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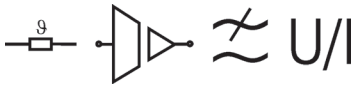
TSA-Pt100



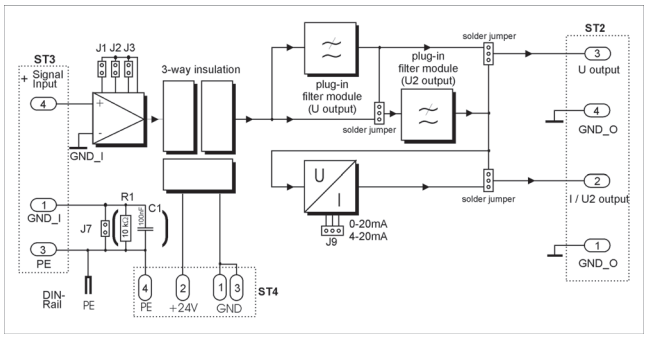
Characteristics

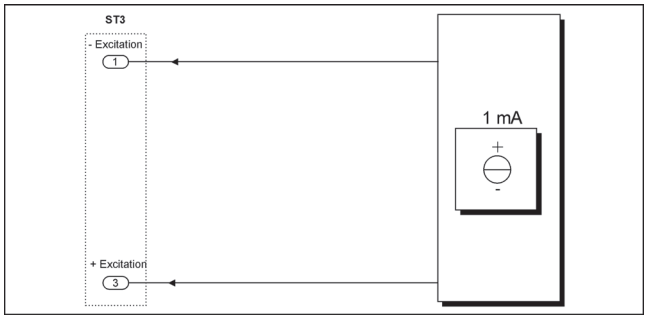
The ***TSA-Pt100 Module*** offers signal conditioning of Pt100 sensors in 4-wire technology. Linearisation is done by the module, with a fixed range of -100 to +100, +200, or +500°C, to be specified with order. Sensor supply of 1 mA constant is isolated, provided by the module. Depending on the base configuration the module has voltage and current outputs.

Technical Data

Supply voltage	24 V DC ± 10 %
Power consumption at nominal voltage (without sensor / without load)	65 mA
Electrical isolation (3-way isolation)	1000 V DC
Accuracy	0.2 %
Cut-off frequency (standard / maximum)	5 Hz / 10 kHz
Linearity (typical)	0.1 %
Input Sensor Input resistance	 Pt100 RTD 10 MΩ
Output – Voltage Output range (V1 / V2) **Output – Current** Output range (A1 / A2 / A3)	 ± 10 V / 0..10 V ± 20 mA / 0..20 mA / 4..20 mA
Max. load current (U output)	± 12 mA
Residual ripple @ f_g = 5 kHz f_g = 10 kHz	 typ. 2 mV_{pp} typ. 5 mV_{pp}
Sensor supply	Constant current 1 mA
Multi-wire technology	4-wire
Range 1 fixed range to be specified with order	 -100°C..+100°C -100°C..+200°C -100°C..+500°C
Environmental temperature	0..50 °C
Plug-in filter **Standard frequencies in Hz**	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-PT100 1. [ ] - 2. [ ] - 3. [/] - 4. [/] - 5. [/]

1.	**Model**	
	1	1 output
	2	2 outputs
2.	**Measuring ranges (°C)**	
	T1	-100..+100
	T2	-100..+200
	T5	-100..+500
		Non-standard value
3.	**Output filter frequencies (Hz)**	
	XXX	Enter standard values:10, 30, 50, 100, 300, 500,1k, 3k, 5k, 10k
		Enter non- standard value: 1..30k
4.	**Filter characteristics**	
	BW	Butterworth 4th order
	BS	Bessel 4th order
	BW8	Butterworth 8th order (for 1 output only)
	BS8	Bessel 8th order (for 1 output only)
5.	**Output (not all combinations feasible)**	
	V1	± 10 V
	V2	0..10 V
	A1	± 20 mA
	A2	0..20 mA
	A3	4..20 mA

Example: TSA-PT100 1-T5-1k-BW-V1