

Legal requirements:

With its directive 2002/95/RoHS the European Community has defined new regulations for the use of hazardous substances in electric and electronic products. For the applications mentioned in the RoHS directive, products containing hexavalent chrome (chrome (VI)) as well as other hazardous substances cannot be put into circulation after 2006-07-01.

The following applications are affected or not affected by the RoHS directive:

The following devices and components installed in these devices are affected by the RoHS directive:	Materials and products that are not affected by the RoHS directive:
1. Large household appliances	1. Cadmium in switching contacts, unless used in automotive engineering
2. Small household appliances - such as electrical alarm clocks and other clocks	2. Brass (copper with up to 4 % lead content)
3. IT and telecommunications devices - such as telephones and home communication devices that are not permanently attached to the building; mobile remote controls	3. Plumb line for electronics in automotive engineering
4. Devices for consumer electronics	4. Monitoring and control instruments; smoke alarms; sensors; measuring devices
5. Lighting fixtures, filament lamps and household lamps Electronic transformers installed in lamps; switches; motion detectors and ballast	5. Installation systems and components as part of an installation system; IT and telecommunications products that are firmly installed in the building*
6. Electric and electronic mobile tools	6. Production systems and components as part of a production system
7. Toys as well as sports and recreation equipment	7. Fixed large tools
8. Automatic output devices	8. Spare parts for products that have been put in circulation before 2006-07-01
9. Connection cables and connectors firmly installed on the aforementioned devices	9. Medical equipment
	10. Cables, cable rolls, extension cables

* Firmly installed in the building normally means that these products are part of the building function (= installation system)

The specifications are taken from the directive as well as an interpretation of the directive made by ZVEI (WEEE bulletin by ZVEI dated 2005-07-21). A major part of the Wieland product range is not affected by the directive as is evident from the list of applications. However, Wieland faces up to the market requirements and will change over even those products that are not affected.

History:

In order to protect steel components in electrotechnical products against corrosion, these components are electrically zinc-plated. Additional dichromating increases the corrosion resistance of the zinc layer considerably. One of the most common procedures used to increase the corrosion resistance is yellow dichromating, a low-cost and reliable corrosion protection system. Yellow dichromating, however, contains chrome (VI) which the European Community has categorized as a hazardous substance that must no longer be used for electrotechnical products.

Solution:

Our own electroplating shop and laboratory have intensively worked together with our suppliers and finally developed a new passivation system ready for use in production.

This so-called thick film passivation satisfies both our own high requirements for corrosion resistance as well as the necessary electrical and mechanical characteristics as well as the legal requirement to be chrome-free (VI).





wieland

Electrical Connections

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AT Wieland

Components and system components for the control cabinet

- DIN rail terminal blocks
 - with screw connection
 - with spring clamp connection
 - with IDC connection

- Safety

- Safety relays
- Modular safety systems

- Fieldbus components

- Interface

- Power supplies
- Overvoltage protection
- Measuring and monitoring relays
- Time and switching relays
- Coupling relays/solid state relays
- Analog modules
- Passive interfaces

Components and system components for field applications

- Remote automation

- Remote power distribution
- Remote fieldbus interface

- Industrial multipole connectors

- Modular multipole connectors
- High-density multipole connectors
- High-current multipole connectors
- Multipole connectors for hazardous areas
- Bushings for control cabinets
- D-Sub connectors

- Round connectors

Empty housings and appliance connectors/terminal strips

AT Schleicher

- PLC systems and CNC based control systems
- Operator panels
- Application engineering & system solutions
- Customized products

BIT Wieland

- Building installation systems
 - Mains connectors IP20/IP65...IP68
 - Bus connectors
 - Combined connectors
 - Low-voltage connectors
 - Flexible flat cable systems
 - Distribution systems
 - Switching devices for EIB/KNX, LON, Ethernet, radio control
 - DIN rail terminal blocks for electrical installations
 - Overvoltage protection

PCB connectors Wieland

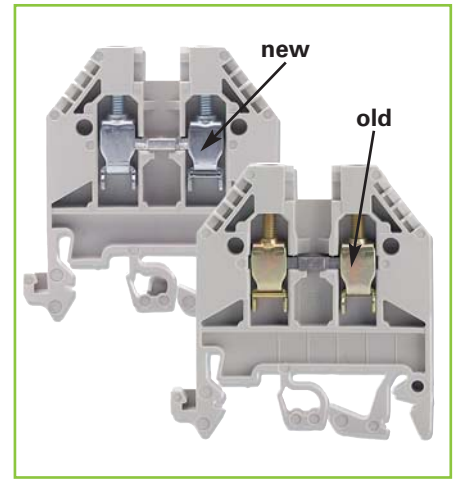
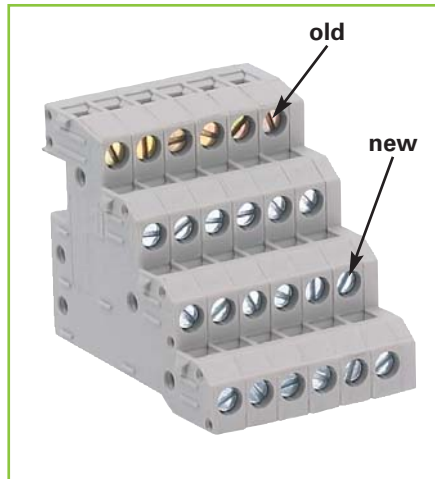
- PC board connectors
 - with screw connection
 - with spring clamp connection
 - with TOP connection

Differences:

The two processes obviously differ in color only. In contrast to the iridescent yellow surface produced by yellow dichromating, thick film passivation results in glossy silver to slightly iridescent yellow surfaces.

The corrosion resistance characteristics of the new passivation method are similar to those of yellow dichromating.

For the tightening torques of the screws the values required by EN 60 947-1 still apply. The relevant excerpt can be found in the Wieland AT catalog in table 4 on page 1418.



Change-over plan:

In order to provide our customers with a sufficient lead time for a change-over of their products, Wieland Electric will be capable of supplying products free of chrome (VI) long before the legally required deadline.

- Our change-over process in electroplating to chrome-free (VI) procedures has been completed.
- Wieland Electric aims to supply its entire product range chrome-free (VI) by the beginning of 2006.

Ordering:

Changes in ordering are not required. The existing part numbers will still apply. Additional information on this topic is available on request.

