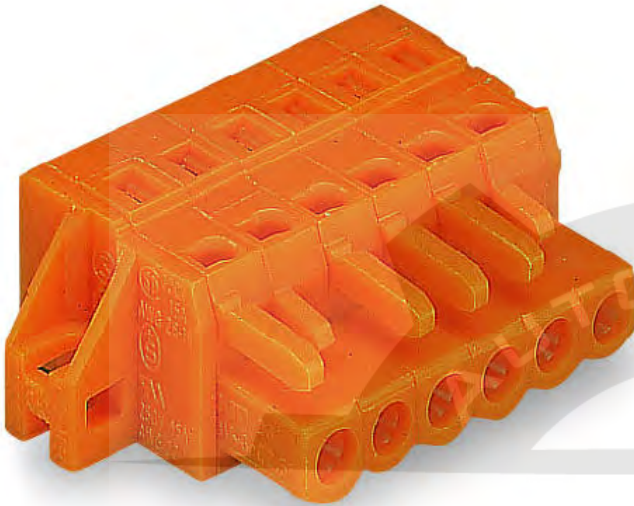


Data sheet | Item number: 231-302/031-000

1-conductor female plug; clamping collar; 2.5 mm²; Pin spacing 5.08 mm; 2-pole



231-302/031-000



RoHS Compliant

BOMcheck.net

Color:

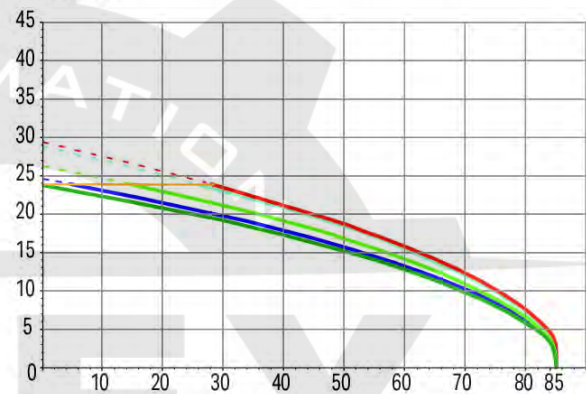
Derating Curve

1-conductor female connector (231-102/026-000) with
THT male header (231-432/001-000)

Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"

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

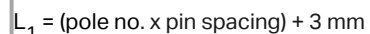
Current in A



Ambient operating temperature in °C

2-, 4-, 6-, 12-, 24-pole

— Conductor rated current



$$L_2 = (\text{pole no.} \times \text{pin spacing}) + 8.8 \text{ mm}$$

$$L_3 = (\text{pole no.} \times \text{pin spacing}) + 14.8 \text{ mm}$$

2- to 3-pole female connectors – one latch only

- 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

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.

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 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 mm² / 28 ... 12 AWG
Fine-stranded conductor	0.08 ... 2.5 mm² / 28 ... 12 AWG
Fine-stranded conductor with ferrule with plastic collar	0.25 ... 1.5 mm²
Fine-stranded conductor with ferrule without plastic collar	0.25 ... 2.5 mm²
Strip length	8 ... 9 mm / 0.31 ... 0.35 inch
No. of poles	2
Total number of connection points	2
Total number of potentials	2
Number of connection types	1
Number of levels	1

Conductor entry direction to mating direction	0°
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Geometrical Data

Pin spacing	5.08 mm / 0.2 inch
Width	24.96 mm / 0.983 inch
Height	14.3 mm / 0.563 inch
Depth	26.45 mm / 1.041 inch

Mechanical data

Mounting type	Mounting flange
Type of mounting	Feed-through mounting Panel mounting

Plug connection

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

Material Data

Color	orange
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	0.08 MJ
Weight	4.594 g

Environmental Requirements

Limit temperature range	-60 ... +85 °C
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Commercial data

Product Group	3 (Multi Conn. System)
Country of origin	DE
GTIN	4044918369510
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
	KEMA/KEUR DEKRA Certification B.V.	EN 61984	2190761.01

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UR Underwriters Laboratories Inc.	UL 1059	E45172
	UR Underwriters Laboratories Inc.	UL 1977	E45171 sec. 5

Compatible products

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

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

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.: 216-104

Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated

216-104



Item no.: 216-106

Ferrule; Sleeve for 2.5 mm² / AWG 14; uninsulated; electro-tin plated

216-106



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.: 216-124

Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated

216-124



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.: 216-144

Ferrule; Sleeve for 1.5 mm² / AWG 16; uninsulated; electro-tin plated; electrolytic copper; gastight

216-144



crimped; acc. to DIN 46228, Part 1/08.92



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

216-201



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

216-202



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

216-203



Item no.: 216-204
 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated

216-204



Item no.: 216-221
 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated

216-221



Item no.: 216-222
 Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated

216-222



Item no.: 216-223
 Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated

216-223



Item no.: 216-224
 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated

216-224



Item no.: 216-241
 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



Item no.: 216-242
 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



Item no.: 216-243
 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



Item no.: 216-244
 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



Item no.: 216-262
 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



Item no.: 216-263
 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



Item no.: 216-264
 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



Item no.: 216-284
 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

	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
Marking accessories		
	Item no.: 210-331/508-103 Marking strips; as a DIN A4 sheet; MARKED; 1-12 (200x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive	210-331 /508-103
	Item no.: 210-331/508-104 Marking strips; as a DIN A4 sheet; MARKED; 13-24 (200x); Height of marker strip: 2.3 mm/0.091 in; Strip length 182 mm; Horizontal marking; Self-adhesive	210-331 /508-104
	Item no.: 210-332/508-202 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 /508-202
	Item no.: 210-332/508-204 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 /508-204
	Item no.: 210-332/508-205 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 /508-205
	Item no.: 210-332/508-206 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	210-332 /508-206
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
tools		
	Item no.: 209-130 Operating tool; suitable for 264, 280 and 281 Series; 1-way; of insulating material	209-130
	Item no.: 209-132 Operating tool; for connecting comb-style jumper bar; 2-way; of insulating material	209-132
	Item no.: 210-657	

	Operating tool with partially insulated shaft; Blade (3.5 x 0.5) mm; short	210-657
	Item no.: 210-720 Operating tool with partially insulated shaft; Type 2, blade (3.5 x 0.5) mm	210-720
	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
Strain relief plate		
	Item no.: 232-632 Strain relief housing	232-632
General accessories		
	Item no.: 231-669 Lockout caps; for covering unused clamping units	231-669
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 mm²

231-672

Downloads
CAD/CAE - Smart Data
CAD data

3D Download 231-302/031-000	URL	Download
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Subject to changes.