

Description

The separation amplifier of type family AD-TV 310 serves the galvanic separation, conversion and amplification of unipolar signal sizes. Input, output and the supply voltage are galvanically separated from each other. The output signal is independent of the connected load up to a maximum value.

Application

Recording, galvanic 3-way separation, conversion and amplification of unipolar measuring sizes (voltage or current).

**Business data****Order number**

AD-TV 310 GS

Information**Downloads**

Safety instructions [ad-safety-instructions.pdf](https://www.adamczewski.com/ad-safety-instructions.pdf)

Technical specifications**Input current**

Measuring range 0...1 mA ; 0...200 mA ¹⁾
Input resistance 25 Ohm

Input voltage

Measuring range 0...100 mV ; 0...250 V ¹⁾
Input resistance 100 kOhm (10 kOhm / Volt)

Output current

Output range 0...1 mA ; 0...20 mA ¹⁾
Max. burden 500 Ohm
Max. residual ripple 40 µAss

Output voltage

Output range 0...1 V ; 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 / 1,7 W

Transmission behaviour

Basic accuracy < 0,2 % of full scale
Temperature influence 100 ppm/K of full scale
Frequency range 0...10 Hz (-3dB)

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

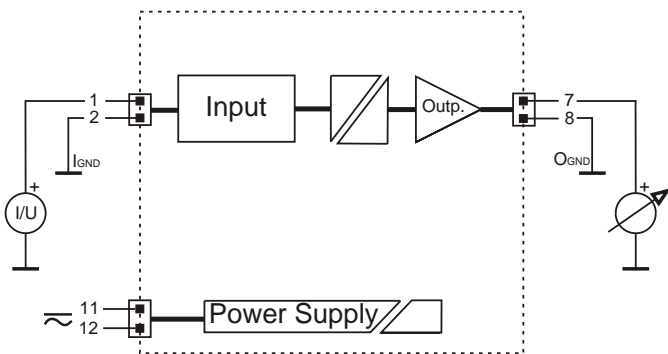
Input / output	3,75 kV, 50 Hz (1 min.)
Signal / supply unit	3,3 kV, 50 Hz (1 min.)

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



Dimensions

