

## Data sheet | Item number: 713-1107/107-047

1-conductor female plug; 100% protected against mismatching; Screw flange;  
direct marking; 1.5 mm<sup>2</sup>; Pin spacing 3.5 mm; 14-pole; 1,50 mm<sup>2</sup>; black



713-1107\_107-047



RoHS  
Compliant ✓

BOMcheck.net

Color: ■

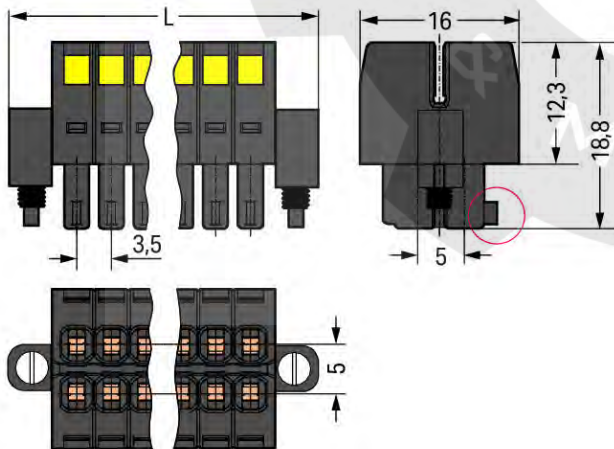
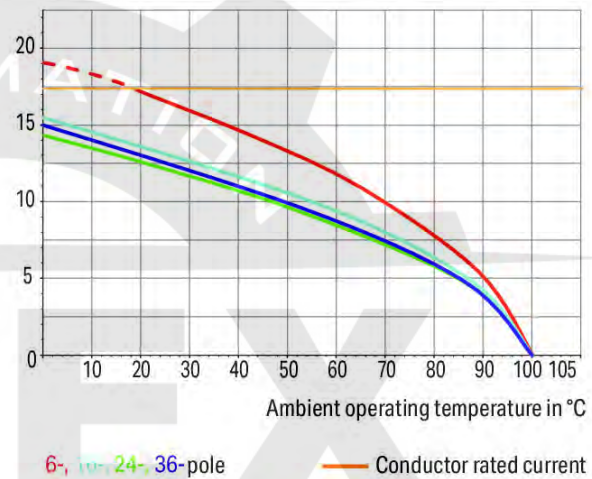
### Derating Curve

1-conductor female connector (713-1103) with  
THT male header (713-1403)

Pin spacing: 3.5 mm / Conductor cross-section: 1.5 mm<sup>2</sup> "f-st"

Based on: EN 60512-5-2 / Reduction factor: 0.8

Current in A



$$L = [(pole\ no./2) - 1] \times pin\ spacing + 13.6\ mm$$

Coding finger (red circle)

## Item description

- Universal connection for all conductor types
- Unique, compact, double-row connector system for conductor cross-sections up to 1.5 mm<sup>2</sup>
- High-density, wire-to-board connections in very confined spaces
- Centered strain relief plate anchors conductors, while acting as convenient connection and disconnection handle. It also provides easy access to operating slots – even when wired
- Optional dual-purpose lever doubles as a lock and disconnection aid, while preventing accidental disconnection in closed position
- Coding fingers provide 100 % protection against mismatching

## Safety information 1:

The *MULTI CONNECTION SYSTEM (MCS)* is designed without breaking capacity for compliance with DIN EN 61984. When used as intended, MCS Connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live when unmated.

## Data

### Electrical data

#### Ratings per IEC/EN 60664-1

|                                 |        |
|---------------------------------|--------|
| Rated voltage (III / 3)         | 80 V   |
| Rated impulse voltage (III / 3) | 2.5 kV |
| Rated voltage (III / 2)         | 160 V  |
| Rated impulse voltage (III / 2) | 2.5 kV |
| Rated voltage (II / 2)          | 250 V  |
| Rated impulse voltage (II / 2)  | 2.5 kV |
| Rated current                   | 10 A   |

#### Approvals per UL 1059

|                                |       |
|--------------------------------|-------|
| Rated voltage UL (Use Group B) | 300 V |
| Rated current UL (Use Group B) | 10 A  |
| Rated voltage UL (Use Group C) | 50 V  |
| Rated current UL (Use Group C) | 10 A  |

#### Approvals per CSA

|                                 |       |
|---------------------------------|-------|
| Rated voltage CSA (Use Group B) | 300 V |
| Rated current CSA (Use Group B) | 10 A  |

## Connection data

|                       |                |
|-----------------------|----------------|
| Connection technology | CAGE CLAMP®    |
| Actuation type        | Operating tool |

|                                                             |      |                          |           |
|-------------------------------------------------------------|------|--------------------------|-----------|
| Solid conductor                                             | 0.08 | 1.5 mm <sup>2</sup> / 28 | 16 AWG    |
| Fine-stranded conductor                                     | 0.08 | 1.5 mm <sup>2</sup> / 28 | 16 AWG    |
| Fine-stranded conductor with ferrule with plastic collar    | 0.25 | 1 mm <sup>2</sup>        |           |
| Fine-stranded conductor with ferrule without plastic collar | 0.25 | 1 mm <sup>2</sup>        |           |
| Strip length                                                | 6    | 7 mm / 0.24              | 0.28 inch |
| Total number of connection points                           | 14   |                          |           |
| Total number of potentials                                  | 14   |                          |           |
| Number of connection types                                  | 1    |                          |           |
| Number of levels                                            | 2    |                          |           |
| Conductor entry direction to mating direction               | 0°   |                          |           |
| No. of poles                                                | 14   |                          |           |

### Geometrical Data

|             |                      |
|-------------|----------------------|
| Pin spacing | 3.5 mm / 0.138 inch  |
| Width       | 34.6 mm / 1.362 inch |
| Height      | 18.8 mm / 0.74 inch  |
| Depth       | 16 mm / 0.63 inch    |

### Plug connection

|                                    |                         |
|------------------------------------|-------------------------|
| Contact type (pluggable connector) | Female connector/socket |
| Connector connection type          | for conductors          |
| Mismating protection               | Yes                     |
| Locking of plug-in connection      | Screw flange            |

### Material Data

|                             |                                             |
|-----------------------------|---------------------------------------------|
| Color                       | black                                       |
| Material group              | II                                          |
| Insulating material         | Glass fiber-reinforced polyamide (PA 66 GF) |
| Flammability class per UL94 | V0                                          |
| Clamping spring material    | Chrome nickel spring steel (CrNi)           |
| Contact material            | Copper alloy                                |
| Contact plating             | tin-plated                                  |
| Fire load                   | 0.116 MJ                                    |
| Weight                      | 7.95 g                                      |

### Environmental Requirements

|                         |             |
|-------------------------|-------------|
| Limit temperature range | -60 +100 °C |
|-------------------------|-------------|

### Commercial data

|               |                        |
|---------------|------------------------|
| Product Group | 3 (Multi Conn. System) |
|---------------|------------------------|



|                    |               |
|--------------------|---------------|
| Country of origin  | PL            |
| GTIN               | 4050821177692 |
| Customs Tariff No. | 85366990990   |

## Approvals / Certificates

### Radio-Approvals

| Logo | Approval                 | Additional Approval Text | Certificate name |
|------|--------------------------|--------------------------|------------------|
|      | CCA                      | EN 61984                 | 2169947.01       |
|      | DEKRA Certification B.V. |                          |                  |
|      | CCA                      | IEC 61984                | NL-30980         |
|      | DEKRA Certification B.V. |                          |                  |

### Country specific Approvals

| Logo | Approval                 | Additional Approval Text | Certificate name |
|------|--------------------------|--------------------------|------------------|
|      | CCA                      | EN 61984                 | 2169947.01       |
|      | DEKRA Certification B.V. |                          |                  |
|      | CCA                      | IEC 61984                | NL-30980         |
|      | DEKRA Certification B.V. |                          |                  |

### Other Approvals

| Logo | Approval                       | Additional Approval Text | Certificate name |
|------|--------------------------------|--------------------------|------------------|
|      | UR                             | UL 1059                  | E45172           |
|      | Underwriters Laboratories Inc. |                          |                  |

### UL-Approvals

| Logo | Approval                       | Additional Approval Text | Certificate name |
|------|--------------------------------|--------------------------|------------------|
|      | UR                             | UL 1059                  | 20190122-E45172  |
|      | Underwriters Laboratories Inc. |                          |                  |

## Compatible products

### Strain relief plate



**Item no.: 713-127**  
Strain relief plate; black

713-127

## tools



**Item no.: 210-647**  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

210-647



**Item no.: 210-719**  
Operating tool; Blade: 2.5 x 0.4 mm; with a partially insulated shaft

210-719

## ferrule



**Item no.: 216-101**  
Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated

216-101



**Item no.: 216-102**  
Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated

216-102



**Item no.: 216-103**  
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated

216-103



**Item no.: 216-121**  
Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated

216-121



**Item no.: 216-122**  
Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated

216-122



**Item no.: 216-123**  
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated

216-123



**Item no.: 216-131**  
Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated

216-131



**Item no.: 216-132**  
Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated

216-132



**Item no.: 216-141**  
Ferrule; Sleeve for 0.5 mm² / 20 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

216-141



**Item no.: 216-142**  
Ferrule; Sleeve for 0.75 mm² / 18 AWG; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

216-142



**Item no.: 216-143**  
Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

216-143



**Item no.: 216-151**  
Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated

216-151



**Item no.: 216-152**  
Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated

216-152



**Item no.: 216-201**  
Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white

216-201



**Item no.: 216-202**  
Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray

216-202



**Item no.: 216-203**  
Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red

216-203

|                                                                                   |                                                                                                                                                                                |         |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
|    | <b>Item no.: 216-221</b><br>Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white                                                                         | 216-221 |
|    | <b>Item no.: 216-222</b><br>Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray                                                                         | 216-222 |
|    | <b>Item no.: 216-223</b><br>Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red                                                                             | 216-223 |
|    | <b>Item no.: 216-241</b><br>Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white | 216-241 |
|    | <b>Item no.: 216-242</b><br>Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray | 216-242 |
|    | <b>Item no.: 216-243</b><br>Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red     | 216-243 |
|    | <b>Item no.: 216-262</b><br>Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray | 216-262 |
|    | <b>Item no.: 216-263</b><br>Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red     | 216-263 |
|   | <b>Item no.: 216-301</b><br>Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow                                                                       | 216-301 |
|  | <b>Item no.: 216-302</b><br>Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; green                                                                        | 216-302 |
|  | <b>Item no.: 216-321</b><br>Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow                                                                       | 216-321 |
|  | <b>Item no.: 216-322</b><br>Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; green                                                                        | 216-322 |

## Downloads

## Documentation

## Additional Information

Technical explanations

Apr 3, 2019

pdf  
3.6 MB

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Subject to changes.