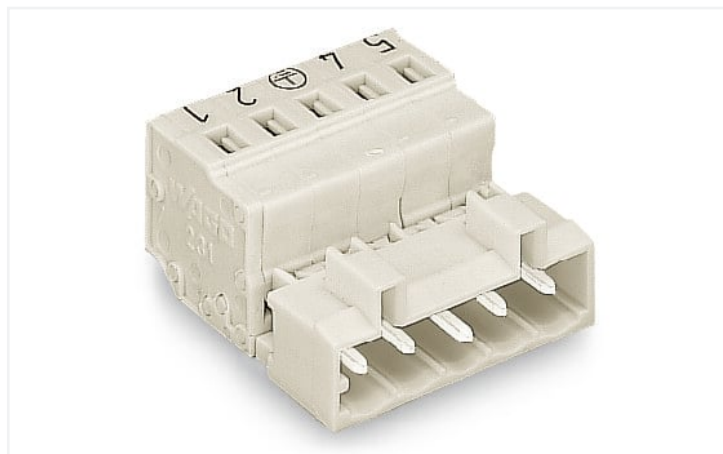


Data Sheet | Item Number: 721-603/000-042

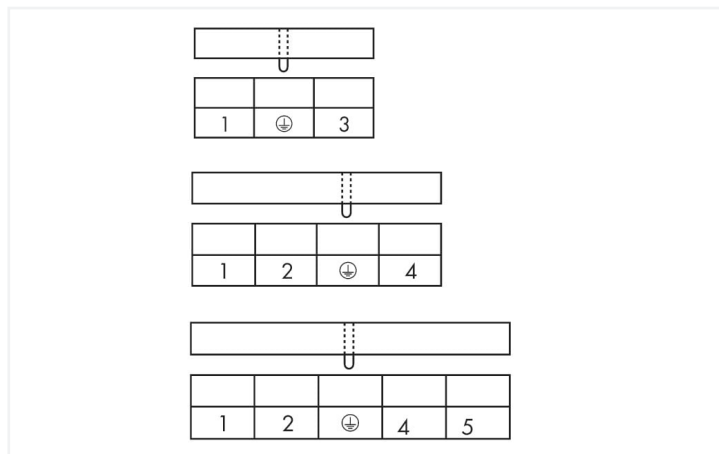
1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 3-pole;
Preceding ground contact; 100% protected against mismatching; direct marking; 2,50
mm²; light gray

<https://www.wago.com/721-603/000-042>

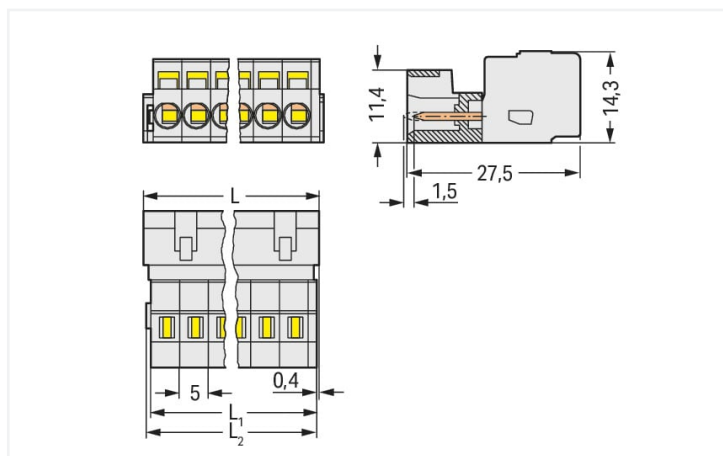


Color: ■ light gray

Similar to illustration



Preceding PE contact position

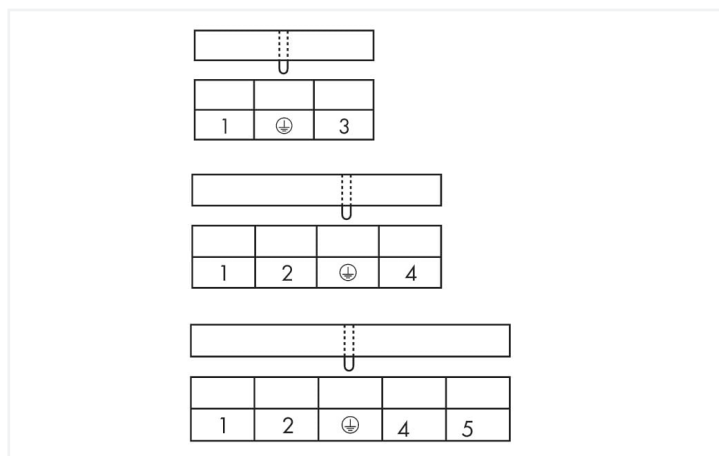


Dimensions in mm

$L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$

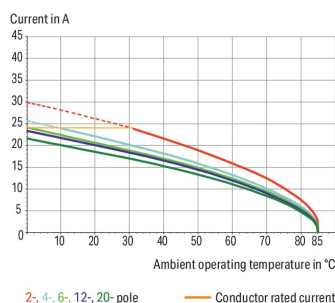
$L2 = L - 1.7 \text{ mm}$

$L3 = L - 1.2 \text{ mm}$



Preceding PE contact position

Derating Curve
1-conductor female connector (721-102/026-000) with
1-conductor male header (721-602)
Pin spacing: 5 mm / Conductor cross-section: 2.5 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 0.8



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- For wire-to-wire and board-to-wire connections
- Versions available with snap-in mounting feet or flanges for panel or through-panel mounting
- 3- to 5-pole male connectors are also available with preceding ground contact
- 100 % protected against mismatching
- With coding fingers

Notes	
Safety information	The MCS – MULTI CONNECTION SYSTEM includes connectors without breaking capacity in accordance with DIN EN 61984. When used as intended, these connectors must not be connected/disconnected when live or under load. When used as intended, these connectors must 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.
Variants:	Other pole numbers Gold-plated or partially gold-plated contact surfaces Other versions (or variants) can be requested from WAGO Sales or configured at https://configurator.wago.com/ .

Electrical data				
Ratings per		IEC/EN 60664-1		
Overvoltage category		III	III	II
Pollution degree		3	2	2
Nominal voltage		320 V	320 V	630 V
Rated surge voltage		4 kV	4 kV	4 kV
Rated current		12 A	12 A	12 A
Approvals per		UL 1059		
Use group		B	C	D
Rated voltage		300 V	-	300 V
Rated current		15 A	-	10 A
Approvals per		UL 1977		
Rated voltage		600 V		
Rated current		15 A		
Approvals per		CSA		
Use group		B	C	D
Rated voltage		300 V	-	300 V
Rated current		15 A	-	10 A

Connection data		
Connection points	3	<div>Connection 1</div> <div>Connection technology</div> CAGE CLAMP® <div>Actuation type</div> Operating tool <div>Actuation direction 1</div> Operation parallel to conductor entry <div>Actuation direction 2</div> Operation perpendicular to conductor entry <div>Solid conductor</div> 0.08 ... 2.5 mm² / 28 ... 12 AWG <div>Fine-stranded conductor</div> 0.08 ... 2.5 mm² / 28 ... 12 AWG <div>Fine-stranded conductor; with insulated ferrule</div> 0.25 ... 1.5 mm² <div>Fine-stranded conductor; with uninsulated ferrule</div> 0.25 ... 2.5 mm² <div>Strip length</div> 8 ... 9 mm / 0.31 ... 0.35 inches <div>Pole number</div> 3 <div>Conductor entry direction to mating direction</div> 0°

Physical data	
Pin spacing	5 mm / 0.197 inches
Width	18.2 mm / 0.717 inches
Height	14.3 mm / 0.563 inches
Depth	27.5 mm / 1.083 inches



Mechanical data		
Variable coding		Yes
Anti-rotation protection		Yes

Plug-in connection		
Contact type (pluggable connector)		Male connector/plug
Connector (connection type)		for conductor
Mismating protection		Yes

Material data		
Note (material data)		Information on material specifications can be found here
Color		light gray
Material group		I
Insulation material		Polyamide (PA66)
Flammability class per UL94		V0
Clamping spring material		Chrome-nickel spring steel (CrNi)
Contact material		Electrolytic copper (E _{Cu})
Contact plating		Tin
Fire load		0.094 MJ
Weight		5 g

Environmental requirements		
Limit temperature range		-60 ... +100 °C
Processing temperature		-35 ... +60 °C

Commercial data		
Product Group		3 (Multi Conn. System)
eCl@ss 10.0		27-44-03-09
eCl@ss 9.0		27-44-03-09
ETIM 8.0		EC002638
ETIM 7.0		EC002638
PU (SPU)		100 pcs
Packaging type		Box
Country of origin		DE
GTIN		4044918262002
Customs tariff number		85366930000

Environmental Product Compliance		
RoHS Compliance Status		Compliant, No Exemption



Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
CB DEKRA Certification B.V.	IEC 61984	NL-39756/A1
CSA DEKRA Certification B.V.	C22.2	1466354
KEMA/KEUR DEKRA Certification B.V.	EN 61984	71-121453
UL Underwriters Laboratories Inc.	UL 1977	E45171
UL Underwriters Laboratories Inc.	UL 1059	E45172

Declarations of conformity and manufacturer's declarations



Approval	Standard	Certificate Name
Railway WAGO GmbH & Co. KG	-	Railway Ready

Approvals for marine applications



Approval	Standard	Certificate Name
ABS American Bureau of Ship- ping	-	19-HG1869876-PDA
DNV DNV GL SE	-	TAE000016Z

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 721-603/000-042

Documentation

Additional Information
Technical Section
03.04.2019
pdf 2027.26 KB

CAD/CAE-Data	
<div>CAD data</div> <div>2D/3D Models 721-603/000-042</div> <div>↓</div>	<div>CAE data</div> <div>EPLAN Data Portal 721-603/000-042</div> <div>↓</div> <div>ZUKEN Portal 721-603/000-042</div> <div>↓</div>

1 Compatible Products

1.1 System counterpart

1.1.1 Female connector/socket

<div>Item No.: 721-103/026-000 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 3-pole; 100% protected against mismatching; 2,50 mm²; light gray</div>	<div>Item No.: 722-233 THT female header; angled; Pin spacing 5 mm; 3-pole; 100% protected against mismatching; 0.6 x 1.0 mm solder pin; light gray</div>	<div>Item No.: 722-133 THT female header; straight; Pin spacing 5 mm; 3-pole; 100% protected against mismatching; 0.6 x 1.0 mm solder pin; light gray</div>

1.2 Optional Accessories

1.2.1 Coding

1.2.1.1 Coding

<div>Item No.: 231-129 Coding key; snap-on type; light gray</div>

1.2.2 Cover

1.2.2.1 Cover

<div>Item No.: 231-668 Lockout caps; for covering unused clamping units; gray</div>






























1.2.3 Ferrule

1.2.3.1 Ferrule

<div>Item No.: 216-301 Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow</div>	<div>Item No.: 216-321 Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow</div>	<div>Item No.: 216-151 Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated</div>	<div>Item No.: 216-131 Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored</div>
<div>Item No.: 216-302 Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise</div>	<div>Item No.: 216-322 Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise</div>	<div>Item No.: 216-132 Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated</div>	<div>Item No.: 216-152 Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated</div>



1.2.3.1 Ferrule

 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; white	 Item No.: 216-201 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white	 Item No.: 216-221 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white	 Item No.: 216-141 Ferrule; Sleeve for 0.5 mm² / 20 AWG; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92
 Item No.: 216-101 Ferrule; Sleeve for 0.5 mm² / AWG 22; un-insulated; electro-tin plated; silver-colored	 Item No.: 216-121 Ferrule; Sleeve for 0.5 mm² / AWG 22; un-insulated; electro-tin plated; silver-colored	 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; gray	 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; gray
 Item No.: 216-202 Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray	 Item No.: 216-222 Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray	 Item No.: 216-142 Ferrule; Sleeve for 0.75 mm² / 18 AWG; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	 Item No.: 216-102 Ferrule; Sleeve for 0.75 mm² / AWG 20; un-insulated; electro-tin plated; silver-colored
 Item No.: 216-122 Ferrule; Sleeve for 0.75 mm² / AWG 20; un-insulated; electro-tin plated; silver-colored	 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; red	 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; red	 Item No.: 216-203 Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red
 Item No.: 216-223 Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red	 Item No.: 216-103 Ferrule; Sleeve for 1 mm² / AWG 18; un-insulated; electro-tin plated	 Item No.: 216-143 Ferrule; Sleeve for 1 mm² / AWG 18; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92	 Item No.: 216-123 Ferrule; Sleeve for 1 mm² / AWG 18; un-insulated; electro-tin plated; silver-colored
 Item No.: 216-204 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black	 Item No.: 216-224 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black	 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; black	 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; black
 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; black	 Item No.: 216-124 Ferrule; Sleeve for 1.5 mm² / AWG 16; un-insulated; electro-tin plated	 Item No.: 216-144 Ferrule; Sleeve for 1.5 mm² / AWG 16; un-insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 1/08.92; silver-colored	 Item No.: 216-104 Ferrule; Sleeve for 1.5 mm² / AWG 16; un-insulated; electro-tin plated; silver-colored
 Item No.: 216-106 Ferrule; Sleeve for 2.5 mm² / AWG 14; un-insulated; electro-tin plated; silver-colored			

1.2.4 Insulation stop

1.2.4.1 Insulation stop



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



Item No.: 231-671
Insulation stop; 0.25 - 0.5 mm²; light gray



Item No.: 231-672
Insulation stop; 0.75 - 1 mm²; dark gray

1.2.5 Jumper

1.2.5.1 Jumper



Item No.: 231-902
Jumper; for conductor entry; 2-way; insulated; gray



Item No.: 231-903
Jumper; for conductor entry; 3-way; insulated; gray

1.2.6 Marking

1.2.6.1 Marking strip



Item No.: 210-833
Marking strips; 25 m on roll; 6 mm wide; plain; Self-adhesive; white



Item No.: 210-834
Marking strips; on reel; 5 mm wide; plain; Self-adhesive; white

1.2.7 Strain relief

1.2.7.1 Strain relief housing



Item No.: 232-603
Strain relief housing; for female and male connectors; 2 parts; Pin spacing 5 mm; 3-pole; gray

1.2.8 Tool

1.2.8.1 Operating tool



Item No.: 231-231
Combination operating tool; red



Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured



Item No.: 210-657
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; short; multicoloured



Item No.: 209-130
Operating tool; made of insulating material; 1-way; for 264 Series (1-/2-way), 280, 281 Series (up to 3-way); natural



Item No.: 231-291
Operating tool; made of insulating material; 1-way; loose; red



Item No.: 231-131
Operating tool; made of insulating material; 1-way; loose; white



Item No.: 280-432
Operating tool; made of insulating material; 2-way; white



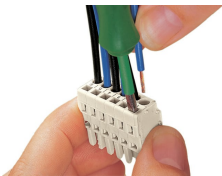
Item No.: 280-433
Operating tool; made of insulating material; 3-way



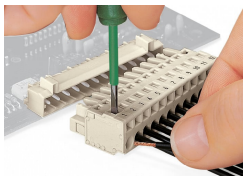
Item No.: 231-159
Operating tool; natural

Installation Notes

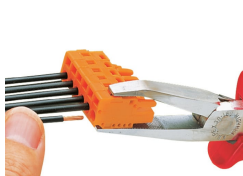
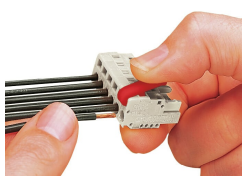
Conductor termination



Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation parallel to conductor entry.

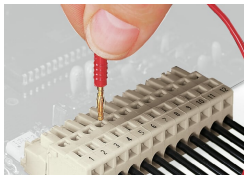


Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.



Inserting a conductor via operating tool.

Testing



Testing perpendicular to conductor entry with 2 or 2.3 mm Ø test plug – female connector with CAGE CLAMP® – via integrated test ports

Installation

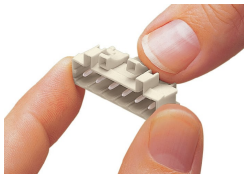


Male connector with strain relief plate



Strain relief housing shown with a male connector equipped with CAGE CLAMP®

Coding



Coding a male header – fitting coding key(s).