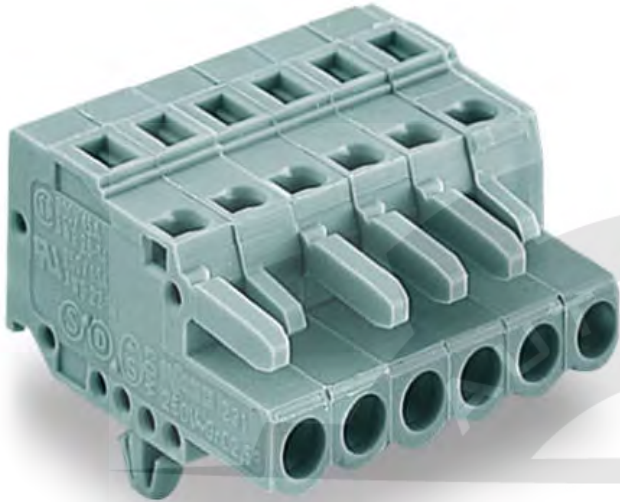


Data sheet | Item number: 231-109/008-000

1-conductor female plug; Snap-in mounting feet; 2.5 mm²; Pin spacing 5 mm; 9-pole



231-109/008-000



RoHS
Compliant

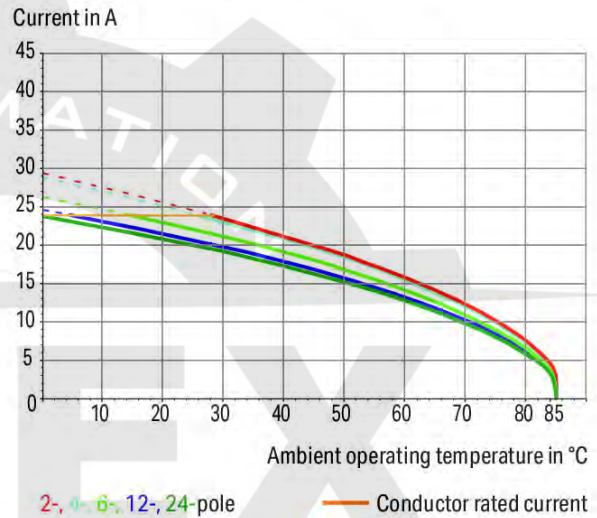
[BOMcheck.net](https://www.bomcheck.net)

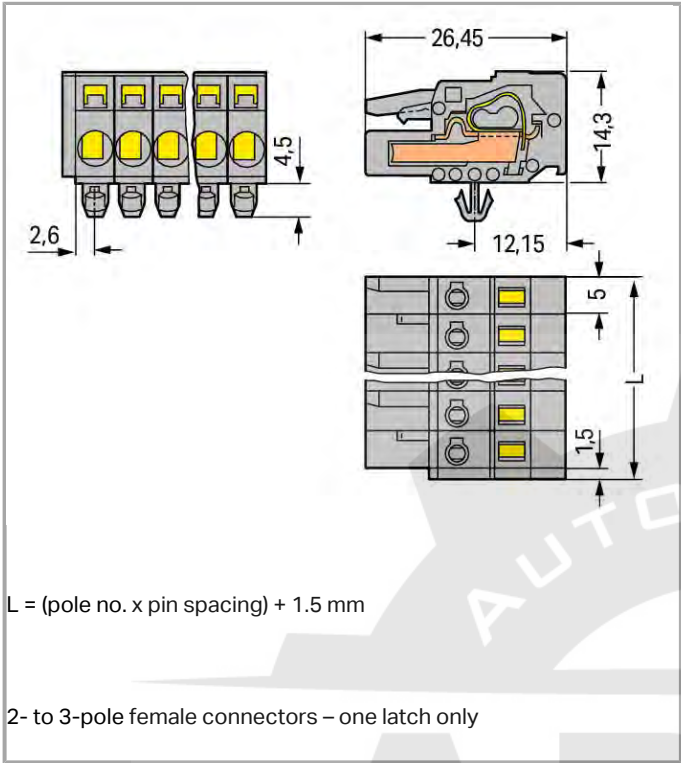
Color:

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





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

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
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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	9
Total number of connection points	9
Total number of potentials	9
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	46.5 mm / 1.831 inch
Height	18.8 mm / 0.74 inch
Height from the surface	14.3 mm / 0.563 inch
Depth	26.5 mm / 1.043 inch

Mechanical data

Gehäuseblechstärke	0.6 ... 1.2 mm / 0.024 ... 0.047 inch
Mounting type	Snap-in mounting foot

Type of mounting	Panel mounting
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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	0.24 MJ
Weight	16.306 g

Environmental Requirements

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

Commercial data

Product Group	3 (Multi Conn. System)
Country of origin	DE
GTIN	4044918340496
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

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS	-	14-



American Bureau of Shipping

HG1241537-
PDA



DNV GL
Det Norske Veritas, Germanischer Lloyd

TAE000016Z

UL-Approvals

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

Compatible products

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

/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 210-332
182 mm; Horizontal marking; Self-adhesive
/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 210-332
182 mm; Horizontal marking; Self-adhesive
/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
/500-206

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

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 216-141
crimped; acc. to DIN 46228, Part 1/08.92

	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	216-263

	crimped; acc. to DIN 46228, Part 4/09.90	
	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.: 209-132 Operating tool; for connecting comb-style jumper bar; 2-way; of insulating material	209-132
	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

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

Strain relief plate



Item no.: 232-609
 Strain relief housing

232-609

Insulation stop



Item no.: 231-670
 Insulation stop; 0.08-0.2 mm² / 0.2 mm² "s"

231-670



Item no.: 231-671
 Insulation stop; 0.25 - 0.5 mm²

231-671



Item no.: 231-672
 Insulation stop; 0.75 - 1 mm²

231-672

Mounting adapter



Item no.: 209-148
 Multi mounting adapter; for male and female connectors with snap-in mounting feet

209-148

assembling



Item no.: 209-137
 Mounting adapter; can be used as end plate; 6.5 mm wide

209-137

Downloads

CAD/CAE - Smart Data

CAD data

3D Download 231-109/008-000

URL

Download



Subject to changes.
