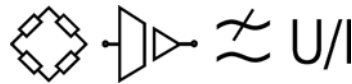


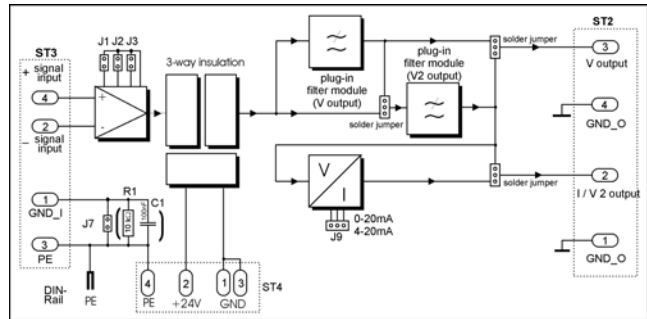
Product Information

TSA-DMS



Plug-in filter	10, 30, 50, 100, 300, 500,
Standard frequencies in Hz	1 k, 3 k, 5 k, 10 k

Block Diagram

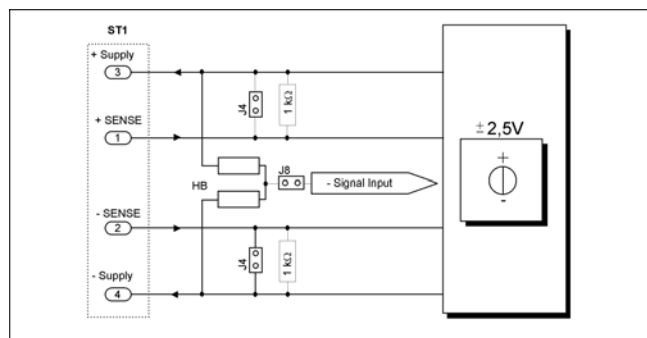


Characteristics

The **TSA-DMS Module** offers signal conditioning of strain gauge bridges with 4-wire or 6-wire technology. Standard ranges are 2, 4, 10 mV/V. 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

Supply voltage	24 V DC \pm 10 %
Power consumption at nominal voltage (without sensor / without load)	50 mA
Electrical isolation (3-way isolation)	1000 V DC
Accuracy	0.1 %
Cut-off frequency (standard / maximum)	5 kHz / 10 kHz
Linearity (typical)	0.02 %
Input	
Sensor	Strain gauge 120 Ω to 1 k Ω unipolar, bipolar
Input resistance	10 M Ω
Output – Voltage	
Output range (V1 / V2)	\pm 10 V / 0..10 V
Output – Current	
Output range (A1 / A2 / A3)	\pm 20 mA / 0..20 mA / 4..20 mA
Max. load current (U output)	\pm 12 mA
Residual ripple @	
$f_g = 5$ kHz	Gain=1: typ. 2 mV _{pp}
$f_g = 10$ kHz	Gain>500: typ. 5 mV _{pp} 3 mV _{pp} x Gain/500
Sensor supply (others on request)	5 V DC symmetrical
Multiple wire technology	4-wire / 6-wire switchable
Bridge types	Full bridge Half bridge (option, manual switch)
Measurement range / Gain	2 mV/V V = 1000 4 mV/V V = 500 10 mV/V V = 200 V = 1 switchable
Environmental temperature	0..50 °C



Dimensions

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

Ordering Code

TSA-DMS 1. 2. 3. 4. 5.
 - - / - / - /

1. Model	
1	1 output
2	2 outputs
2. Measurement ranges in mV/V (switchable)	
MX	Enter calibrated value: 2, 4, 10
	Enter non- standard value: 1..100 mV/V
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	\pm 10 V
V2	0..10 V
A1	\pm 20 mA
A2	0..20 mA
A3	4..20 mA

Example: TSA-DMS1-M2-5k-BW-V1