

MIXO Pneumatic modules



The MIXO modules are designed for the transmission of clean compressed air by using specific removable contacts in metal and thermoplastic versions.

The MIXO pneumatic modules allow to easily connect or disconnect a hose or tube under pressure, combining the electrical wiring and the pneumatic line with a single connector.

The **thermoplastic** and **metal** removable pneumatic contacts come in two versatile variants: for outer diameter OD (push-in attachment of tubes to the quick-fitting contacts), or inner diameter ID (push-over attachment of tubes over barbed straight contacts).

Female contacts are available with/without a shut-off valve, giving a wide range of options to suit every application.

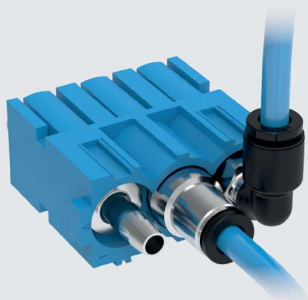
The metal pneumatic contacts are removable without damaging the modules or the contact with the CMPES dedicated removal tool.

Moreover, they provide (see Focuses below):

- **straight version** for use with hoods with vertical cable outlet;
- **angled version** for use with hoods with horizontal cable outlets;
- compatibility for tubes **up to Ø 8 mm and Ø 10 mm.**

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Insert features: straight and angled version



- Straight and angled version available for use with different cable outlets
- With hose barbs push-over tube attachment or with quick-fitting push-in tube attachment



Thermoplastic pneumatic contacts

	Tube Ø 1,6 mm		Tube Ø 3 mm		Tube Ø 4 mm		Tube Ø 6 mm	
	hose barbs (ID - inner Ø)		hose barbs (ID - inner Ø)		hose barbs (ID - inner Ø)		hose barbs (ID - inner Ø)	
	Male	Female	Male	Female	Male	Female	Male	Female
Straight <u>without</u> shut-off valve	CX 1.6 PM	CX 1.6 PF	CX 3.0 PM	CX 3.0 PF	CX 4.0 PM	CX 4.0 PF	CX 6.0 MPM	CX 6.0 MPF
Straight <u>with</u> shut-off valve		CX 1.6 PV		CX 3.0 PV		CX 4.0 PV		CX 6.0 MPV

Metal pneumatic contacts

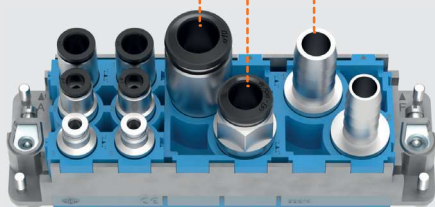
	Tube Ø 3 mm				Tube Ø 4 mm				Tube Ø 6 mm				Tube Ø 8 mm				Tube Ø 10 mm			
	hose barbs (ID - inner Ø)		quick-fitting (OD - outer Ø)		hose barbs (ID - inner Ø)		quick-fitting (OD - outer Ø)		hose barbs (ID - inner Ø)		quick-fitting (OD - outer Ø)		hose barbs (ID - inner Ø)		quick-fitting (OD - outer Ø)		hose barbs (ID - inner Ø)		quick-fitting (OD - outer Ø)	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Straight <u>without</u> shut-off valve	CX 3.0 MPM	CX 3.0 MPF	CX 3.0 MPQM	CX 3.0 MPQF	CX 4.0 MPM	CX 4.0 MPF	CX 4.0 MPQM	CX 4.0 MPQF	CX 6.0 MPM	CX 6.0 MPF	CX 6.0 MPQM	CX 6.0 MPQF	CX 8.0 MPM	CX 8.0 MPF	CX 8.0 MPQM	CX 8.0 MPQF	CX 10 MPM	CX 10 MPF	CX 10 MPQM	CX 10 MPQF
Straight <u>with</u> shut-off valve		CX 3.0 MPV		CX 3.0 MPQV		CX 4.0 MPV		CX 4.0 MPQV		CX 6.0 MPV		CX 6.0 MPQV		CX 8.0 MPV		CX 8.0 MPQV		CX 10 MPV		CX 10 MPQV
Angled <u>without</u> shut-off valve			CX 3.0 MPAM	CX 3.0 MPAF			CX 4.0 MPAM	CX 4.0 MPAF			CX 6.0 MPAM	CX 6.0 MPAF								
Angled <u>with</u> shut-off valve				CX 3.0 MPAV				CX 4.0 MPAV				CX 6.0 MPAV								

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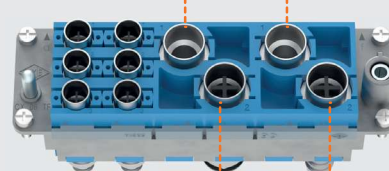
Compatibility for tubes up to Ø 8 mm and Ø 10 mm

- Widening of the metal pneumatic contacts series with 2 sizes available: 8.0 and 10

- Double-sized modules with 2 seats



- Female contacts without shut-off valve



- Female contacts with shut-off valve



CX 03 P / CX 02 P


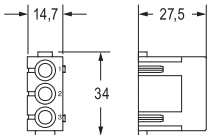

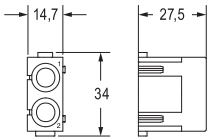
Inserts for thermoplastic pneumatic contacts

size **1 module**

Insulation resistance	≥ 10 GΩ
Ambient temperature limit	-40 °C ... +80 °C
Mechanical life (cycles)	≥ 500



CRUS ECBT2.E115072 | ECBT8.E115072

Item	Description	Part No.	Dimension
	Inserts with 3 housings for tube Ø 1,6 - 3 - 4 mm Without contacts (to be ordered separately)	CX 03 P	
	Inserts with 2 housings for tube Ø 6 mm Without contacts (to be ordered separately)	CX 02 P	

Materials	
Insert	polycarbonate (PC)
UL 94 flame rating	V-0
Colour	blue, RAL 5015


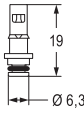
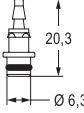
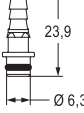
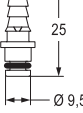

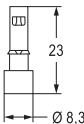
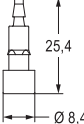
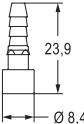
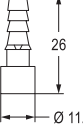

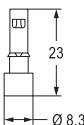
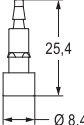
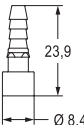
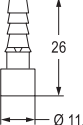
Accessories	Pages
MIXO Frames	
Metal frames for modular units	C.94-95
Thermoplastic docking frames	C.98-101
Enclosures	
Insulating MIXO holder	C.103
MIXO ONE	C.106-107
MIXO TWO	C.110-111

- Identical male and female modular units;
- pneumatic contacts for pressure values up to 8 bar, for use with clean and dry compressed air;
- use of tubes with Ø 1,6 - 3 - 4 and 6 mm, and replacement of tubes with assembled units;
- possibility of using tubes with different diameters in the same modular unit;
- female contacts with or without closing valve;
- working temperature range:
40 °C ÷ + 80 °C;
- coding and guiding pins must be used for pneumatic contacts modules (CRM CX / CRF CX);
- these pins also provide coding if pneumatic contacts modules are used exclusively;
- the use of pneumatic contacts requires an appropriate filtering and dehydration system to prevent dangerous condensation. Contacts may be used for pressure values of up to a maximum of 8 bars/116 psi.

CX..PM/PF/VC

Thermoplastic pneumatic contacts

Insulation resistance	$\geq 10 \text{ G}\Omega$
Ambient temperature limit	$-40 \text{ }^{\circ}\text{C} \dots +80 \text{ }^{\circ}\text{C}$
Mechanical life (cycles)	≥ 500

Item	Description	Part No.	Dimension
	Male contacts without closing valve	straight	
	for tubes with internal $\varnothing 1,6 \text{ mm}$	CX 1.6 PM	
	for tubes with internal $\varnothing 3 \text{ mm}$	CX 3.0 PM	
	for tubes with internal $\varnothing 4 \text{ mm}$	CX 4.0 PM	
	for tubes with internal $\varnothing 6 \text{ mm}$	CX 6.0 PM	
	Female contacts without closing valve	straight	
	for tubes with internal $\varnothing 1,6 \text{ mm}$	CX 1.6 PF	
	for tubes with internal $\varnothing 3 \text{ mm}$	CX 3.0 PF	
	for tubes with internal $\varnothing 4 \text{ mm}$	CX 4.0 PF	
	for tubes with internal $\varnothing 6 \text{ mm}$	CX 6.0 PF	
	Female contacts with closing valve	straight	
	for tubes with internal $\varnothing 1,6 \text{ mm}$	CX 1.6 VC	
	for tubes with internal $\varnothing 3 \text{ mm}$	CX 3.0 VC	
	for tubes with internal $\varnothing 4 \text{ mm}$	CX 4.0 VC	
	for tubes with internal $\varnothing 6 \text{ mm}$	CX 6.0 VC	

Materials

Contact	polyamide (PA)
Colour	black, RAL 9005



CX 03 MP


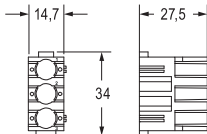
Inserts for metal pneumatic contacts

size **1 module**

Insulation resistance	≥ 10 GΩ
Ambient temperature limit	-40 °C ... +80 °C
Mechanical life (cycles)	≥ 500



(pending: cURus)

Item	Description	Part No.	Dimension
	Inserts with 3 housings for tube Ø 3 - 4 - 6 mm Without contacts (to be ordered separately)	CX 03 MP	

Materials	
Insert	polycarbonate (PC)
UL 94 flame rating	V-0
Colour	blue, RAL 5015



Accessories	Pages
MIXO Frames	
Metal frames for modular units	C.94-95
Thermoplastic docking frames	C.98-101
Enclosures	
Insulating MIXO holder	C.103
MIXO ONE	C.106-107
MIXO TWO	C.110-111

- Identical male and female modular units; female contacts with or without closing valve;
- pneumatic contacts for pressure values up to 10 bar, for use with clean and dry compressed air;
- use of tubes with Ø 3 - 4 and 6 mm, and replacement of tubes with assembled units;
- possibility of using tubes with different diameters in the same modular unit;
- coding and guiding pins must be used for pneumatic contacts modules (**CRM CX / CRF CX**);
- these pins also provide coding if pneumatic contacts modules are used exclusively;
- the use of pneumatic contacts requires an appropriate filtering and dehydration system to prevent dangerous condensation;
- available in **HNM version** up to 10.000 mating cycles.

CX..MPA/MPQ/MP

Metal pneumatic contacts

Insulation resistance	≥ 10 GΩ
Ambient temperature limit	-40 °C ... +80 °C
Mechanical life (cycles)	≥ 500

Item	Description	Part No.	Dimension												
	Quick-fitting (outer Ø) male contacts, without shut-off valve, for tube Ø 3 mm without shut-off valve, for tube Ø 4 mm without shut-off valve, for tube Ø 6 mm	angled CX 3.0 MPAM CX 4.0 MPAM CX 6.0 MPAM	 <table><tr><th>CX .. MPAM</th><th>A (mm)</th><th>B (mm)</th></tr><tr><td>3.0</td><td>43,5</td><td>15,5</td></tr><tr><td>4.0</td><td>45,1</td><td>18,7</td></tr><tr><td>6.0</td><td>47,5</td><td>20,5</td></tr></table>	CX .. MPAM	A (mm)	B (mm)	3.0	43,5	15,5	4.0	45,1	18,7	6.0	47,5	20,5
CX .. MPAM	A (mm)	B (mm)													
3.0	43,5	15,5													
4.0	45,1	18,7													
6.0	47,5	20,5													
	Quick-fitting (outer Ø) female contacts, without shut-off valve, for tube Ø 3 mm without shut-off valve, for tube Ø 4 mm without shut-off valve, for tube Ø 6 mm	angled CX 3.0 MPAF CX 4.0 MPAF CX 6.0 MPAF	 <table><tr><th>CX .. MPAF</th><th>A (mm)</th><th>B (mm)</th></tr><tr><td>3.0</td><td>42,4</td><td>15,5</td></tr><tr><td>4.0</td><td>44,0</td><td>18,7</td></tr><tr><td>6.0</td><td>46,4</td><td>20,5</td></tr></table>	CX .. MPAF	A (mm)	B (mm)	3.0	42,4	15,5	4.0	44,0	18,7	6.0	46,4	20,5
CX .. MPAF	A (mm)	B (mm)													
3.0	42,4	15,5													
4.0	44,0	18,7													
6.0	46,4	20,5													
	Quick-fitting (outer Ø) female contacts, with shut-off valve, for tube Ø 3 mm with shut-off valve, for tube Ø 4 mm with shut-off valve, for tube Ø 6 mm	angled CX 3.0 MPAV CX 4.0 MPAV CX 6.0 MPAV	 <table><tr><th>CX .. MPAV</th><th>A (mm)</th><th>B (mm)</th></tr><tr><td>3.0</td><td>49,9</td><td>15,5</td></tr><tr><td>4.0</td><td>51,5</td><td>18,7</td></tr><tr><td>6.0</td><td>53,9</td><td>20,5</td></tr></table>	CX .. MPAV	A (mm)	B (mm)	3.0	49,9	15,5	4.0	51,5	18,7	6.0	53,9	20,5
CX .. MPAV	A (mm)	B (mm)													
3.0	49,9	15,5													
4.0	51,5	18,7													
6.0	53,9	20,5													
	Quick-fitting (outer Ø) male contacts, without shut-off valve, for tube Ø 3 mm without shut-off valve, for tube Ø 4 mm without shut-off valve, for tube Ø 6 mm	straight CX 3.0 MPQM CX 4.0 MPQM CX 6.0 MPQM	 <table><tr><th>CX .. MPQM</th><th>A (mm)</th></tr><tr><td>3.0</td><td>41,2</td></tr><tr><td>4.0</td><td>45,5</td></tr><tr><td>6.0</td><td>47,5</td></tr></table>	CX .. MPQM	A (mm)	3.0	41,2	4.0	45,5	6.0	47,5				
CX .. MPQM	A (mm)														
3.0	41,2														
4.0	45,5														
6.0	47,5														
	Quick-fitting (outer Ø) female contacts, without shut-off valve, for tube Ø 3 mm without shut-off valve, for tube Ø 4 mm without shut-off valve, for tube Ø 6 mm	straight CX 3.0 MPQF CX 4.0 MPQF CX 6.0 MPQF	 <table><tr><th>CX .. MPQF</th><th>A (mm)</th></tr><tr><td>3.0</td><td>40,1</td></tr><tr><td>4.0</td><td>44,4</td></tr><tr><td>6.0</td><td>46,4</td></tr></table>	CX .. MPQF	A (mm)	3.0	40,1	4.0	44,4	6.0	46,4				
CX .. MPQF	A (mm)														
3.0	40,1														
4.0	44,4														
6.0	46,4														
	Quick-fitting (outer Ø) female contacts, with shut-off valve, for tube Ø 3 mm with shut-off valve, for tube Ø 4 mm with shut-off valve, for tube Ø 6 mm	straight CX 3.0 MPQV CX 4.0 MPQV CX 6.0 MPQV	 <table><tr><th>CX .. MPQV</th><th>A (mm)</th></tr><tr><td>3.0</td><td>47,6</td></tr><tr><td>4.0</td><td>51,9</td></tr><tr><td>6.0</td><td>53,9</td></tr></table>	CX .. MPQV	A (mm)	3.0	47,6	4.0	51,9	6.0	53,9				
CX .. MPQV	A (mm)														
3.0	47,6														
4.0	51,9														
6.0	53,9														
	Hose barbs (inner Ø) male contacts, without shut-off valve, for tube Ø 3 mm without shut-off valve, for tube Ø 4 mm without shut-off valve, for tube Ø 6 mm	straight CX 3.0 MPM CX 4.0 MPM CX 6.0 MPM	 <table><tr><th>CX .. MPM</th><th>A (mm)</th><th>B (mm)</th></tr><tr><td>3.0</td><td>37,6</td><td>7,9</td></tr><tr><td>4.0</td><td>41,3</td><td>11,6</td></tr><tr><td>6.0</td><td>40,2</td><td>10,4</td></tr></table>	CX .. MPM	A (mm)	B (mm)	3.0	37,6	7,9	4.0	41,3	11,6	6.0	40,2	10,4
CX .. MPM	A (mm)	B (mm)													
3.0	37,6	7,9													
4.0	41,3	11,6													
6.0	40,2	10,4													
	Hose barbs (inner Ø) female contacts, without shut-off valve, for tube Ø 3 mm without shut-off valve, for tube Ø 4 mm without shut-off valve, for tube Ø 6 mm	straight CX 3.0 MPF CX 4.0 MPF CX 6.0 MPF	 <table><tr><th>CX .. MPF</th><th>A (mm)</th><th>B (mm)</th></tr><tr><td>3.0</td><td>36,5</td><td>7,9</td></tr><tr><td>4.0</td><td>40,2</td><td>11,6</td></tr><tr><td>6.0</td><td>39,1</td><td>10,4</td></tr></table>	CX .. MPF	A (mm)	B (mm)	3.0	36,5	7,9	4.0	40,2	11,6	6.0	39,1	10,4
CX .. MPF	A (mm)	B (mm)													
3.0	36,5	7,9													
4.0	40,2	11,6													
6.0	39,1	10,4													
	Hose barbs (inner Ø) female contacts, with shut-off valve, for tube Ø 3 mm with shut-off valve, for tube Ø 4 mm with shut-off valve, for tube Ø 6 mm	straight CX 3.0 MPV CX 4.0 MPV CX 6.0 MPV	 <table><tr><th>CX .. MPV</th><th>A (mm)</th><th>B (mm)</th></tr><tr><td>3.0</td><td>39,5</td><td>7,9</td></tr><tr><td>4.0</td><td>43,2</td><td>11,6</td></tr><tr><td>6.0</td><td>42,1</td><td>10,4</td></tr></table>	CX .. MPV	A (mm)	B (mm)	3.0	39,5	7,9	4.0	43,2	11,6	6.0	42,1	10,4
CX .. MPV	A (mm)	B (mm)													
3.0	39,5	7,9													
4.0	43,2	11,6													
6.0	42,1	10,4													

Materials

Contact	nickel plated brass
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CX 02 MPB

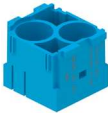
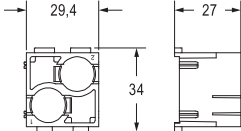

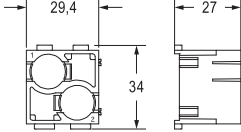
Inserts for metal pneumatic contacts

size **2 modules**

Insulation resistance	≥ 10 GΩ
Ambient temperature limit	-40 °C ... +80 °C
Mechanical life (cycles)	≥ 500

(pending: DNV and BV)

(pending: cURus)

Item	Description	Part No.	Dimension
	Male inserts with 2 housings for tube Ø 8 - 10 mm Without contacts (to be ordered separately)	CX 02 MPBM	
	Female inserts with 2 housings for tube Ø 8 - 10 mm Without contacts (to be ordered separately)	CX 02 MPBF	

Materials	
Insert	polycarbonate (PC)
UL 94 flame rating	V-0
Colour	blue, RAL 5015

Accessories	Pages
MIXO Frames	
Metal frames for modular units	C.95
Thermoplastic docking frames	C.98-101


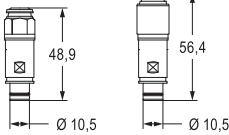

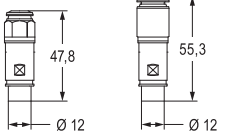

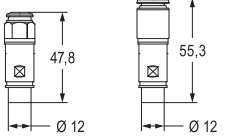

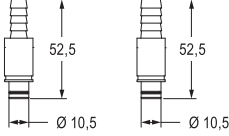

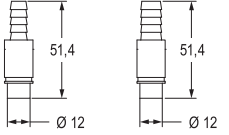

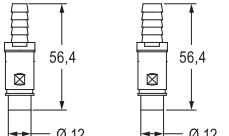
- Identical male and female modular units;
- pneumatic contacts for pressure values up to 10 bar, for use with clean and dry compressed air;
- use of tubes with Ø 8 and 10 mm, and replacement of tubes with assembled units;
- possibility of using tubes with different diameters in the same modular unit;
- female contacts with or without closing valve;
- working temperature range:
40 °C + + 80 °C;
- coding and guiding pins must be used for pneumatic contacts modules (**CRM CX / CRF CX**);
- these pins also provide coding if pneumatic contacts modules are used exclusively;
- the use of pneumatic contacts requires an appropriate filtering and dehydration system to prevent dangerous condensation;
- available in **HNH version** up to 10.000 mating cycles.

Can be used in bulkhead mounting housings or in high construction housings or in high construction hoods.

CX..MPQ / MP

Metal pneumatic contacts

Insulation resistance	≥ 10 GΩ
Ambient temperature limit	-40 °C ... +80 °C
Mechanical life (cycles)	≥ 500

Item	Description	Part No.	Dimension
	Quick-fitting (outer Ø) male contacts, without shut-off valve, for tube Ø 8 mm without shut-off valve, for tube Ø 10 mm	straight CX 8.0 MPQM CX 10 MPQM	
	Quick-fitting (outer Ø) female contacts, without shut-off valve, for tube Ø 8 mm without shut-off valve, for tube Ø 10 mm	straight CX 8.0 MPQF CX 10 MPQF	
	Quick-fitting (outer Ø) female contacts, with shut-off valve, for tube Ø 8 mm with shut-off valve, for tube Ø 10 mm	straight CX 8.0 MPQV CX 10 MPQV	
	Hose barbs (inner Ø) male contacts, without shut-off valve, for tube Ø 8 mm without shut-off valve, for tube Ø 10 mm	straight CX 8.0 MPM CX 10 MPM	
	Hose barbs (inner Ø) female contacts, without shut-off valve, for tube Ø 8 mm without shut-off valve, for tube Ø 10 mm	straight CX 8.0 MPF CX 10 MPF	
	Hose barbs (inner Ø) female contacts, with shut-off valve, for tube Ø 8 mm with shut-off valve, for tube Ø 10 mm	straight CX 8.0 MPV CX 10 MPV	
Materials			
Contact	nickel plated brass		