

# Machine-readable franking marks

# **Section 8: Premiumadress**

Design, options and contents

# Released

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# **Section 8: Premiumadress**

### 8.1. Introduction/background

This document refers only to the design of a data matrix for the PREMIUMADRESS service, when the item is additionally franked by a different type of franking, which relates to the charge for the item. The franking mark described here does not represent any franking value and can make it possible to transfer PREMIUMADRESS data and utilize TRACK&MATCH for DIALOGPOST and POSTWURFSPEZIAL items. Franking types with a value may therefore be Dialogpost with franking wave, sender machine franking, cancelling by sender, Plusbrief or business post of Deutsche Post (Postsache). For Dialogpost, this layout is seen as a reduced franking mark and it may also be used without franking wave if desired.

Thus these franking types will also benefit from the advantages of so-called machine-readable data matrix codes. The use of the data matrix code is a condition for using the PREMIUMADRESS service. This matrix code also offers customers the opportunity to improve and optimize production processes, e.g., quality assurance, control of supplements. It may also be used for DIALOGPOST and POSTWURFSPEZIAL items that are not PREMIUMADRESS items (e.g., for TRACK&MATCH).

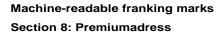
#### 8.2. The validity of the PREMIUMADRESS data matrix code

The Premiumadress data matrix code applies, according to the status of the specification, until the appearance of a successor version of the Premiumadress data matrix code. The internal working title is Machine-readable franking marks Section 8 Premiumadress (MLFVM 8).

# 8.3. Demarcation from the arrangements for the suitability for automatic processing

All existing arrangements for the machine processing of letter mail items retain their validity and are described in the guide on mail items suitable for automated processing.

For example, inserting other barcodes used by the customer in the address is also covered here. Inserting additional barcodes must be avoided as a matter of principle. If a barcode used by a customer is printed as an exceptional case, then care must be taken that its design and dimensions are not similar to those of Deutsche Post AG.





## 8.4. Certification of items corresponding to this specification

Deutsche Post AG offers certification for quality assurance purposes. Samples are required (S/KBf-compact letter and card forms: 100 items, card format: 250 items, G/MBf-Maxibrief letter and press: 10 items) and evaluated as follows:

- 1. Correct content of the data matrix code (field population and parameterization)
- 2. Alignment and legibility of the elements on the address page:
  - a. correct dimensions and legibility of the address
  - b. correct dimensions and legibility of the data matrix code
  - c. compliance with the required spacing

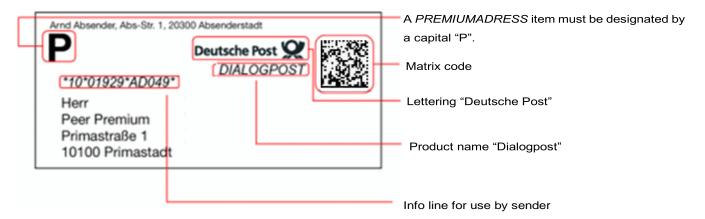
Senders interested in certification may contact the sales representative at Deutsche Post.

The quality of the printed data matrix code should be "Grade A", following the quality parameters specified in the ISO/IEC 15415 standard. In the case of deviations from this, Deutsche Post must be allowed to perform a practical test to check whether the minimum quality requirements are met.



#### 8.5. Design and text elements

The franking mark consists of the following parts:



#### Premiumadress IDENTIFIER

A Premiumadress item must be designated by a capital P (Arial; font height 5.9 mm). For non-Premiumadress items, the P must not be used.

#### Data matrix code

In the 8-bit binary mode (BASE 256), size 22x22 or 26x26 modules (28 or 42 bytes) with a module strength of 0.423 mm. ECC 200 is intended as the error correction level.

#### Deutsche Post logo

The identifying features consist of the letters Deutsche Post and the post horn. The entire logo must be incorporated as a graphic, including the lettering. This is why no font type is defined for the lettering. The graphic is available for downloading on the Premiumadress downloads page of the Deutsche Post website.

# Sender line

The sender information should always have a smaller capital letter height than the address.

## Extra line

If the item is a Dialogpost item, it will be designated as "Dialogpost".

#### Info line

In the final line, within the addition and mark zone for postal marks, additional details necessary for processing may be provided. These must then be placed between the special character "\*". The characters may also be used as field separators. Additional details which are possible are in particular the identification of routing region bundles for Dialogpost and if required, customer-specific numbering (e.g., for subsequent manual processing). Blank fields are indicated with the limiting "\*", e.g., \*\*123456789\*. The line must end at least 3 mm

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before the left edge of the data matrix code. The base line is identical with the bottom edge of the data matrix code. If more than one information line is needed, it can be printed there in place of address line 1. The number of address lines remains five.

#### Address lines

The only font types that may be used are those that are machine-readable according to the guide on mail items suitable for automatic processing. We recommend Arial, Helvetica, Frutiger and Univers. The capital letter height must be at least 2.3 mm.

#### Address field

DIN 5008:2020 provides the authoritative rules for the layout of the address field and the five-lined additional and marking zones.

For the intended address field, (address lines 1-6; 21.17 mm in height) already certified fonts may also be used. Here it is important that all the components (address, Dialogpost line...) must remain visible in the legible area (net window).

In the case of non-standard windows (larger than 90 x 45 mm), labels and direct printing, there may be the possibility of greater choice in font types and sizes and the number of the address lines.

All these individual characteristics are part of MLFMV 8 PREMIUMADRESS.

It is a matter of principle that all the elements which must be machine-readable are set out in the readable area under any circumstances (even if the item moves in the envelope). This includes especially the matrix code and all address lines. The legible area is also limited to 3 mm by a quiet zone round its outside.

For Dialogpost, this layout applies as a reduced franking mark and can also be used without the franking wave on the envelope or address label if desired. The franking zone must always be kept free, i.e., no other impressions must be applied there, with one exception. According to the guide on mail items suitable for automatic processing, a graphic design in the franking zone and alphanumeric information in reverse print are permitted if the franking mark is placed in the address field.



## 8.6. Dimensions diagram

Printers with a resolution of 240 dpi or 300 dpi and their multiples as whole numbers, e.g. 480 dpi or 600 dpi are supported. The dimension details of the text elements correspond to those of the 240 dpi printer.

Differing resolutions must be checked in the certification process.

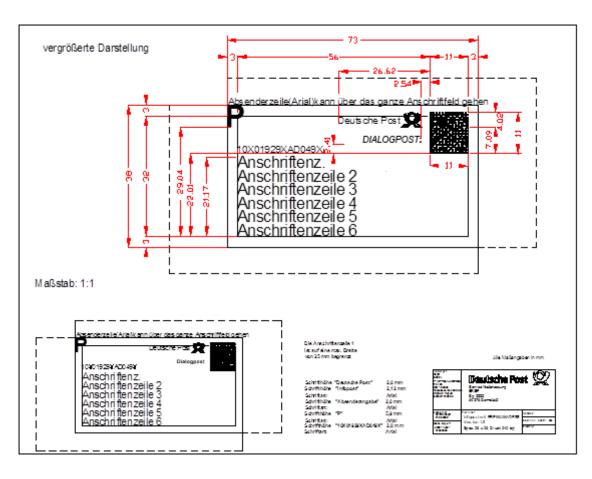
Irrespective of the resolution, the data matrix must be given a module width of 0.423 mm.

The overall positioning of the address, including the postal details is given for A4 mail in a C5/C6 envelope. The address window and the entire dimensions remain precisely the same for other envelopes and paper formats. Only the positioning of the entire window changes so that the abovementioned principles for legibility in the window are maintained as far as possible, even though the mail document has been moved around. The font for the address must not be reduced under any circumstances.

The entire address is set out in such a way that the left edge of an A4 letter with text and folds, whether in form A or B, is at least 25 mm from the left edge of the page.

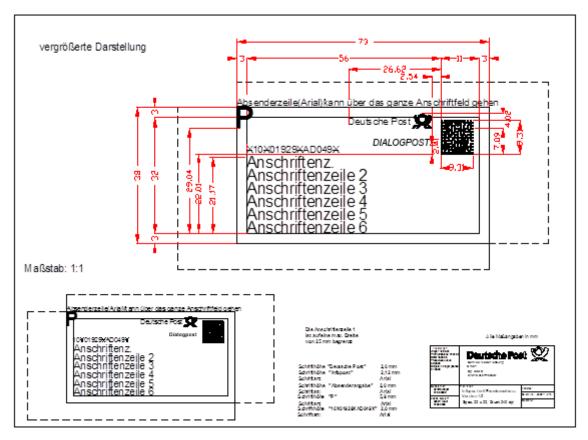
The sender information should always have a smaller capital letter height than the address. The only font types that may be used are those that are machine-readable according to the guide on mail items suitable for automatic processing. We recommend Arial, Helvetica, Frutiger and Univers.

# 8.6.1. Layout of address windows with a 26x26 data matrix code (reduced)





# 8.6.2. Layout of address windows with a 22x22 data matrix code (reduced)



## 8.6.3. Tolerances

Tolerances are possible with the above-mentioned dimensions.

The post horn, "Deutsche Post" lettering, the "P" and the franking mark may each be 0.15 mm larger or smaller and the DMC may be 0.5 mm larger or smaller than indicated in the dimensions diagrams.

The spaces between the individual features may each be 0.5 mm larger or smaller than indicated in the dimensions diagrams.

Differing tolerances must be checked in the certification process.

#### 8.7. Contents of the data matrix code

A matrix code of the data matrix type in 8-bit binary mode is used (BASE 256). ECC 200 is intended as the error correction level. The symbol size of the matrix code (number of lines and columns) for the standard option is  $22 \times 22$  modules (L\*W = 9.31 mm \* 9.31 mm), and for the larger option it is  $26 \times 26$  modules (L\*W = 11.0 mm \* 11.0 mm).

For Premiumadress, the larger option is recommended.

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Please see the following table for information on nomenclature: Hexadecimal values with high commas are included, e.g. '3F'. For better legibility,

these values are represented in pairs separated by a space, e.g. '00 37'.

| Byte<br>No.   | Length | Meaning  | Data contents       | Comments  |
|---------------|--------|--|---------------------|---|
| f1, f2,<br>f3 | 3      | Postal company<br>(ASCII DEA)                                  | '44 45 41'<br>(Hex) | Deutsche Post   |
| Byte<br>No.   | Length | Meaning  | Data contents       | Comments  |
| f4            | 1      | Franking type and version                                      | '08'<br>(Hex)       | PREMIUMADRESS, Version 1.1.6  |
| Byte<br>No.   | Length | Meaning  | Data contents       | Comments  |
| f5            | 1      | Version<br>products/prices                                     | 'XX'                | The version of the product and price list must be mentioned here. Example: Version No. 50 corresponds to hexadecimal value '32'.    |
|               |        |  |                     | The most current version can be found online at www.premi-umadress.de.  |
| Byte<br>No.   | Length | Meaning  | Data contents       | Comments  |
| f6 to<br>f10  | 5      | Customer number of the <i>PREMI-UMADRESS</i> contract partner. | 'xx xx xx xx xx     | (Example: EKP no. 5111111111<br>(decimal) equals '01 30 A5 5D C7'<br>(hexadecimal). The customer is no-<br>tified by Deutsche Post. |



| Byte<br>No. | Length | Meaning                  | Data contents                         | Comments   |
|-------------|--------|--------------------------|---------------------------------------|--|
| f11,<br>f12 | 2      | Charge or franking value | 'XX XX' in the format EEECC (decimal) | Decimal presentation of the franking value in euros (E=places before decimal point and C=places after decimal point). Example: EUR 0.85: decimal: 00085; hexadecimal: '00 55'  When franked with a stamp, sender franking machine, as Plusbrief and as business post of Deutsche Post (Postsache), this must be entered as '00 00' |

| Byte No. Length | Meaning                                 | Data contents                         | Comments  |
|-----------------|---|---------------------------------------|---|
| f13, 2<br>f14   | Date of posting or data processing date | 'XX XX' in the format DDDYY (decimal) | If at the time of optimization the actual date of posting is not known, the date of data processing should be used.  Date format: Decimal representation of the date as DDDYY whereby "DDD" represents the relevant day of the year (up to 365 or 366) and "YY" is the last two digits representing the year.  (Example: July 24, 2003, i.e. 205th day in 2003; decimal: 20503; hexadecimal: '50 17') |



Otherwise for every posting or data processing date, beginning with 1.

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Meaning

Length

Byte

| No.                 | Longar | .vioariirig             | Data comonic  | Commonic   |
|---------------------|--------|-------------------------|---------------|--|
| f15,<br>f16         | 2      | Product identifier code | 'XX XX'       | Representation in hexadecimal form The up-to-date description of the product identifier code is contained in the product and price list. The cur- rent product and price list is availa- ble on request.  Example of product identifier code: '00 5A' Dialogpost/Katalog Standard (dec. 90) '23 E7' Dialogpost/Katalog Standard Premiumadress Basis (dec. 9191) Representation in hexadecimal form.  The most current description of the product identifier codes is available on request, or at www.premi- umadress.de. |
| Byte<br>No.         | Length | Meaning                 | Data contents | Comments   |
| f17,<br>f18,<br>f19 | 3      | Serial item number      | ,XX XX XX,    | Hexadecimal representation of the decimal item number (max. 16,777,215 items). When AM order numbers are used, for every AM order number beginning with 1.   |

Data contents

Comments



| Byte<br>No.   | Length | Meaning         | Data contents | Comments   |
|---------------|--------|-----------------|---------------|--|
| f20 to<br>f23 | 4      | AM order number | ,xx,xx        | Hexadecimal representation of the decimal AM order number. Should alphanumerical AM order numbers be used, only the numerical part must be coded.  If AM order numbers are not used, '00 00 00 00' must be entered in this field.  Please note that theoretical size limitation for numerical numbers from: (FF FF FF Hex) = 4294967295  From the 14-digit AM order number, the lower 9 digits are used here (decimal to 999 999 999 — Hex 3B 9A C9 FF). |

| Byte<br>No. | Length | Meaning  | Data contents | Comments   |
|-------------|--------|--|---------------|--|
| f24         | 1      | Notification of postal data elements between bytes f25 and f42 | 'XX'          | Since bytes f25 to f26 may be used flexibly for postal purposes and are also wholly or partially available for customer-specific data, it is indicated here what dimensions the postal data elements have (see below) in this area, and which type the postal data elements are. |
|             |        |  | '00'          | In the area of bytes f25 to f26, <b>no postal contents</b> are to be named. The entire area may be used only for customer-specific data not evaluated by Deutsche Post. The bytes are to be filled in as necessary.  |
|             |        |  | '01'          | Bytes f25 to f26 are used for the <i>PREMIUMADRESS</i> ID, see below. The following bytes f27 to f28 (f42) may be used for customer-specific data and if necessary must be filled  |



|      | up. The product identifier coded as f15,f16 must refer to a <i>PREMI-UMADRESS</i> product, and the "P" must be printed in the layout.   |
|------|---|
|      | This customer-specific data of the matrix code is recorded as part of <i>PREMIUMADRESS</i> and provided for the sender as additional information in the address dataset (e.g. customer number, recipient).  |
| '02' | Bytes f25 to f26 are used for the <i>PREMIUMADRESS</i> ID, see below. The following bytes f27 to f28 (f42) may be used for data that is customer-specific not evaluated by the Deutsche Post and must be filled in as necessary. The product identifier coded as f15,f16 must refer to a <i>PREMIUMADRESS</i> product, and the "P" must be printed in the layout.  Please note: In this case Deutsche Post does not return the customer-specific data in the <i>PREMI-UMADRESS</i> address dataset. |



| Byte Length<br>No. | Meaning       | Data contents | Comments   |
|--------------------|---------------|---------------|--|
| f25, 2<br>f26      | PREMIUMADRESS | 'XX XX'       | Hexadecimal representation of the decimal <i>PREMIUMADRESS</i> ID. It must be entered if the control element byte f24 is filled with the data contents "01" or "02".  The <i>PREMIUMADRESS</i> IDs are created by the customer online in the <i>PREMIUMADRESS</i> system and assist with the subdivision of the address data which <i>PREMI-UMADRESS</i> supplies to the customer. If the customer does not create any additional IDs in the system and only uses one <i>PREMI-UMADRESS</i> ID, then it always is '00 01'. |

| Byte No.   | Length | Meaning   | Data contents | Comments   |
|--|--------|---|---------------|--|
| With PREMI- UMADR ESS f27 to 28 Without PREMI- UMADR ESS | 2 4    | Customer-specific information (in 22*22 matrix code size) | 'XX XX XX XX' | Any content which is not evaluated by Deutsche Post e.g., to identify customers, departments, pallets etc.  When <i>PREMIUMADRESS</i> is used, the customer-specific part begins from byte f27, since bytes f25 and f26 in this case are used for the <i>PREMIUMADRESS</i> ID. |
| f25 to f28   |        |   |               | If no customer-specific information is to be placed in the matrix code, then in order to comply with the size of the matrix code, it may be necessary to fill it with blank information.   |

| Byte No.          | Length | Meaning                           | Data contents | Comments   |
|-------------------|--------|-----------------------------------|---------------|--|
| With PREMI- UMADR | 16     | Customer-specific information (in | xx xx xx xx   | Any content which is not evaluated by Deutsche Post e.g., to identify customers, departments, pallets etc. |

| ESS        |    | 26*26 matrix code | xx xx xx xx | When PREMIUMADRESS is used,              |
|------------|----|-------------------|-------------|--|
| f27 to f42 |    | size)             | XX XX'      | the customer-specific part begins        |
|            |    |                   |             | from byte f27, since bytes f25 and       |
| Without    | 18 |                   |             | f26 in this case are used for the        |
| PREMI-     |    |                   |             | PREMIUMADRESS ID.                        |
| UMADR      |    |                   |             |  |
| ESS        |    |                   |             | If no customer-specific information is   |
| f25 to f42 |    |                   |             | to be placed in the matrix code, then    |
|            |    |                   |             | in order to comply with the size of      |
|            |    |                   |             | the matrix code, it is necessary to fill |
|            |    |                   |             | it with blank information.               |
|            |    |                   |             |  |
|            |    |                   |             |  |

## 8.7.1. Example of byte sequence in data matrix code

Below, an example is provided of the byte sequence for a 26\*26 matrix code (Dialog-post).

