

### Description

The separation amplifier AD-TV 22 GL serves the galvanic separation and amplification of DC-current signals (0/4-20 mA). The output signal follows linear the input dimension and is independent of the connected burden up to a limiting value. Input, output and supply voltage are galvanically separate from each other with high insulation. An integral electronic power pack with a high degree of effectiveness prevents strong heating and allows high output loads. A high packing density is achieved in combination with a narrow type of construction.

### Application

Burden amplification and galvanic decoupling of active DC-current signals in a cost-effective build-up.



### Specific characteristics

- Supply buffer amplifier for 3-way separation of 0/4-20 mA signals (output follows input 1:1)
- 18 mm narrow housing

### Business data

**Order number**  
AD-TV 22 GL

### Information

#### Downloads

Tender text

[tv22gl.zip](#)

Safety instructions

[ad-safety-instructions.pdf](#)

### Technical specifications

#### Input current

Measuring range 0 ... 20 mA; 4 ... 20 mA  
Input resistance 50 Ohm

#### Output current

Output range 0 ... 20 mA; 4 ... 20 mA  
1:1 to the input signal  
Max. burden 400 Ohm  
Residual ripple <25 µAss

#### Transmission behaviour

Basic accuracy < 0,2 %  
Temperature influence < 100 ppm/K

#### Supply

Supply voltage 20 ... 253 V DC / 50 ... 253 V AC  
Nominal voltage 24 V DC / 230 V AC  
Power consumption 0,9 W / 2 VA

#### Housing

Dimensions (WxHxD) 18x81x103mm  
Type of protection IP 20  
Connection method screw clamp  
Terminals, wire cross section 2,5 mm<sup>2</sup> flex wire / 4 mm<sup>2</sup> one wire  
Bolting torque terminals 0,5 Nm  
Manner of fastening DIN rail 35mm (EN 50022)  
Weight ca. 100 g

#### Environmental conditions

Ambient temperature -10 ... 70 °C  
Storage and transport -20 ... 70 °C (no condensation)

#### EMC

Product family standard EN 61326-1 <sup>1)</sup>  
Emitted interference EN 55011, CISPR11 Cl. B, Gr. 1  
<sup>1)</sup>During electromagnetic disturbance minor changes in output signal are possible.

#### Electrical safety requirements

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

#### Functional safety

Safety integrity level SIL 2 (IEC 61508)

#### Galvanic isolation, test voltages

Input/output 3,75 kV RMS (1 min.)  
Signal/auxiliary voltage 3 kV RMS (1 min.)

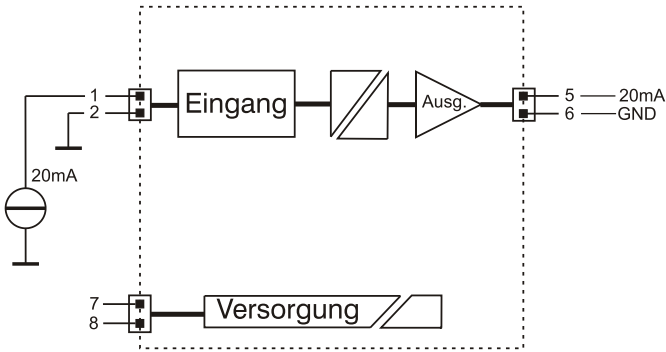
#### Protective systems

Input/output electrical surge protection  
Power supply electrical surge and reverse current protection

# Isolation Amplifier

AD-TV 22 GL

## Block and wiring diagram



## Dimensions

