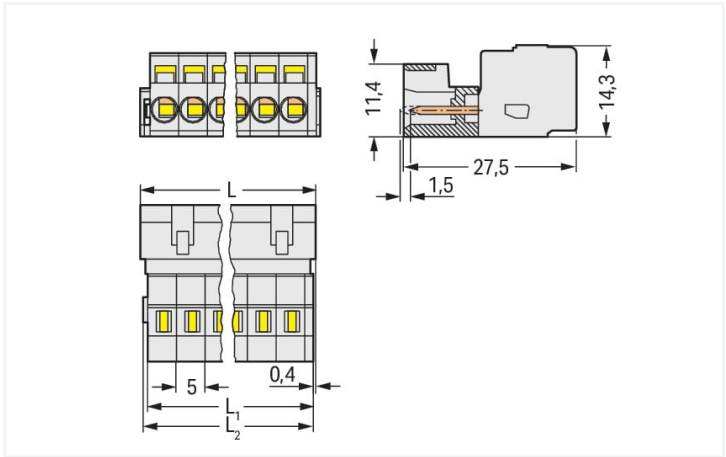


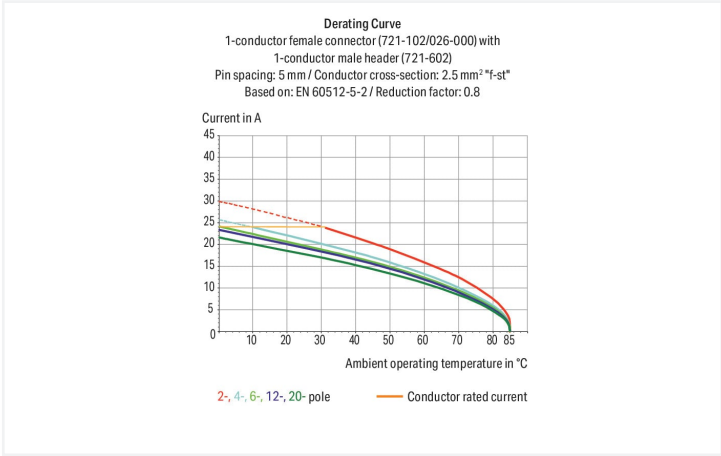
Data Sheet | Item Number: 721-609
1-conductor male connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 9-pole;
100% protected against mismatching; 2,50 mm²; light gray
<https://www.wago.com/721-609>



Color: ■ light gray



Dimensions in mm
 $L = (\text{pole no.} - 1) \times \text{pin spacing} + 8.2 \text{ mm}$
 $L2 = L - 1.7 \text{ mm}$
 $L3 = L - 1.2 \text{ mm}$



- 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				Approvals per UL 1059			
Overvoltage category	III	III	II	Use group	B	C	D
Pollution degree	3	2	2	Rated voltage	300 V	-	300 V
Nominal voltage	320 V	320 V	630 V	Rated current	15 A	-	10 A
Rated surge voltage	4 kV	4 kV	4 kV				
Rated current	12 A	12 A	12 A				

Approvals per UL 1977		Approvals per CSA			
Rated voltage	600 V	Use group	B	C	D
Rated current	15 A	Rated voltage	300 V	-	300 V
		Rated current	15 A	-	10 A

Connection data

Connection points	9	Connection 1			
Total number of potentials	9	Connection technology	CAGE CLAMP®		
Number of connection types	1	Actuation type	Operating tool		
Number of levels	1	Actuation direction 1	Operation parallel to conductor entry		
		Actuation direction 2	Operation perpendicular to conductor entry		
		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 insulated ferrule	0.25 ... 1.5 mm²		
		Fine-stranded conductor; with uninsulated ferrule	0.25 ... 2.5 mm²		
		Strip length	8 ... 9 mm / 0.31 ... 0.35 inches		
		Pole number	9		
		Conductor entry direction to mating direction	0°		

Physical data

Pin spacing	5 mm / 0.197 inches
Width	48.2 mm / 1.898 inches
Height	14.3 mm / 0.563 inches
Depth	27.5 mm / 1.083 inches

Mechanical data

Variable coding	Yes
Direct ground contact to DIN-rail/drilled hole/housing	No
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	0.25 MJ	
Weight	13.9 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)	50 pcs	
Packaging type	Box	
Country of origin	DE	
GTIN	4044918285124	
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

General approvals

UL Underwriters Laboratories Inc.	UL 1059	E45172
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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
LR Lloyds Register	IEC 61984	96/20035 (E5)

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 721-609



Documentation

Additional Information
Technical Section
03.04.2019
pdf 2027.26 KB



CAD/CAE-Data

CAD data
2D/3D Models 721-609



CAE data
EPLAN Data Portal 721-609
ZUKEN Portal 721-609



1 Compatible Products

1.1 System counterpart

1.1.1 Female connector/socket



Item No.: 722-109/026-000
1-conductor female connector, angled;
CAGE CLAMP®; 2,5 mm²; Pin spacing 5
mm; 9-pole; 100% protected against mis-
mating; 2,50 mm²; light gray



Item No.: 722-209/026-000
1-conductor female connector, angled;
CAGE CLAMP®; 2,5 mm²; Pin spacing 5
mm; 9-pole; 100% protected against mis-
mating; 2,50 mm²; light gray



Item No.: 721-309/031-000
1-conductor female connector, angled;
CAGE CLAMP®; 2,5 mm²; Pin spacing 5
mm; 9-pole; 100% protected against mis-
mating; clamping collar; 2,50 mm²; light
gray



Item No.: 721-309/008-000
1-conductor female connector, angled;
CAGE CLAMP®; 2,5 mm²; Pin spacing 5
mm; 9-pole; 100% protected against mis-
mating; Snap-in mounting feet; 2,50 mm²;
light gray



Item No.: 721-109/026-000
1-conductor female connector; CAGE
CLAMP®; 2,5 mm²; Pin spacing 5 mm; 9-
pole; 100% protected against mismatching;
2,50 mm²; light gray



Item No.: 721-109/027-000
1-conductor female connector; CAGE
CLAMP®; 2,5 mm²; Pin spacing 5 mm; 9-
pole; 100% protected against mismatching;
clamping collar; 2,50 mm²; light gray
























Item No.: 721-109/031-000
1-conductor female connector; CAGE
CLAMP®; 2,5 mm²; Pin spacing 5 mm; 9-
pole; 100% protected against mismatching;
clamping collar; 2,50 mm²; light gray



Item No.: 721-109/037-000
1-conductor female connector; CAGE
CLAMP®; 2,5 mm²; Pin spacing 5 mm; 9-
pole; 100% protected against mismatching;
Lateral locking levers; 2,50 mm²; light
gray




1.1.1 Female connector/socket

 Item No.: 721-109/008-000/037-000 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 9-pole; 100% protected against mismatching; Lateral locking levers; Snap-in mounting feet; 2,50 mm²; light gray	 Item No.: 721-109/008-000 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 9-pole; 100% protected against mismatching; Snap-in mounting feet; 2,50 mm²; light gray	 Item No.: 721-109/008-045 1-conductor female connector; CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 9-pole; 100% protected against mismatching; Snap-in mounting feet; direct marking; 2,50 mm²; light gray	 Item No.: 721-109/026-000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 9-pole; 100% protected against mismatching; 2,50 mm²; light gray
 Item No.: 2721-109/031-000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 9-pole; 100% protected against mismatching; clamping collar; 2,50 mm²; light gray	 Item No.: 2721-109/037-000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 9-pole; 100% protected against mismatching; Lateral locking levers; 2,50 mm²; light gray	 Item No.: 2721-109/008-000 1-conductor female connector; push-button; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 9-pole; 100% protected against mismatching; Snap-in mounting feet; 2,50 mm²; light gray	 Item No.: 721-2109/037-000 2-conductor female connector; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 9-pole; 100% protected against mismatching; Lateral locking levers; 2,50 mm²; light gray
 Item No.: 721-2109/026-000 2-conductor female connector; Push-in CAGE CLAMP®; 2.5 mm²; Pin spacing 5 mm; 9-pole; 100% protected against mismatching; with integrated end plate; 2,50 mm²; light gray	 Item No.: 722-239/005-000/039-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Locking lever; Pin spacing 5 mm; 9-pole; light gray	 Item No.: 722-239/005-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; angled; 100% protected against mismatching; Pin spacing 5 mm; 9-pole; light gray	 Item No.: 722-139/005-000/039-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; straight; 100% protected against mismatching; Locking lever; Pin spacing 5 mm; 9-pole; light gray
 Item No.: 722-139/005-000 Female connector for rail-mount terminal blocks; 0.6 x 1 mm pins; straight; 100% protected against mismatching; Pin spacing 5 mm; 9-pole; light gray	 Item No.: 722-239 THT female header; angled; Pin spacing 5 mm; 9-pole; 100% protected against mismatching; 0.6 x 1.0 mm solder pin; light gray	 Item No.: 722-239/031-000 THT female header; angled; Pin spacing 5 mm; 9-pole; 100% protected against mismatching; clamping collar; 0.6 x 1.0 mm solder pin; light gray	 Item No.: 722-239/039-000 THT female header; angled; Pin spacing 5 mm; 9-pole; 100% protected against mismatching; Locking lever; 0.6 x 1.0 mm solder pin; light gray
 Item No.: 722-239/047-000 THT female header; angled; Pin spacing 5 mm; 9-pole; 100% protected against mismatching; Spacer flange; 0.6 x 1.0 mm solder pin; light gray	 Item No.: 722-139 THT female header; straight; Pin spacing 5 mm; 9-pole; 100% protected against mismatching; 0.6 x 1.0 mm solder pin; light gray	 Item No.: 722-139/031-000 THT female header; straight; Pin spacing 5 mm; 9-pole; 100% protected against mismatching; clamping collar; 0.6 x 1.0 mm solder pin; light gray	 Item No.: 722-139/039-000 THT female header; straight; Pin spacing 5 mm; 9-pole; 100% protected against mismatching; Locking lever; 0.6 x 1.0 mm solder pin; light gray
 Item No.: 722-139/047-000 THT female header; straight; Pin spacing 5 mm; 9-pole; 100% protected against mismatching; Spacer flange; 0.6 x 1.0 mm solder pin; light gray			


































1.2 Optional Accessories

1.2.1 Coding

1.2.1.1 Coding

 Item No.: 231-129 Coding key; snap-on type; light gray



1.2.2 Cover			
1.2.2.1 Cover			
			
<p>Item No.: 231-668 Lockout caps; for covering unused clamping units; gray</p>			
1.2.3 Ferrule			
1.2.3.1 Ferrule			
			
<p>Item No.: 216-301 Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow</p>	<p>Item No.: 216-321 Ferrule; Sleeve for 0.25 mm² / AWG 24; insulated; electro-tin plated; yellow</p>	<p>Item No.: 216-151 Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated</p>	<p>Item No.: 216-131 Ferrule; Sleeve for 0.25 mm² / AWG 24; uninsulated; electro-tin plated; silver-colored</p>
			
<p>Item No.: 216-302 Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise</p>	<p>Item No.: 216-322 Ferrule; Sleeve for 0.34 mm² / 22 AWG; insulated; electro-tin plated; light turquoise</p>	<p>Item No.: 216-132 Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated</p>	<p>Item No.: 216-152 Ferrule; Sleeve for 0.34 mm² / AWG 24; uninsulated; electro-tin plated</p>
			
<p>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</p>	<p>Item No.: 216-201 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white</p>	<p>Item No.: 216-221 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; white</p>	<p>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</p>
			
<p>Item No.: 216-101 Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored</p>	<p>Item No.: 216-121 Ferrule; Sleeve for 0.5 mm² / AWG 22; uninsulated; electro-tin plated; silver-colored</p>	<p>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</p>	<p>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</p>
			
<p>Item No.: 216-202 Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray</p>	<p>Item No.: 216-222 Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; gray</p>	<p>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</p>	<p>Item No.: 216-102 Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored</p>
			
<p>Item No.: 216-122 Ferrule; Sleeve for 0.75 mm² / AWG 20; uninsulated; electro-tin plated; silver-colored</p>	<p>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</p>	<p>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</p>	<p>Item No.: 216-203 Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red</p>
			
<p>Item No.: 216-223 Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red</p>	<p>Item No.: 216-103 Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated</p>	<p>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</p>	<p>Item No.: 216-123 Ferrule; Sleeve for 1 mm² / AWG 18; uninsulated; electro-tin plated; silver-colored</p>
			
<p>Item No.: 216-204 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black</p>	<p>Item No.: 216-224 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; black</p>	<p>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</p>	<p>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</p>



1.2.3.1 Ferrule



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



Item No.: 231-905
Jumper; for conductor entry; 5-way; insulated; gray



Item No.: 231-907
Jumper; for conductor entry; 7-way; insulated; gray

1.2.6 Marking

1.2.6.1 Marking strip



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; white



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



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; white



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; white



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



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



1.2.7 Strain relief

1.2.7.1 Strain relief housing



Item No.: 232-609
Strain relief housing; for female and male connectors; 2 parts; Pin spacing 5 mm; 9-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.: 280-434
Operating tool; made of insulating material; 4-way



Item No.: 280-435
Operating tool; made of insulating material; 5-way; gray



Item No.: 280-436
Operating tool; made of insulating material; 6-way



Item No.: 280-437
Operating tool; made of insulating material; 7-way



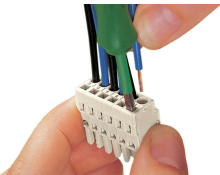
Item No.: 280-438
Operating tool; made of insulating material; 8-way



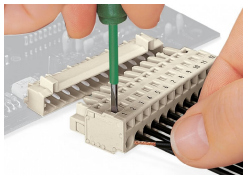
Item No.: 231-159
Operating tool; natural

Installation Notes

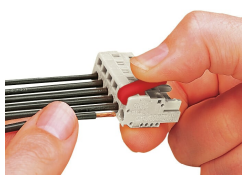
Conductor termination



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



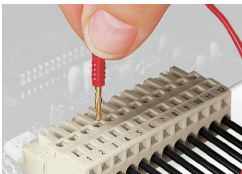
Inserting a conductor via 3.5 mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.



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

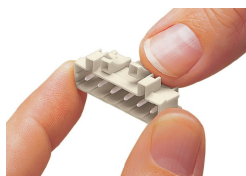


Male connector with strain relief plate



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

Coding



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