

## RAIL-MOUNTING LOW-PASS 6-POLE FILTER S100F

### GENERAL

A 6-pole, low-pass, Butterworth response filter suitable for rail mounting. Used for low-level electrical signal filtering (for example Anti-aliasing). Designed to be used in front of data loggers, ADC cards, etc. Selectable cut-off frequency: 1,3~16Hz.

### INPUT

Screws: **IN** and **OV**.

- With over voltage protection.

Input Range	Max input	Input impedance	Gain			Switches (number)	
			Min.	Typical	Max.	$\pm 10$ V (8)	250 $\Omega$ (7)
$\pm 5$ V	$\pm 15$ V	$>1$ M $\Omega$	0,995	1 V/V	1,005	Off	Off
$\pm 10$ V	$\pm 15$ V	$>200$ k $\Omega$	0,497	0,5 V/V	0,503	On	Off
$\pm 20$ mA	$\pm 30$ mA	250 $\Omega$	0,248	0,25V/mA	0,252	Off	On

### OUTPUT

Screws: **OUT** and **OV**.

- Output impedance: 100 Ohms.
- Offset voltage:  $\pm 200$   $\mu$ V typical,  $\pm 400$   $\mu$ V max.
- Wideband noise: 150  $\mu$ V RMS.

- FILTER: 6-pole, low-pass, Butterworth with programmable cut-off frequency 1.3~16 Hz.
- PROTECTION: Over voltage, inverse connections.
- BOX: Rail, (H x W x D) 80 x 23 x 74 mm.
- Weight: 80 gr.
- CONNECTIONS: screw terminals.
- OPERATING TEMPERATURE:  $-20^{\circ} \sim +70^{\circ}$
- IP RATING: 20
- WARRANTY: 1 year.



## POWER SUPPLY

Screws: **+VB** and **-VB**

- Operating voltage 9~28 VDC. Maximum 32 VDC. Operating current: <25 mA.
- Over voltage and reverse voltage protection.
- Red LED power supply indicator.
- The **-VB** screw is internally connected to **OV**.

## SWITCHES

Select the filter cut-off frequency by setting both switches to ON. For instance set switches 1 and 4 to ON for 2 Hz cut-off frequency.

Cut-off frequency			Switches (number)		
Min	Typical	Max	2 Hz (1,4)	4 Hz (2,5)	8 Hz (3,6)
1,1	1,3Hz	1,5	On	On	On
1,8	2Hz	2,2	On	Off	Off
3,6	4Hz	4,4	Off	On	Off
7,2	8Hz	8,8	Off	Off	On
14,5	16Hz	17,5	Off	Off	Off

It is possible to choose other cut-off frequencies at order time.

## CONNECTION EXAMPLE





