

VEONEER STANDARD

Package & Transport Label

VS244

Distribution – per VSO-02 list

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Version: 1.1 Release date: 09-NOV-2021 Pages: 19

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Introduction

To improve the logistic and traceability processes in our supply-chain good labels are one of the basic requirements.

1 Purpose

This specification provides the standards for printing and applying different size package and transport labels. The labels are designed to improve the productivity and controls at suppliers and internally at Veoneer, by allowing effective and efficient capture of data for traceability, production counts, warehouse input/output, cycle checking, shipper generation, forwarding, freight transfer control, receiving, and other inventory controls. Strict adherence to these specifications for the labels will reduce implementation costs and increase benefits for Veoneer and its suppliers.

2 Scope

The primary purpose of the labels is identification of goods. This is not just limited to the item numbers. Because of the nature of Veoneer's products, lot traceability is also a very important identification criterion.

The material can be tracked at different levels:

- Shipment, the shipment at receipt;
- Pallet, the pallets in the shipment;
- Box, the boxes on the pallet;
- Product, the products in the box.

3 Responsibility

The **Purchase**, **Logistics** or **Plant Quality Manager** is responsible and must make sure that the standard is observed by the supplier both internally and externally. Only one person should be made responsible for each Veoneer plant to avoid conflicts.

4 Label Requirements

The following packing requirements need to be followed:

- Veoneer allows mixed load multiple packages, but only one part number per package;
- Veoneer does not allow part numbers with different part revisions on a pallet;
- Veoneer allows multiple batches/lots for one part number on a pallet;

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 Veoneer requires all products to be shipped with an identification label "according to definition below" containing Veoneer part number, vendor id, lot or batch number, and quantity, to be applied to individual items or packets of parts inside of a container or box.

The local standards are clearly defined in the following pages and should not be part of the general points.

Examples include:

- containers, tubes or cans of material within a shipping box
- rolls of labels, of webbing etc.
- printer ribbons
- small components in individual packages (ex. Plastic bags of 100 clips).
- Tape & reel Electronic component labeled on reel

A written exception must be obtained from Veoneer for exemption from this requirement.

Each box loaded on a pallet should contain a Package Label. On each pallet two Transport Labels should be applied on different sides. Depending on the content of the pallet this could be a Master or Mixed-Load Transport Label (Group label).

Different label formats are allowed which are mentioned in more detail in the next paragraph. The choice depends on the size of the packages and should be defined in the packaging agreement which is part of the purchase agreement.

Veoneer allows the following formats/sizes. The preferred label is marked with a star (*). This is done to each destination either Europe or U.S.A.

M = Master Transport Label
G = Mixed-Load Transport

Label

S = Single Package Label

| Destination - Format | M | G | S | Appendix |
|------------------------------|---|---|---|----------|
| Europe | | | | |
| Transport Label* | Χ | Χ | Χ | Α |
| VDA (small) | Χ | Χ | Χ | В |
| Package Label* | | | Χ | С |
| Credit card* | | | Χ | D |
| B10 Label | Χ | Χ | Χ | E |
| Electronics Credit Card* | | | Χ | G |
| U.S.A. | | | | |
| B10* | Χ | Χ | Χ | F |
| Transport Label ² | Χ | Χ | Χ | Α |
| Package Label ² | | | Χ | С |
| B10*2D PDF417 | Χ | Χ | Χ | |

Note: Supplier labels must conform to the standard required by the receiving plants region.

5 Data blocks (summary)

This section will define the data, which needs to be printed on these labels regardless of the format selected. The contents can be split into two groups. The first group consists of shipping information which is specific to the shipment. The second group applies to the part which is shipped. For each of the blocks in the

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group a flag defines whether the block needs to be used on either a **M**aster, **G**roup (Mixed-Load) or **S**ingle label.

Shipping data

| Block | Description | M | G | S |
|--------------------|--|----------------|---|-------------------|
| Consignee | Buyer's unloading location | М | Σ | C ₃ |
| Location | Buyer's final delivery point and Material Handling code | М | Σ | C ₃ |
| Delivery Reference | Delivery note number | М | Μ | C ¹ |
| Order Reference | Order reference number or RAN# | C ⁵ | - | Note ¹ |
| Cross-Dock | Cross Dock info.: Ship To and Ship Windows and Dock Code | C ² | - | M^2 |
| | and Line Feed | | | |
| Tare | Weight and number of boxes | М | - | - |

Part data

| Block | Description | М | G | S |
|--------------------|--|----------------|----------------|----------------|
| Part | Buyer's Part number and description | М | _ | М |
| Quantity | Package or transport unit Quantity | М | - | М |
| Consignor | Supplier Name and address | М | М | М |
| Consignor Coded | Supplier Code | М | М | М |
| Serial Number | Supplier package or transport unit identification number | М | М | М |
| Lot/Batch No. | Supplier's identification for lot or batch of produced parts | - | - | М |
| Part info | Buyer's Part Revision | - | - | М |
| Supplier reference | Supplier information | C ⁴ | C ⁴ | C ⁴ |

Notes:

1) <u>Document reference</u> on Simple label:

Conditional for Europe (Delivery Note)

Mandatory for US (RAN#) – Supplier may request deviation to omit the RAN#, Ship To, and Ship Window information through the receiving plants material manager.

2) Cross-Dock

S/M Label: only applicable for U.S.A. When shipping through cross-dock or using cross-dock functions "B10 label" is mandatory.

M label: "Ship-To" is Mandatory, "Ship Window" block should contain "MASTER LABEL"

- Package-Label: <u>Consignee</u> and <u>Location</u> are allowed to be printed
- Supplier reference: free block for supplier, only if label area is not used for other block
- ⁵⁾ Order Reference: is conditional on a master label when all boxes on the pallet refer to the same order

C = Conditional (see Notes)

M = Mandatory

- = Not applicable

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6 Data Area Format

Dispatch Number Block ®

To be used for shipping reference designated by the buyer; otherwise left blank.

| DATA ELEMENT NUMBER | DATA ELEMENT NAME ③ | ST | FT | HG | ВС | Remarks |
|---------------------------|------------------------|----|------|-----|-----|-------------------------------|
| | Delivery Note no | М | an10 | 7/5 | Ν | Delivery Note number (Europe) |
| | Order Number | М | n13 | 7/5 | 15K | RAN Number (USA) |

10

name of the block

11

description of the block

11

segment description as defined by Veoneer. This description contains:

- the data element number;
- its name;
- its status ST:
 - C Conditional the data element is only printed if agreed by the parties involved
 - **M** Mandatory the data element <u>must</u> always be printed.
 - A Veoneer the details vary by relationship and are described in the purchase agreement
 - Optional not required but can be applied by the supplier
- its format FT: indication of the representation and length of the value entered for a data element:
 - **a** indicates an alphabetical data element whereby **a3** means it has a fixed length of 3 alphabetical characters, whereas **a..3** indicates a variable length with a maximum of 3 alphabetical characters.
 - N indicates a numerical data element whereby **n6** means it has a fixed length of 6 numeric digits, whereas **n..6** indicates a variable length with a maximum of 6 numeric digits.
 - **An** indicates an alpha-numerical data element whereby **an5** means it has a fixed length of 5 alpha-numerical digits, whereas **an..35** indicates a variable length with a maximum of 35 alpha-numerical digits.
- the font height to be used **HG**: indication of the height of the font, first number defines size for a large label, second number should be used for a small label.
- bar code indicator BC: flag indicating whether a bar code is to be included in this area and the prefix to be included.

7 Data Areas (Detailed)

Each of the data blocks will be described in detail regarding its contents. An explanation of the format can be found in the first paragraph of this chapter.

7.1 Consignee Block

The destination name and address as designated by the buyer.

| DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks |
|-----------------|-------------------|----|------|-----|----|---|
| | Party Name | М | an20 | 5/5 | | Company Name |
| | Address | М | an20 | 5/5 | | U.S.A.: Place + State + Postal Code Europe: Country + Postal Code + City |

7.2 <u>Location Block</u>

Final Destination point, the name and place to which the goods are to be finally delivered. Destination and gate can be coded.

| DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks |
|-----------------|------------------------|----|-----|------|----|--------------------------------|
| | Final Delivery Point | М | an5 | 13/7 | 2L | BC applied only on Data Matrix |
| | Material Handling code | М | an8 | 13/7 | 1L | BC applied only on Data Matrix |

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7.3 Delivery reference Block

To be used for shipping reference designated by the buyer. For <u>Europe</u> this block is used as a reference to the delivery note number.

| DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks |
|-----------------|-------------------|----|------|-----|----|----------------------|
| | Lau | | 10 | | | |
| | Delivery Note no | M | an10 | 7/5 | N | Delivery Note number |

7.4 Order reference Block

To be used for order reference designated by the buyer. For <u>U.S.A.</u> it would contain the RAN Number.

| DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks |
|-----------------|-------------------|----|-----|-----|-----|---------|
| | | | | | | |
| | Order reference | М | n13 | 7/5 | 15K | RAN# |

7.5 Cross-Dock Block

To be used for cross dock information designated by the buyer. This is only applicable for <u>U.S.A.</u>

| DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks |
|-----------------|-------------------|----|-----|-----|----|-------------|
| | Ship-To | М | n2 | 7/5 | | Plant code |
| | Ship Window | М | an5 | 7/5 | | Window time |

7.6 Consignor Address Block

Name and shipping address of the supplier, and country of origin designated by the supplier.

| DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks |
|-----------------|-------------------|----|------|-----|----|---|
| | Party Name | С | an30 | 5/5 | | U.S.A.: Company + Place + State + Zip Code Europe: Company + Postal Code + City |

7.7 Tare Block

Weight of goods in (kg) or (lb) excluding transport packaging. Unit of measurement must be printed in the title of the field in brackets.

Amount of Boxes in the shipment.

| DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks |
|-----------------|-------------------|----|----|----|----|---------|
| | Net weight | М | n5 | 5 | | |
| | Gross weight | М | n5 | 5 | | |
| | Amount of boxes | М | n3 | 5 | | |

7.8 Part Number Block

Part number designated by the buyer for the product in the package. The part number is the one received by the supplier in the delivery schedule

| DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks |
|-----------------|------------------------|----|--------|------|----|--|
| | Buyer's Article number | М | an22 | 13/5 | Р | |
| | VSP Sign (Safety Item) | С | Symbol | - | - | On buyer's request a sign for safety items (VSP) must be added. The symbol consists of a circle and triangle and should be located at the far right. |

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7.9 Quantity Block

Quantity in the package. When the unit of measurement is pieces, no notation is required. When the unit of measurement is not pieces (e.g. kilograms, pairs, meters, etc.) it must be noted in human readable form only.

| DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks |
|-----------------|---------------------------------|----|-----|------|----|---|
| 6853 | Quantity of articles in package | М | n7 | 13/5 | Q | No leading zeros |
| 6410 | Unit of measurement | М | an3 | 13/5 | | Only applicable for items which do not have Unit of measure equal to PCE/EA |

7.10 Part Description Block

Mandatory plain language description of articles or products, designated by the buyer or according to agreement between supplier and buyer.

| DATA ELMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks |
|-------------|---------------------|----|------|-----|----|---------|
| | | | | | | |
| | Article description | М | an30 | 5/5 | | |

7.11 Consignor Code Block

The supplier code is defined as the buyer's designated supplier code.

| DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks |
|-----------------|-------------------|----|------|-----|----|---------|
| | Seller, coded | М | an10 | 5/5 | V | |

7.12 Part information Block

<u>Date</u>: Date of production or dispatch date. The date will be printed in the format YYMMDD (Y=year, M=Month, D=Day) preceded by the character "P" or "D". The date to be used is defined in the purchase agreement.

<u>Part Revision code</u>: Designated by receiver to specify engineering changes, as agreed between buyer and supplier. Information will be coded (e. q. A01).

| DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks |
|-----------------|---------------------------|----|-----|-----|----|----------------------|
| | Date of Production, coded | С | an6 | 5/5 | | |
| | Date of Dispatch, coded | С | an6 | 5/5 | | |
| | Part Revision code | С | an3 | 5/5 | | Part revision letter |

7.13 Label Container ID Block

The serial number/container id must be a unique number (not necessarily in sequential order) assigned by the supplier, not the buyer. Suppliers shall not repeat serial numbers/container ids within at least one year.

Each shipping container or pack bearing the label must have a unique serial number/container ID.

S, M, 4S and G for separate destinations must be differentiated from others.

| DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks |
|-----------------|------------------------|----|-----|-----|----|---------------------------|
| | Package label number | М | an9 | 5/5 | 3S | Simple container (U.S.A.) |
| | Package label number | М | n9 | 5/5 | S | Simple container (Europe) |
| | Transport label number | М | an9 | 5/5 | 5S | Mixed Pallet (U.S.A.) |
| | Transport label number | М | n9 | 5/5 | G | Mixed Pallet (Europe) |
| _ | Transport label number | М | an9 | 5/5 | 4S | Master (U.S.A.) |
| | Transport label number | М | n9 | 5/5 | М | Master(Europe) |

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7.14 Product Batch/Lot number Block

The batch/lot number shall be a unique number assigned by the supplier to a maximum pre-determined quantity of parts defined as a batch/lot.

The exact definition of this max. predetermined quantity is described in the purchase agreement between the trading partners. In case of non-homogeneous lot/batch the field must be left blank on the M label.

| DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks |
|-----------------|--------------------------|----|------|-----|---------------|---|
| | Product batch/lot number | М | an11 | 5/5 | H or 1T | As apply for each Region. See Section 7.16 |
| | Quality assured sign | С | an3 | 7/5 | | On buyer's request a Quality Assured sign (AQP) must be added. It should be located at the far right. |

7.15 Date Code

The date code is used on the electronic credit card label. It is the manufacturing week of the component in WWYY format (WW: week number on 2 digits, YY: year on 2 digits)

| DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks |
|-----------------|-------------------|----|-----|----|-----|---------|
| | D | 0 | , | | 100 | |
| | Date Code | C | an4 | | 10D | |

7.16 Data Identifiers

Data identifiers in bar coded information provide automated systems the ability to verify that the correct field on a label or within an electronic data interchange (EDI) transaction is being used. The data identifiers within VS 244 are based upon the existing standard used in the automotive industry (ANSI, Odette...) DI as implemented by Veoneer are provided in the following table:

| Data Identifier | Applicable Region | Associated Data Definition |
|--------------------|---|--|
| 15K | North America | (Veoneer RAN number) |
| Р | North America, Europe & ROW (Rest of World) | Item Identification Code assigned by Customer |
| Q | North America, Europe & ROW | Quantity, Number of Pieces (numeric only) |
| 3S | North America | Unique Package Identification assigned by Supplier (lowest level of packaging which has a package ID code) |
| 4S | North America | Package Identification assigned by Supplier to master packaging containing like items on a single customer order |
| 1T | North America | Traceability Number assigned by the Supplier to identify/trace a unique group of entities (e.g., lot, batch, heat) |
| V | North America, Europe & ROW | Supplier Code assigned by Customer |
| Н | Europe / ROW | Traceability Number assigned by the Supplier to identify/trace a unique group of entities (e.g., lot or batch) |
| М | Europe / ROW | Package Identification assigned by Supplier to master packaging containing one item |
| G | Europe / ROW | Package Identification assigned by Supplier to a mixed load packaging (containing several items) |

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| S | Europe / ROW | Unique Package Identification assigned by Supplier |
|---|--------------|---|
| | | (lowest level of packaging which has a package ID code) |

8 Media Requirements

8.1 Labels

The size of the label shall be in accordance with the agreed format (see appendix I). The format may, if required, be printed on larger paper. Shrinking the label to a smaller size is also allowed if the barcodes are still readable.

The label paper shall be white in color with black printing.

All labels shall be completely and securely adhered to their containers. Any container which is relabeled shall have the preceding label removed or obliterated.

Containers shall be marked with quick-drying permanent waterproof ink, which will withstand normal abrasion. All old labels should be removed.

8.2 English Markings

Shipping containers shall be marked with the applicable information, in English, as required by the following subparagraphs, unless otherwise specified by Veoneer.

8.3 Type of Font

The preferred font is Helvetica bold. The character sizes are defined for each field being part of the range (1.5, 2.5, 5.0, 7.0, 13.0 mm).

8.4 <u>1D Bar Code Symbology</u>

1D Bar codes shall be the Code 39 symbology and shall conform to the following specifications.

8.4.1 <u>Code Configuration</u>

The three (3) characters (\$, %, ",") of the 3-of-9 symbology shall not be used on the label.

8.4.2 Check Digits

Check digits shall not be added to the bar codes or human readable interpretation.

8.4.3 <u>Code Density and Dimensions</u>

The bar heights depend on the size of the label. For each bar code symbol, the narrow element (X) dimension range shall be from 0.33-0.43 mm. The ratio of the average width of the wide elements to the average width of the narrow elements shall be 3:1. For optimum scanning, the leading and trailing quiet zone should be at least 6 mm. Intercharacter gap width should be the same as the width of the average narrow elements, plus or minus the element width tolerance.

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8.5 <u>2D Bar Code Symbology</u>

8.5.1 Data Matrix

The 2D Data Matrix code implementation on labels is mandatory.

8.5.1.1 Data Matrix Syntax:

The syntax of the Data Matrix barcode is following standardized Syntax according to ISO/IEC 15434.

Specific Symbols (RS, GS and EOT) are used for the structure and blocks according to ASCII/ISO 646

The Data syntax according to Format Indicator 06 can be described in 5 segments:

• Message Header: [)>RS

The header is made out of Compliance Indicator (Square bracket left, round bracket right and larger than) + Format Trailer Character (RS) which is a not printable sign

• Format Header: 06GS

"06" indicated that data follow with Data Identifier in front

• DATA:

The data are identified with a prefix and segmented using GS not printable character as a separator:

PREFIX+DATA+GS

PREFIX+DATA+GS

...

PREFIX+DATA

• Format Trailer: RS

The trailer RS is a Not printable sign .it identifies the end of the Da ta Form at Envelope.

• Message Trailer: EOT

| ISO 646/ASCII CHARACTER | DECIMAL | НЕХА |
|-----------------------------|---------|------|
| [| 91 | 5B |
|) | 41 | 29 |
| > | 62 | 3 |
| RS | 30 | 1E |
| GS | 29 | 1D |
| ^E O _T | 04 | 04 |

8.5.1.2 Code rules

The data content must follow the following rules:

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- The Data flow in one piece without line breaks and space between data fields
- "Space" is only allowed if part of the information content.
- The Data Field sequence must be kept
- Empty fields in the sequence (conditional or non-applicable) should be skipped
- Except separators defined previously, only the characters accepted as per Veoneer EDI standard VS242 are allowed as value.

8.5.1.3 Code density and dimensions:

In order to fit any all label layout size, a limited set of code configuration has been defined with specific technical printouts requirement.

Standard 2D code - A type

Intended to be used on any transport or package label

- Code identification : A
- Printer resolution min. 300 DPI (300 DPI allows 12 dot per mm)
- Code size maximum of 48 x 48 cells: 259 usable characters including control characters.
- Cell width must be 0,42 mm (5 Dot / Cell at 300 DPI):
- Rest zone min. 4 cells

Reduced 2D Code as exception - B Type

Intended to be used on label or package label due to space availability constrains. Currently allowed only on VDA Small label.

- Code identification : B
- Printer resolution min. 300 DPI (300 DPI allows 12 dot per mm)
- Code size maximum of 40 x 40 cells : 169 usable characters including control characters.
- Cell width must be 0,25 mm (3 Dot / Cell at 300 DPI)
- Rest zone min. 4 cells

8.6 References to other standards:

Data Matrix and Code 39 are based on the following standards

- ISO/IEC 16022 for Data Matrix specification
- ISO/IEC 15434 for Syntax
- ANSI MH10.8.2 Data identifier and application identifier
- ECC 200 as Failure Correction
- ASCII/ISO 646 for table code

8.7 Barcode Readability

The supplier is responsible for the readability of the barcodes. Barcodes are expected to meet the requirements of the governing bodies (AIAG B10 and Odette).

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9 Data Matrix definition

The 2D Data Matrix code contains already described data elements in the Data blocks but also new elements that are described below

9.1 Code identification

The code identification is defined by the buyer to determine the Data Matrix structure. It is used to manage different structure type and provide capability for a software to manage it.

| DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks |
|-----------------|---------------------|----|----|----|-----|----------------------------|
| | Code identification | М | A1 | NA | 12S | A: Generic B: VDA SMALL |

9.2 Code version

The code version is defined by the buyer to determine the Data Matrix structure version. It is used to manage an evolution into a code structure.

| DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks |
|-----------------|-------------------|----|----|----|-----|--------------------|
| | Code version | М | n2 | NA | 16S | 1: initial release |

9.3 Unit of measurement

The moisture sensitivity level identified for the material supplied

| DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks |
|-----------------|---------------------|----|-----|----|----|---------------------------|
| | Unit of measurement | М | an3 | NA | 30 | following standard ODDC25 |

9.4 Moisture sensitivity level

The moisture sensitivity level identified for the material supplied

| DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks | |
|-----------------|----------------------------|----|----|----|----|---|--|
| | Moisture sensitivity level | M | n1 | NA | Z | Level from 0 to 5 as defined in IPC/JEDEC J-STD-020 | |

9.5 Expiry date

The expiry date of the product, if applicable, coded in format YYYYMMDD

| 11 | ie expiry date of the product, if applicable, coded in format 111111100 | | | | | | | | | |
|----|---|-------------------|----|----|----|-----|---------|--|--|--|
| | DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks | | | |
| | | Expiry date | 0 | n8 | NA | 14D | | | | |

9.6 Supplier data

Supplier data for its own purpose (not used or stored by Veoneer

| δl | upplier data for its own purpose (not used or stored by veoneer) | | | | | | | | | |
|----|--|-------------------|----|------|----|----|---------|--|--|--|
| | DATA ELEMENT | DATA ELEMENT NAME | ST | FT | HG | BC | Remarks | | | |
| I | | Supplier data | 0 | an25 | NA | 3Z | | | | |

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9.7 <u>Data Matrix Structure details</u>

9.7.1 Standard 2D code - A type

| DATA ELEMENT NAME | FT | Data Identifie r | Definition / Description | Refer to block in VS244 | Example | M or S Transport Label | G Transport label | S Package label |
|------------------------------------|------------|------------------------|--|-------------------------------|---|------------------------------|-------------------------|-----------------------|
| Code identification | an1 | 128 | Serves the recognition of the Data Matrix code structure. | 9.2 | 12SA | М | М | М |
| Code version | n2 | 16S | Serves the recognition of the Data Matrix code structure version. | 9.2 | 16S1 | М | М | М |
| Seller | n10 | V | Supplier number according AGPS number | 7.11 | V510035 | М | М | М |
| Label Container ID | n9 | S/M/G | Package or transport label number | 7.13 | S13907542 | М | М | М |
| Veoneer Part Number | an22 | Р | | 7.8 | P604000000A | М | N/A | М |
| Part revision code | an3 | 1P | | 7.12 | 1PA01 | С | N/A | С |
| Quantity | n7 | Q | Package or transport unit Quantity | 7.9 | Q1000 | М | N/A | М |
| Unit of measurement | an3 | 30 | ISO (3 digits) | 9.3 | 30PCS | М | N/A | М |
| Product Batch/lot number | an11 | H or 1T | As apply for each Region | 7.14 7.16 | H130729465 1T 130729465 | М | N/A | М |
| Date Code | WWYY | 10D | Electronics. Week of production | 7.15 | 10D2813 | N/A | N/A | С |
| Date of production/ Dispatch | YYMMDD | 5D | Date has to followed with ID 094 for production date or 011 for dispatch date. (reference document ANSI MH10.8.2-2011) | 7.12 | 5D130712094 (production), 5D130712011 (Dispatch) | М | М | М |
| Delivery Reference | an10 | N | Delivery note number | 7.3 | N111234 | С | С | С |
| Order Reference | n15 | 15K | Shipping ID = RAN | 7.4 | 15K123456789 | С | С | С |
| Location | an5 | 2L | Unloading point | 7.2 | 2LF01C1 | М | М | С |
| Location | an8 | 1L | Material Handling code | 7.2 | 1LMHC003D | М | С | С |
| Moisture sensitivity level | N 2 | Z | Left blank if not applicable (reference document IPC/JEDEC J-STD- 020) | 9.4 | Z5 | М | N/A | М |
| Expiry date | YYYYMMDD | 14D | | 9.5 | 14D20130712 | С | N/A | С |
| Supplier data | an25 | 3Z | | 9.6 | 3ZMY DATA/ID/ | С | С | С |

Complete code example:

[><RS>06<GS>12SA<GS>16S1<GS>V510035<GS>S13907542<GS>P6040000000A<GS>1PA01<GS>01000<GS>30PCS<GS>H130729465<GS>10D2813<GS>5D130712094<GS>N111234<GS>15K123456789<GS>2LF01C1<GS>1LMHC003D<GS>Z5<GS>14D<GS>3ZMYDATA/ID/..<RS><E0T>

Note: Even if not all fields are mandatory, the special character space must be included and the order of the fields must be respected, example:

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9.7.2 Reduced 2D code as exception- B type

| DATA ELEMENT NAME | FT | Data Identifie r | Definition / Description | Refer to block in VS244 | Example | S Package label |
|------------------------------------|----------|------------------------|---|-------------------------------|---|--------------------|
| Code identification | an1 | 12S | Serves the recognition of the Data Matrix code structure. | 9.2 | 12SB | М |
| Code version | n2 | 16S | Serves the recognition of the Data Matrix code structure version. | 9.2 | 16S1 | М |
| Seller | n10 | V | Supplier number according AGPS number | 7.11 | V510035 | М |
| Label Container ID | n9 | S/M/G | Package or transport label number | 7.13 | S13907542 | М |
| Veoneer Part Number | an22 | Р | | 7.8 | P604000000A | М |
| Part revision code | an3 | 1P | | 7.12 | 1PA01 | С |
| Quantity | n7 | Q | Package or transport unit Quantity | 7.9 | Q1000 | М |
| Unit of measurement | an3 | 30 | ISO (3 digits) | 9.3 | 3QPCS | М |
| Product Batch/lot number | an11 | H / 1T | As apply for each Region | 7.14 7.16 | H130729465 1T 130729465 | М |
| Date Code | WWYY | 10D | Electronics. Week of production | 7.15 | 10D2813 | С |
| Date of production/Dispat ch | YYMMDD | 5D | Date has to followed with ID 094 for production date or 011 for dispatch date. (reference document ANSI MH10.8.2-2011) | 7.12 | 5D130712094 (production), 5D130712011 (Dispatch) | М |
| Moisture Sensitivity level | N1 | Z | Left blank if not applicable (reference document IPC/JEDEC J-STD- 020) | 9.4 | Z5 | М |
| Expiry date | YYYYMMDD | 14D | | 9.5 | 14D20130712 | С |
| Supplier data | an25 | 3Z | | 9.6 | 3ZMY DATA/ID/ | С |

Complete code example:

[)><RS>06<GS>12SA<GS>16S1<GS>V510035<GS>S13907542<GS>P604000000A<GS>1PA01<GS>01000<GS>30PCS<GS>H130729465<GS>10D2813<GS>5D130712094<GS>Z5<GS>14D20130712<GS>3ZMYDATA/ID/..<RS><E0T>Label Location and Protection

Note: Even if not all fields are mandatory, the special character space must be included and the order of the fields must be respected, example:

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9.8 <u>Label Location</u>

Each box shall contain one label. Each pallet or stillage shall contain two labels placed on different sides of the pallet. It should always be possible to scan the labels.

Electronic components that are on tape & reel shall be labelled on the reel.

In case of additional protective packaging which enclose the smallest package unit (e.g.: Moisture Sensitive electronic components on reel or tray in a "dry pack"). In this case, both external and internal packaging have to get a label as defined in VS 244 standard. Those two labels shall be identical including Package Serial ID (S) and have to be permanent on both packaging. In case of technical issue which prevent to apply two identical labels than a peelable label can also be applied on the protective packaging. This label has to be

able label can also be applied on the protective packaging. This label has to be peel-able in one piece without damage. This alternative must be validated by each Veoneer plant using this component.

9.9 Label Protection

Label protection against moisture, weathering, abrasion, etc., may be required in harsh environments and is encouraged whenever practical. Laminates, sprays, window envelopes, and clear plastic pouches are examples of possible protection methods. In choosing any protection method, care should be taken to assure the protected labels meet reflectivity and contrast requirements and can be scanned with contact and non-contact devices.

9.10 Protective Coating of Labels

If needed, labels shall be waterproof by coating the entire outer surface of the label with waterproof lacquer, varnish, clear acrylic coating compound or label adhesive. Transparent tape is authorized for use on packs and related items. Pouches containing the label are allowed.

9.11 Adhesives For Returnable Containers

Adhesives for returnable containers shall be removable type pressure sensitive adhesive based on synthetic elastomers featuring moderately high initial tack, good resistance to static shear, a high level of **ultimate** adhesive, and clean removability.

9.12 Adhesives For Expendable Containers

Adhesive types can be pressure sensitive or dry gummed as long as adherence to the package is assured and application is wrinkle free. If the specified label cannot be affixed to the package/container because of container size or design, special arrangements will be required.

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10 Appendices

The labels shown in the appendices are examples only, exact data will vary by supplier.

The latest versions of these appendices are found in the Corporate Standards database.

VS 244 Appendix A-Transport Label

VS 244 Appendix B-Europe - VDA (small)

VS 244 Appendix C-Package Label

VS 244 Appendix D-Credit Card Label

VS 244 Appendix E-Europe - B10

VS 244 Appendix F1-U.S.A. - AIAG B10 AAM Container

VS 244 Appendix F2-U.S.A. - AIAG B10 AAM Master

VS 244 Appendix F3-AIAG B10 AAM Mixed

VS 244 Appendix G-Electronics Credit Card

VS 244 Appendix H-Label sizes

VS 244 Appendix I-USA - B10 2D PDF417

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11 Modification Index

| Version | Date/ | Modification | Purpose |
|---------|--|--|---------|
| # | Author | | |
| 1.0 | 01-APR-2018 /J. Thomson | First version | |
| 1.1 | 09-NOV- 2021/ Jill Thompson (Marcos Martinez, Ricardo Casas) | Section 4 Labels: The Electronics Credit Card Label Appendix G is indicated in the table. The B10*2D PDF417 Appendix I is indicated in the table. Section 7.14 Product Batch/Lot number Block: Data Identifier 1T is added Section 9.7 Data Matrix Structure details: Data Identifier 1T is added in the 2D tables with Code Examples Add MSL information as a mandatory field, sections 9.7.1, 9.7.2 | |

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