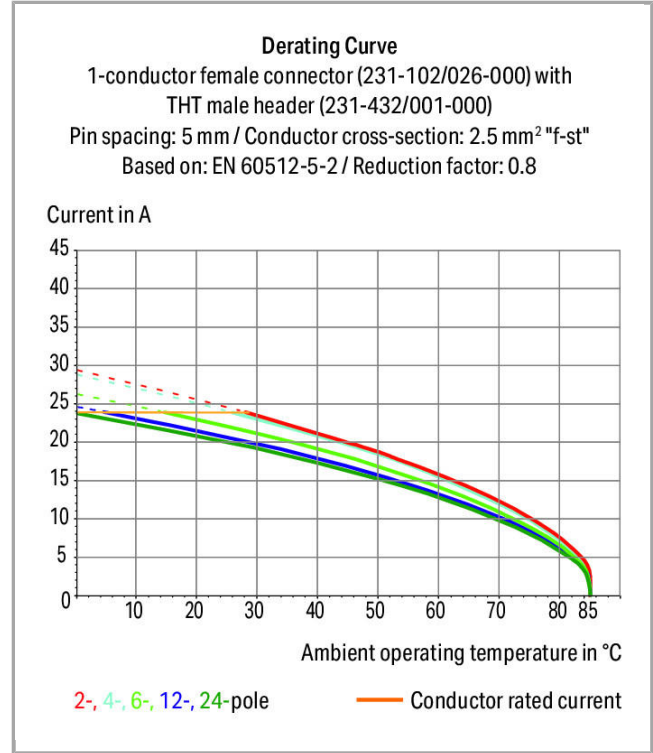


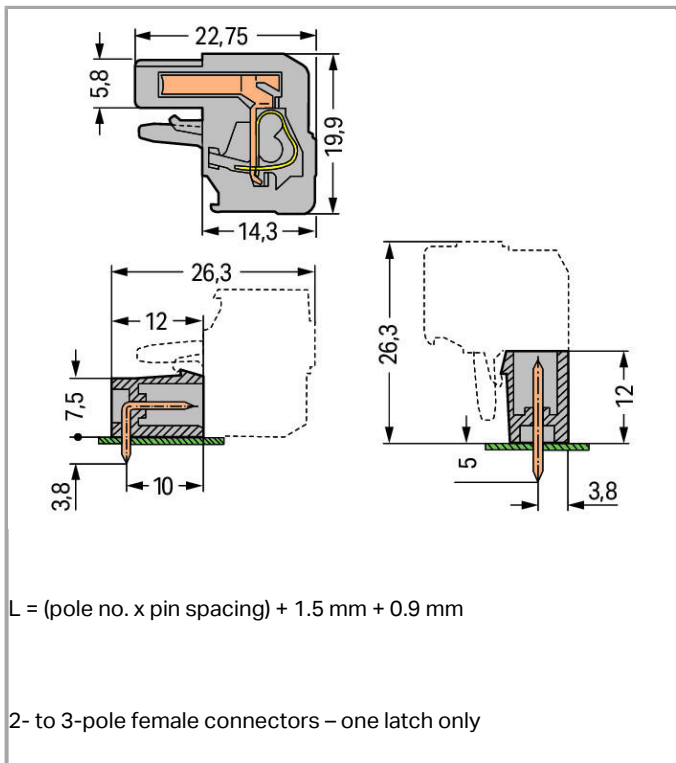
Data sheet | Item number: 232-220/026-000

1-conductor female plug; angled; 2.5 mm²; Pin spacing 5 mm; 20-pole



232-220/026-000





Item description

- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Integrated test ports
- 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 | 14 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 ² / 28 ... 12 AWG |
| Fine-stranded conductor | 0.08 ... 2.5 mm ² / 28 ... 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 | 8 ... 9 mm / 0.31 ... 0.35 inch |
| No. of poles | 20 |
| Total number of connection points | 20 |
| Total number of potentials | 20 |
| Number of connection types | 1 |
| Number of levels | 1 |
| Conductor entry direction to mating direction | 90° |

Geometrical Data

| | |
|-------------|-----------------------|
| Pin spacing | 5 mm / 0.197 inch |
| Width | 102.4 mm / 4.031 inch |
| Height | 19.9 mm / 0.783 inch |
| Depth | 22.75 mm / 0.896 inch |

Mechanical data

| | |
|--------|--------|
| Design | angled |
|--------|--------|

Plug connection

| | |
|------------------------------------|-------------------------|
| Contact type (pluggable connector) | Female connector/socket |
| Connector connection type | for conductors |
| Mismating protection | No |

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 | 0.607 MJ |
| Weight | 37.33 g |

Environmental Requirements


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

Commercial data

| | |
|--------------------|------------------------|
| Product Group | 3 (Multi Conn. System) |
| Country of origin | PL |
| GTIN | 4044918388559 |
| Customs Tariff No. | 85366990990 |

Approvals / Certificates

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 | 1466354 |
| | CSA DEKRA Certification B.V. | C22.2 | 1466354 |





KEMA/KEUR
DEKRA Certification B.V.



EN 61984

2190761.01



Ship Approvals




















| Logo | Approval | Additional Approval Text | Certificate name |
|----------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------|--------------------------|
|  | ABS American Bureau of Shipping | - | 14- HG1241537- PDA |
|  | DNV GL Det Norske Veritas, Germanischer Lloyd | - | TAE 000016Z |

















UL-Approvals













| Logo | Approval | Additional Approval Text | Certificate name |
|------------------------------------------------------------------------------------|--------------------------------------------|--------------------------|------------------|
|  | UR UL International Germany GmbH | UL 1977 | E45171 |
|  | 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 |




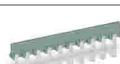

| | | |
|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
|  | Item no.: 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 | 216-201 |
|  | Item no.: 216-202 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated | 216-202 |
|  | Item no.: 216-203 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated | 216-203 |
|  | Item no.: 216-204 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated | 216-204 |
| | Item no.: 216-221 | |

| | | |
|------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
|  | Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated | 216-221 |
|  | Item no.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated | 216-222 |
|  | Item no.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated | 216-223 |
|  | Item no.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 216-284 |
| | Item no.: 216-301 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated | 216-301 |
|  | Item no.: 216-302 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated | 216-302 |
| | Item no.: 216-321 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated | 216-321 |
|  | Item no.: 216-322 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated | 216-322 |
| tools | | |
|  | Item no.: 209-130 Operating tool; suitable for 264, 280 and 281 Series; 1-way; of insulating material | 209-130 |
|  | Item no.: 231-131 Push-button; for female and male connectors; loose | 231-131 |
| | Item no.: 231-159 | |




| | | |
|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
|  | Operating tool; for male and female connectors with CAGE CLAMP®; of Series 231, 232, 721, 722, 723, 731, 732 | 231-159 |
|  | Item no.: 231-231 Combination operating tool; for male and female connectors with CAGE CLAMP® | 231-231 |
|  | Item no.: 231-291 Operating tool; for male and female connectors with CAGE CLAMP®; loose | 231-291 |
|  | Item no.: 280-432 Operating tool; of insulating material; 2-way | 280-432 |
|  | Item no.: 280-433 Operating tool; of insulating material; 3-way | 280-433 |
|  | Item no.: 280-434 Operating tool; of insulating material; 4-way | 280-434 |
|  | Item no.: 280-435 Operating tool; of insulating material; 5-way | 280-435 |
|  | Item no.: 280-436 Operating tool; of insulating material; 6-way | 280-436 |
|  | Item no.: 280-437 Operating tool; of insulating material; 7-way | 280-437 |
|  | Item no.: 280-438 Operating tool; of insulating material; 8-way | 280-438 |
|  | Item no.: 280-440 Operating tool; of insulating material; 10-way | 280-440 |
| General accessories | | |
|  | Item no.: 231-668 Lockout caps; for covering unused clamping units | 231-668 |
| 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 | 210-331 /500-103 |
| | 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 | 210-331 /500-104 |
| | 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 | 210-332 /500-202 |
| | 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 | 210-332 /500-204 |
| | 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 | 210-332 /500-205 |
| | 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 210-332
182 mm; Horizontal marking; Self-adhesive /500-200




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 |

check

| | | |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|---------|
|  | Item no.: 210-136 Test plug; 2 mm Ø; with 500 mm cable | 210-136 |
|  | Item no.: 210-137 Test plug; 2.3 mm Ø; with 500 mm cable | 210-137 |
|  | Item no.: 231-661 Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing | 231-661 |

Insulation stop

| | | |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|---------|
|  | Item no.: 231-670 Insulation stop; 0.08-0.2 mm ² / 0.2 mm ² "s" | 231-670 |
|  | Item no.: 231-671 Insulation stop; 0.25 - 0.5 mm ² | 231-671 |
|  | Item no.: 231-672 Insulation stop; 0.75 - 1 mm ² | 231-672 |

Downloads

CAD/CAE - Smart Data

CAD data

| | | |
|-----------------------------|-----|----------|
| 3D Download 232-220/026-000 | URL | Download |
|-----------------------------|-----|----------|



Subject to changes.
