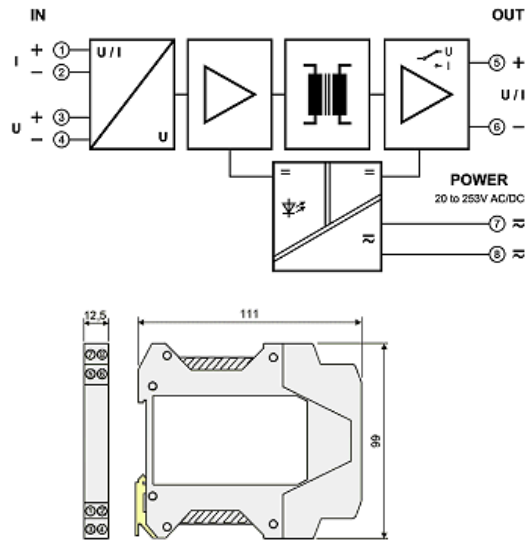


## Isolation Amplifier TVD100 with input range up to 1000V AC/DC

DSL-electronic® GmbH expand its family of custom design isolation amplifiers with the new innovative TVD100. This product features highest functionality and reliability.



- **Customizing signal conditioning**  
any conversion of unipolar and bipolar input and output signals
- **Universal power supply 20 ... 253 V AC/DC**  
for worldwide use
- **Galvanic isolation of input and output as well as the supply voltage**  
protection against erroneous measurements due to ground loops and sturgeon voltage spread
- **Extremely slim and compact design**  
12.5 mm housing with plug-in terminals
- **High accuracy at high frequency limit**  
perfect signal figure, no distortion of the measured signal
- **Safe separation**  
protection of maintenance personnel and downstream devices against impermissibly high voltage
- **Highest reliability**  
no cost for maintenance
- **Five years warranty**

The isolation amplifier series TVD100 are used for galvanic isolation and conversion of customer specific signals. The TVD100 are specially adapted for the upcoming measurement and can be ordered at any time, identical by the associated index number (-XXX).

The slim 12.5 mm modular case saves space in the cabinet and facilitated assembly by the plug-in screw terminals.

The new universal power adapter with input range 20 .. 253 V AC/DC makes the TVD100 used for all supply networks world-wide. High efficiency avoids significant self-heating of the device. This is reflected in an extremely high reliability and long-term stability.

## Technical data

### Input:

Input signal	Customized, technical data see label on device
Input resistance	Current input ca. 25 Ohm (depends on measuring range) Voltage input ca. 1 MOhm (depends on measuring range)
Overload	Max. 120 % @Full Scale

### Output:

Output signal	Customized, technical data as ordered
Load	Current input $\leq 12$ V (600 Ohm @ 20 mA) Voltage input $\leq 20$ mA (500 Ohm @ 10 V)
Linear transmission range	unipolar: -2 ... +110 %, bipolar: -110 ... +110 %
Ripple	< 10 mVeff

### General data:

Transmission error	Typical 0,1 % @Full Scale. (max. 0,3 % @Full Scale.)
Temperature coefficient [1]	100 ppm/K @Full Scale
Zero/Span-adjustment	optional
Cutoff frequency (-3 dB)	max. 10 kHz
Test voltage	4 kV, 50 Hz Input against output against power supply
Operation voltage [2] (Basic insulation)	1000 V AC/DC @Overvoltage category II and pollution degree 2 specify @DIN EN 61010 part 1 between all parties.
Environment temperatur	Operating -20 °C to +70 °C Transport and storage -35 °C to +85 °C
Auxiliary power	20 ... 253 V AC/DC AC 48 ... 62 Hz, ca. 2 VA DC ca. 1,0 W
EMV [3]	EMVG, EN 61326 -1
Design	12,5 mm modular case, Protection: IP 20
Weight	ca. 100 g

[1] mean temperature coefficient in the specified operation temperature range

[2] The above rules and regulations are taken into account in the development and manufacture of our products to the extent they are applicable. The assembly rules are observed in addition to the installation of our devices in other facilities.



For applications with high working voltages, look for sufficient distance or insulation between adjacent and in contact protection. Cable connections to the input terminals of the TVD100 must be stringently executed with matching insulated ferrules.

[3] during interference minor deviations are possible