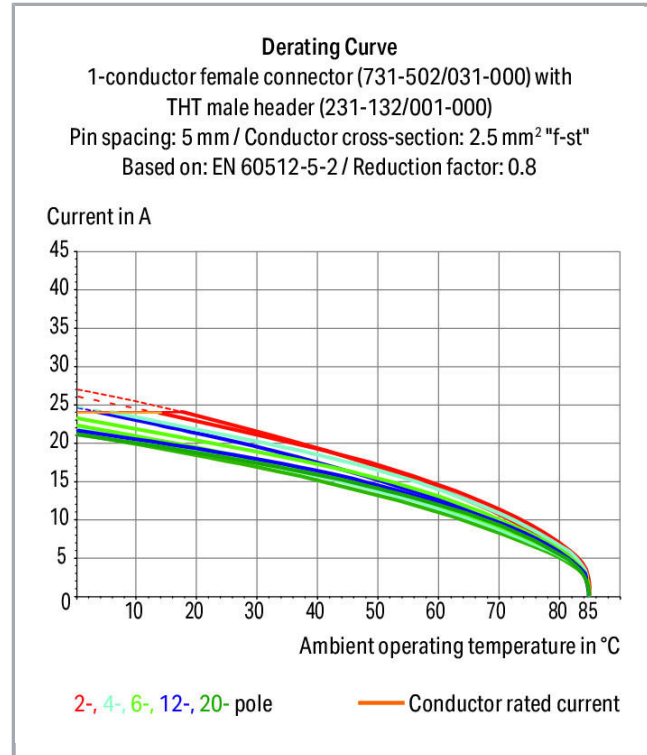


Data sheet | Item number: 731-510/031-000

1-conductor female plug; angled; clamping collar; 2.5 mm²; Pin spacing 5 mm; 10-pole; 2,50 mm²; gray

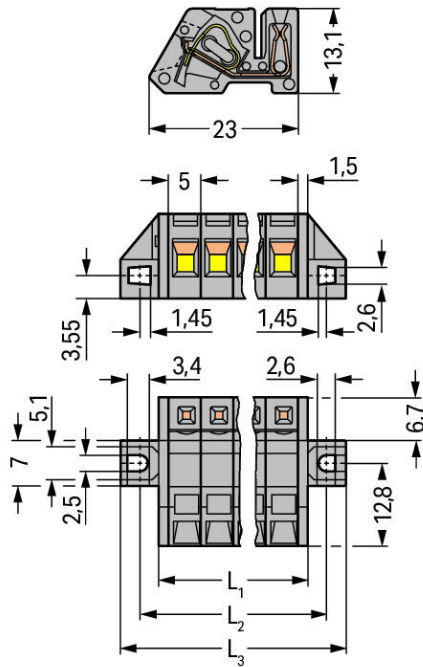
www.wago.com/731-510/031-000



Subject to changes. Please also observe the further product documentation!

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$L_1 = (\text{pole no.} \times \text{pin spacing}) + 3 \text{ mm}$

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

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

Item description

- Universal connection for all conductor types
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- Mounting adapter allows versions with snap-in mounting feet to be DIN-rail mounted
- Easy conductor termination, even when halves are mated

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.

Subject to changes. Please also observe the further product documentation!



Data

Electrical data

Ratings per IEC/EN 60664-1

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
Legend (ratings)	(III / 2) ≙ Overvoltage category III / Pollution degree 2

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 1059

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

Subject to changes. Please also observe the further product documentation!



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	7 ... 8 mm / 0.28 ... 0.31 inch
No. of poles	10
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	90°

Geometrical Data

Pin spacing	5 mm / 0.197 inch
Width	64,8 mm / 2.551 inch
Height	13,1 mm / 0.516 inch
Depth	23 mm / 0.906 inch

Mechanical data

Design	angled; mountable
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	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	0.303 MJ
Weight	15.2 g

Subject to changes. Please also observe the further product documentation!

Environmental Requirements



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

Commercial data


Product Group	3 (Multi Conn. System)
Packaging type	BOX
Country of origin	PL
GTIN	4044918575218
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
	KEMA/KEUR DEKRA Certification B.V.	EN 61984	2190761.01

Ship Approvals

Logo	Approval	Additional Approval Text	Certificate name
	ABS American Bureau of Shipping	-	19- HG1869876- PDA

UL-Approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc.	UL 1977	E45171

Subject to changes. Please also observe the further product documentation!



UL
Underwriters Laboratories Inc.

UL 1059

20190731-
E45172

Counterpart



Item no.231-610
1-conductor male connector; 2.5 mm²; Pin spacing 5 mm; 10-pole; 2,50 mm²; gray

www.wago.com/231-610

Compatible products

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; gray www.wago.com/231-902



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



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



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



Item no.: 231-910
Comb-style jumper bar; 10-way; suitable for 231 Series female connectors; with 5 mm pin spacing; insulated; gray www.wago.com/231-910

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 www.wago.com/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; white www.wago.com/210-332/500-204

Item no.: 210-332/500-205

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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

www.wago.com/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 182 mm; Horizontal marking; Self-adhesive; white

www.wago.com/210-332/500-206

Item no.: 210-833

Marking strips; on reel; 6 mm wide; plain; Self-adhesive; white

www.wago.com/210-833

Item no.: 210-834

Marking strips; on reel; 5 mm wide; plain; Self-adhesive; white

www.wago.com/210-834

assembling

Item no.: 209-147

Self-tapping screw

www.wago.com/209-147



Item no.: 231-194

Self-tapping screw; B 2.2x13, fixing hole 1.8 mm Ø

www.wago.com/231-194



Item no.: 231-195

Screw with nut; M2x12; for fixing element

www.wago.com/231-195

Item no.: 231-295

Screw with nut

www.wago.com/231-295

tools



Item no.: 209-130

Operating tool; suitable for 264, 280 and 281 Series; 1-way; of insulating material

www.wago.com/209-130



Item no.: 210-657

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short

www.wago.com/210-657

Item no.: 210-720

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft

www.wago.com/210-720



Item no.: 231-131

Push-button; loose

www.wago.com/231-131



Item no.: 231-159

Operating tool; natural

www.wago.com/231-159



Item no.: 231-231

Combination operating tool; red

www.wago.com/231-231



Item no.: 231-291

Operating tool; loose; red

www.wago.com/231-291



Item no.: 280-432

Operating tool; made of insulating material; 2-way

www.wago.com/280-432

Subject to changes. Please also observe the further product documentation!

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	Item no.: 280-433 Operating tool; made of insulating material; 3-way	www.wago.com/280-433
	Item no.: 280-434 Operating tool; made of insulating material; 4-way	www.wago.com/280-434
	Item no.: 280-435 Operating tool; made of insulating material; 5-way; gray	www.wago.com/280-435
	Item no.: 280-436 Operating tool; made of insulating material; 6-way	www.wago.com/280-436
	Item no.: 280-437 Operating tool; made of insulating material; 7-way	www.wago.com/280-437
	Item no.: 280-438 Operating tool; made of insulating material; 8-way	www.wago.com/280-438
	Item no.: 280-440 Operating tool; made of insulating material; 10-way	www.wago.com/280-440
Strain relief plate		
	Item no.: 232-610 Strain relief housing; gray	www.wago.com/232-610
Test Accessories		
	Item no.: 210-136 Test plug; 2 mm Ø; with 500 mm cable; red	www.wago.com/210-136
	Item no.: 210-137 Test plug; 2.3 mm Ø; with 500 mm cable; yellow	www.wago.com/210-137
	Item no.: 231-661 Test plugs for female connectors; for 5 mm and 5.08 mm pin spacing; 2,50 mm ² ; light gray	www.wago.com/231-661
ferrule		
	Item no.: 216-106 Ferrule; Sleeve for 2.5 mm ² / AWG 14; uninsulated; electro-tin plated	www.wago.com/216-106
	Item no.: 216-121 Ferrule; Sleeve for 0.5 mm ² / AWG 22; uninsulated; electro-tin plated	www.wago.com/216-121
	Item no.: 216-122 Ferrule; Sleeve for 0.75 mm ² / AWG 20; uninsulated; electro-tin plated	www.wago.com/216-122
	Item no.: 216-123 Ferrule; Sleeve for 1 mm ² / AWG 18; uninsulated; electro-tin plated	www.wago.com/216-123
	Item no.: 216-124 Ferrule; Sleeve for 1.5 mm ² / AWG 16; uninsulated; electro-tin plated	www.wago.com/216-124
	Item no.: 216-131 Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-131

Subject to changes. Please also observe the further product documentation!

	Item no.: 216-132 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/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	www.wago.com/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	www.wago.com/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	www.wago.com/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	www.wago.com/216-144
	Item no.: 216-151 Ferrule; Sleeve for 0.25 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-151
	Item no.: 216-152 Ferrule; Sleeve for 0.34 mm ² / AWG 24; uninsulated; electro-tin plated	www.wago.com/216-152
	Item no.: 216-221 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-221
	Item no.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray	www.wago.com/216-222
	Item no.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red	www.wago.com/216-223
	Item no.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black	www.wago.com/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	www.wago.com/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	www.wago.com/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	www.wago.com/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	www.wago.com/216-244
	Item no.: 216-246 Ferrule; Sleeve for 2.5 mm ² / AWG 14; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; blue	www.wago.com/216-246
	Item no.: 216-262 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight	www.wago.com/216-262

Subject to changes. Please also observe the further product documentation!

	crimped; acc. to DIN 46228, Part 4/09.90; gray	
	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	www.wago.com/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	www.wago.com/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	www.wago.com/216-284
	Item no.: 216-321 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow	www.wago.com/216-321
	Item no.: 216-322 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; green	www.wago.com/216-322

Downloads

Documentation

Additional Information

Technical explanations	Apr 3, 2019	pdf 3.6 MB	Download
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CAD/CAE-Data

CAD data

2D/3D Models 731-510/031-000	URL	Download
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CAE data

EPLAN Data Portal 731-510/031-000	URL	Download
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Installation Notes

Application

Subject to changes. Please also observe the further product documentation!



Angled female plug – a male header with straight solder pins is used for horizontal PCB mounting in narrow housings.

Application



Angled female connector used as through-panel connector.

Termination ports and operating slots are located outside the housing – panel thickness up to 2 mm.

Product family

[*<i>MCS</i>* MIDI Classic](#)

[Learn more about the product family.](#)

[Show all products from the family](#)

Subject to changes. Please also observe the further product documentation!