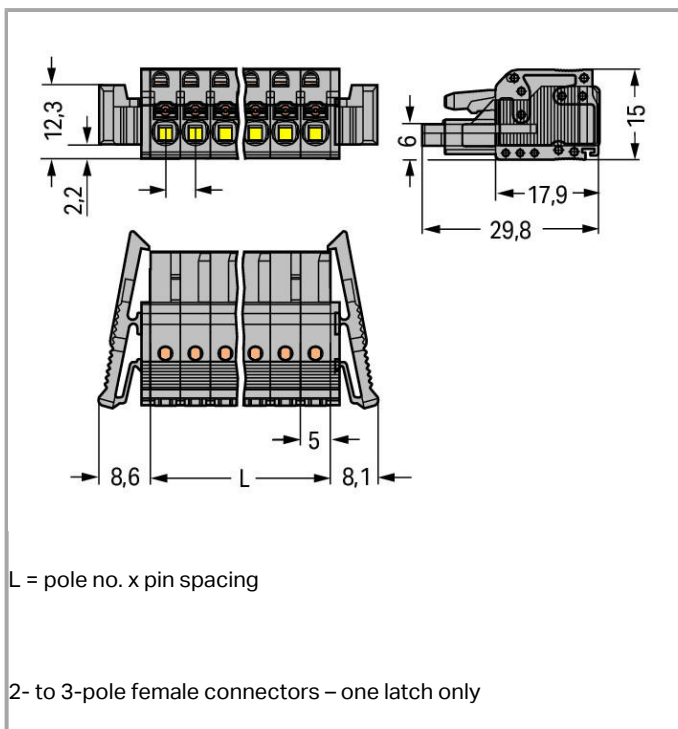
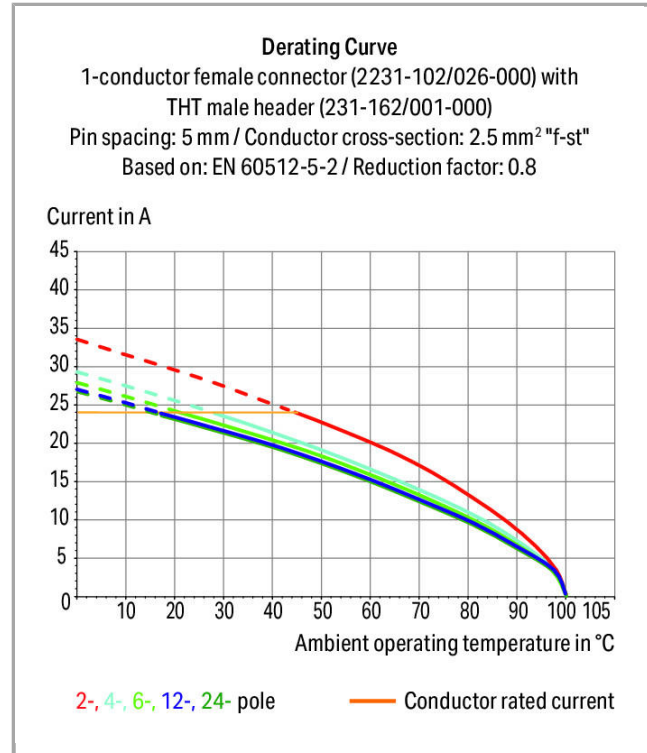
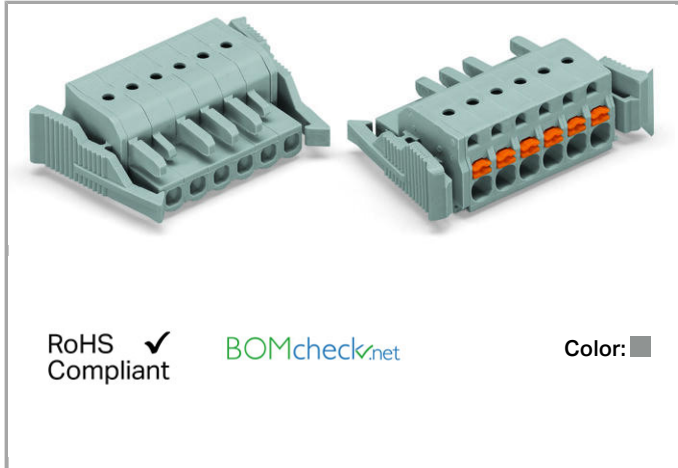


Data sheet | Item number: 2231-110/037-000

1-conductor female plug; push-button; Locking lever; 2.5 mm²; Pin spacing 5 mm; 10-pole; 2,50 mm²; gray



2231-110_037-000





Item description

- Universal connection for all conductor types
- Easy-to-use design does not require specialty tools
- Ability to wire while mated
- Push-in termination of solid and ferruled conductors
- Integrated test ports for testing parallel to the conductor entry
- 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 | 16 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 C) | 150 V |
| Rated current UL (Use Group C) | 15 A |
| Rated voltage UL (Use Group D) | 300 V |

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 C) | 150 V |
| Rated current CSA (Use Group C) | 15 A |
| Rated voltage CSA (Use Group D) | 300 V |
| Rated current CSA (Use Group D) | 10 A |

Connection data

| | |
|---|-------------------------------------|
| Connection technology | Push-in CAGE CLAMP® |
| Actuation type | Push-button |
| Solid conductor | 0.2 2.5 mm ² / 24 12 AWG |
| Fine-stranded conductor | 0.2 2.5 mm ² / 24 12 AWG |
| Fine-stranded conductor with ferrule with plastic collar | 0.25 1.5 mm ² |
| Fine-stranded conductor with ferrule without plastic collar | 0.25 2.5 mm ² |
| Strip length | 10 11 mm / 0.39 0.43 inch |
| Total number of connection points | 10 |
| Total number of potentials | 10 |
| Number of connection types | 1 |
| Number of levels | 1 |
| Conductor entry direction to mating direction | 0° |
| No. of poles | 10 |

Geometrical Data

| | |
|-------------|----------------------|
| Pin spacing | 5 mm / 0.197 inch |
| Width | 66.7 mm / 2.626 inch |
| Height | 15 mm / 0.591 inch |
| Depth | 29.8 mm / 1.173 inch |

Plug connection

| | |
|------------------------------------|-------------------------|
| Contact type (pluggable connector) | Female connector/socket |
| Connector connection type | for conductors |
| Mismating protection | No |
| Locking of plug-in connection | locking lever |

Material Data

| | |
|-----------------------------|-----------------------------------|
| Color | 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 | Copper alloy |
| Contact plating | tin-plated |

| | |
|-----------|----------|
| Fire load | 0.37 MJ |
| Weight | 17.263 g |

Environmental Requirements



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

Commercial data



| | |
|--------------------|------------------------|
| Product Group | 3 (Multi Conn. System) |
| Country of origin | PL |
| GTIN | 4045454877392 |
| Customs Tariff No. | 85366990990 |

Approvals / Certificates

Radio-Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|--|---------------------------------------|--------------------------|------------------|
| | CB DEKRA Certification B.V. | IEC 61984 | NL-39756 |
|  | CSA DEKRA Certification B.V. | C22.2 No. 158 | 2314554 |
|  | KEMA/KEUR DEKRA Certification B.V. | EN 61984 | 2190761.01 |

Country specific Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|--|---------------------------------------|--------------------------|------------------|
| | CB DEKRA Certification B.V. | IEC 61984 | NL-39756 |
|  | CSA DEKRA Certification B.V. | C22.2 No. 158 | 2314554 |
|  | KEMA/KEUR DEKRA Certification B.V. | EN 61984 | 2190761.01 |

Other Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|------|----------|--------------------------|------------------|
| | UL | UL 1059 | E45172 |





Underwriters Laboratories Inc.


 UR
 UL International Germany GmbH

UL 1977








E45171




















UL-Approvals















| Logo | Approval | Additional Approval Text | Certificate name |
|--|--------------------------------------|--------------------------|---------------------|
|  | UL Underwriters Laboratories Inc. | UL 1059 | E45172- 19911118 |
|  | UR UL International Germany GmbH | UL 1977 | E45171 |





Compatible products

ferrule

| | | |
|--|--|---------|
|  | Item no.: 216-101 Ferrule; Sleeve for 0.5 mm ² / AWG 22; uninsulated; electro-tin plated | 216-101 |
|  | Item no.: 216-102 Ferrule; Sleeve for 0.75 mm ² / AWG 20; uninsulated; electro-tin plated | 216-102 |
|  | Item no.: 216-103 Ferrule; Sleeve for 1 mm ² / AWG 18; uninsulated; electro-tin plated | 216-103 |
|  | Item no.: 216-104 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated | 216-104 |
|  | Item no.: 216-106 Ferrule; Sleeve for 2.5 mm ² / AWG 14; uninsulated; electro-tin plated | 216-106 |
|  | Item no.: 216-121 Ferrule; Sleeve for 0.5 mm ² / AWG 22; uninsulated; electro-tin plated | 216-121 |
|  | Item no.: 216-122 Ferrule; Sleeve for 0.75 mm ² / AWG 20; uninsulated; electro-tin plated | 216-122 |
| | Item no.: 216-123 Ferrule; Sleeve for 1 mm ² / AWG 18; uninsulated; electro-tin plated | 216-123 |

| | | |
|--|--|---------|
|  | | |
|  | Item no.: 216-124 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated | 216-124 |
|  | Item no.: 216-131 Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated | 216-131 |
|  | Item no.: 216-132 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated | 216-132 |
|  | Item no.: 216-141 Ferrule; Sleeve for 0.5 mm ² / 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 ² / 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 ² / 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 ² / 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 ² / AWG 24; uninsulated; electro-tin plated | 216-151 |
|  | Item no.: 216-152 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated | 216-152 |
|  | Item no.: 216-201 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white | 216-201 |
|  | Item no.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray | 216-202 |
|  | Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red | 216-203 |
|  | Item no.: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black | 216-204 |
|  | Item no.: 216-221 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white | 216-221 |
|  | Item no.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray | 216-222 |
|  | Item no.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red | 216-223 |
|  | Item no.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black | 216-224 |
|  | Item no.: 216-241 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white | 216-241 |
| | Item no.: 216-242 | |

| | | |
|--|---|--------------------|
|  | Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray | 216-242 |
| | Item no.: 216-243 | |
|  | Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red | 216-243 |
| | Item no.: 216-244 | |
|  | Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black | 216-244 |
| | Item no.: 216-262 | |
|  | Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray | 216-262 |
| | Item no.: 216-263 | |
|  | Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red | 216-263 |
| | Item no.: 216-264 | |
|  | Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black | 216-264 |
| | Item no.: 216-284 | |
|  | Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black | 216-284 |
| | Item no.: 216-301 | |
| | Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow | 216-301 |
| | Item no.: 216-302 | |
|  | Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; green | 216-302 |
| | Item no.: 216-321 | |
| | Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow | 216-321 |
| | Item no.: 216-322 | |
|  | Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; green | 216-322 |
| Strain relief plate | | |
|  | Item no.: 734-326 Strain relief plate; gray | 734-326 |
| tools | | |
|  | Item no.: 210-657 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short | 210-657 |
|  | Item no.: 210-720 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft | 210-720 |
| Insulation stop | | |
|  | Item no.: 231-671 Insulation stop; 0.25 - 0.5 mm ² ; light gray | 231-671 |
|  | Item no.: 231-672 Insulation stop; 0.75 - 1 mm ² ; dark gray | 231-672 |
| Marking accessories | | |
| | 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; white | 210-332 500-202 |

| | | |
|--|---|--|
| | <p>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; white</p> | <p>210-332 /500-204</p> |
| | <p>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; white</p> | <p>210-332 /500-205</p> |
| | <p>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; white</p> | <p>210-332 /500-206</p> |
|  | <p>Item no.: 210-833 Marking strips; on reel; 6 mm wide; plain; Self-adhesive; white</p> | <p>210-833</p> |
|  | <p>Item no.: 210-834 Marking strips; on reel; 5 mm wide; plain; Self-adhesive; white</p> | <p>210-834</p> |
| <p>check</p> | | |
|  | <p>Item no.: 210-136 Test plug; 2 mm Ø; with 500 mm cable; red</p> | <p>210-136</p> |
|  | <p>Item no.: 231-661 Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing; 2,50 mm2; light gray</p> | <p>231-661</p> |

Downloads

Documentation

Additional Information

| | | | |
|-------------------------------|--------------------|-----------------------|-----------------|
| <p>Technical explanations</p> | <p>Apr 3, 2019</p> | <p>pdf 3.6 MB</p> | <p>Download</p> |
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CAD/CAE - Smart Data

CAD data

| | | |
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| <p>3D Download 2231-110/037-000</p> | <p>URL</p> | <p>Download</p> |
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Subject to changes.