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1 Preamble

1.1 Mutual goals

The Weidmüller GmbH & Co. KG is a competent and efficient partner in the electrical connectivity and electronics industry. As an innovative and customer-oriented family business it is our entitlement to expand our expertise and efficiency sustainable with high-tech-products, services and solutions. To archive this goal, the customer is the yardstick for our acting and a long-term customer satisfaction our top priority. To fulfil and ensure these high requirements we need competent suppliers, which meet committed, beyond the basic requirements and together with us future challenges.

1.2 Application range of the supplier handbook

This document constitutes a guideline for a cooperative partnership between suppliers and the Weidmüller GmbH & Co. KG. It characterizes the principles and procedures of our quality requirements, expectations of cooperation and supplier management to ensure high quality, process performance improvement and to support the constant effort to strengthen the competitive position. Our customers demand a continuous quality improvement as well as the obligation to comply with the “Zero-error-goal”. We expect this goal equally from our supply partners.
2 General

2.1 Statutory provisions

Our suppliers are committed to recognize and comply with all statutory provisions and local provisions and standards. The established statutory provisions and relevant set of standards (EN ISO, DIN, etc.) are minimum requirements.

2.2 Environmental and energy management, health protection and employment safety

2.2.1 Legal Regulations

Our suppliers are obliged to observe the law and to work conform to all local provision and norms. The current regulations and laws and the relevant norms (EN ISO, DIN, etc.) are minimum requirements.

This also include that required declarations like Reach and RoHs and other reports like Conflict Minerals declaration are provided by the supplier on Weidmüller request.

Templates can be downloaded from Weidmüller homepage.

With regards to Environmental, Health and Safety (EHS) the following general rules apply:

- We respect all relevant laws, regulations and internal requirements with regards to the protection of humans and the environment
- We work proactive and risk oriented and support our relevant targets. We reach these through our motivated and committed employees in cooperation with customers and partners.
- The personal behavior is the driving force in the fulfillment of our targets. We actively take responsibility and act accordingly.
- In all our acting we thrive for transparency and promote open dialogues.

These general rules are complemented by more specific rules in certain areas:

2.2.2 Environmental Protection

Weidmüller is a well established family owned company, whose success is based on foresightful and future-oriented acting and high quality pretention. We believe that a sustainable economic success requires the protection of a livable environment, especially for future generations, and that the company’s prosperity is directly linked to our actions in this respect. Based on this statement we take for granted that our partners in business also act responsibly, protect the environment and minimize the risks for the environment as far as possible.
In connection with the above climate protection is essential. By defining energetic target, engaging experts and in strengthening the sense of responsibility of our co-workers we are constantly thriving to improve the use and consumption of energy and our energy efficiency.

### 2.2.3 Occupational health and safety:

Health and the performance retention of our employees are an outstandingly important asset for Weidmüller. We take our responsibility for our employees very seriously and act accordingly. We take for granted that our partners act in the same responsible manner, engage in occupational safety and health and minimize dangers and risks as far as possible.

Furthermore, Weidmüller expects all suppliers to commit to the following principles:

- We promote occupational health and safety as our strategic company goal with all necessary resources
- We work proactive and risk oriented at all time to continuously improve the current situation.
- We follow all laws, regulations and internal requirements.
- We take responsibility in Occupational Health and Safety in our daily actions towards our colleagues, customers and partners.

### 2.3 Confidentiality and secrecy

We commit to secrecy towards third parties. Mutual received information, trade and company secrets of all kind are exclusively treated as confidential. These are neither under discussion nor digital storage media passed to third or not involved parties.

This duty of confidentiality applies equally to all subcontractors.
3 Communication

3.1 Contact
A supplier contact person as well as its representative should be defined. They have the appropriately professional competence and are fluent in German or at least English. The Contact Data (Name, Telephone, Email, …) must be provided to Weidmüller.

3.2 Availability
The contact person (respectively its representative) appointed by the supplier should be accessible from Monday to Friday during the official local office times. Outside of this time frame an "emergency phone" with qualified manning is available.

3.3 Plant or annual closing
Weidmüller responsible dispatcher should be informed about annual closing / plant closure in writing at least 3 months in advance. Logistics handling and continuous delivery should be ensured during annual closing. Deliveries in advance are not accepted.

4 Procurement

4.1 General terms and conditions of purchasing
The Weidmüller General terms and conditions of purchasing are part of the contractual alignment with our suppliers. You will find our local general terms and conditions of purchasing on the Weidmüller homepage.

4.2 Weidmüller supplier management
Suppliers are a key factor for the success of Weidmüller. Fast changes and the increasing of customer requirements needs a high flexible, fast reaction and highly qualified supplier network. To warrant this the focus of Weidmüller supplier management is to secure a high performing supplier base from the beginning of the business to a long term partnership.

Weidmüller supplier management has various tasks:

1. Onboarding
   - Evaluation and analysis of new potential suppliers in coordination with the procurement
   - Risk identification in accordance with the requirements for the product / product range
   - Planning, organization and performance of supplier audits
2. **Supplier Lifecycle Management**
   
   The performance of existing and onboarded suppliers are continuously monitored in the supplier lifecycle management.

3. **Supplier development / measure management**
   
   - Independent elaboration and planning of action, date and process improvement plans based on the knowledge of the supplier evaluation in accordance with the responsible Purchasing Manager, incl. control of the defined activities for the implementation of the determined improvement measures.
   - Planning, organization and performance of regular, process and repeat audits at the suppliers (incl. partners) in accordance with the responsible Purchasing Manager
   - Identification, evaluation and analysis of procurement and quality risks in series
   - Organization and performance of troubleshooting operations during standard production at the supplier, if necessary involvement of the required departments for problem solution
   - Performance of measures for risk reduction
   - Involvement / management of complaints, which were caused by suppliers
4.3 Procedure for supplier selection

4.3.1 Minimum requirements for suppliers

- Acceptance of the Weidmüller Code of Conduct or an equivalent.
- Quality management system confirmed on DIN EN ISO 9001 and other like standards
- Fulfillment of the RoHS and REACH requirements
- Ability to communicate (minimum language requirement: English)
- No entry in any sanction list
- Financial stability of the company
- Banking and credit worthiness, insurance

4.3.2 Onboarding (Supplier selection process)

The onboarding process forms the basis for the procedure adopted by Weidmüller when introducing new suppliers. The process ensures high transparency and comparability of potential suppliers through uniform methods and processes. Onboarding at Weidmüller is supported by the Supplier Rating System, which also includes the supplier registration process.
The Onboarding process contains of several steps:

4.3.3 Selfregistration

The supplier will be invited by a Weidmüller Purchaser for the 1st Phase of the self-assessment in the Weidmüller Supplier Rating System.

After a positive internal review the supplier receives an invitation for the identification phase 2 with the required access permissions for the final registration.

The answers from phase 2 will also be reviewed internally. If the review was positively the registration is completed. For suppliers, which fulfill special works for Weidmüller e.g. ATEX products or working on-site Weidmüller property, there are additional questionnaires which will be sent to the supplier. After all necessary questionnaires are completed and positively reviewed the self-registration (No. 1 in the picture above) is finished.
4.3.3.1 Contents of the identification process

Phase 1
- General Questions
- Questions regarding Quality Management (Certificates)
- Questions regarding Environmental Management (Certificates)
- Questions regarding Occupational Safety (expl. Certificates)

Phase 2
- General Questions (Detailed)
- Questions regarding Quality Management (Detailed)
- Questions regarding Environmental Management (Detailed)
- Substances Declarations
- Questions regarding Occupational Safety (Detailed)
- Compliance regarding several subjects

4.3.4 Audit

When selecting a new potential supplier Weidmüller carries out “Onboarding Audits”. The main purpose of the Onboarding Audit is to evaluate the suitability of the new supplier. The audits are based on the requirements of VDA Volume 6.3.

4.3.5 Risk Identification

The stability of our supplier relationships is of great importance to us. This risk identification / evaluation helps us to identify risks early on and, when required, agree on joint measures to minimize potential risks. The risk identification considers the new supplier in combination with the product which may be bought.

Once the evaluation and analysis process is positively completed the potential supplier will be classified and included in the database of accepted suppliers.
4.3.6 Supplier classification

At Weidmüller suppliers are divided up into different supplier classifications, enabling them to be managed efficiently depending on the required performance.

Suppliers are divided into the following classifications:

- **Strategic Partner**
- **Recommended Supplier**
- **Active Supplier**
- **Potential Supplier**

Onboarding Gate includes the approval of the supplier after positive completion of the onboarding by the strategic purchase.

The status "Active Supplier" include a probation of one year. After this year once more an evaluation and approval as "Recommended Supplier" can be executed.

The status as a strategic supplier depends on nomination by procurement based on procurement strategies, competence of the supplier and partnership.
4.4 Supplier Lifecycle Management

All accepted suppliers are inside the Supplier Lifecycle Management. The SLM starts after the onboarding of a supplier was successfully finished. As shown in the diagram below the main topics are “Supplier Qualification”, “Supplier Evaluation”, “Supplier Improvement”. Each topic has their own actions.

4.4.1 Supplier Qualification

4.4.1.1 Audit

To maintain and increase the quality level, Weidmüller runs an audit program for suppliers. The audits are based on the requirements of VDA Volume 6.3. Weidmüller distinguishes between regular and unplanned audits.

Regular audits are carried out independently of current quality and delivery problems. Their primary aim is to continuously improve processes and quality systems throughout the supply chain.
Unplanned audits are mainly used for defect analysis and prevention, and for the stabilization of existing logistics and manufacturing processes.

Appropriate corrective measures are discussed and implemented based on the results of the audit.

4.4.2 Supplier Evaluation

Weidmüller carries out two types of supplier evaluations:

Yearly evaluation of the 100 suppliers with the highest turnover is carried out. This evaluation subdivides into a subjective part, in which selected employees evaluate the suppliers’ soft facts (e.g. communication with the supplier), and an objective part, in which data (e.g. punctuality, quality). The hard facts, are calculated by an ERP-system.

Our suppliers are evaluated based on their performance using a special multi-dimensional evaluation procedure.

The 6 dimensions of the supplier evaluation:

As well as the traditional dimensions, such as quality and logistics (hard facts), we also evaluate the competitiveness, innovativeness, expertise and support of our suppliers (soft facts).

To ensure that our supplier evaluation is both comprehensive and objective, it is carried out by trained evaluators from the relevant departments at Weidmüller on an inter-disciplinary basis.
The yearly evaluation results lead to the following classifications:

- **Integration** (>90 – 100 %)
- **Monitoring** (>80 – 90 %)
- **Development** (>60 – 80 %)
- **Examine alternatives** (<60 %)

The results are reported in various forms to the supplier, development goals are agreed and, if necessary, corrective measures are defined and introduced.

**Monthly evaluation** of the suppliers, in which all suppliers of the current month in accordance with their hard facts are listed. In addition, the according hard facts of the last 12 months are listed to see a tendency.

The criteria of product quality and delivery reliability are fundamental components of the supplier evaluation. Due to their high importance in terms of impact on the supply chain, these are evaluated each month and graded as A, B and C suppliers.

- **A** – supplier: 100 – 98 points
- **B** – supplier: 97 – 92 points
- **C** – supplier: < 92 points

**Product quality:**
The results of the incoming goods inspection lots are evaluated monthly:

- **Flawless:** 100 points
- **Minor defects:** 81 points
- **Major defects:** 31 points
- **Critical defects:** 1 point

Points can be subtracted for complaints from downstream processes (e.g. customer complaint).
Delivery reliability:
Delivery can take place up to 7 days before the confirmed delivery date but must on no account be late. Over / undershooting the delivery window results in negative evaluations.

- Delivery window achieved: 100 points
- Delivery window missed: 1 point

4.4.2.1 Supplier Development

Based on the results of the different evaluations, corrective measures are taken where necessary by the supplier. Depending on complexity and importance, the supplier is supported by Weidmüller personnel with expertise in the relevant area.

4.4.2.2 Escalation procedure

To ensure a smooth manufacturing and project process with the supplier, Weidmüller uses an escalation procedure consisting of four stages. The goals of this multistage process are the premature identification of problems on the supplier side, the premature introduction of adapted measures and their implementation control with the aim of a sustainable process optimization.
Standard measures of the supplier in the escalation procedure:

<table>
<thead>
<tr>
<th>Passive supplier development</th>
<th>Active supplier development</th>
<th>Escalation interview Management</th>
<th>Phase Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Creation 8D</td>
<td>• Timely implementation of the defined measures of the coordinated supplier development plan</td>
<td>• Statement management</td>
<td></td>
</tr>
<tr>
<td>• Execution PSP</td>
<td>• Regular reporting of the project improvements</td>
<td>• Required personal capacity cessation for the implementation of measures</td>
<td></td>
</tr>
<tr>
<td>• If necessary, measure plan (date, measure, responsibility)</td>
<td>• Regular ballot meetings with GSD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Extension goods leaving inspection on specified characteristics or 100% examination</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**4.4.2.3 Emergency Management**

In case of an emergency at the supplier, e.g. the failure of a system and therefore arising supply disruptions, supply delays, smaller delivery quantities etc., the supplier is obligated to inform Weidmüller immediately about this emergency and its impacts. Furthermore, the supplier is obligated to inform Weidmüller how the delivery capability despite the emergency can be ensured or at which date the supplier is going to be able to deliver again.

**4.4.3 Update of the Supplier Master Data**

To always have the correct data of our suppliers, Weidmüller will ask the supplier to review the given answers from the onboarding procedure on a yearly base. In case some changes occurred, Weidmüller expects that the supplier will update his given answers. This process allows an always up to date status of the supplier master data.

**5 Quality**

**5.1 Advanced product quality planning (APQP)**

Robust processes and products need a systematic planning during the product development process to fulfill the Weidmüller requirements. This method is also applicable for product and process modifications during the whole product-life-cycle.
Weidmüller demands an advanced product quality planning based on APQP (Advanced Product Quality Planning) standard of the automotive industry (QS 9000 APQP manual / VDA 4).

For the planning and implementation of the APQP, Weidmüller provides a quality management plan template for the supplier and aligns the necessary work items with the supplier quality responsible before starting the project. With project progress there have to be carried out regular maturity evaluations in terms of quality-reviews, to calculate possible economic, technical, temporally and resource-dependent risks.

The examination of results occurs to every defined project milestone (gate) until there is an approval for the following project phase.

The quality management plan for the (APQP) contents the following key topics:

### 5.1.1 Risk analysis

To evaluate risks and avoid errors in the product development process a risk analysis or in individual cases a FMEA by the supplier is demanded by Weidmüller.

### 5.1.2 Direction of special and important characteristics

During the project specific and important characteristics must be identified and evaluated. They are the result of the specification sheet requirements and the risk analysis.

Weidmüller differs between the following important and special characteristics:

**Quality characteristics (important characteristic)** have no significant impact on the systems main and / or safety functions, but on the main and secondary functions of the single product.

If there is not special requirement the standard process control method depends of a sampling inspection without a statistical review. For defined characteristics, a single capability analysis including machine capability analysis (Cmk) is reasonable in case of the initial sampling process to evaluate the scatter of the equipment.

The definition of the relevant characteristics and the required capability limits must be documented in the equipment in the equipment specification document. The fulfillment of the capability must be verified before release of the initial sample.
The identification of quality characteristics „design“ in specifications should be done in the following way as a test dimension marking:

![Design Dimension Marking](image)

The following requirements are relevant for new tools / C-sample release: Quality attributes which are measured during the ISIR submission shall only make use of 75% of the total tolerance span. In any case a safety margin of 12.5% between the measurement result and the tolerance limit shall be kept. In cases of one-sided/unilateral tolerances the 12.5% safety margin shall also apply. Measurements on tolerance limit are not allowed.

Specific characteristics have a significant impact on the main and safety functions of a system or on official regulations. On the direct impact for safety, approvals and main function of the system specific characteristics need a higher due diligence. The excuse for the higher complexity in development and production process are consequences in case of a malfunction of the required product functions.

Potential consequences are higher risks for personal and material damages or high incidental damages (in case of customer claims).

Potential specific functions or characteristics are defined out of the system level (out of application) and must be documented in the specification sheet or the final product specification.

Depending on the dependency of the importance special characteristics are divided in significant characteristics (SC) and critical characteristics (CC) and must be aligned with Weidmüller:

**SC-characteristic (Significant characteristic)**
Non-performance of a SC-characteristic results in a significant failure of a systems / applications main function, but not in a security-critical conduct. Significant characteristics are indicated conform to the Weidmüller company standards defined in the WN700079.

**CC-characteristic (Critical characteristic)**
Non-performance of a CC-characteristic results in a security-critical conduct or in violation of the law / official standards. Significant characteristics are indicated conform to the Weidmüller company standards defined in the WN700079.
Control method and suitable measurement for specific characteristics.
The following methods are accepted control methods for specific characteristics.
Customer requirements, normative requirements, official regulations are superordinate and must be fulfilled.

If there are no superordinate requirements, the control method can be selected on technical (error rates, technical limitations of the process, …) and economic (testing costs, reworking costs, scrap costs, quantities, …) criteria.

5.1.3 Assessment of the feasibility

The feasibility of products in stable processes should be checked and evaluated by the supplier in the ramp-up according to the requirements of the specification sheet. The supplier is responsible for the documentation of the achievable specifications in the specification sheet. After submission and examination of the specification sheet, Weidmüller gives an approval.
5.1.4 SPC - Statistical Process Control

The statistical process control demonstrates if a process is controlled (stable) and quality capable. SPC is working forward and minimizes nonconforming characteristics by defining an improvement circle. The principle is based on a process intervention before specification deviations take place.

Weidmüller standard requirements for Cmk, Ppk and Cpk if not specially defined:

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Cmk</th>
<th>Ppk</th>
<th>Cpk</th>
</tr>
</thead>
<tbody>
<tr>
<td>CC - Characteristic</td>
<td>$\geq 1.67$</td>
<td>$\geq 1.33$</td>
<td>$\geq 1.33$</td>
</tr>
<tr>
<td>SC - Characteristic</td>
<td>$\geq 1.33$</td>
<td>$\geq 1.00$</td>
<td>$\geq 1.00$</td>
</tr>
</tbody>
</table>
5.2 Production process and product approval (PPA) / Initial sample inspection report (ISIR)

The Production process and Product Approval (PPA) provides proof before the start of series production that the requirements agreed in specifications and other requirements such as laws and standards are met. The approval includes the evaluation of the processes and products on the basis of relevant documents, records and samples. A positive product and process release leads to a series release.

A PPA is obtained in the form of an initial sample inspection report (ISIR), which in any case contains a cover sheet and further documents to be specified.

A PPA is equivalent to an initial sampling. The term PPA underlines that the product and the associated manufacturing process are evaluated and released with this approval process.

Changes to the product or process during serial production require a new sampling process and a new PPA.

The following events trigger a PPA:
- New part
- Product changes (focus on fit, form, function)
- Relocation of production
- Change of production processes
- Tool modification
- Change of purchased parts
- Change of suppliers
- Miscellaneous

The necessity of a PPA and its scope must always be agreed in advance.
- As a basic principle, no PPA is carried out for standard and norm parts, neither for new parts nor for modifications.
- A PPA is mandatory for Weidmüller-specific purchased parts.

All evidence documents and requirements listed in the table must be fulfilled independent from the defined submission level (see 5.2.1) if they have been agreed in the APQP phase. A submission is maybe not required depending on the defined submission level.

The initial sampling should not start before all specifications are fulfilled. Deviations must be approved by the responsible Weidmüller quality department.
The Weidmüller cover sheet is mandatory as well as the attachments 7, 10, 13 and 14 in accordance with the ISIR template.

The supplier may use his own templates for all other submission documents.

Weidmüller reserves the right to refuse or reject the ISIR in case of faulty or incomplete documentation.

### 5.2.1 Submission Levels

Submission levels refer to the evidence required for a PPA. Four standard submission levels are applicable. Specific agreements with the supplier are possible if necessary.

<table>
<thead>
<tr>
<th>Content as far as applicable for the specific product</th>
<th>Submission levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cover sheet for the PPA report (initial sample inspection report / ISIR)</td>
<td>S S S S</td>
</tr>
<tr>
<td>Test results: measurement reports, material test reports, laboratory test reports, documented results from haptic tests, acoustic tests, appearance tests, surface evaluations and others</td>
<td>R R S S</td>
</tr>
<tr>
<td>Initial samples: required quantity to be agreed individually, a complete packaging unit including series packaging is preferred</td>
<td>R S S S</td>
</tr>
<tr>
<td>Technical specifications such as drawings (the basis is always the Weidmüller drawing, if available), data sheets, packaging specifications and others</td>
<td>R S S S</td>
</tr>
<tr>
<td>Design FMEA / Risk analysis for the product design</td>
<td>R R R R</td>
</tr>
<tr>
<td>Proof of compliance with legal requirements regarding safety, recycling, ...</td>
<td>- S S S</td>
</tr>
<tr>
<td>RoHS conformity declaration</td>
<td>S S S S</td>
</tr>
<tr>
<td>Software test report, if software is part of the product</td>
<td>R R S S</td>
</tr>
<tr>
<td>Process FMEA / Risk analysis for the production process</td>
<td>R R R R</td>
</tr>
<tr>
<td>Process flow chart / Value stream</td>
<td>R R R S</td>
</tr>
<tr>
<td>Control Plan including special characteristics</td>
<td>R S S S</td>
</tr>
<tr>
<td>Evidence of process capability</td>
<td>R R R S</td>
</tr>
<tr>
<td>Evidence of measurement system capability</td>
<td>R R R S</td>
</tr>
<tr>
<td>Assessment: ready for series production product</td>
<td>R R R S</td>
</tr>
<tr>
<td>Assessment: ready for series production process</td>
<td>R R R S</td>
</tr>
<tr>
<td>PPAP status purchased parts</td>
<td>R R R S</td>
</tr>
<tr>
<td>Individual submission / Miscellaneous</td>
<td>* * *</td>
</tr>
</tbody>
</table>

**S** - Submission necessary and required part of the initial sample inspection report

**R** - The supplier shall retain at an appropriate location and make available upon request, e.g. in audits (if agreed in the APQP phase as a required evidence)

* - If required

Only a cover sheet is required in the submission level 0. Submission level 3 requires full content, the levels 1 and 2 are intermediate levels. Unless otherwise agreed, level 2 shall be used as the standard level
5.3 Quality assurance in series production

5.3.1 Notification requirements

Weidmüller must be notified if:
- Quality problems arise in parts and products
- Product change (Fit, Form, Function)
- Relocation of production
- Change of production processes
- Tool modification
- Change of purchased parts
- Change of suppliers
- Miscellaneous

The notification must be carried out with the PCN template. Weidmüller decides about a required re-sampling / PPA for the modification (see chapter 5.2).

The supplier is not allowed to perform modifications w/o a notification and w/o a feedback from Weidmüller!

5.3.2 Target agreements with suppliers

If necessary, individual performance and development targets are agreed with the supplier. The agreed measures, actions and targets are documented in the Supplier Rating System and implemented by Global Supplier Development.

5.3.3 Quality costs

If quality costs are incurred on account of the defective products supplied by the supplier, Weidmüller reserves the right to invoice the supplier a lump sum amount or at cost with individual itemization.

5.3.4 Complaint management

If Weidmüller discovers defects in incoming goods, the supplier will be informed immediately in the form of a test report. The same procedure is also used in the event of complaints received by Weidmüller from customers.

Before returning defective products, Weidmüller will agree on a common procedure with the supplier.
The supplier must respond to a complaint raised by Weidmüller with a substantive 8D defect report and a cause-and-error analysis.

The following reports must be delivered to Weidmüller within the listed periods:

- Input confirmation by the supplier: 24 hours
- Immediate measure: 48 hours
- Long-term measures: 10 working days
- Effectiveness control: 90 working days

### 5.3.5 Quality management agreement

We agree on technical and organizational processes with selected suppliers in quality management agreements.
6 Logistics

6.1 Definition of terms

- **Packaging unit**
- **Packaged product** Article to be packaged.
- **Product packaging** Whole or partial physical enclosure of packaged products for separating the products or for securing them. The packaging should protect the packaged goods themselves and other goods from damage and protect people handling the goods from injury.
- **Packaging aids** Accessories that in addition to sealing and protecting the packaged goods, packages or load units, are also used for protecting packaging materials (e.g. stretch film, anti-corrosive paper, strapping).
- **Packaging unit** Smallest packing unit. They must only contain a single item (parts with the same part number). Inner packaging has the task of cushioning or fixing parts within the outer packaging, according to their fragility.

**Parts of a packaging unit:**

- **Package**
- **Loadings aids** Load bearing means for combining packing units into a package, or packages into a load unit.
- **Packaging aids** Products which are used for packaging other products. Amongst others these could be plastic bags, sacks, trays or covers.
- **Packages** Transport or storage unit.
 Parts of a package:

- **Loading aids**
- **Packing aids**
- **Packages**

**Load unit**

**Load unit security aids** Accessories which serve to secure the load unit and protect the packages (e.g. wrapping foil, strapping)

**Load unit** A load unit is made up of a loading aid (e.g. IPPC pallet) and many packages

**Parts of a load unit:**

- **Packages**
- **Loading aids**
- **Load unit securing material**
- **Load unit**


### 6.2 Information about delivering to the Dortmund Distribution Centre

#### 6.2.1 Delivery address

The distribution centre's delivery address is as follows:

Weidmüller Interface GmbH & Co. KG  
c/o Schenker Deutschland AG  
Warmbreitbandstr. 3  
44145 Dortmund  
Germany  
+49 (0)231/9635516
You will find below the distribution centre’s location together with the various autobahn options. It is recommend the highway exit "Brackeler Straße" on the B236.

6.2.2 General information for receipt of goods

Goods can be delivered to SDAG Monday to Friday between 07:00 and 17:00 hours. Should a truck be more than two (2) hours late or should it have to cancel altogether, Schenker can be contacted on the following telephone number: +49 (0)231/9635516

All truck drivers must first report to the Goods Reception Office and have the delivery papers ready for checking (CMR way bill, bill of delivery, packing list). As all SDAG warehouses are classed as air freight secure areas, no truck driver or supplier is allowed into any of them unescorted. Only when requested and accompanied by a member of staff from SDAG, may a driver enter a warehouse.

6.2.3 Bills of delivery

For precise identification, a bill of delivery and package contents list must be attached to each pallet.

The following order information is necessary (in plain text and as a barcode):

- Weidmüller order number and order position
- Weidmüller part number and – designation
- Total delivery quantity and amount per dispatch unit
- Country of origin and customs duty number (only numeric)
- Additional information as agreed
Any other delivery documents required by Weidmüller, such as an Acceptance Test Certificate 3.1 or surface area protocol, will be enclosed with the delivery and should be handed over to Schenker's goods reception with the bill of delivery.

6.2.4 Incoming goods inspection

Except for a few products, SDAG conducts an inspection in the incoming goods area - essentially a logistics check on the contract products, the quantity of units, incoming part numbers and any obvious external transport damage. Weidmüller has no further obligation under Paragraph 377 of the German Commercial Code. Incoming goods inspections carried out on Weidmüller behalf do not release the supplier from his obligation to make zero-defect deliveries. Should SDAG, acting on behalf of Weidmüller, find fault or damage during an incoming goods inspection or later, Weidmüller will immediately register this with the supplier.

6.2.5 Order Confirmation

Categorically, deliveries to Weidmüller can only be made on the basis of an order confirmation. These only contain information on delivery date and quantities and must be confirmed in writing within two (2) working days (via the agreed communication channels). Any deviation from this must be coordinated in advance and agreed on as binding with the respective dispatcher responsible.

6.2.6 Delivery of Dangerous Goods

Essentially any delivery of dangerous goods by a supplier is to be made free to the door. Legal regulations to do with the transport of dangerous goods are to be adhered to meticulously. The supplier is liable for any consequential damage resulting from non-adherence and, in the case of damage, is obliged to indemnify Weidmüller of any liability on first demand. The latest versions of ADR/GGVSEB, the IMDG Dangerous Goods Code for sea freight regulations and IATA Dangerous Good Regulations for air freight are to be adhered to.

6.2.7 Import processing

Suppliers' import shipments are to be reported to Weidmüller Custom's department by email prior to delivery. The email is to include all relevant documents (packing list, customs invoice). Below you will find the contact data of the Customs and Shipping Department:

E-Mail: import@weidmueller.de
Tel. +49(0)5231 14-291633
6.2.8 Supplier Declaration in line with Regulation (EC) No. 1207/2001

The supplier declaration must be available no later than the first delivery. It must contain at least the following details: Weidmüller part number and Weidmüller product description, member state, countries enjoying preferential tariffs and statistical commodity code and must comply formally with legal requirements. That also applies to changes in country of origin. If no Supplier’s Declaration can be produced, indication of origin is to be submitted in advance as an informal letter to the Customs and Shipping Department.

Suppliers from Germany has to use the IHK declaration (IHK = Industrie- und Handelskammer = (German) Chamber of Commerce), which is to be found on the following link and send the original to Weidmüller.
https://www.ihknordwestfalen.de/wirtschaft/international/lieferrantenerklaerung/

Suppliers outside Germany should use EUR 1 or the ATR. The original document must be provided to Weidmüller.

The receiving address for this is:

Weidmüller Interface GmbH & Co. KG
Abteilung Zoll
Klingenbergerstraße 16
32758 Detmold

6.2.9 Logistic Complaints

Deviations from Weidmüller delivery guidelines and from the amounts shown on the order will be classified as logistic complaints. In particular the following types of error are also included:

- Delivery of more or less quantities than ordered: the actual amount delivered differs from the amount shown on the order confirmation and bill of delivery and will be registered with the supplier in either case.
- Incorrect deliveries: The product in the packaging corresponds to the label but not to the order.
- Damage in Transit: delivery of goods which are visibly damaged (packaging)
- Packing error: breach of the packaging requirements in the Supplier Handbook
- Label error: breach of the labelling requirements in the Weidmüller TTD 0003
- Delivery date: deviation from the confirmed delivery date, outside Weidmüller authorized time of delivery window
Should any of the above errors be detected in a delivery at the distribution centre, it/they will be documented by our partner Schenker (photo, and description of error(s)) and an information is sent to Weidmüller. The error will be registered in writing with the dispatcher responsible and corrective measures agreed. Weidmüller will pass any consequential costs on to the supplier.

6.2.10 Collection Orders

For dispatch ex-works the collection order is to be found on Weidmüller's homepage.
The procedure is described below:

1. With an ex-works dispatch, the supplier sends the transport notification to the carrier responsible by 11:59 a.m. local time on the day before collection. Should there be a separate tour schedule with the carrier, this can be implemented as agreed. All data relevant to the shipment must be made available to the carrier.
2. Deciding whether the products are to be delivered as a package or on a pallet.
3. The guideline is up to three (3) packages can be delivered separately. When there are more than three (3) packages to be dispatched, the Packaging Guidelines require delivery on
4. Complete the collection order and send the document to the carrier

6.3 Packaging Units and their Identification

6.3.1 Parts of a packaging unit

6.3.2 Approved materials for product packaging

To keep logistics costs to a minimum and to configure the recycling process optimally, only certain recyclable materials are approved.

**Approved materials:**
PE, PP, PET, ABS in line with DIN 6120

**Prohibited materials:**
Materials with a cumulative concentration of 100 ppm EU Packaging Directive 94/62/EC (lead, cadmium, mercury and chrome VI)

In particular and substantiated exceptions with written permission from Weidmüller, tar, wax, paraffin and oil papers as well as polystyrene may be used.

### 6.3.3 Requirements of product packaging and packaging units

The design of the packaging should be based on ecological, economic and qualitative criteria.

**Requirements of packaging units:**
- Easy handling and optimum storage
- Protection of packages
- Optimal loading aids (e.g. euro norm containers)

A packing unit may only contain products with the same part number. It consists of one-way packaging material and its outside dimensions must be no larger than 495x355x182 mm. In the case of dimensions being exceeded an agreement is necessary.

The selection of suitable packaging material for the packing unit follows agreement with Weidmüller and the dispatcher responsible. Cartons with Weidmüller continuous printing are to be used. If cartons without Weidmüller continuous printing are used, the label is to have Weidmüller lettering and logo (Weidmüller talon).

Agreement on planning and stipulating the packaging material (type and size), if not otherwise determined, is to be coordinated with Weidmüller prior to delivery.

### 6.3.4 Identification of packaging units

Precise and systematic labelling of packing units and transferring the necessary accompanying information is essential for fast identification of the parts delivered, which has led to general specifications for the labelling of packaging.

The Identification should be done conform to the definitions of the Weidmüller TTD 0003.

### 6.4 Packages and their identification

#### 6.4.1 Parts of a package
6.4.2 Euro norm container

Euro norm containers have outside dimensions of 600x400x220 mm and inside dimensions of 565x365x200 mm. (weight of the euro norm container itself is appr. 2.6 kg).

Usage of the euro norm container should be for a single product only. When filling a euro norm container, care is to be taken that stacking performance is not affected. To guarantee that is the case, the euro norm container is to be filled up to no more than 2 cm beneath its rim. With bagged products no corners are to overlap the edge.

The euro norm container is to be protected from damage and deformation. In some cases, top covers or edge protection should be used. No labelling or writing is allowed on the euro norm container. Factory set barcodes are not to be damaged, covered or removed.

6.4.3 Modular cardboard carton inserts for euro norm containers

Alternatively, modular cardboard carton inserts with maximum external dimensions of 495x355x182 mm or ones with smaller dimensions can be used in euro norm containers. Fillers must not be used.
If the expediency of delivery in euro norm containers is not stipulated, the alternative of modular cartons can be reverted to. 1/1 cartons [standard] are preferred, however, with the agreement of the responsible dispatcher, other cartons from Table 1 can be used.

<table>
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<tr>
<th>Amount of cartons per ENB</th>
<th>Part number</th>
<th>Inside dimensions (mm)</th>
<th>Outside dimensions (mm)</th>
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<tr>
<td>1</td>
<td>4296870000</td>
<td>491 x 341 x 164</td>
<td>495 x 355 x 182</td>
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<tr>
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<td>4</td>
<td>4159250000</td>
<td>208 x 138 x 150</td>
<td>220 x 150 x 180</td>
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</tbody>
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6.4.4 Weight restrictions

In general, packages up to the legal limit of 31.5 kg can be delivered to Schenker.

For euro norm containers and euro norm container capable cardboard cartons, the maximum weight (net) of 25 kg is not to be exceeded in order to meet the requirements of an economic workplace.

Packages over 25 kg in weight (if not in euro norm containers or in euro norm container capable cartons) are to be identified with the label "Heavy".

Packages weighing over 31.5 kg must always be delivered on pallets.

6.4.5 Provision of euro norm containers

In order to achieve and guarantee common quality, supply and inventory goals, the following provisions apply to the circulation of euro norm containers.

Order information:

• Only by the pallet of 36 euro norm containers
• A delivery time of 5 days has to be planned for
• Individual agreement is necessary for additional requirements in excess of the standard order of 10 pallets (360 euro norm containers)

Any failure by suppliers to request or procure euro norm containers on time will lead to them carrying the additional costs incurred (e.g. freight costs, repacking).

Insufficient stocks of euro norm containers are not to lead to delays in delivery. As part of contingency planning before first delivery, the supplier should calculate the appropriate number or euro norm containers required together with compliant, alternative packaging. The supplier must immediately inform Weidmüller of any shortage of containers and secure release from Weidmüller for the use of alternative packaging for deliveries.

Suppliers can order euro norm containers using the following email address: enb@weidmueller.de
6.4.6 Storage of euro norm containers

After receiving the empty euro norm containers, the supplier is responsible for their appropriate and weatherproof storage. In this regard, the euro norm containers are to be stored in such a way as to eliminate any chance of them becoming dirty before, during or after production, transport and delivery processes. This requires closed and secure means of transport.

6.4.7 Identification of packages

Every package, consisting mainly of several packing units, is to be clearly labeled with the part number and quantity. The Identification should be done conform to the definitions of the Weidmüller TTD 0003.

6.5 Load units and their identification

6.5.1 Parts of a load unit

6.5.2 Pallet requirements

Schenker will only accept heat treated one-way pallets as per IPPC guidelines (printed label on the middle foot) or standard euro pallets. These must have dimensions of 1200x800x150 mm and
may not exceed a total weight of 1000 kg or a maximum height of 1450 mm.

**Inadmissible loading aids are:**

- Wire mesh crates
- Plastic pallets

Solid wood materials require IPPC treatment and identification (International Plant Protection Convention).

### 6.5.3 Guidelines for delivering and configuring load units

Products delivered from suppliers are to be packed appropriately and securely for transport. Damage in transit caused by insufficient packaging will be charged to the supplier. The supplier is to pass all items for shipping, already optimized for logistics, to the transportation service provider (carrier, parcel service). Here, several smaller units should be combined into a larger shipping unit but always in accordance with general dimension and weight limits. Requirements of an optimum arrangement of packages and loading aids for a load unit:
• Even weight distribution
• No overhang on the loading aid
• Optimum packaging density for best space utilization
• Protection against sudden movements or permanent vibration
• Load units that can be stacked

The supplier must observe the typical transport conditions for different types of carrier, such as sea and air freight and match both packaging and protection according to the assignment.

Load units must be suitably labeled if they cannot be stacked due to the nature of the packages.

6.5.4 Package contents list

A package contents list must be provided for every load unit and give an overview of everything in that load unit.
Therefore, the following data is required on the packing list:

• Address
• Weidmüller part number (clear text and barcode)
• Description
• Quantity
• Number of units (clear text and barcode)
• Number of packages
• Customer number
- Bill of delivery number
- Order number incl. Weidmüller position number (clear text and barcode)
- Gross and net weights

Any deviation from the package contents list must be discussed with the respective dispatcher in advance.

Barcode standards, as defined in the Weidmüller TTD 0003 must be used.
7 Further Applicable Documents

Documents provided by Weidmüller:
(Can be downloaded via Weidmüller Homepage)

- Condition of purchase
- TTD (Technical Terms of Delivery) 0001
- TTD (Technical Terms of Delivery) 0003
- EHS Guideline
- Reach Template
- RoHs Template
- APQP Documentation
- ISIR Template
- PCN Template

Link to the download area:
Weidmüller Purchasing and Supplier Information

Standard documents:

- VDA 6.3
- DIN EN ISO 9001
- Conflict Minerals report
  http://www.responsiblemineralsinitiative.org/conflict-minerals-reporting-template/
## 8 Table of revisions

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