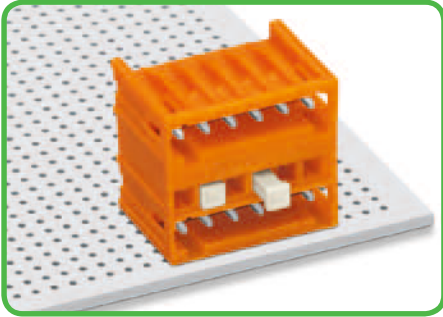
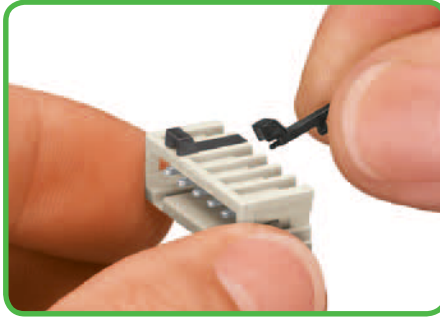


# Description and Handling

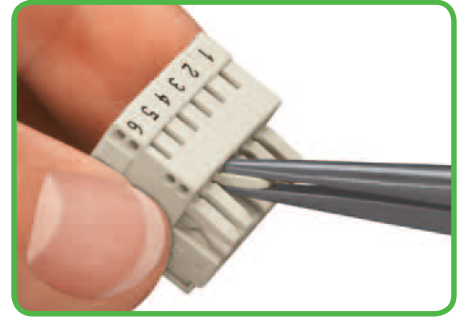
## MCS - MULTI CONNECTION SYSTEM MINI



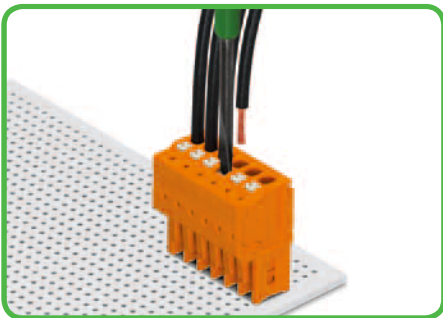
Coding a double-deck male header with solder pins - lower level.



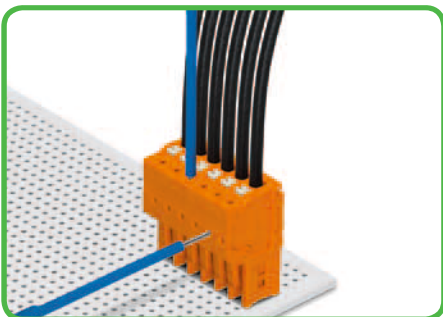
Coding a male header - fitting of coding key(s).



Coding a female connector - removal of coding finger(s).



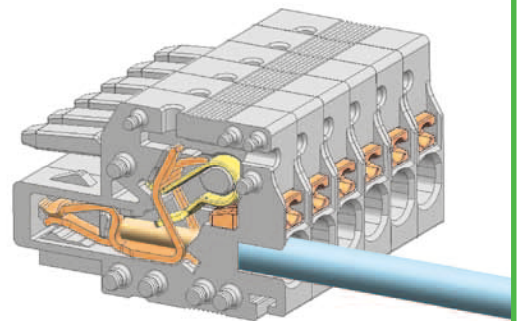
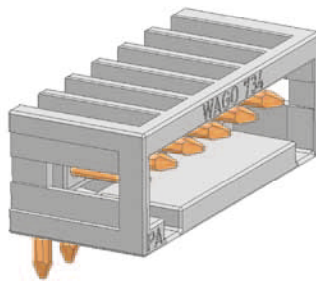
Inserting fine-stranded conductor into CAGE CLAMP®S unit via push-button; solid conductors can be simply pushed in.



Testing with 735-500 test plug, Ø 1 mm - CAGE CLAMP®S connection - insertion parallel to conductor entry.

### 2734 Series Female Connectors with Push-Buttons and CAGE CLAMP®S

100% protected against mismatching

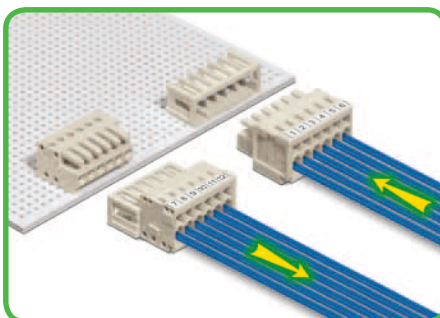


MCS-MINI

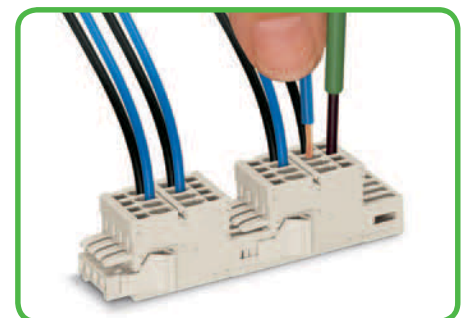
Pin spacing: 3.5 mm and 3.81 mm



THR male headers in tape-and-reel packaging for SMT applications.



Easy-to-identify PCB inputs and outputs.



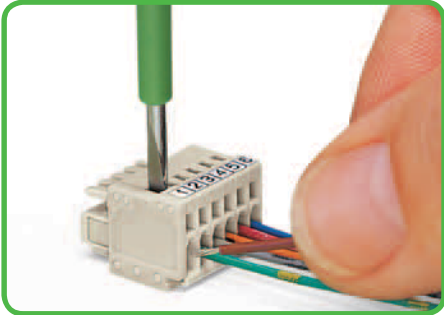
2-conductor Combi strips with locking levers for multiplying potentials.

CAGE CLAMP®S and CAGE CLAMP® clamp the following copper conductors:\*

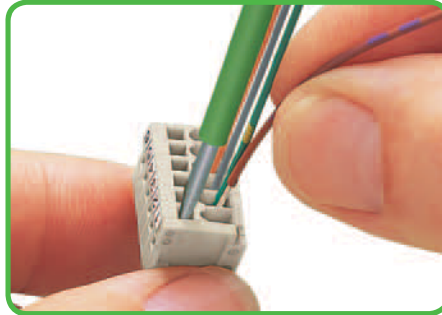
stranded

fine-stranded, also with tinned single strands

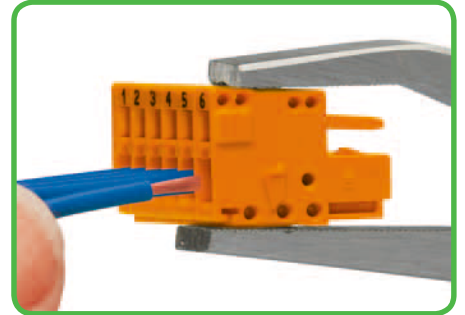
\* For aluminum conductors, see notes in Section 11.



Inserting conductor via (2.5 x 0.4) mm screwdriver – CAGE CLAMP® actuation perpendicular to conductor entry.



Inserting conductor via (2.5 x 0.4) mm screwdriver – CAGE CLAMP® actuation parallel to conductor entry.

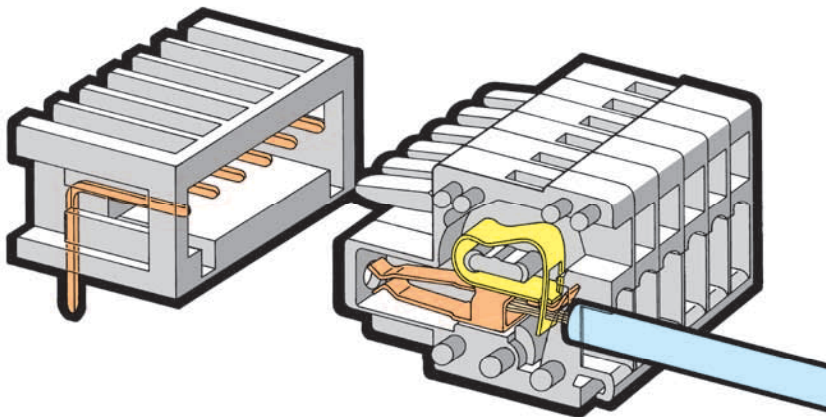


Inserting conductor into CAGE CLAMP® unit via 210-251 or 210-250 operating tool.

**734 Series** Female Connectors with CAGE CLAMP®

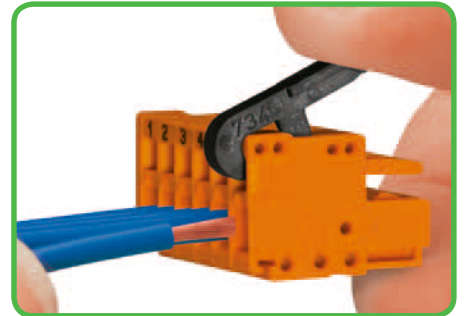
100% protected against mismatching

CAGE CLAMP®

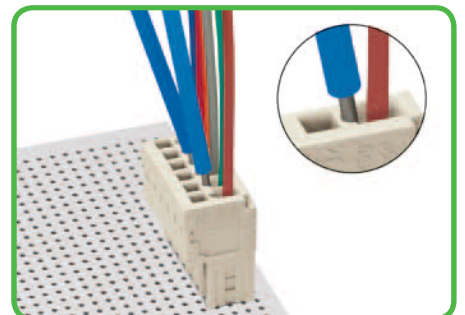


MCS-MINI

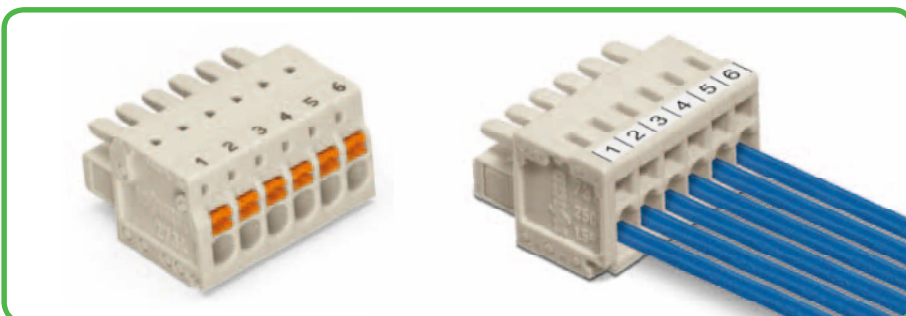
Pin spacing: 3.5 mm and 3.81 mm



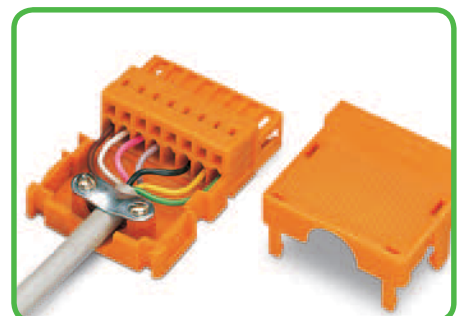
Inserting conductor into CAGE CLAMP® unit via 734-191 operating lever.



Testing with 735-500 test pin, Ø 1 mm – CAGE CLAMP® connection – touch contact with current bar.



Marking via self-adhesive marker strips or factory direct printing.



Strain relief housing for 734 Series male and female connectors with CAGE CLAMP®; strain relief plates for 734 and 2734 Series.



fine-stranded,  
tip-bonded

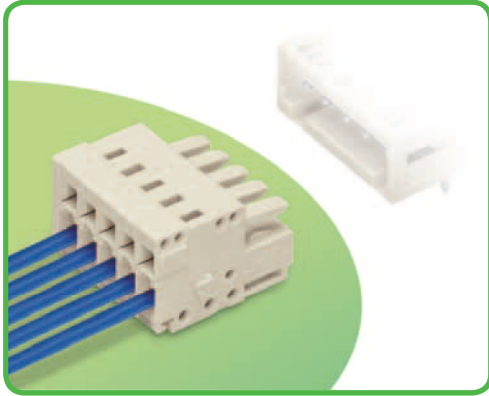


fine-stranded with  
crimped ferrules  
(gas-tight)



fine-stranded with  
crimped pin terminals  
(gas-tight)

# 4 Female Connectors Pin Spacing 3.5 mm, 3.81 mm MCS-MINI



- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Strain relief plates and housings for in-the-field assembly
- 100% protected against mismatching
- With coding fingers

**Technical data:**

Pin Spacing	3.5 mm 0.138 in			3.81 mm 0.15 in		
Rating per	IEC/EN 60664-1			IEC/EN 60664-1		
Overtoltage category	III	III	II	III	III	II
Pollution degree	3	2	2	3	2	2
Rated voltage	160 V	160 V	320 V	160 V	160 V	320 V
Rated surge voltage	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV	2.5 kV
Nominal current	10 A	10 A	10 A	10 A	10 A	10 A
Approvals per	UL/CSA			UL/CSA		
Use group UL 1059	B	C	D	B	C	D
Rated voltage	300 V	-	300 V	300 V	-	300 V
Nominal current UL	10 A	-	10 A	10 A	-	10 A
Nominal current CSA	10 A	-	10 A	10 A	-	10 A

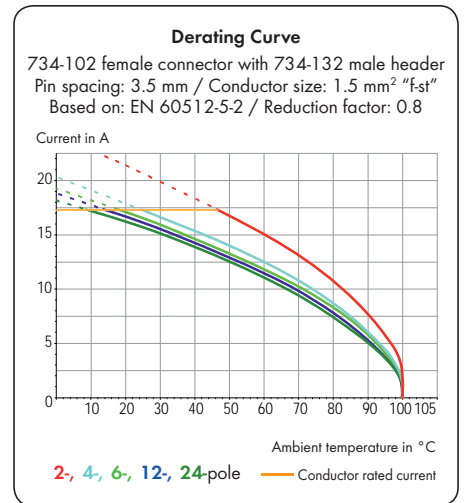
**Conductor data:**

Connection technology	CAGE CLAMP®	
Conductor size: solid	0.08 - 1.5 mm <sup>2</sup>	
Conductor size: fine-stranded	0.08 - 1.5 mm <sup>2</sup>	
Conductor size: fine-stranded	0.25 - 1.5 mm <sup>2</sup> (with insulated ferrule)	
Conductor size: fine-stranded	0.25 - 1.5 mm <sup>2</sup> (with uninsulated ferrule)*	
AWG	28 - 14	14: THHN, THWN
Strip length	6 - 7 mm / 0.24 - 0.28 in	

\* Only every other clamping unit can be terminated using 1.5 mm<sup>2</sup> connectors with insulated ferrules.

**Material data:**

Material group	I
Insulating material	Nylon 6.6 (PA 6.6)
Flammability rating per UL 94	V0
Lower/Upper temperature limit	-60°C / +100°C
Clamping spring material	Chrome-nickel spring steel (CrNi)
Contact material	Copper alloy
Contact plating	tin-plated
MCS connectors are also available upon request with gold-plated or partially gold-plated contact surfaces.	
Depending on the version requested, "item no. suffix ... /010-000" is added to the "basic item no."	



**MCS-MINI accessories:**

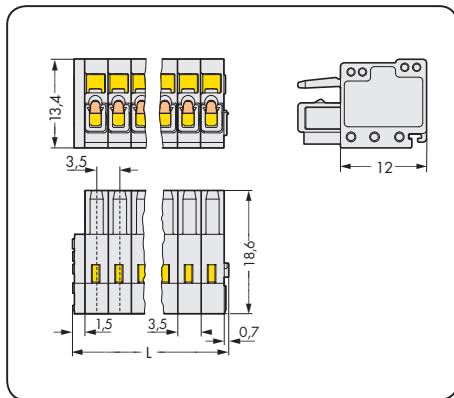
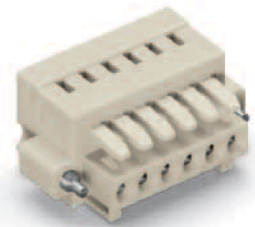
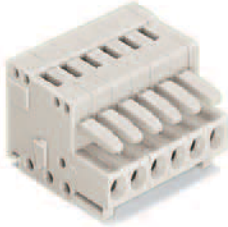
**Page:**

Marking accessories	540 - 543
Operating tools	274
Direct marking	278 - 279
Mounting adapter	475
Test pin	538
Strain relief housing	276
Strain relief plates	277

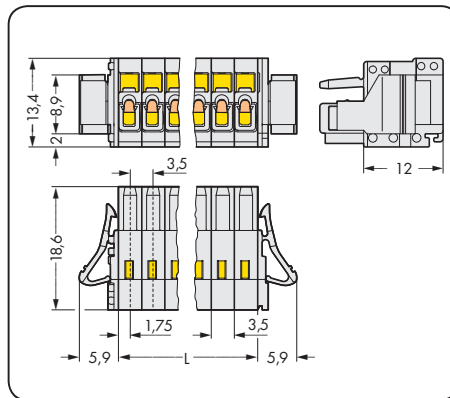
MCS - MULTI CONNECTION SYSTEM includes connectors **without** breaking capacity in accordance with IEC 61984. When used as intended, these connectors shall not be connected/disconnected when live or under load. The circuit design should ensure header pins, which can be touched, are not live in unmated condition.

# Female Connectors MCS-MINI

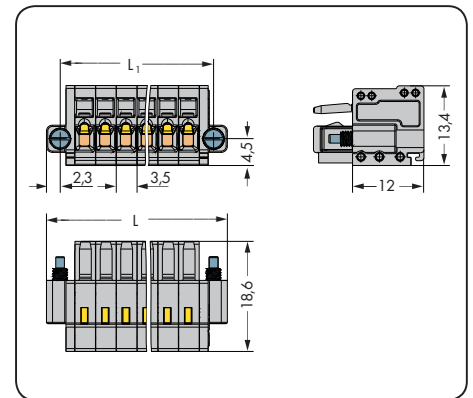
Pin spacing 3.5 mm / 0.138 in		With locking levers Pin spacing 3.5 mm / 0.138 in		With screw flanges Pin spacing 3.5 mm / 0.138 in	
0.08 - 1.5 mm <sup>2</sup>	AWG 28 - 14	0.08 - 1.5 mm <sup>2</sup>	AWG 28 - 14	0.08 - 1.5 mm <sup>2</sup>	AWG 28 - 14
160 V/2.5 kV/2 10 A	300 V/10 A	160 V/2.5 kV/2 10 A	300 V/10 A	160 V/2.5 kV/2 10 A	300 V/10 A



L = (pole no. x pin spacing) + 2.2 mm



L = pole no. x pin spacing



L = (pole no. x pin spacing) + 9.5 mm  
L<sub>1</sub> = (pole no. x pin spacing) + 4.9 mm

Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
Female connector, light gray			Female connector with locking levers, light gray			Female connector with screw flanges, light gray		
2	734-102	200	2	734-102/037-000	100	2	734-102/107-000	100
3	734-103	200	3	734-103/037-000	100	3	734-103/107-000	100
4	734-104	100	4	734-104/037-000	100	4	734-104/107-000	100
5	734-105	100	5	734-105/037-000	50	5	734-105/107-000	50
6	734-106	100	6	734-106/037-000	50	6	734-106/107-000	50
7	734-107	100	7	734-107/037-000	50	7	734-107/107-000	50
8	734-108	50	8	734-108/037-000	50	8	734-108/107-000	50
9	734-109	50	9	734-109/037-000	50	9	734-109/107-000	50
10	734-110	50	10	734-110/037-000	50	10	734-110/107-000	50
11	734-111	50	11	734-111/037-000	50	11	734-111/107-000	50
12	734-112	50	12	734-112/037-000	50	12	734-112/107-000	50
13	734-113	50	13	734-113/037-000	25	13	734-113/107-000	25
14	734-114	50	14	734-114/037-000	25	14	734-114/107-000	25
16	734-116	25	16	734-116/037-000	25	16	734-116/107-000	25
18	734-118	25	18	734-118/037-000	25	18	734-118/107-000	25
20	734-120	25	20	734-120/037-000	25	20	734-120/107-000	25
24	734-124	25	24	734-124/037-000	10	24	734-124/107-000	10