

## Fast isolation amplifier bipolar

## TV17

### Characteristics:

- **Linearity error < 0,025%**
- **Bipolar in- and outputs**
- **Transmission frequency 25kHz**  
**Galvanic 3-way isolation between**  
**input – output – supply voltage**
- **Test voltage 2,5kV**
- **Supply 20...253V AC / DC**
- **Mountable on 35mm cap rail TS35**
- **Clear terminal labeling**
- **Narrow design**
- **Shape 22,5mm, low**
- **High reliability, 5 years warranty**

### Description:

The isolation amplifiers of the series TV17 are particularly characterized of its high transmission frequency up to 25 kHz and an accuracy of 0,025%. They have been developed for the galvanic isolation resp. transformation of DC current- and / or voltage signals and are particularly suitable for using in high dynamic test stands. Therefore a 3-way isolation between input- output- and supply voltage is generated. Because of the simple construction it is not necessary to configure this unit complicated. The modules are delivered with a fixed in- and output configuration. This avoids problems during the start up.

### Application:

Test stand, potential isolation of analog signals

### Order code:

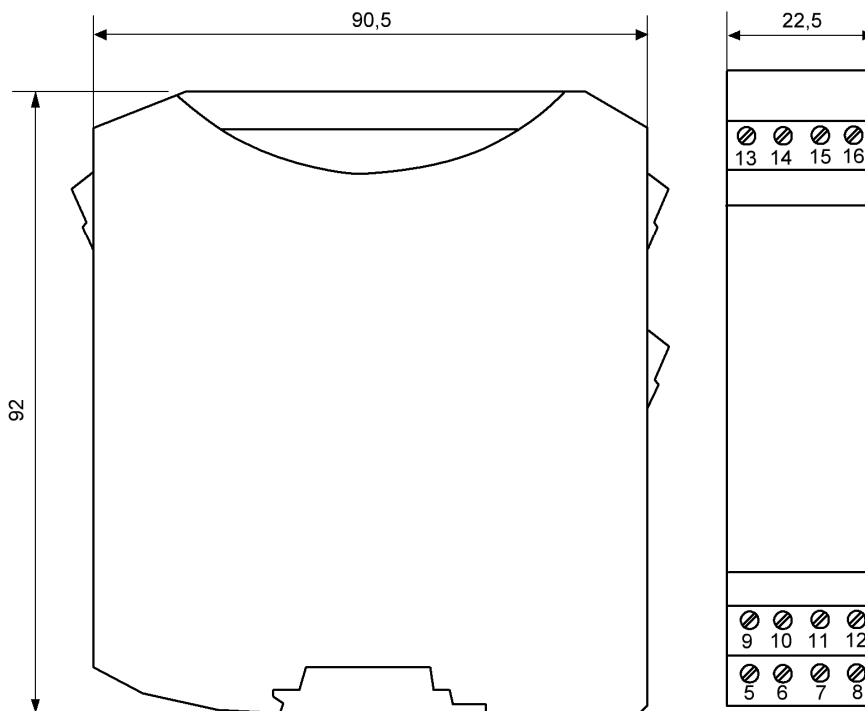
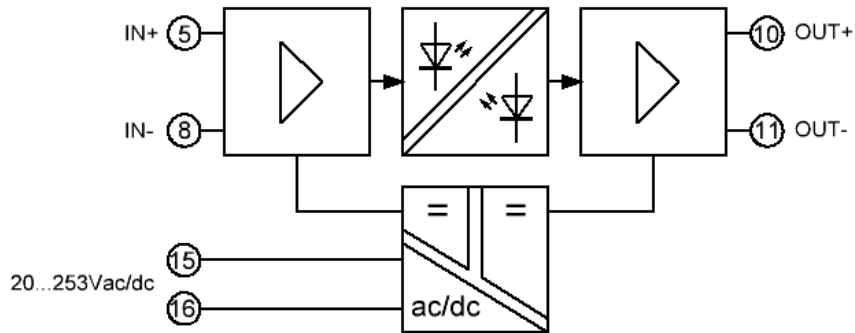
Input:	TV17-	Output:	-
0...±10V	<b>1</b>	0...±10V	<b>1</b>
0...±20mA	<b>2</b>	0...±20mA	<b>2</b>
4...20mA	<b>3</b>	4...20mA	<b>3</b>
0...±5V	<b>4</b>	0...±5V	<b>4</b>
2...10V	<b>5</b>	2...10V	<b>5</b>
0...±60mV	<b>6</b>	0...10V	<b>01</b>
		0...20mA	<b>02</b>

### Order example:

Isolation amplifier TV17:

Input = 0...±10V / Output = 0...±10V

Order-No.: TV17-1-1



## Technical Data

### Supply:

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Supply voltage	:	20...253VAC/DC
Power consumption	:	1W...2,5VA

### Inputs:

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Voltage input	:	0...±10V / 100kΩ / overload max. 50V 0...±60mV / 3kΩ / overload max. 25V
Current input	:	0(4)...±20mA / load resistor 100Ω / overload max. 100mA

### Outputs:

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Voltage output	:	0...±10V / max. 20mA
Current output	:	0(4)...±20mA / load resistor max. 500Ω
Load resistor error	:	< 0, 05%
Ripple & noise	:	< 10mV
Transmission frequency:		25 kHz at 3dB damping

### Accuracy:

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Linearity error	:	< 0,025%
Temperature coefficient:		< 50ppm / K

### General data:

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Operating temperature	:	0...50°C
Mounting position	:	at an ambient temperature of >30°C the devices have to be mounted with a distance of 10 mm.
Storage temperature	:	-25...+85°C, condensation before putting into operation is not allowed
Test voltage	:	1,5kVAC / 50Hz / 60 sec. / between input / output / supply Rated insulation voltage: 300V AC/DC Basic insulation, surge voltage category 2, pollution degree 2 according to DIN EN61010-1.
MTBF	:	220 years mean time between failures – according to EN 61709 (SN 29500). Requirements: Stationary operation in clean rooms, average ambient temperature 40 ° C, no aeration, continuous operation
CE conformity	:	EN 61326-1, EN 61000-4-2/3*/4/5/6*, EN 61000-6-4 * during measurements are small deviations possible

### Body:

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Dimension	:	22,5mm adjoin body, 22,5x92x90,5mm (with terminals)
Material	:	PA / V0
Protection category	:	IP20
Connection	:	M3-screw-type terminal 0, 14 - 2,5mm <sup>2</sup> , flexible or inflexible
Fixing	:	Snap-on mounting for norm rail TS35
Weight	:	103g

#### Note on safety:

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Disconnect the power supply before attempting to open the unit.

During the operation of this module it is possible that parts of the module, even there is extra-low voltage, (for example shunt measurement) are under dangerous voltage! Therefore a non-observance of this caution may cause damage of property or physical injury.

Only trained qualified personnel should install or operate the unit. Before installation the qualified personnel should read the documentation and should familiarize themselves with the unit.

If there is visible damage to the body of the unit it should be immediately replaced and not put into operation.



Please ensure that there is a sufficient prevention against electrostatic discharge during installation of the unit.

#### Installation Information:

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Pay attention and make sure the unit is far away from mounted sources that may disturb the device such as magnetic coils, transformers, frequency converters etc.

#### Wiring advice:

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Use only shielded cables. The shield is to be connected extensively to ground. Do not mix power- and signal-wires/cables in the same cable tray.

#### Limited warranty:

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The LEG Industrie-Elektronik GmbH warranted that the product does not have any material or processing defects in a period of 5 years after date of delivery.

It is up to the choice of LEG to repair or to exchange an inoperative unit.

Subsequent damages or any claim for indemnification above the functionality of the unit are excluded.

This limited warranty is only valid if ...

1. the product was installed and put into operation according to the LEG operation documentation;
2. the technical configuration of the power supply was abided;
3. the product was not used for unintended purposes;
4. there were no unauthorized modifications or manipulations, misuse or repairs without previous agreement from LEG .

Our Terms of Trade are based on the "General Conditions for the supply of products and services of the Electrical and Electronics Industry" including the "Complementary Clause: Extended Reservation of Property" of the ZVEI e.V. (German Association of Electrical Manufacturers).

#### Miscellaneous:

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We expressly reserve the right, without previous notice, to correct errors contained in any data of this information brochure, and to make alterations to the program and technical modifications.