

## Overview Autronic

# Customized DC/DC and AC/DC Converters

What are the alternatives our customers have in case existing converters can not offer the optimum solution?

There is no standard solution.

Clarification of the customer's requirements i.e. review of specifications, purchase quantity per year, readiness to pay NRE, realistic schedule

### 1st alternative

Modification of an existing converter, this includes partial development costs

### 2nd alternative

Development of a completely new converter, this includes partial development costs

## What can customers expect?

### What we offer

- High-quality converters for heavy-duty use (e.g. railway, semi-military applications, machine controls, buses and trucks)
- Valuable technical customer service
- Quick realization of projects
- Use of new technologies (e.g. for fuel cells)
- After sales support

### Key figures of previous solutions

- DC/DC, DC/AC and AC/DC converters
- Input voltage: up to 400 V<sub>in</sub>
- Output voltage: up to 120 V<sub>out</sub>
- Output current: max. 60 A
- Power: up to 500 Watt

### Conditions / cooperation of customer

- Awareness that no “cheap/mass products” are produced
- No standard converters are available on the market
- Partial NRE
- Sufficient time
- Specification or detailed information available

### Application fields for customized developments

- Customer information displays, GPS supply, passenger information (e.g. displays for engine driver's cab), customer terminals, black boxes for trains, speed tracker, fire fighting systems, Ethernet supply, power supply unit for battery charge via fuel cell supply, low voltage and high voltage converters for control rooms of power stations, telecommunication , e.g. for UTMS repeater, computer systems for special vehicles etc

## Standard DC/DC Converters Isolated

→ All data sheets available at [www.autronic.de](http://www.autronic.de)

### ACR

- Single- und quad output
- Up to 350 Watt
- Wide input range for 12V, 24V, 72V and 110V<sub>nom</sub>
- Output: 5V, 12V, 15V, 24V
- Mounting: Chassis, PCB and 19" Rack
- Many features, like e.g. Thermal Warning, Enable, etc.
- Extended temperature range between -40° and +85°C
- Compliance with Railway standards EN 50155 and EN 50121-3-2

### AVP

- Single, dual and triple output
- Up to 200 watt
- Wide input voltage range 4:1
- Output: 3.3V, 5V, 12V, 15V, 24V, 30V
- Mounting: PCB, wall and 19" rack
- Extended temperature range between -40° and +85°C
- Compliance with Railway standards EN 50155 and EN 50121-3-2

### HxxC

- Single- and dual output
- Up to 150Watt
- Ultra wide input 14,4-154V
- Output: 5V, 12V or 24V
- Mounting: Chassis, PCB oder 19" Rack
- 10ms Hold Up Time, Inrush current limitation, short-circuit proof
- Extended temperature range between -40° and +85°C
- Compliance with Railway standards EN 50155 and EN 50121-3-2

## Outsourcing

Development and production of customized subassemblies and devices like for example controls for machines, grip arms and clamping tools, printed circuit boards for machine and industrial PCs, etc.

Development of hardware and software	Purchasing	Production	Inspection	Repairs
<ul style="list-style-type: none"> <li>• analog and digital circuits</li> <li>• microprocessor layout</li> <li>• CAD layout</li> <li>• parts lists and drawings</li> <li>• device design</li> </ul>	<ul style="list-style-type: none"> <li>• world wide purchasing of all components</li> <li>• possibility to put items at disposal</li> </ul>	<ul style="list-style-type: none"> <li>• production and storage suitable for ESD</li> <li>• flexible in-house PPS system</li> <li>• parts traceability</li> <li>• THT</li> <li>• SMD</li> <li>• soldering</li> <li>• lacquering and encapsulation</li> </ul>	<ul style="list-style-type: none"> <li>• visual inspection (AOI)</li> <li>• function test</li> <li>• X-ray</li> <li>• in-circuit test</li> <li>• burn-in test</li> </ul>	<ul style="list-style-type: none"> <li>• service even after expiration of warranty period</li> </ul>