Isolation Amplifier

AD-TV 40 GVC

Description

The isolation amplifier AD-TV 40 GVC is designed for the galvanic isolation and amplification of standard analog signals (0/4-20 mA and 0/2-10VDC). The standard signals 0/4-20 mA and 0/2-10 V are freely selectable via switch or terminal on both the input and at the output. All ranges are calibrated fixed, but can be adjusted via front-trimmer. In addition, this device comes standard with a configuration interface AD-PC, with which the input and output measurement signal with the optional AD-Studio programming software in the range of max. 20 mA or 10 VDC can be freely programmed. The selected linear output signal follows the input size up to a limit independent of the connected load. Input, output and power supply voltage are galvanically isolated from each other with high insulation. An integral electronic wide range power supply with high efficiency prevents strong heating and allows high output loads.

Application

Galvanic isolation of standard signals with simultaneous amplification or conversion of the analog standard signal.



Specific characteristics

- All standard signals at the input and output are freely selectable
- Switchable zero and span trimmer
- Special signals can be parameterized via interface
- Weitbereichsnetzteil

Business data

Order number

AD-TV 40 GVC

Information

Downloads

Tender text	tv40gvc.zip
Safety instructions	ad-safety-instructions.pdf

Technical specifications

Input current	
Measuring range	0 ... 20 mA; 4 ... 20 mA
Resolution	10 Bit
Input resistance	50 Ohm
Input voltage	
Measuring range	0 ... 10 V; 2 ... 10 V
Resolution	10 Bit
Input resistance	> 700 kOhm
Input filter (optional programmable with VarioConfig)	
Filter	10 ms/filter value (0 ... 30.000)
Output current	
Output range	0 ... 20 mA; 4 ... 20 mA
Resolution	11 Bit
Max. burden	400 Ohm
Residual ripple	<50 µAss
Output voltage	
Output range	0 ... 10 V, 2 ... 10 V
Resolution	11 Bit
Min. burden	10 kOhm
Residual ripple	<20 µAss
Linearity error	<0,5 % of full scale
Accuracy	
Basic accuracy	0,3 %
Temperature influence	<100 ppm / K
Response time	approx. 70 ms
Trimmer function	
Trim range	approx. +/-20 %
Configuration interface	
AD-PC -> USB	
(optional programmable with VarioConfig software)	
Supply	
Supply voltage	20 ... 253 V DC / 50 ... 253 V AC
Max. power consumption	1,2 W/2,8 VA
Housing	
Dimensions (WxHxD)	18x110x128 mm
Type of protection	IP 20
Connection method	detachable terminal clamp
Bolting torque terminals	0,5 Nm
Terminals, wire cross section	2,5 mm² flex wire / 4 mm² one wire
Manner of fastening	DIN rail 35mm 35 mm
Weight	~ 130 g
Environmental conditions	
Ambient temperature	-10 ... 50 °C
Storage and transport	-10 ... 70 °C (no condensation)

SALES & ADVICE

GRUBATEC MESS- UND REGELTECHNIK

MANUFACTURER

ADAMCZEWSKI Elektronische Messtechnik

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Subject to technical changes and printing errors.

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Technical specifications

EMC

Product family standard	EN 61326-1
Emitted interference	EN 55011, CISPR11 Cl. B, Gr. 1
During checking, slight signal deviations are possible	

Electrical safety requirements

Product family standard	EN 61010-1

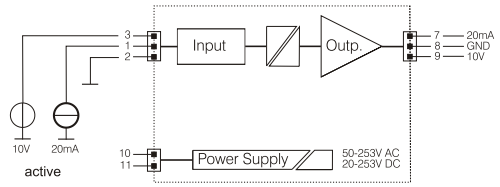
Galvanic isolation, test voltages

Input/output	2,5 kV RMS (1 min.)
Signal/auxiliary voltage	3 kV RMS (1 min.)

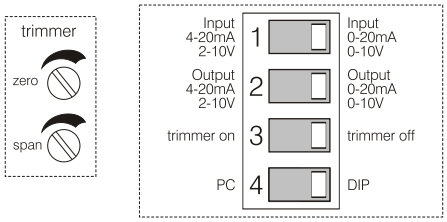
Protective systems

Input/output	over voltage and over current
Power supply	over voltage, over current and over temperature

Block and wiring diagram



Function DIP-switch



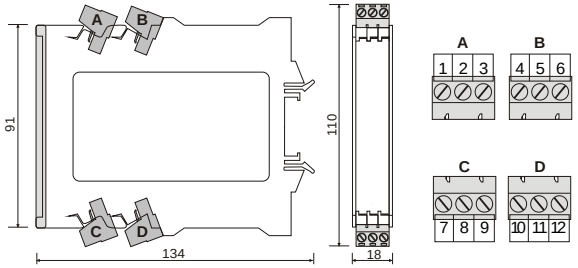
Trimmer on
Factory setting, according to standard signals switches 1 and 2

Trimmer off
Activates the front trimmer for Offset (zero) and span
Adjustment range: + / -20%

DIP Factory settings, input and output signals such as switches 1-3

PC AD-studio setup position, Switches 1-3 functionless

Dimensions



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