

FAST MOVING TECHNOLOGY

STÄUBLI

MCI 209 multi-couplings

Temperature control | Antipollution



Centralised connections safe and spill free



The MCI range has been designed to meet new production process requirements:

- reduction in cycle times,
- high performance and high temperatures.

It optimises changeover times for the mould and streamline connections on both old and new machines.

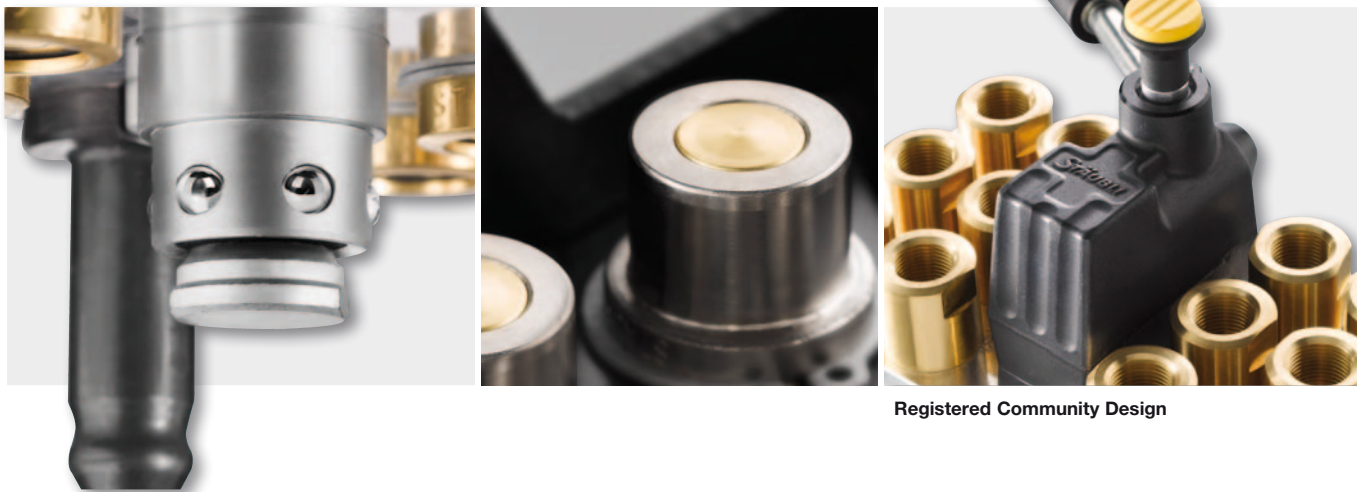
Pollution-preventing flat faces to guarantee the integrity of fluids

During connection, no pollution can enter the circuits.

Spill-free to ensure installation and operator safety

No contamination of the work environment due to fluid loss during disconnection guarantees:

- increased lifespan of equipment,
- a clean and safe work environment,
- the reduced consumption of heat transfer fluids.



Registered Community Design

High performance

In order to meet increasing requirements for new production processes, the MCI 209 multi-couplings offer advanced technical features:

- excellent performance in terms of flow,
- optimal mechanical strength and temperature resistance.

Efficient and fast

Safe and fast connections and disconnections with simple rotation of the control lever.

Connection safety

Connection safety is ensured at all levels:

- no error possible: connection of the plates in one single position,
- robust ball locking system,
- automatic shutoff of supply circuits on disconnection,
- components protected against shocks.

Applications

Centralised connections of temperature control circuits for moulds in the plastics, composites and foundry industries as well as for all processes where pollution control is key.



The opportunity to spend less and contribute to a sustainable development programme.

With Stäubli, you can rely on:

- the performance of your equipment
- reliability of long term investments
- no workplace pollution

3 standard sizes

depending on the number of circuits to connect.



MCI 209.06

Passage diameter: 9 mm
6 sockets (3 circuits)



MCI 209.12

Passage diameter: 9 mm
12 sockets (6 circuits)



MCI 209.20

Passage diameter: 9 mm
20 sockets (10 circuits)

3 ways to position the plates on the moulds

1

Plate assembled on 4 legs

The Stäubli MCI 209 plates can be assembled instead of the Stäubli RMI 209 plates without changing the moulds (same position dimensions).



MCI 209.06
MCI 209.12
MCI 209.20

2

Plate with drilled block

The cartridge assembly plugs in the drilled block can easily be replaced without disassembling the hoses. Can be assembled instead of plates RMI 209.10 and RMI 209.12.

Plate assembled on 4 legs
fitted with 12 sockets
(6 circuits)



MCI 209.12

Compact version without legs
fitted with 10 sockets
(5 circuits)



MCI 209.10

3

Plate positioned directly onto the mould

integrated right from the design of the moulds with this very compact system not needing any wiring for:

- quick installation in very little space,
- optimal cooling efficiency (no loss of energy due to hoses),
- increased safety (no damaged hoses when handling moulds).

This configuration also means that plugs can be quickly replaced.



MCI 209.06
MCI 209.12
MCI 209.20

CAD files available on request from our sales network.



VERY COMPREHENSIVE AND MODULAR RANGE

Options

Integrated into the product upon order: see corresponding codes on pages 8 to 17.

All options can be used together.



Safety locking

VS option

This safety feature, automatically triggered during connection, prevents any plates from accidental disconnection, even if the control lever is knocked. To disconnect, simultaneously pull the safety system button and turn the control lever. Visual check: when the safety device is triggered, the grey marker can no longer be seen.

Marker for the visual check of "locked" and "unlocked" position.

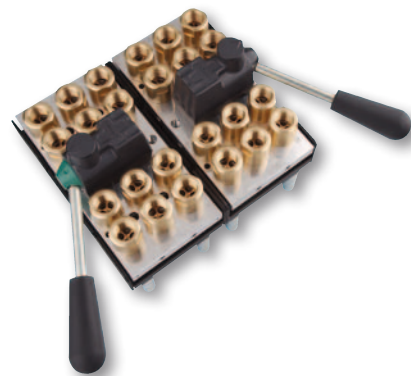


Reversed control lever

LH option

This option makes it possible for moulds with many circuits, to install 2 multi-couplings side by side in a small space whilst keeping the same direction of use for the control lever.

Immediate identification of the LH option by a green mark.



The VS and LH options can be combined in a single VS/LH version

VS/LH option

This version combines locking safety with flexible operation and equipment design.

Immediate visual identification of the plates using colour codes

KB and KR * options

2 colours: blue (KB code) and red (KR code) that enable corresponding press side and mould side plates to be immediately identified.

* Available for MCI 209.10, MCI 209.12 and MCI 209.20 models.

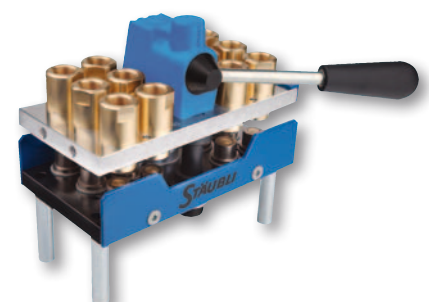
Proximity sensors

DP option



Controls "connected" and "disconnected" positions. PNP sensors.

Wire connections using standard M12 electrical connectors make connection to the electrical cabinet easier, enable the quick replacement of the sensor and avoid any wiring errors.





Additional equipment

to be ordered separately: see part-numbers on page 18.

Parking plate

equipped with a locking system for storage of the plate when not in use. Parking plate can be fitted with a proximity sensor (as an option).



Foolproof keying system

Enables all connection errors to be avoided when using several plates on the same mould.



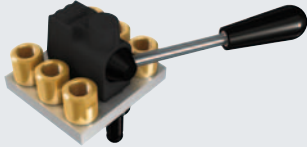


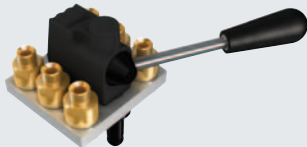


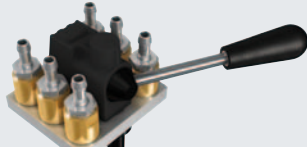
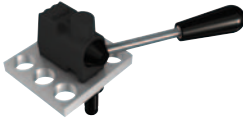

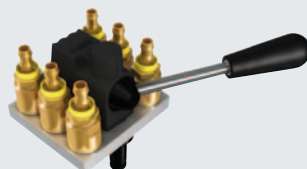


Carrying handle

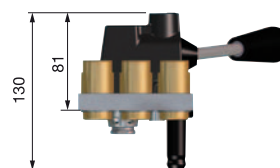
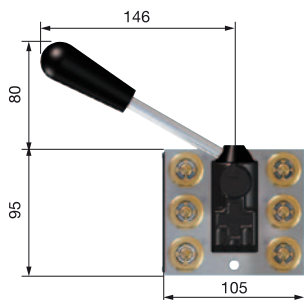
Can be positioned on either the width or length of the press side plate to make handling easier.



Part-numbers

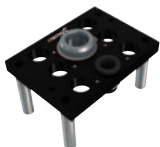

MCI 209.06 - 6 socket plates - Press equipment

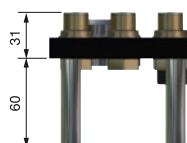
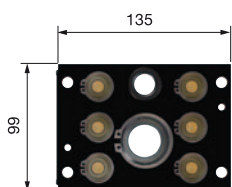
			Components for tailor-made configuration part-numbers	
Description	End connection	Equipped plate part-numbers	Plate without socket	Socket only
Female thread				
	G 3/8	MCI 209.06.1102/JV	MCI 209.06.1000	MCI 09.2102/JV
	NPT 3/8	MCI 209.06.1202/JV		MCI 09.2202/JV
Male thread				
	G 3/8 60° cone	MCI 209.06.1152/JV	MCI 209.06.1000	MCI 09.2152/JV
For flexible hose				
	10 mm int. Ø	MCI 209.06.1810/JV	MCI 209.06.1000	MCI 09.2810/JV
	12 mm int. Ø	MCI 209.06.1812/JV		MCI 09.2812/JV
For self-clamping flexible hose				
	3/8"	MCI 209.06.1810/CN/JV	MCI 209.06.1000	MCI 09.2810/CN/JV
	1/2"	MCI 209.06.1813/CN/JV		MCI 09.2813/CN/JV




MCI 209.06 - 6 plug plates - Mould equipment

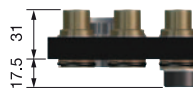
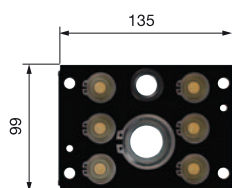
Description	End connection	Equipped plate part-numbers
Female thread	G 3/8	MCI 209.06.7102/JV
	NPT 3/8	MCI 209.06.7202/JV

Components for tailor-made configuration part-numbers	
Plate without plug	Plug only
	
MCI 209.06.6000	MCI 09.5102/JV MCI 09.5202/JV



Description	Equipped plate part-numbers
Direct mounting onto the mould	MCI 209.06.7000/JV

Components for tailor-made configuration part-numbers	
	Plug only
	
	MCI 09.5000/JV



Options

Add the corresponding option codes to the **MCI 209.06.1xxx/JV** part-numbers page 8:

- Safety locking **VS code**
- Reversed control lever **LH code**
- VS and LH option combination **VS/LH code**
- Proximity sensor **DP code**

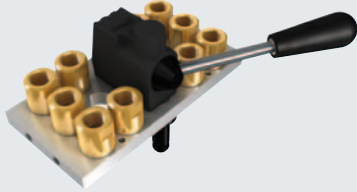
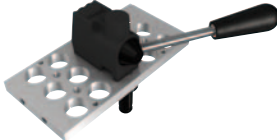

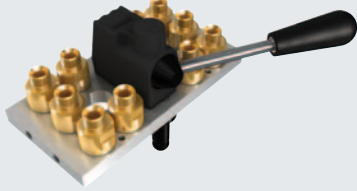
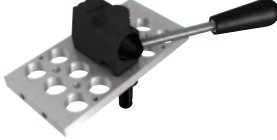

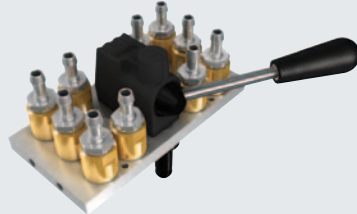
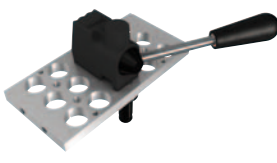

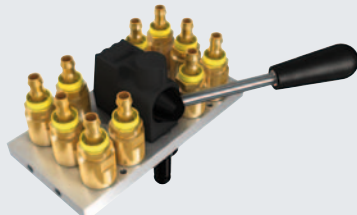
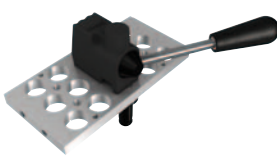

Additional equipment

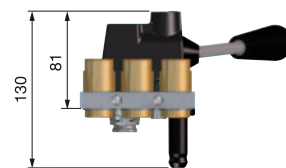
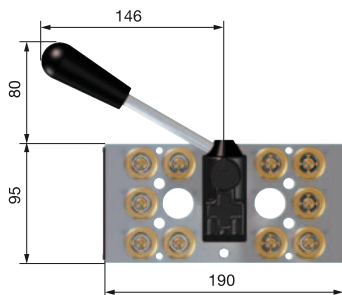
- Parking plate, foolproof keying kit and carrying handle: see part-numbers page 18.

Options and additional equipment shown on pages 6 and 7.


Part-numbers


MCI 209.10 - 10 socket plates - Press equipment

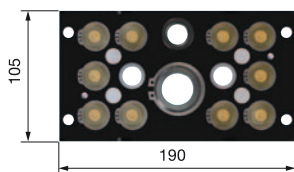
MCI 209.10 - 10 socket plates - Press equipment			Components for tailor-made configuration part-numbers	
Description	End connection	Equipped plate part-numbers	Plate without socket	Socket only
Female thread				
	G 3/8	MCI 209.10.1102/JV	MCI 209.12.1000	MCI 09.2102/JV
	NPT 3/8	MCI 209.10.1202/JV		MCI 09.2202/JV
Male thread				
	G 3/8 60° cone	MCI 209.10.1152/JV	MCI 209.12.1000	MCI 09.2152/JV
For flexible hose				
	10 mm int. Ø	MCI 209.10.1810/JV	MCI 209.12.1000	MCI 09.2810/JV
	12 mm int. Ø	MCI 209.10.1812/JV		MCI 09.2812/JV
For self-clamping flexible hose				
	3/8"	MCI 209.10.1810/CN/JV	MCI 209.12.1000	MCI 09.2810/CN/JV
	1/2"	MCI 209.10.1813/CN/JV		MCI 09.2813/CN/JV



MCI 209.10 - 10 plug plates - Mould equipment

Description	End connection	Equipped plate part-numbers
Female thread		
	G 3/8	MCI 209.10.7102/JV/RE
	NPT 3/8	MCI 209.10.7202/JV/RE

Components for tailor-made configuration part-numbers	
	Plug only
	
	MCI 09.5000/JV



Options

Add the corresponding option codes to the **MCI 209.10.1xx/JV** part-numbers page 10:

- Safety locking **VS code**
- Reversed control lever **LH code**
- VS and LH option combination **VS/LH code**
- Proximity sensor **DP code**

Identification of the associated plates with colour code

Add the corresponding colour code to the part-numbers pages 10 and 11:

- blue **KB code**
- red **KR code**

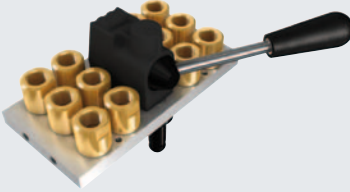
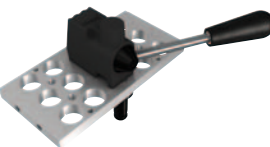

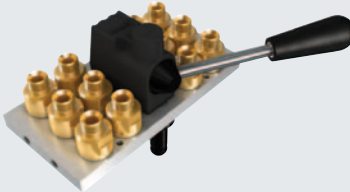
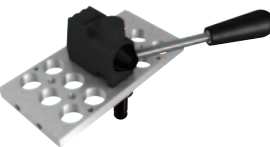


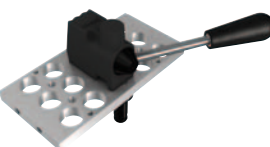

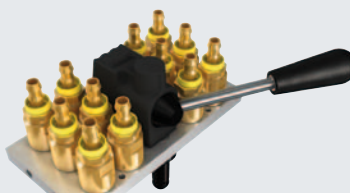
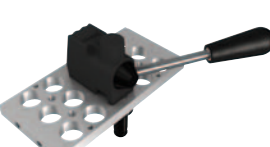

Additional equipment

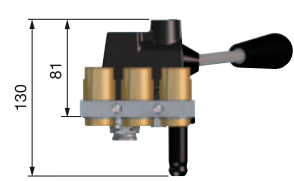
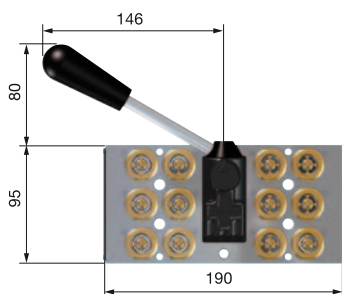
- Parking plate, foolproof keying kit and carrying handle: see part-numbers page 18.

Options and additional equipment shown on pages 6 and 7.

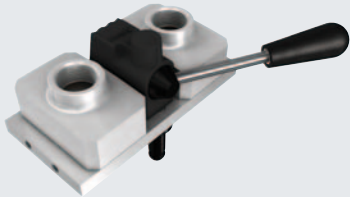
Part-numbers

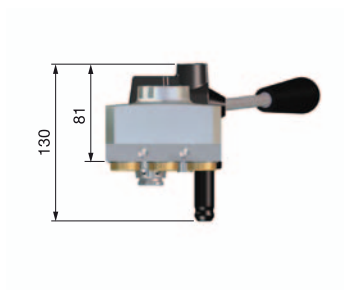
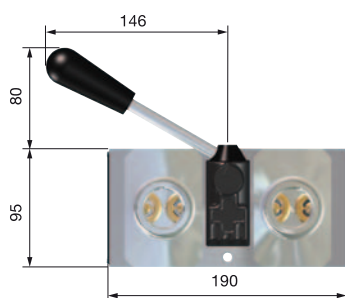
MCI 209.12 - 12 socket plates - Press equipment

MCI 209.12 - 12 socket plates - Press equipment			Components for tailor-made configuration part-numbers	
Description	End connection	Equipped plate part-numbers	Plate without socket	Socket only
Female thread				
	G 3/8	MCI 209.12.1102/JV	MCI 209.12.1000	MCI 09.2102/JV
NPT 3/8	MCI 209.12.1202/JV	MCI 09.2202/JV		
Male thread				
	G 3/8 60° cone	MCI 209.12.1152/JV	MCI 209.12.1000	MCI 09.2152/JV
For flexible hose				
	10 mm int. Ø	MCI 209.12.1810/JV	MCI 209.12.1000	MCI 09.2810/JV
12 mm int. Ø	MCI 209.12.1812/JV	MCI 09.2812/JV		
For self-clamping flexible hose				
	3/8"	MCI 209.12.1810/CN/JV	MCI 209.12.1000	MCI 09.2810/CN/JV
1/2"	MCI 209.12.1813/CN/JV	MCI 09.2813/CN/JV		



MCI 209.12 - 12 socket plates - Press equipment

Description	End connection	Equipped plate part-numbers
Plate with centralised power supply and output		
	G 1	MCI 209.12.1105/JV



Options

Add the corresponding option codes to the **MCI 209.12.1xxx/JV** part-numbers pages 12 and 13:

- Safety locking **VS code**
- Reversed control lever **LH code**
- VS and LH option combination **VS/LH code**
- Proximity sensor **DP code**

Identification of the associated plates with colour code

Add the corresponding colour code to the part-numbers pages 12 and 13:

- blue **KB code**
- red **KR code**

Additional equipment

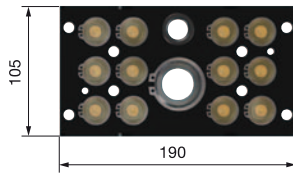
- Parking plate, foolproof keying kit and carrying handle: see part-numbers page 18.

Options and additional equipment shown on pages 6 and 7.

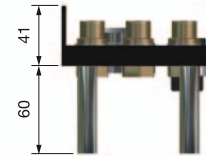
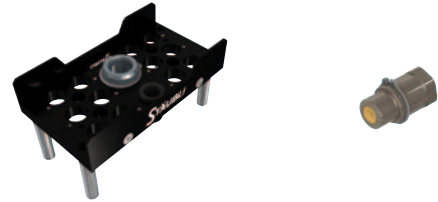
Part-numbers

MCI 209.12 - 12 plug plates - Mould equipment

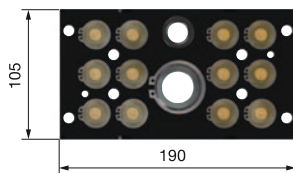
Description	End connection	Equipped plate part-numbers
Female thread	G 3/8	MCI 209.12.7102/JV
	NPT 3/8	MCI 209.12.7202/JV



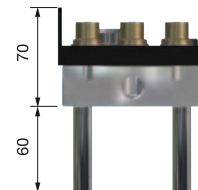
Components for tailor-made configuration part-numbers	
Plate without plug	Plug only
MCI 209.12.6000	MCI 09.5102/JV
	MCI 09.5202/JV




Description	End connection	Equipped plate part-numbers
Female thread	G 3/8	MCI 209.12.7102/JV/RE
	NPT 3/8	MCI 209.12.7202/JV/RE




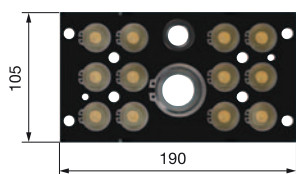
Components for tailor-made configuration part-numbers	
	Plug only
	MCI 09.5000/JV



MCI 209.12 - 12 plug plates - Mould equipment

Description	Equipped plate part-numbers
Direct mounting onto the mould	
	MCI 209.12.7000/JV

Components for tailor-made configuration part-numbers	
	Plug only
	
	MCI 09.5000/JV



Options

Identification of the associated plates with colour code

Add the corresponding colour code to the part-numbers pages 14 and 15:

- blue **KB code**
- red **KR code**

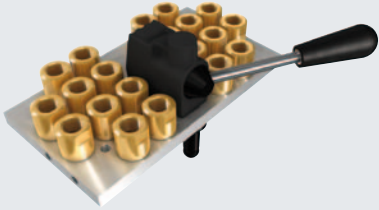
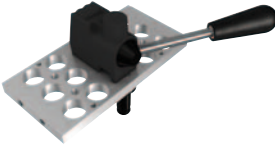

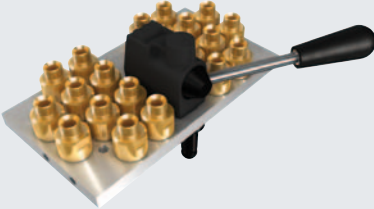
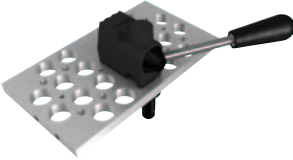


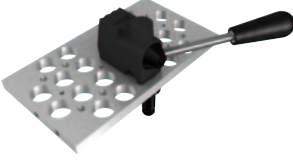


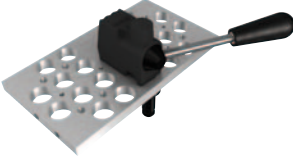

Additional equipment

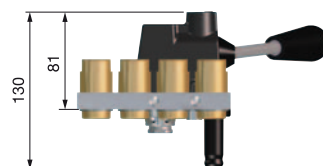
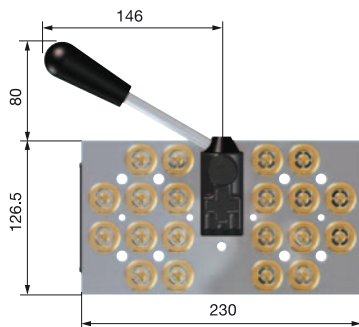
- Parking plate, foolproof keying kit and carrying handle: see part-numbers page 18.

Options and additional equipment shown on pages 6 and 7.

Part-numbers

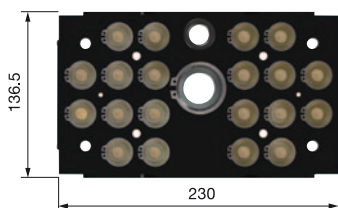
MCI 209.20 - 20 socket plates - Press equipment

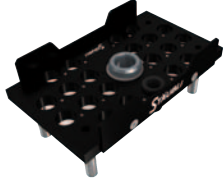

Description	End connection	Equipped plate part-numbers	Components for tailor-made configuration part-numbers	
			Plate without socket	Socket only
Female thread				
	G 3/8	MCI 209.20.1102/JV	MCI 209.20.1000	MCI 09.2102/JV
NPT 3/8	MCI 209.20.1202/JV	MCI 09.2202/JV		
Male thread				
	G 3/8 60° cone	MCI 209.20.1152/JV	MCI 209.20.1000	MCI 09.2152/JV
For flexible hose				
	10 mm int. Ø	MCI 209.20.1810/JV	MCI 209.20.1000	MCI 09.2810/JV
12 mm int. Ø	MCI 209.20.1812/JV	MCI 09.2812/JV		
For self-clamping flexible hose				
	3/8"	MCI 209.20.1810/CN/JV	MCI 209.20.1000	MCI 09.2810/CN/JV
1/2"	MCI 209.20.1813/CN/JV	MCI 09.2813/CN/JV		

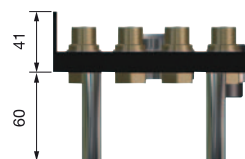


MCI 209.20 - 20 plug plates - Mould equipment

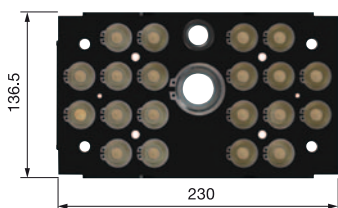
Description	End connection	Equipped plate part-numbers
Female thread	G 3/8	MCI 209.20.7102/JV
	NPT 3/8	MCI 209.20.7202/JV



Components for tailor-made configuration part-numbers	
Plate without plug	Plug only
	
MCI 209.20.6000	MCI 09.5102/JV
	MCI 09.5202/JV



Description	Equipped plate part-numbers
Direct mounting onto the mould	MCI 209.20.7000/JV



Components for tailor-made configuration part-numbers	
	Plug only
	
	MCI 09.5000/JV



Options

Add the corresponding option codes to the **MCI 209.20.1xx/JV** part-numbers page 16:

- Safety locking **VS code**
- Reversed control lever **LH code**
- VS and LH option combination **VS/LH code**
- Proximity sensor **DP code**

Identification of the associated plates with colour code

Add the corresponding colour code to the part-numbers pages 16 and 17:

- blue **KB code**
- red **KR code**

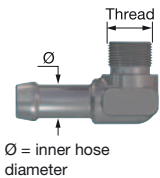
Additional equipment

- Parking plate, foolproof keying kit and carrying handle: see part-numbers page 18.

Options and additional equipment shown on pages 6 and 7.

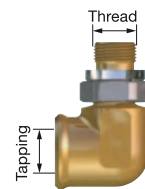
Additional equipment part-numbers

To be separately ordered.



90° elbow for flexible hose

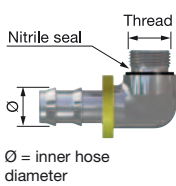
Fittings	Part-numbers
Ø 10 mm - G 3/8 male	AF 152.10/RE
Ø 12 mm - G 3/8 male	AF 152.12/RE



Swivel 90° elbow

Fittings	Part-numbers
G 3/8 female G 3/8 male	RMF 152.102/REO/LN/JV

Recommended for MCI 209.12.7102/JV/RE and MCI 209.12.7202/JV/RE



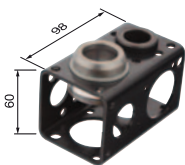
90° elbow for self-clamping hose

Fittings	Part-numbers
3/8" - G 3/8 male	AF 152.10/CN/RE
1/2" - G 3/8 male	AF 152.13/CN/RE



Extender

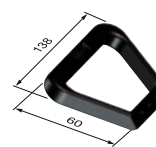
Fittings	Part-numbers
G 3/8 male G 3/8 female	RMF 152.102/LN
G 3/8 male NPT 3/8 female	RMF 152.202/LN



Parking plate

Part-numbers
MPP 01.9001

Proximity sensor: add **DP** code to the part-number above



Carrying handle

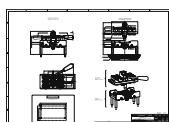
Part-numbers
RMP 111.61

Delivered with washer and fixing screws

Foolproof keying kits

To perform the coding of plates, it is necessary to use 2 keying kits: 1 kit on press side + 1 kit on mould side.

Plate models	Equipment	Plate part-numbers	Kit part-numbers
MCI 209.06	Press equipment	All models	KCP 01.9006
	Mould equipment	All models	KCP 01.9006
MCI 209.10 and MCI 209.12	Press equipment	MCI 209.12.1105/JV	KCP 01.9002
		Other plates	KCP 01.9001
	Mould equipment	MCI 209.10.7xxx/JV/RE MCI 209.12.7xxx/JV/RE	KCP 01.9002/Q3
		MCI 209.12.7000/JV MCI 209.12.7xxx/JV	KCP 01.9001/Q3
MCI 209.20	Press equipment	MCI 209.20.1xxx/JV	KCP 01.9001
	Mould equipment	MCI 209.20.7000/JV	KCP 01.9002/Q3
		MCI 209.20.7xxx/JV	KCP 01.9001/Q3




For optimal use of your multi-connection plates

Stäubli offers, on simple request, drawings containing detailed information about plate assembly, circuit wiring, keying kit and sensors assembly as well as all the other options and additional equipments.

Plate models	Plates part-numbers	Drawing part-numbers
MCI 209.06	MCI 209.06.1102/JV + MCI 209.06.7102/JV	R 358 071 04
	MCI 209.06.1102/JV + MCI 209.06.7000/JV	R 358 071 06
MCI 209.10 and MCI 209.12	MCI 209.12.1102/JV + MCI 209.12.7102/JV	R 358 071 00
	MCI 209.12.1105/JV + MCI 209.12.7102/JV/RE	R 358 071 01
	MCI 209.12.1105/JV + MCI 209.10.7102/JV/RE	R 358 071 02
	MCI 209.12.1105/JV + MCI 209.12.7000/JV	R 358 071 03
MCI 209.20	MCI 209.20.1102/JV + MCI 209.20.7102/JV	R 358 071 07
	MCI 209.20.1102/JV + MCI 209.20.7000/JV	R 358 071 09

Technical characteristics

		MCI 209
Nominal diameter DN (mm)		9
Shut-off	double	

Non-spill, flat face socket and plug.

Tightness

Fluorocarbon (FPM) seals as standard.

Option:

- Nitrile seal (NBR): suppress **JV** code in the part-numbers pages 8 to 17.

- Ethylene-Propylene (EPDM): replace **JV** code with **JE** code in the part-numbers pages 8 to 17.

Proximity sensor

- PNP - M8 x 1
- 1 connector M12 + 5 m of 3 wire cable

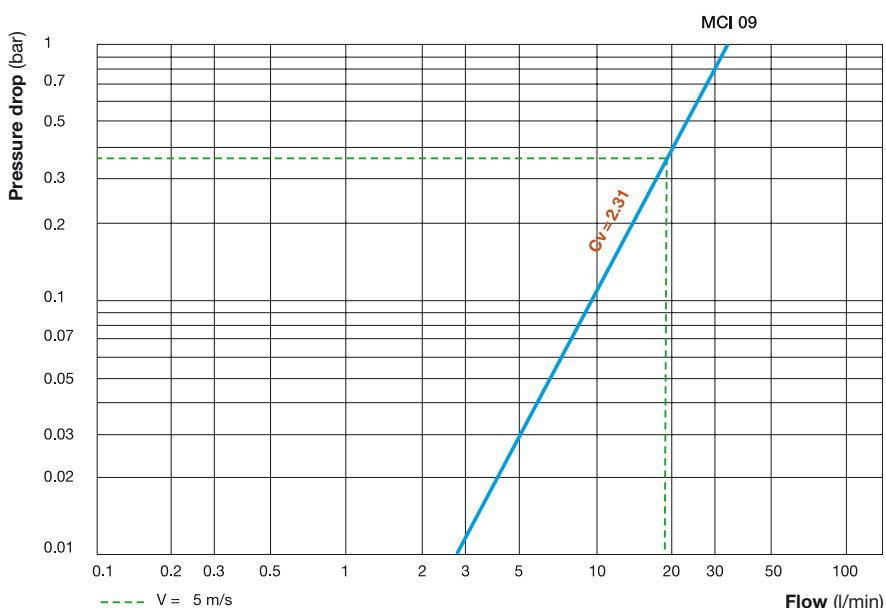
Conditions of use of the MCI 209 plates ⁽¹⁾

Types of seal	Maximum allowable pressure PS (bar) ⁽²⁾	Minimum and maximum allowable temperatures TS (°C)
Fluorocarbon (FPM)	16	+15 and +150
	10	+15 and +200
Ethylene-Propylene (EPDM)	16	-20 and +150
Nitrile (NBR)	16	-15 and +100

⁽¹⁾ Check that max. pressure and min./max. working temperatures of hoses (rubber hose, plastic or polyurethane tube) and of the connection are not exceeded. Other conditions of use: consult us.

⁽²⁾ Make sure to distribute the inlet/outlet circuits so as to balance the pressures on either side of the locking system. For more information, consult us.

Hydraulic flow rate/pressure drop chart for a circuit



Test conditions:

- Fluid: water
- Direction of flow: socket → plug



■ Stäubli units ○ Agents

Global presence of the Stäubli group

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