4

Description and HandlingMCS - MULTI CONNECTION SYSTEM **MINI**



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

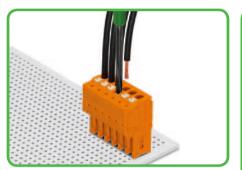


Coding a male header - fitting of coding key(s).



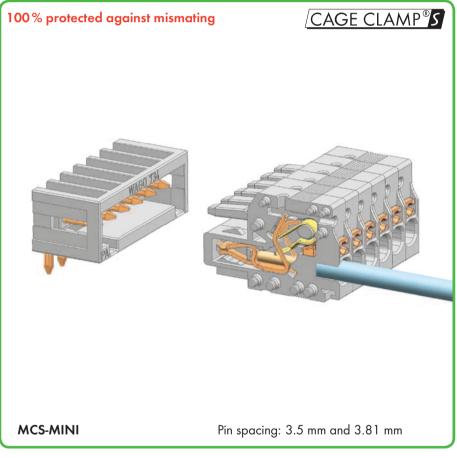
Coding a female connector - removal of coding finger(s).

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



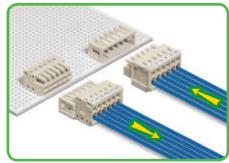
Testing with 735-500 test plug, Ø 1 mm – CAGE CLAMP $^{\!0}\mathrm{S}$ connection – insertion parallel to conductor entry.

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





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:* solid

^{*} For aluminum conductors, see notes in Section 11.

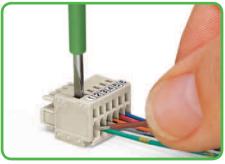


stranded



fine-stranded, also with tinned single strands

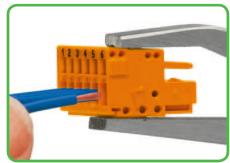
CAGE CLAMP® CAGE CLAMP® S



Inserting conductor via (2.5 x 0.4) mm screwdriver – CAGE CLAMP $^{\circ}$ actuation perpendicular to conductor entry.

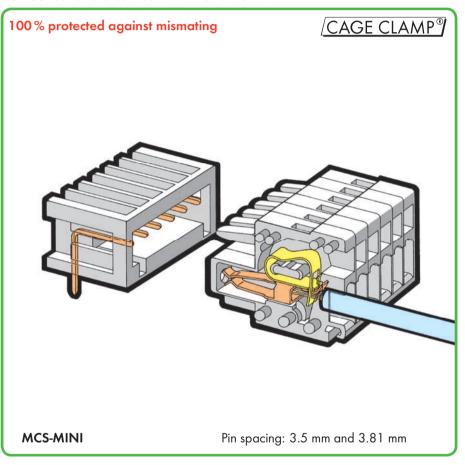


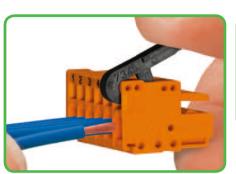
Inserting conductor via (2.5 x 0.4) mm screwdriver – CAGE CLAMP $^{\circ}$ actuation parallel to conductor entry.



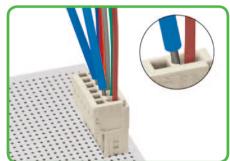
Inserting conductor into CAGE CLAMP $^{\circ}$ unit via 210-251 or 210-250 operating tool.

734 Series Female Connectors with CAGE CLAMP®





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.







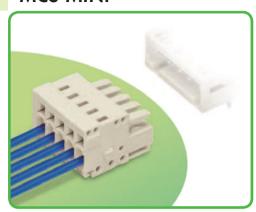
Strain relief housing for 734 Series male and female connectors with CAGE CLAMP®; strain relief plates for 734 and 2734 Series.



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



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



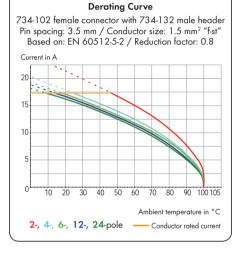
- Universal connection for all conductor types
- Easy cable pre-assembly and on-unit wiring via vertical and horizontal CAGE CLAMP® actuation
- Strain relief plates and housings for in-the-field assembly
- 100% protected against mismating
- With coding fingers

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			
Overvoltage category	III	Ш	II	III	Ш	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	В	С	D	В	С	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 ²					
Conductor size: fine-stranded	$0.08 - 1.5 \text{ mm}^2$					
Conductor size: fine-stranded	$0.25 - 1.5 \text{ mm}^2$	(with insulated ferrule)				
Conductor size: fine-stranded	$0.25 - 1.5 \text{ mm}^2$	(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 ² connectors with insulated ferrules.						



Material data:

Material group	1				
Insulating material	Nylon 6.6 (PA 6.6)				
Flammability rating per UL 94	VO				
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 274 278 - 279 Direct marking 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.

CAGE CLAMP®

Pin spacing 3.5 mm / 0.138 in

0.08 - 1.5 mm² AWG 28 - 14 160 V/2.5 kV/2 10 A 300 V/10 A

With locking levers Pin spacing 3.5 mm / 0.138 in

0.08 - 1.5 mm² AWG 28 - 14 160 V/2.5 kV/2 10 A 300 V/10 A

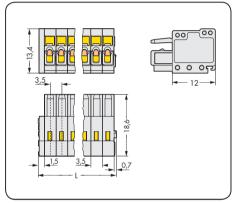
With screw flanges Pin spacing 3.5 mm / 0.138 in

AWG 28 - 14 $0.08 - 1.5 \, \text{mm}^2$ 160 V/2.5 kV/2 10 A 300 V/10 A

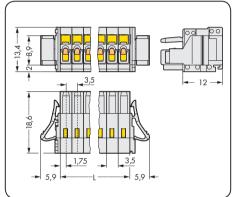




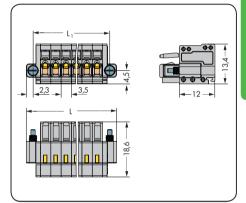




L = (pole no. x pin spacing) + 2.2 mm



L = pole no. x pin spacing



L = (pole no. x pin spacing) + 9.5 mm $L_1 = \text{(pole no. x pin spacing)} + 4.9 \text{ mm}$

Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
Female connector,			Female connector with locking levers,			Female connector with screw flanges,		
light gray			light gray			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
				-			,	