Technical terms of delivery No. TL B-02 / Index: 1



- junction boxes -

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#### 1. Purpose and Scope

These technical terms of delivery are valid as supplement to the drawing specifications and are therefore part of the contract. All values and agreements from part specific drawings or specifications, registered values / agreements are prior-ranking to these technical terms of delivery.

They apply to all junction box delivered by us which can be identified by the order number beginning with "B 618".

#### 2. Scope / definitions

#### Grommets

The different model types have on each front end one to three grommets which are still closed when delivered. According to the size of the electric cables that shall be guided into the box the grommets have to be penetrated when mounted. To keep the IP rating the penetration has to be tight enough to allow the grommets to seal around the cable.

#### **Plug blade strips**

The boxes are partially equipped with single or double blade strips. Single blade strips allow to connect to cable plugs per electric contact while double blade strips have for blades per contact. The 6pole 12 pole and 24pole blade strips have this 6, 12 or 24 contact groups to join on one strip inside the box.

Please refer to the product documentation to check which type of blade strips and which number of grommets are enclosed in the delivery.

#### 3. Field of application

The junction boxes are designed for commercial vehicles and industrial trucks with an electric net of 12V or 24V. In principle they are suitable for all applications in the small scale voltage range (so-called ELV according to VDE0100 part 410).

#### 4. Ingress Protection Rating

The junction boxes are protected from dust according IP6X / DIN 40050-9, tested with talc according to EN 60529; the boxes with screw closing are moreover protected against water according IP6K6. To keep this protection grade please refer to article 2 with respect to the right penetration of the grommets as well as to article 6 with respect to the seals for the right mounting.

#### 5. Optical defects

The formation of streaks on the surface as well as optic flow seams are permitted and don't have any impact on stability and function. Traces of talcum powder or release agent may cover the grommet surface.

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### 6. To be taken into account during installation

The technical characteristics can only be ensured when following specifications are being met:

- cables have to be secured against stresses
- plug blade connectors have to be fastened well and protected from pull off by vibrations
- non authorised personal should have no approach to the junction boxes
- keep the interior of the junction box clear of chipping and metallic pollutions
- For the assembling position observe the natural thermal cooling through convection
- Avoid near heat sources (strong electricity consumers, motors, catalytic converters or the like) as well as the heating through connecting cables

To keep the Ingress protection rating against humidity and dust:

- For boxes with bores for the de-watering these bores have to be mounted to the bottom
- The boxes are fixed using the bores on the bottom with M6 screws with locking ring. To seal the box and to protect it against vibrations sealing rings (e.g. perbutan rings) have to be mounted against box and fixing plate as well as between box interior and screws.
- Boxes with screw closing have to be closed tight hand screwed. Closing brackets must not be deformed to tightly close the box

### 7. Security advice !

The junction boxes must not be used without testing and the written approval by the supplier under following circumstances: as critical components in appliances, facilities or technical systems to support or maintain essential functions, in manned space flight and nuclear technology as well as all appliances where a malfunctioning could lead to an endangering of human life.

While properly used the boxes and contacts are not overheated while malfunction e.g. by bad contacts can lead to overheating. Therefore, the boxes have to maintain a stand-off distance to all flammable or explosive materials.

The junction boxes have to be exclusively installed by production shops designed for that task and by qualified electro-technical employees or accordingly qualified personnel.

The junction boxes are not designed for DC voltage higher than 60V, and mustn't be employed in AC mains voltage of typically 110V or 220V respectively or higher.

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### 8. Material composition, prohibition of pollutants

All junction boxes comply with the following regulations of the European Parliament.

- > 2000/53/EC of 18.09.2000
- > 2002/95/EC of 27.01.2003
- > 2002/96/EC of 27.01.2003
- > 2003/11/EC of 06.02.2003
- > 2003/34/EC of 26.05.2003

The VDA 232-101 (list for materials to declare in Automotive industries) is being observed.

As being part of the first sampling documentation a material data sheet will be enclosed, stating the substance composition of the materials used for the junction boxes. Users that are officially registered in the International **M**aterial **D**ata **S**ystem IMDS will obtain this data sheet by mail.

Please do not hesitate to contact us in any doubt !