

BEDIA DC/DC Converter

Type SPW 003

Type SPW 005

Type SPW 010

Type SPW 015

In touch with the medium

BEDIA Motorentechnik GmbH & Co. KG

Weißenbrunner Hauptstraße 6

D-91227 Leinburg

Phone: +49(0)9187-950927

Fax: +49(0)9187-950950

E-Mail: vertrieb@bedia.com

Internet: www.bedia.com

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Brief Description DC –voltage transformer for the car and industrial use



The DC – voltage transformers developed for the electronic components in the motor car are characterised by their ease of installation in every vehicle. The high degree of stability, the compact design, sustained short-circuit resistance as well as the high level of operating safety are the quality hallmarks of this series.



All devices switch off electronically in the event of excess current or a short-circuit. Once the excess load or the short-circuit has been rectified the devices carry on working automatically. Moreover, the voltage transformers also have an excess temperature protection system.



The areas of application span the mobile employment of 12 V consumers in vehicles with a 24 V - onboard network. The devices are particularly suitable for operating car radios, stereo units, radios, cooler units, car telephones, computers, 12V trailer lighting etc..



The voltage transformer converts an input direct voltage into an output direct voltage. The input voltage must be greater than the output voltage. No base load is required at the output end.

A 26 kHz PWM switching controller is used for this purpose. Input and output are not isolated. The common earth is connected with the voltage transformer housing.

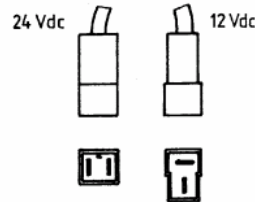
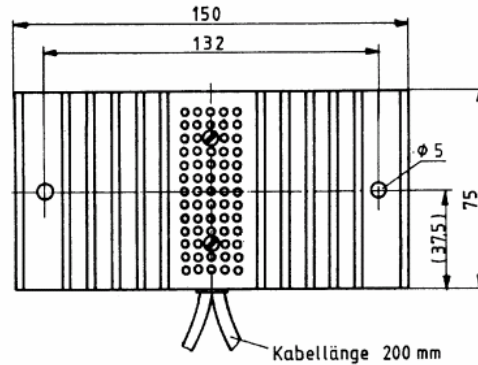
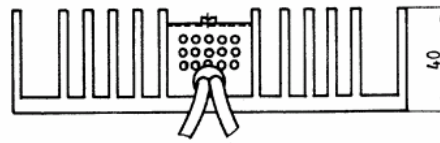
The voltage transformer is excess temperature and short-circuit resistant.

Voltage transformer fitting instructions:

The device should be fitted to a well ventilated and dry point. During fitting it should be observed that the voltage transformer is fitted to a metal part of the body.



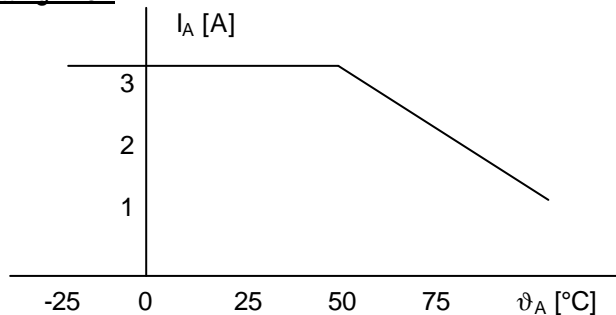
Voltage transformer type SPW 003 24V/12V DC - 3A



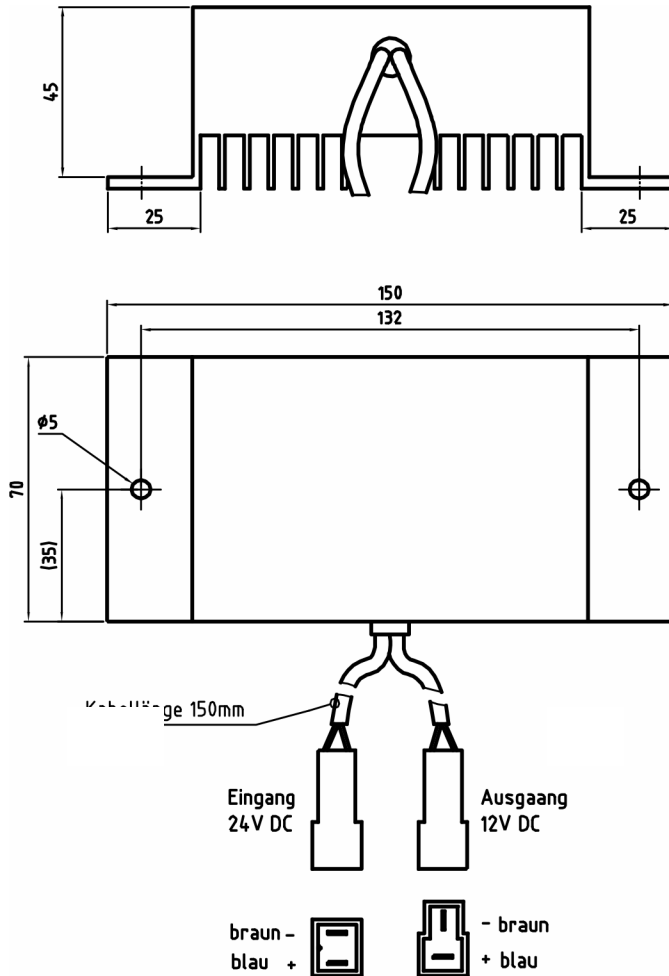
Technical specification

Input voltage	18...32 Vdc to VG 96916/2 Polarity guard at the input entrance.
Output voltage	12...14,5 Vdc
Output current	3,0A permanent at Tu=25°C ~20A at <5µs load impulse possible !
Current consumption (no load)	5mA at 24V
External voltage protection	up to DC 200 V at the output
Overload protection	acts current limiting
Short circuit protection	acts current recirculating
Load Dump	to VG 96916/5
Dielectric strength	> 10 MOhm to 500 Vdc
Allowed operating temperature	-20...70°C (with option 3)
Temperature protection	up to Tu=100°C (see derating line)
Connections	2 * 2 pol Plug connection
Measurements L x B x H	150 x 75 x 40mm
Order Nr.:	421 093

Derating line :



Voltage transformer type SPW 005 24V/12V DC - 5A



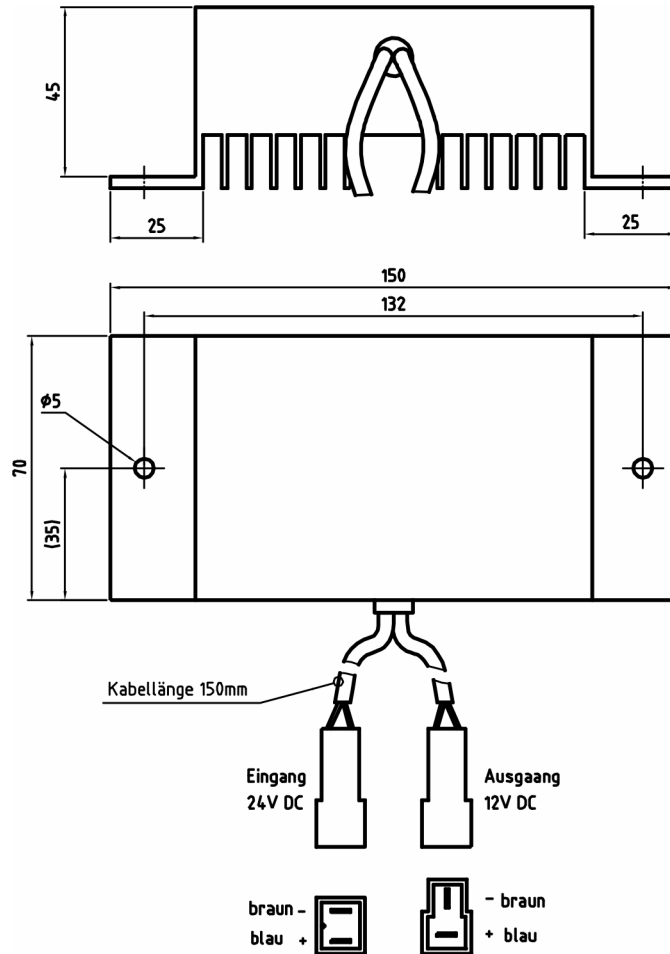
Technical specification

Operating voltage:	18V – 32 V DC
Output voltage:	12,5-13,8V DC
Current consumption:	9 mA at 24 V
Residual ripple:	< 200 mVss
Output current:	5 A
Current peaks:	60 A
Short-circuit protection:	existing
Overload protection:	current limited to appr. 6 A
Reverse polarity protection:	with upstream fuse 10A
Over voltage protection:	tested by ISO 7637-2
Ambient temperature:	-20°C / +85°C
Over temperature protection:	existing
Efficiency:	90 %
Frequency:	26 kHz
EMC:	tested by directive 95/54/E6
Interference immunity	ISO 7637-2
ESD:	EN 61000-4-2
Degree of protection	IP43
Weight	appr. 500g
Order No.	422 380

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Voltage transformer type SPW 010 24V/12V DC - 10A

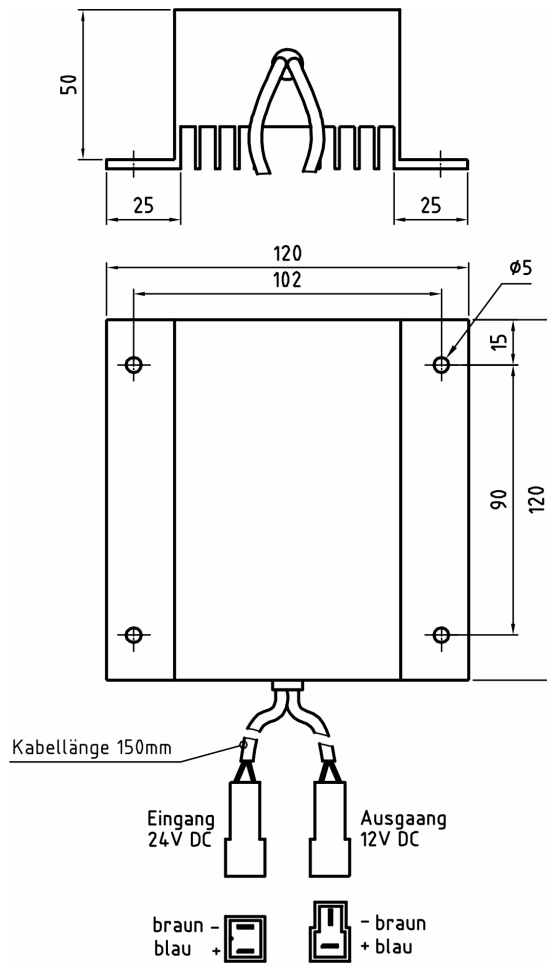


Technical specification

Operating voltage:	18V – 32 V DC Reverse polarity protection between plus and minus
Output voltage:	12,5-13,8V DC
Current consumption:	9 mA at 24 V
Residual ripple:	< 200 mVss
Output current:	10 A
Current peaks:	60 A
Short-circuit protection:	existing
Overload protection:	current limited to appr. 12 A
Reverse polarity protection:	with upstream fuse 10A
Over voltage protection:	tested by ISO 7637-2
Ambient temperature:	-20°C / +85°C
Over temperature protection:	existing
Efficiency:	90 %
Frequency:	26 kHz
EMC:	tested by directive 95/54/E6
Interference immunity	ISO 7637-2
ESD:	EN 61000-4-2
Degree of protection	IP43
Weight	appr. 500g
Order No.	422 381

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Voltage transformer type SPW 015 24V/12V DC - 15A



Technical specification

Operating voltage:	18V – 32 V DC
	Reverse polarity protection between plus and minus
Output voltage:	12,5-13,8V DC
Current consumption:	8,5 mA at 24 V
Residual ripple:	< 200 mVss
Output current:	15 A
Current peaks:	60 A
Short-circuit protection:	existing
Overload protection:	current limited to appr. 18 A
Reverse polarity protection:	with upstream fuse 16 A
Over voltage protection:	tested by ISO 7637-2
Ambient temperature:	-20°C / +85°C
Over temperature protection:	existing
Efficiency:	90 %
Frequency:	26 kHz
EMC:	tested by directive 95/54/E6
Interference immunity	ISO 7637-2
ESD:	EN 61000-4-2
Degree of protection	IP43
Weight	appr. 800g
Order No.	422 382

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