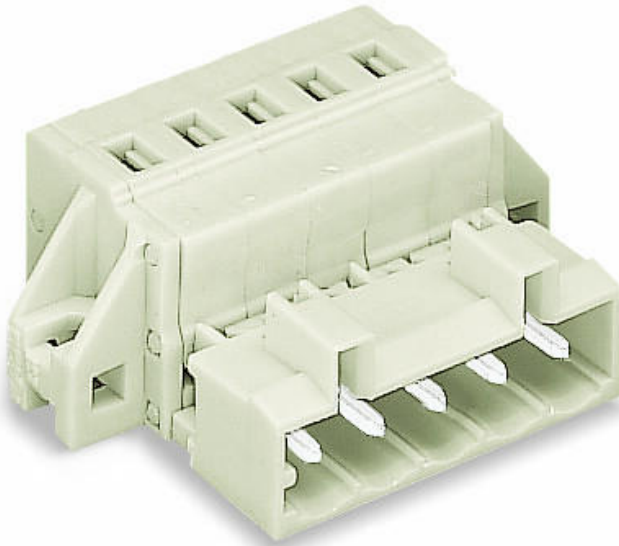


**Data sheet | Item number: 721-605/019-000**

1-conductor male connector; 100% protected against mismating; clamping collar; 2.5 mm<sup>2</sup>; Pin spacing 5 mm; 5-pole



721-605/019-000



RoHS  
Compliant

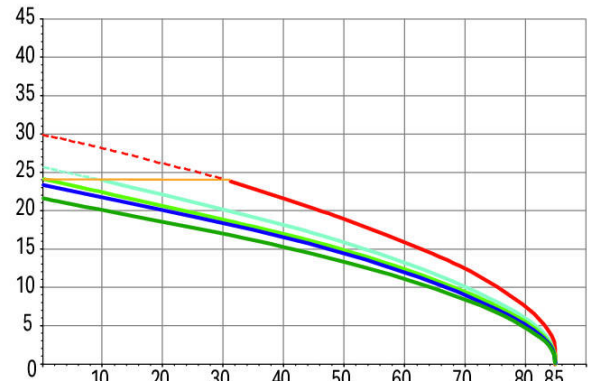


Color:

**Derating Curve**

1-conductor female connector (721-102/026-000) with  
1-conductor male header (721-602)  
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm<sup>2</sup> "f-st"  
Based on: EN 60512-5-2 / Reduction factor: 0.8

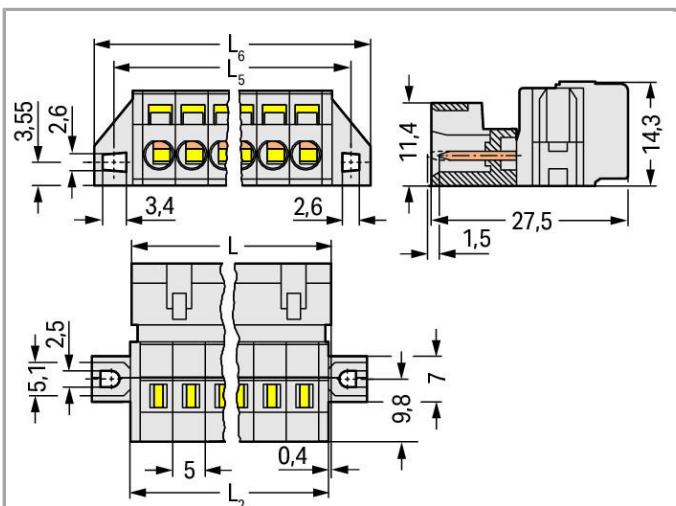
Current in A



Ambient operating temperature in °C

2-, 4-, 6-, 12-, 20- pole

Conductor rated current



$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$

$L_2 = L - 0.2 \text{ mm}$

$L_5 = L_2 + 5.8 \text{ mm}$

$L_6 = L_2 + 11.8 \text{ mm}$

## Item description

- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- 3- to 5-pole male connectors are also available with preceding ground contact
- 100 % protected against mismating
- With coding fingers

## 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)         | 320 V |
| Rated impulse voltage (III / 3) | 4 kV  |
| Rated voltage (III / 2)         | 320 V |
| Rated impulse voltage (III / 2) | 4 kV  |
| Rated voltage (II / 2)          | 630 V |
| Rated impulse voltage (II / 2)  | 4 kV  |
| Rated current                   | 12 A  |

#### Approvals per UL 1059

|                                |       |
|--------------------------------|-------|
| Rated voltage UL (Use Group B) | 300 V |
| Rated current UL (Use Group B) | 15 A  |
| Rated voltage UL (Use Group D) | 300 V |
| Rated current UL (Use Group D) | 10 A  |

#### Approvals per UL 1977

|                                                 |       |
|-------------------------------------------------|-------|
| Rated voltage per UL 1977 (factory wiring only) | 600 V |
| Rated current per UL 1977 (factory wiring only) | 15 A  |

#### Approvals per CSA

|                                 |       |
|---------------------------------|-------|
| Rated voltage CSA (Use Group B) | 300 V |
| Rated current CSA (Use Group B) | 15 A  |
| Rated voltage CSA (Use Group D) | 300 V |
| Rated current CSA (Use Group D) | 10 A  |

### Connection data

|                                                             |                                              |
|-------------------------------------------------------------|----------------------------------------------|
| Connection technology                                       | CAGE CLAMP®                                  |
| Actuation type                                              | Operating tool                               |
| Solid conductor                                             | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG |
| Fine-stranded conductor                                     | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 12 AWG |
| Fine-stranded conductor with ferrule with plastic collar    | 0.25 ... 1.5 mm <sup>2</sup>                 |
| Fine-stranded conductor with ferrule without plastic collar | 0.25 ... 2.5 mm <sup>2</sup>                 |
| Strip length                                                | 8 ... 9 mm / 0.31 ... 0.35 inch              |
| No. of poles                                                | 5                                            |
| Total number of connection points                           | 5                                            |



|                                               |    |
|-----------------------------------------------|----|
| Total number of potentials                    | 5  |
| Number of connection types                    | 1  |
| Number of levels                              | 1  |
| Conductor entry direction to mating direction | 0° |

### Geometrical Data

|             |                      |
|-------------|----------------------|
| Pin spacing | 5 mm / 0.197 inch    |
| Width       | 39.8 mm / 1.567 inch |
| Height      | 14.3 mm / 0.563 inch |
| Depth       | 27.5 mm / 1.083 inch |

### Mechanical data

|                  |                                         |
|------------------|-----------------------------------------|
| Mounting type    | Mounting flange                         |
| Type of mounting | Feed-through mounting<br>Panel mounting |

### Plug connection

|                                    |                     |
|------------------------------------|---------------------|
| Contact type (pluggable connector) | Male connector/plug |
| Connector connection type          | for conductors      |
| Mismating protection               | Yes                 |

### Material Data

|                             |                                        |
|-----------------------------|----------------------------------------|
| Color                       | light gray                             |
| Material group              | I                                      |
| Insulating material         | Polyamide 66 (PA 66)                   |
| Flammability class per UL94 | V0                                     |
| Clamping spring material    | Chrome nickel spring steel (CrNi)      |
| Contact material            | Electrolytic copper (E <sub>Cu</sub> ) |
| Contact plating             | tin-plated                             |
| Fire load                   | 0.166 MJ                               |
| Weight                      | 8.67 g                                 |

### Environmental Requirements

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

### Commercial data

|                   |                        |
|-------------------|------------------------|
| Product Group     | 3 (Multi Conn. System) |
| Country of origin | DE                     |
| GTIN              | 4044918262934          |

Customs Tariff No.

85366990990

## Approvals / Certificates

### Country specific Approvals

| Logo                                                                             | Approval                                     | Additional Approval Text | Certificate name |
|----------------------------------------------------------------------------------|----------------------------------------------|--------------------------|------------------|
|                                                                                  | <b>CB</b><br>DEKRA Certification B.V.        | IEC 61984                | NL-39756         |
|  | <b>CSA</b><br>DEKRA Certification B.V.       | C22.2                    | 1466354          |
|  | <b>CSA</b><br>DEKRA Certification B.V.       | C22.2                    | 1466354          |
|  | <b>KEMA/KEUR</b><br>DEKRA Certification B.V. | EN 61984                 | 2190761.01       |

### Ship Approvals

| Logo                                                                               | Approval                                                | Additional Approval Text | Certificate name         |
|------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------|--------------------------|
|  | <b>ABS</b><br>American Bureau of Shipping               | -                        | 14-<br>HG1241537-<br>PDA |
|  | <b>DNV GL</b><br>Det Norske Veritas, Germanischer Lloyd | -                        | TAE000016Z               |

### UL-Approvals

| Logo                                                                               | Approval                                   | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|--------------------------------------------|--------------------------|------------------|
|  | <b>UR</b><br>UL International Germany GmbH | UL 1977                  | E45171           |
|  | <b>UR</b><br>UL International Germany GmbH | UL 1977                  | E45171           |

## Compatible products

### tools

|                                                                                    |                                                                                                                                          |         |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|---------|
|    | <b>Item no.: 209-130</b><br>Operating tool; suitable for 264, 280 and 281 Series; 1-way; of insulating material                          | 209-130 |
|    | <b>Item no.: 210-657</b><br>Operating tool with partially insulated shaft; Blade (3.5 x 0.5) mm; short                                   | 210-657 |
|    | <b>Item no.: 210-720</b><br>Operating tool with partially insulated shaft; Type 2, blade (3.5 x 0.5) mm                                  | 210-720 |
|    | <b>Item no.: 231-131</b><br>Push-button; for female and male connectors; loose                                                           | 231-131 |
|   | <b>Item no.: 231-159</b><br>Operating tool; for male and female connectors with CAGE CLAMP®; of Series 231, 232, 721, 722, 723, 731, 732 | 231-159 |
|  | <b>Item no.: 231-231</b><br>Combination operating tool; for male and female connectors with CAGE CLAMP®                                  | 231-231 |
|  | <b>Item no.: 231-291</b><br>Operating tool; for male and female connectors with CAGE CLAMP®; loose                                       | 231-291 |
|  | <b>Item no.: 280-432</b><br>Operating tool; of insulating material; 2-way                                                                | 280-432 |
|  | <b>Item no.: 280-433</b><br>Operating tool; of insulating material; 3-way                                                                | 280-433 |
|  | <b>Item no.: 280-434</b><br>Operating tool; of insulating material; 4-way                                                                | 280-434 |
|   | <b>Item no.: 280-435</b><br>Operating tool; of insulating material; 5-way                                                                | 280-435 |
|  | <b>Item no.: 280-436</b><br>Operating tool; of insulating material; 6-way                                                                | 280-436 |
|  | <b>Item no.: 280-437</b><br>Operating tool; of insulating material; 7-way                                                                | 280-437 |
|  | <b>Item no.: 280-438</b><br>Operating tool; of insulating material; 8-way                                                                | 280-438 |
|  | <b>Item no.: 280-440</b><br>Operating tool; of insulating material; 10-way                                                               | 280-440 |

## General accessories



**Item no.: 231-668**  
 Lockout caps; for covering unused clamping units

231-668

## ferrule



**Item no.: 216-101**  
 Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated

216-101



**Item no.: 216-102**  
 Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated

216-102



**Item no.: 216-103**  
 Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated

216-103



**Item no.: 216-104**  
 Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated

216-104



**Item no.: 216-106**  
 Ferrule; Sleeve for 2.5 mm<sup>2</sup> / AWG 14; uninsulated; electro-tin plated

216-106



**Item no.: 216-121**  
 Ferrule; Sleeve for 0.5 mm<sup>2</sup> / AWG 22; uninsulated; electro-tin plated

216-121



**Item no.: 216-122**  
 Ferrule; Sleeve for 0.75 mm<sup>2</sup> / AWG 20; uninsulated; electro-tin plated

216-122



**Item no.: 216-123**  
 Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated

216-123



**Item no.: 216-124**  
 Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated

216-124



**Item no.: 216-131**  
 Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated

216-131



**Item no.: 216-132**  
 Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated

216-132



**Item no.: 216-141**  
 Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 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 mm<sup>2</sup> / 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 mm<sup>2</sup> / AWG 18; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

216-143



**Item no.: 216-144**  
 Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92

216-144



**Item no.: 216-151**  
 Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated

216-151



**Item no.: 216-152**  
 Ferrule; Sleeve for 0.34 mm<sup>2</sup> / AWG 24; uninsulated; electro-tin plated

216-152

**Item no.: 216-201**

|                                                                                   |                                                                                                                                                                          |         |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
|    | Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated                                                                                                      | 216-201 |
|    | <b>Item no.: 216-202</b><br>Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated                                                                         | 216-202 |
|    | <b>Item no.: 216-203</b><br>Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated                                                                            | 216-203 |
|    | <b>Item no.: 216-204</b><br>Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated                                                                          | 216-204 |
|    | <b>Item no.: 216-221</b><br>Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated                                                                          | 216-221 |
|    | <b>Item no.: 216-222</b><br>Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated                                                                         | 216-222 |
|    | <b>Item no.: 216-223</b><br>Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated                                                                            | 216-223 |
|    | <b>Item no.: 216-224</b><br>Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated                                                                          | 216-224 |
|    | <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  | 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 | 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    | 216-243 |
|  | <b>Item no.: 216-244</b><br>Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90  | 216-244 |
|  | <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 | 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    | 216-263 |
|  | <b>Item no.: 216-264</b><br>Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90  | 216-264 |
|  | <b>Item no.: 216-284</b><br>Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90  | 216-284 |
|                                                                                   | <b>Item no.: 216-301</b><br>Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated                                                                         | 216-301 |
|  | <b>Item no.: 216-302</b><br>Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated                                                                         | 216-302 |
|                                                                                   | <b>Item no.: 216-321</b><br>Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated                                                                         | 216-321 |



**Item no.: 216-322**  
Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated

216-322

## Strain relief plate



**Item no.: 232-605**  
Strain relief housing

232-605

## Coding



**Item no.: 231-129**  
Coding key; snap-on type

231-129

## Marking accessories

**Item no.: 210-331/500-103**  
Marking strips; as a DIN A4 sheet; MARKED; 1-12 (300x); Height of marker strip: 2.3 mm/0.091 in;  
Strip length 182 mm; Horizontal marking; Self-adhesive

/500-103

210-331

**Item no.: 210-331/500-104**  
Marking strips; as a DIN A4 sheet; MARKED; 13-24 (300x); Height of marker strip: 2.3 mm/0.091 in;  
Strip length 182 mm; Horizontal marking; Self-adhesive

/500-104

210-331

**Item no.: 210-332/500-202**  
Marking strips; as a DIN A4 sheet; MARKED; 1-16 (160x); Height of marker strip: 3 mm; Strip length  
182 mm; Horizontal marking; Self-adhesive

/500-202

210-332

**Item no.: 210-332/500-204**  
Marking strips; as a DIN A4 sheet; MARKED; 17-32 (160x); Height of marker strip: 3 mm; Strip length  
182 mm; Horizontal marking; Self-adhesive

/500-204

210-332

**Item no.: 210-332/500-205**  
Marking strips; as a DIN A4 sheet; MARKED; 1-32 (80x); Height of marker strip: 3 mm; Strip length  
182 mm; Horizontal marking; Self-adhesive

/500-205

210-332

**Item no.: 210-332/500-206**  
Marking strips; as a DIN A4 sheet; MARKED; 33-48 (160x); Height of marker strip: 3 mm; Strip length  
182 mm; Horizontal marking; Self-adhesive

/500-206

210-332



**Item no.: 210-833**  
Marking strips; on reel; 6 mm wide; plain; Self-adhesive

210-833



**Item no.: 210-834**  
Marking strips; on reel; 5 mm wide; plain; Self-adhesive

210-834

## Jumper



**Item no.: 231-902**  
Comb-style jumper bar; for 5 mm and 5.08 mm pin spacing; reduces conductor size to 1.5 mm

231-902



**Item no.: 231-903**  
Comb-style jumper bar; 3-way; suitable for 231 Series female connectors; with 5 mm pin spacing;  
insulated

231-903



**Item no.: 231-905**  
Comb-style jumper bar; 5-way; suitable for 231 Series female connectors; with 5 mm pin spacing;  
insulated

231-905



**Item no.: 231-907**  
Comb-style jumper bar; 7-way; suitable for 231 Series female connectors; with 5 mm pin spacing;  
insulated

231-907

**Item no.: 231-910**



Comb-style jumper bar; 10-way; suitable for 231 Series female connectors; with 5 mm pin spacing; insulated

231-910

#### Insulation stop



**Item no.: 231-670**  
Insulation stop; 0.08-0.2 mm<sup>2</sup> / 0.2 mm<sup>2</sup> "s"

231-670



**Item no.: 231-671**  
Insulation stop; 0.25 - 0.5 mm<sup>2</sup>

231-671



**Item no.: 231-672**  
Insulation stop; 0.75 - 1 mm<sup>2</sup>

231-672

#### assembling



**Item no.: 209-147**  
Self-tapping screw

209-147



**Item no.: 231-194**  
Self-tapping screw; B 2.2x13, fixing hole 1.8 mm Ø

231-194



**Item no.: 231-195**  
Screw with nut; M2x12; for fixing element

231-195



**Item no.: 231-295**  
Screw with nut

231-295

#### Downloads

##### CAD/CAE - Smart Data

##### CAD data

3D Download 721-605/019-000

URL

Download

Subject to changes.