

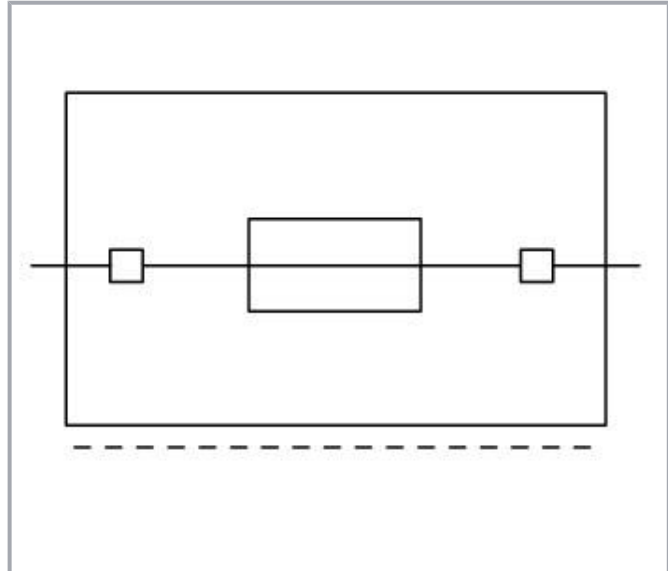
## Data sheet | Item number: 281-512

Fuse plug; with pull-tab; for miniature metric fuses 5 x 20 mm and 5 x 25 mm;  
with port for LED; 6 mm wide; gray

[www.wago.com/281-512](http://www.wago.com/281-512)



Color: —



### Item description

#### Safety information 1:

Electrical ratings are given by the fuse and blown fuse indication.

Subject to changes. Please also observe the further product documentation!

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Do you have any questions about our products?  
We are always happy to take your call at +49 (571) 887-44222.



## Data

### Electrical data

Power loss (max.)  $P_{I(max)}$  (note)

When selecting glass cartridge fuses, make sure that the maximum power loss listed below is not exceeded. The power loss is determined according to IEC or EN 60947-7-3/VDE 0611-6 at 23°C. The temperature rise of the terminal block must be checked according to their application and mounting. Higher ambient temperatures represent an additional impact on miniature fuses. Therefore, in such applications, the rated current must be reduced if necessary. More details are available from the manufacturers.

|                            |                                                                |
|----------------------------|----------------------------------------------------------------|
| Power loss $P_I$ (max.)    | 2.5 W                                                          |
| Power loss $P_I$ (note)    | Overload and short circuit protection (Individual arrangement) |
| Power loss $P_{I2}$ (max.) | 1.6 W                                                          |
| Power loss $P_{I2}$ (note) | Overload and short circuit protection (Group arrangement)      |
| Power loss $P_{I3}$ (max.) | 4 W                                                            |
| Power loss $P_{I3}$ (note) | Short circuit protection only (Individual arrangement)         |
| Power loss $P_{I4}$ (max.) | 4 W                                                            |
| Power loss $P_{I4}$ (note) | Short circuit protection only (Group arrangement)              |

### Ratings per IEC/EN

|                         |       |
|-------------------------|-------|
| Nominal voltage (III/3) | 250 V |
| Rated current           | 6.3 A |

### Physical data

|       |                   |
|-------|-------------------|
| Width | 6 mm / 0.236 inch |
|-------|-------------------|

### Mechanical data

|               |                |
|---------------|----------------|
| Marking level | Center marking |
|---------------|----------------|

### Material data

|                     |                  |
|---------------------|------------------|
| Color               | gray             |
| Insulation material | Polyamide (PA66) |
| Fire load           | 0.076 MJ         |
| Weight              | 6.1 g            |

Subject to changes. Please also observe the further product documentation!

## Commercial data

|                       |                                  |
|-----------------------|----------------------------------|
| Product Group         | 1 (Rail Mounted Terminal Blocks) |
| Packaging type        | BOX                              |
| Country of origin     | CN                               |
| GTIN                  | 4050821032557                    |
| Customs tariff number | 85366990990                      |

## Approvals / Certificates

### Country specific Approvals

| Logo                                                                               | Approval                              | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|---------------------------------------|--------------------------|------------------|
|    | CSA<br>DEKRA Certification B.V.       | C22.2 No. 158            | 1505034          |
|    | KEMA/KEUR<br>DEKRA Certification B.V. | EN 60947                 | NTR NL-7135      |
|  | KEMA/KEUR<br>DEKRA Certification B.V. | EN 60947                 | 2160584.31       |

### Ship Approvals

| Logo                                                                               | Approval                           | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|------------------------------------|--------------------------|------------------|
|  | ABS<br>American Bureau of Shipping | -                        | 20-HG1941090-PDA |
|  | ABS<br>American Bureau of Shipping | EN 60947                 | 20-HG1941090-PDA |

### UL-Approvals

| Logo | Approval                             | Additional Approval Text | Certificate name |
|------|--------------------------------------|--------------------------|------------------|
|      | UL<br>Underwriters Laboratories Inc. | UL 1059                  | 20170731-E45172  |

Subject to changes. Please also observe the further product documentation!



## Compatible products

### Marking accessories

|                                                                                    |                                                                                                                                              |                                                                                  |
|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
|    | <b>Item no.: 2009-114</b><br>WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; white          | <a href="http://www.wago.com/2009-114">www.wago.com/2009-114</a>                 |
|    | <b>Item no.: 2009-114/000-002</b><br>WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; yellow | <a href="http://www.wago.com/2009-114/000-002">www.wago.com/2009-114/000-002</a> |
|    | <b>Item no.: 2009-114/000-005</b><br>WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; red    | <a href="http://www.wago.com/2009-114/000-005">www.wago.com/2009-114/000-005</a> |
|    | <b>Item no.: 2009-114/000-006</b><br>WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; blue   | <a href="http://www.wago.com/2009-114/000-006">www.wago.com/2009-114/000-006</a> |
|    | <b>Item no.: 2009-114/000-007</b><br>WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; gray   | <a href="http://www.wago.com/2009-114/000-007">www.wago.com/2009-114/000-007</a> |
|  | <b>Item no.: 2009-114/000-012</b><br>WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; orange | <a href="http://www.wago.com/2009-114/000-012">www.wago.com/2009-114/000-012</a> |
|  | <b>Item no.: 2009-114/000-023</b><br>WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; green  | <a href="http://www.wago.com/2009-114/000-023">www.wago.com/2009-114/000-023</a> |
|  | <b>Item no.: 2009-114/000-024</b><br>WMB-Inline; for Smart Printer; 2000 pieces on roll; stretchable 4 - 4.2 mm; plain; snap-on type; violet | <a href="http://www.wago.com/2009-114/000-024">www.wago.com/2009-114/000-024</a> |
|  | <b>Item no.: 793-4501</b><br>WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; white                                   | <a href="http://www.wago.com/793-4501">www.wago.com/793-4501</a>                 |
|  | <b>Item no.: 793-4501/000-002</b><br>WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; yellow                          | <a href="http://www.wago.com/793-4501/000-002">www.wago.com/793-4501/000-002</a> |
|  | <b>Item no.: 793-4501/000-005</b><br>WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; red                             | <a href="http://www.wago.com/793-4501/000-005">www.wago.com/793-4501/000-005</a> |

Subject to changes. Please also observe the further product documentation!

|                                                                                   |                                                                                                                                                    |                                                                                  |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
|    | <b>Item no.: 793-4501/000-006</b><br>WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; blue                                  | <a href="http://www.wago.com/793-4501/000-006">www.wago.com/793-4501/000-006</a> |
|    | <b>Item no.: 793-4501/000-007</b><br>WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; gray                                  | <a href="http://www.wago.com/793-4501/000-007">www.wago.com/793-4501/000-007</a> |
|    | <b>Item no.: 793-4501/000-012</b><br>WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; orange                                | <a href="http://www.wago.com/793-4501/000-012">www.wago.com/793-4501/000-012</a> |
|    | <b>Item no.: 793-4501/000-014</b><br>WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; brown                                 | <a href="http://www.wago.com/793-4501/000-014">www.wago.com/793-4501/000-014</a> |
|    | <b>Item no.: 793-4501/000-023</b><br>WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; light green                           | <a href="http://www.wago.com/793-4501/000-023">www.wago.com/793-4501/000-023</a> |
|    | <b>Item no.: 793-4501/000-024</b><br>WMB marking card; as card; stretchable 4 - 4.2 mm; plain; snap-on type; violet                                | <a href="http://www.wago.com/793-4501/000-024">www.wago.com/793-4501/000-024</a> |
|    | <b>Item no.: 794-4615</b><br>WMB marking card; as card; MARKED; F1, ..., F10 (10x); stretchable 4 - 4.2 mm; Vertical marking; snap-on type; white  | <a href="http://www.wago.com/794-4615">www.wago.com/794-4615</a>                 |
|  | <b>Item no.: 794-4616</b><br>WMB marking card; as card; MARKED; F11, ..., F20 (10x); stretchable 4 - 4.2 mm; Vertical marking; snap-on type; white | <a href="http://www.wago.com/794-4616">www.wago.com/794-4616</a>                 |
|  | <b>Item no.: 794-4617</b><br>WMB marking card; as card; MARKED; F21, ..., F30 (10x); stretchable 4 - 4.2 mm; Vertical marking; snap-on type; white | <a href="http://www.wago.com/794-4617">www.wago.com/794-4617</a>                 |
|  | <b>Item no.: 794-4618</b><br>WMB marking card; as card; MARKED; F31, ..., F40 (10x); stretchable 4 - 4.2 mm; Vertical marking; snap-on type; white | <a href="http://www.wago.com/794-4618">www.wago.com/794-4618</a>                 |
|  | <b>Item no.: 794-4619</b><br>WMB marking card; as card; MARKED; F41, ..., F50 (10x); stretchable 4 - 4.2 mm; Vertical marking; snap-on type; white | <a href="http://www.wago.com/794-4619">www.wago.com/794-4619</a>                 |

**General accessories**

|                                                                                   |                                                                                   |                                                                |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------|
|  | <b>Item no.: 281-503</b><br>Short circuit jumper; for fuse holder; silver-colored | <a href="http://www.wago.com/281-503">www.wago.com/281-503</a> |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------|

**clamps**

|                                                                                   |                                                                                                                                                                             |                                                                |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
|  | <b>Item no.: 280-510</b><br>Triple-deck terminal block; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm <sup>2</sup> ; CAGE CLAMP®; 2,50 mm <sup>2</sup> ; green-yellow/blue/gray | <a href="http://www.wago.com/280-510">www.wago.com/280-510</a> |
|  | <b>Item no.: 280-514</b><br>Double-deck terminal block; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm <sup>2</sup> ; CAGE CLAMP®; 2,50 mm <sup>2</sup> ; gray/gray              | <a href="http://www.wago.com/280-514">www.wago.com/280-514</a> |
|                                                                                   | <b>Item no.: 280-528</b>                                                                                                                                                    |                                                                |

Subject to changes. Please also observe the further product documentation!



|                                                                                   |                                                                                                                                                                                    |                                                                |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
|    | Double-deck terminal block; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm <sup>2</sup> ; CAGE CLAMP®; 2,50 mm <sup>2</sup> ; gray                                                      | <a href="http://www.wago.com/280-528">www.wago.com/280-528</a> |
| <b>Item no.: 280-531</b>                                                          |                                                                                                                                                                                    |                                                                |
|    | Double-deck terminal block; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm <sup>2</sup> ; CAGE CLAMP®; 2,50 mm <sup>2</sup> ; blue                                                      | <a href="http://www.wago.com/280-531">www.wago.com/280-531</a> |
| <b>Item no.: 280-532</b>                                                          |                                                                                                                                                                                    |                                                                |
|    | Double-deck terminal block; with additional jumper position on lower level; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm <sup>2</sup> ; CAGE CLAMP®; 2,50 mm <sup>2</sup> ; blue/gray | <a href="http://www.wago.com/280-532">www.wago.com/280-532</a> |
| <b>Item no.: 280-889</b>                                                          |                                                                                                                                                                                    |                                                                |
|    | Triple-deck terminal block; with additional jumper position on lower level; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm <sup>2</sup> ; CAGE CLAMP®; 2,50 mm <sup>2</sup> ; gray/gray | <a href="http://www.wago.com/280-889">www.wago.com/280-889</a> |
| <b>Item no.: 280-891</b>                                                          |                                                                                                                                                                                    |                                                                |
|    | Double-deck terminal block; with additional jumper position on lower level; for DIN-rail 35 x 15 and 35 x 7.5; 2.5 mm <sup>2</sup> ; CAGE CLAMP®; 2,50 mm <sup>2</sup> ; gray/gray | <a href="http://www.wago.com/280-891">www.wago.com/280-891</a> |
| <b>Item no.: 281-610</b>                                                          |                                                                                                                                                                                    |                                                                |
|    | 3-conductor carrier terminal block; for DIN-rail 35 x 15 and 35 x 7.5; 4 mm <sup>2</sup> ; CAGE CLAMP®; 4,00 mm <sup>2</sup> ; gray                                                | <a href="http://www.wago.com/281-610">www.wago.com/281-610</a> |
| <b>Item no.: 281-656</b>                                                          |                                                                                                                                                                                    |                                                                |
|    | 4-conductor carrier terminal block; for DIN-rail 35 x 15 and 35 x 7.5; 4 mm <sup>2</sup> ; CAGE CLAMP®; 4,00 mm <sup>2</sup> ; gray                                                | <a href="http://www.wago.com/281-656">www.wago.com/281-656</a> |
| <b>Item no.: 281-916</b>                                                          |                                                                                                                                                                                    |                                                                |
|    | 2-conductor carrier terminal block; for DIN-rail 35 x 15 and 35 x 7.5; 4 mm <sup>2</sup> ; CAGE CLAMP®; 4,00 mm <sup>2</sup> ; gray                                                | <a href="http://www.wago.com/281-916">www.wago.com/281-916</a> |
| <b>Item no.: 281-917</b>                                                          |                                                                                                                                                                                    |                                                                |
|  | 2-conductor carrier terminal block; for DIN-rail 35 x 15 and 35 x 7.5; 4 mm <sup>2</sup> ; CAGE CLAMP®; 4,00 mm <sup>2</sup> ; blue                                                | <a href="http://www.wago.com/281-917">www.wago.com/281-917</a> |

## Downloads

### Documentation

#### Bid Text

|             |             |         |          |
|-------------|-------------|---------|----------|
| 281-512     | 2017 Mar 14 | doc     | Download |
| doc - Datei |             | 24.6 kB |          |

|             |             |        |          |
|-------------|-------------|--------|----------|
| 281-512     | 2019 Feb 19 | xml    | Download |
| X81 - Datei |             | 3.0 kB |          |

#### Additional Information

|                        |            |        |          |
|------------------------|------------|--------|----------|
| Technical explanations | 2019 Apr 3 | pdf    | Download |
|                        |            | 2.2 MB |          |

## CAD/CAE-Data

### CAD data

Subject to changes. Please also observe the further product documentation!

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Do you have any questions about our products?  
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2D/3D Models 281-512

[URL](#)

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#### CAE data

WSCAD Universe 281-512

[URL](#)

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ZUKEN Portal 281-512

[URL](#)

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## Environmental Product Compliance

### Compliance Search

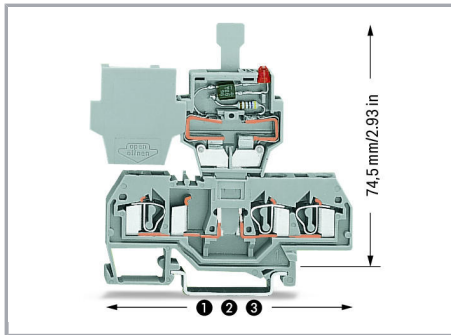
Environmental Product Compliance 281-512

[URL](#)

[Download](#)

Fuse plug; with pull-tab; for miniature metric fuses 5 x 20 mm and 5 x 25 mm; with port for LED; 6 mm wide; gray

## Installation Notes

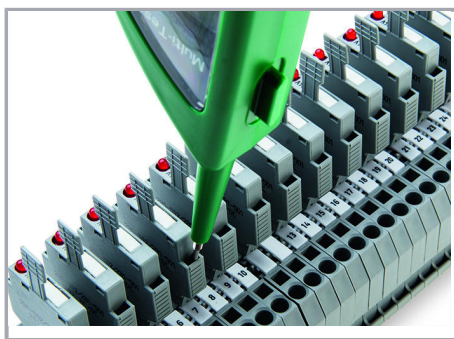


Length of carrier terminal blocks with a fuse plug:

73.5 mm / 2.89 inch für 281-610

## Testing

Subject to changes. Please also observe the further product documentation!



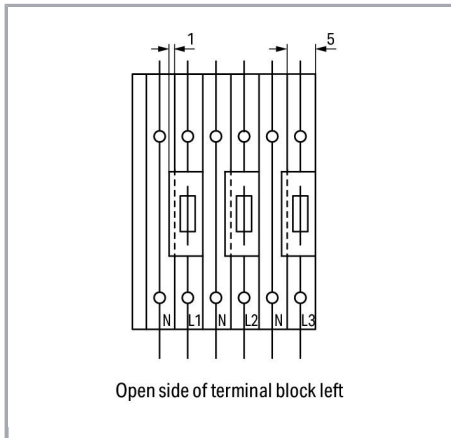
Using fuse plugs with rail-mount terminal blocks for control circuit protection is highly advantageous because the function and wiring levels are separated:

- No additional cost for assembly and wiring
- No risk of accidental contact with live parts when disconnecting the fuse plug
- The fuse plug is completely separated from the carrier terminal block when replacing a fuse – away from current carrying parts
- The fuse plug can be removed by service personnel
- No unintentional reclosing of the circuit by another person
- Quickly exchange a fuse by using a prepared “stand-by plug”

Fuse plug features for quick and safe applications:

- Optional LED indicates blown fuse
- Top-of-unit marking slot provides clear carrier terminal block identification
- Two test slots with touch contacts
- Terminal blocks/plugs provide high-density wiring in a width of just 6 mm
- May be used as a disconnect plug in combination with a shorting link

Subject to changes. Please also observe the further product documentation!



When a corresponding neutral circuit is adjacent to the fuse plug, a 5 mm wide space-saving terminal block may be used as a 6 mm fuse plug may overlap the terminal block (see diagram).

For example, 5 mm (0.197 inch) wide carrier terminal blocks can be used with an end plate.

Subject to changes. Please also observe the further product documentation!