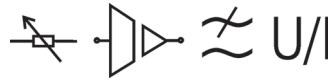


**Product Information**

**TSA-Poti**



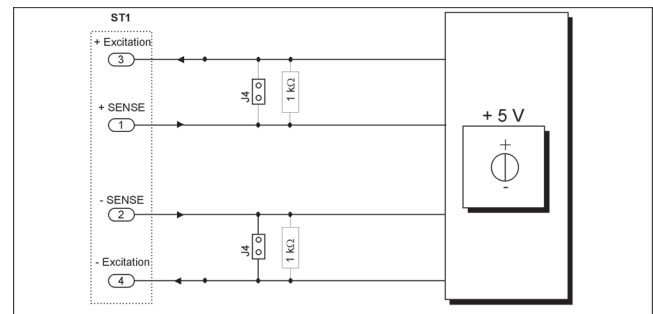
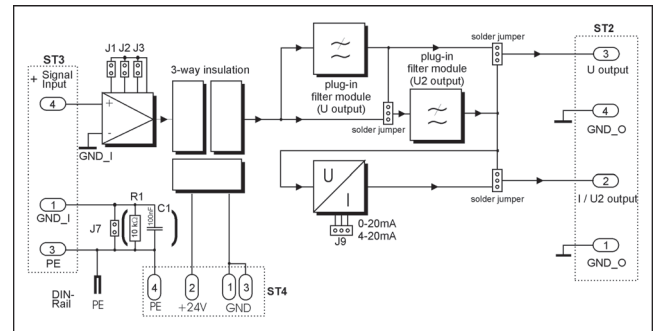
**Characteristics**

The **TSA-Poti Module** offers signal conditioning of potentiometers in 3-wire or 5-wire technology with resistances from 350..1000 Ω. Standard ranges are 100, 50, 25 and 12,5 %. Manual offset correction can be done with a Zero trimmer. Sensor supply (standard 5 V DC) is isolated, provided by the module. Depending on the base configuration the module has voltage and current outputs.

**Technical Data**

<b>Supply voltage</b>	24 V DC ± 10 %
<b>Power consumption at nominal voltage</b> (without sensor / without load)	50 mA
<b>Electrical isolation (3-way isolation)</b>	1000 V DC
<b>Accuracy</b>	0.1 %
<b>Cut-off frequency (standard / maximum)</b>	5 kHz / 10 kHz
<b>Linearity (typical)</b>	0.02 %
<b>Input</b>	
Sensor	Potentiometer 350 Ω ..1 kΩ unipolar, bipolar
Input resistance	10 MΩ
<b>Output – Voltage</b>	
Output range (V1 / V2)	± 10 V / 0..10 V
<b>Output – Current</b>	
Output range (A1 / A2 / A3)	± 20 mA / 0..20 mA / 4..20 mA
<b>Max. load current (U output)</b>	± 12 mA
<b>Residual ripple @</b>	
f <sub>g</sub> = 5 kHz	Gain=1: typ. 2 mV <sub>pp</sub>
f <sub>g</sub> = 10 kHz	typ. 5 mV <sub>pp</sub>
	Gain>500 3 mV <sub>pp</sub> x Gain/500
<b>Sensor supply</b> (others on request)	5 V DC not symmetrical
<b>Multi-wire technology</b>	3-wire / 5-wire switchable
<b>Gain / Measurement range</b>	V = 1 (100 %) V = 2 (50 %) V = 4 (25 %) V = 8 (12,5 %) switchable
<b>Environmental temperature</b>	0..50 °C
<b>Plug-in filter Standard frequencies in Hz</b>	10, 30, 50, 100, 300, 500, 1 k, 3 k, 5 k, 10 k

**Block Diagram**



**Dimensions**

Housing ME 22.5:  
 22.5 x 99 x 114.5 mm (WxHxD)

**Ordering Code**

TSA-POTI  1. -  2. -  3. -  4. -  5.

<b>1. Model</b>		
1	1 output	
2	2 outputs	
<b>2. Measuring ranges in %</b>		
PX	Enter calibrated value: 12.5, 25, 50, 100	
<b>3. Output filter frequencies (Hz)</b>		
XXX	Enter standard values: 10, 30, 50, 100, 300, 500, 1k, 3k, 5k, 10k	
	Enter non- standard value: 1..30k	
<b>4. Filter characteristics</b>		
BW	Butterworth 4th order	
BS	Bessel 4th order	
BW8	Butterworth 8th order (for 1 output only)	
BS8	Bessel 8th order (for 1 output only)	
<b>5. Output (not all combinations feasible)</b>		
V1	± 10 V	
V2	0..10 V	
A1	± 20 mA	
A2	0..20 mA	
A3	4..20 mA	

Example: TSA-Poti1-100-5k-BW-V1