

single / double output  
up to 3 Watt

DC/DC converters  
limited input voltage range



- **Input voltage range  $\pm 10\%$**
- **PCB-mounting**  
(Base plate with distance to the PCB [Soldering cone])
- **Up to 70°C without Derating**
- **Option -40/+85°C**
- **Input filtering C - L - C**
- **Housing 28 x 28 x 13 mm<sup>3</sup>**

for special technology, railway, building machinery



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## Series VVCN

### Main points:

#### Output:

- Regulation  $\Sigma(U_{in}+T_U) < \pm 1\%$   
 $I_{out} < \pm 10\%$
- Ripple  $< 50 \text{ mV}_{pp}$
- Spikes  $< 50 \text{ mV}_{pp}$
- Temperature coefficient  $\pm 0,05\%/^{\circ}\text{C}$
- Not short circuit proof
- Short term 20 % over load capable

#### Input:

- Input voltage range  $\pm 10\%$
- Input current spike filter

#### In general:

- Isolation test voltage 500 V<sub>AC</sub> 1 min
- Ambient temperature -25°C / +70°C,  
Option: -40°C / +85°C
- Storage temperature -40°C / +100°C
- Derating 2% / °C > 70°C
- Free air convection
- MTBF on request
- Weight approx. 17 g
- Housing material Noryl GV
- Housing 28,5 x 28,5 x 12,7 mm<sup>3</sup>
- Tantalum- and multi layer capacitors

<u>U<sub>in</sub></u> V	<u>U<sub>out</sub></u> V	<u>I<sub>out</sub></u> mA	Model number	
<b>5</b> ±10%	5,1	400	VVCN 5-1-05-400	
	12	250	VVCN 5-1-12-250	
	15	200	VVCN 5-1-15-200	
	18	170	VVCN 5-1-18-170	
	±12	±125	VVCN 5-2-12-125	
	±15	±100	VVCN 5-2-15-100	
	±18	±85	VVCN 5-2-18-085	
	<b>12</b> ±10%	5,1	400	VVCN 12-1-05-400
		12	250	VVCN 12-1-12-250
		15	200	VVCN 12-1-15-200
18		170	VVCN 12-1-18-170	
±12		±125	VVCN 12-2-12-125	
±15		±100	VVCN 12-2-15-100	
±18		±85	VVCN 12-2-18-085	
<b>24</b> ±10%		5,1	400	VVCN 24-1-05-400
		12	250	VVCN 24-1-12-250
		15	200	VVCN 24-1-15-200
	18	170	VVCN 24-1-18-170	
	±12	±125	VVCN 24-2-12-125	
	±15	±100	VVCN 24-2-15-100	
	±18	±85	VVCN 24-2-18-085	
	<b>28</b> ±10%	5,1	400	VVCN 28-1-05-400
		12	250	VVCN 28-1-12-250
		15	200	VVCN 28-1-15-200
18		170	VVCN 28-1-18-170	
±12		±125	VVCN 28-2-12-125	
±15		±100	VVCN 28-2-15-100	
±18		±85	VVCN 28-2-18-085	
VVCN (H)		-40°C up to +85°C		additional charge
Modification costs for possible changes above values			on request	

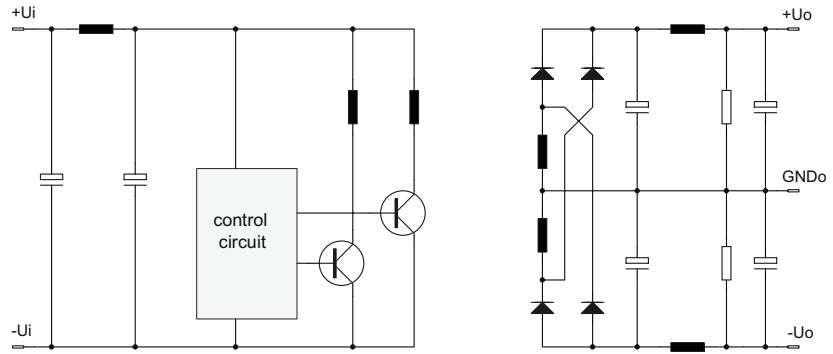
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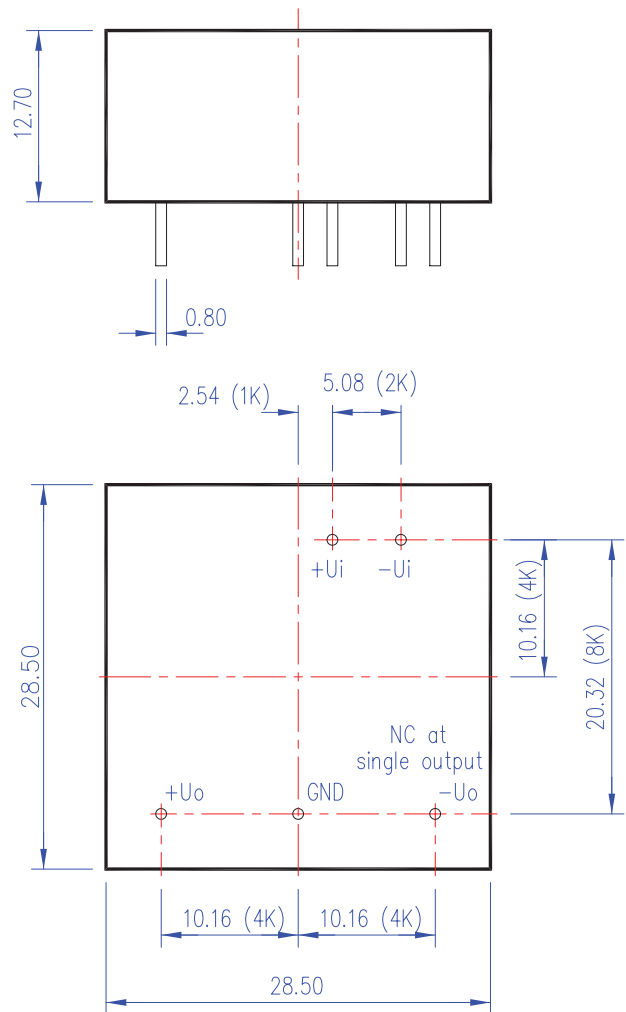
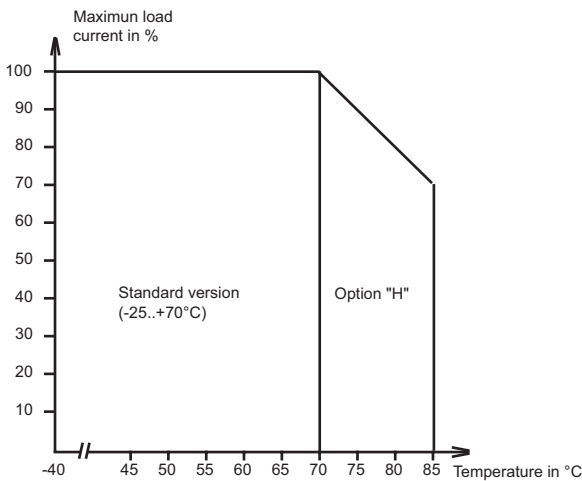
Modules of the **VVCN** series are low power converters with galvanic isolation. Input and output sided current filters (Input C-L-C, Output C-L<sup>2</sup>-C) reduce spikes.

The converter is available with single and double outputs. At almost constant supply voltage and almost constant load this converters are used preferred as supplementary converters in series with non-isolating switching regulators and for data capturing applications.

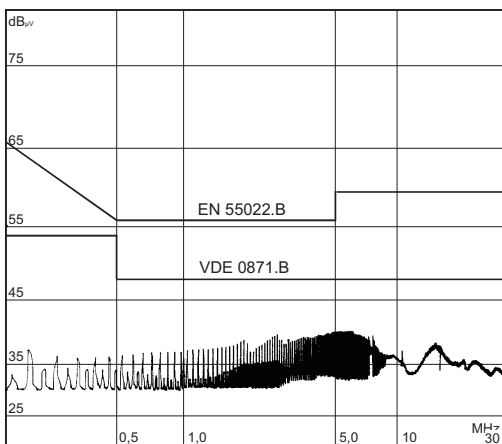


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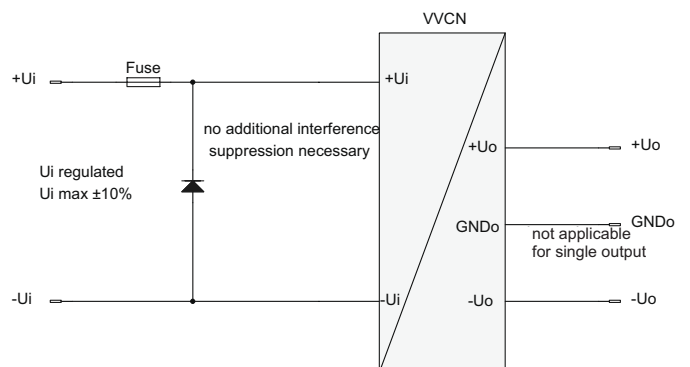
### Derating-curve



### Measurement of radion interference



### Application noise suppression



Stand: 11/06