaltung / input wiring



Simulationsbeschaltung / simulation wiring



Dimensions



Circuit examples

Simulation control

