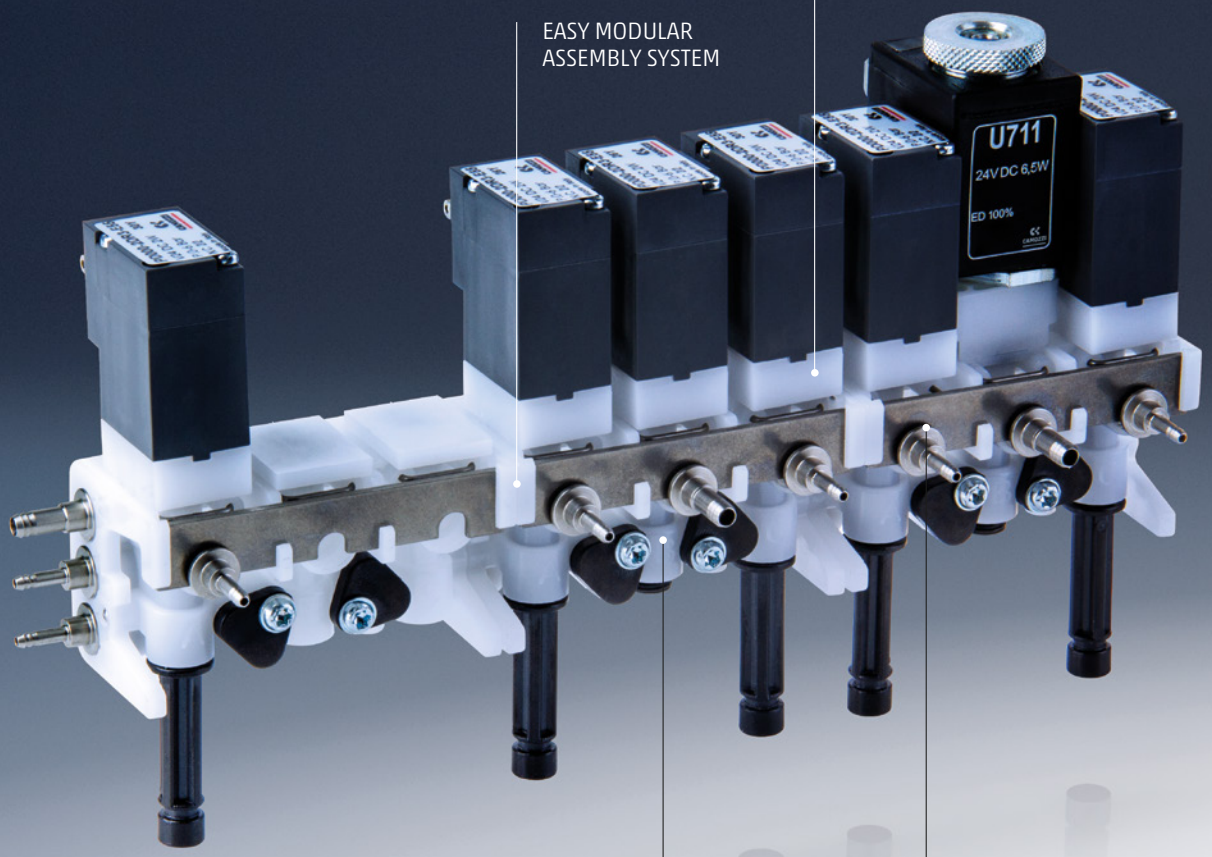
CAMOZZI
Automation

SERIES DB
FLUID MULTICHANNEL MANIFOLD

SERIES DB
MODULAR DESIGN ASSEMBLY



The Series DB is a modular and compact solution, optimising pneumatic, hydraulic and electrical connections – reducing installation times on machines operating in the industrial and life sciences sectors.

The concept behind the manifold gives multiple modules maximum configuration versatility, combining miniature solenoid on-off valves and proportional control valves.

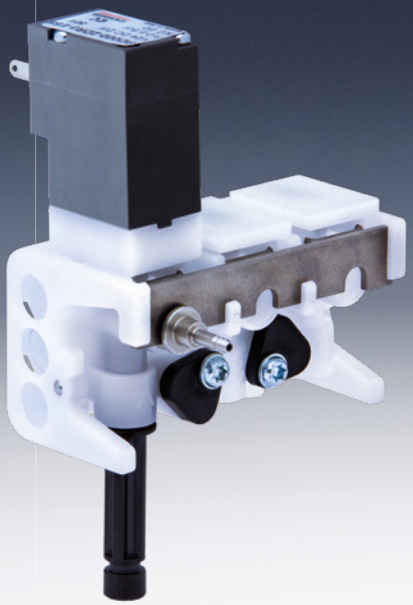
Each single manifold can support several configurations and can easily be tailored to suit the operating requirements of varied applications.

For example, the manifold, due to its material specification, allows dispensing equipment to manage different gases (like carbon dioxide or nitrogen used for carbonation and preservation) and liquids, an advantage in food and beverage sector.

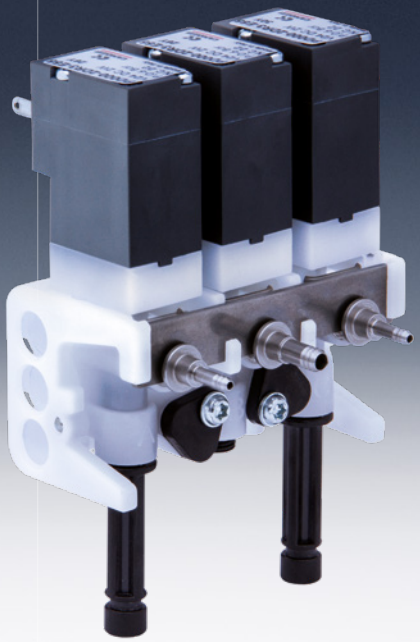
* Not for proportional valve

Configuration examples

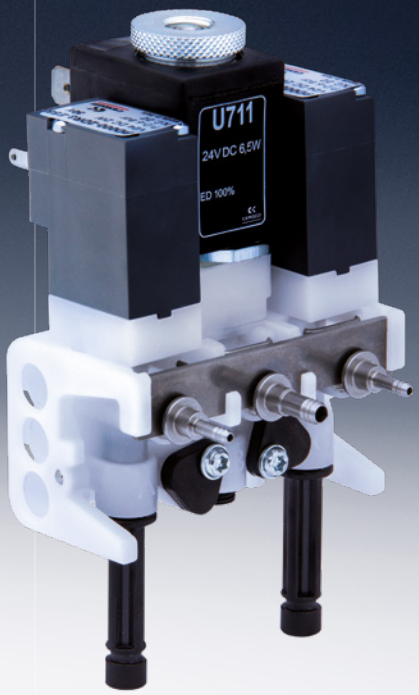
Manifold configuration with only one 2/2 N.C. valve for **gases or liquids**



Manifold configuration with three 2/2 N.C. valves for **gases and liquids**



Manifold configuration with one proportional valve for **gases** and two 2/2 N.C. valves for **gases and liquids**



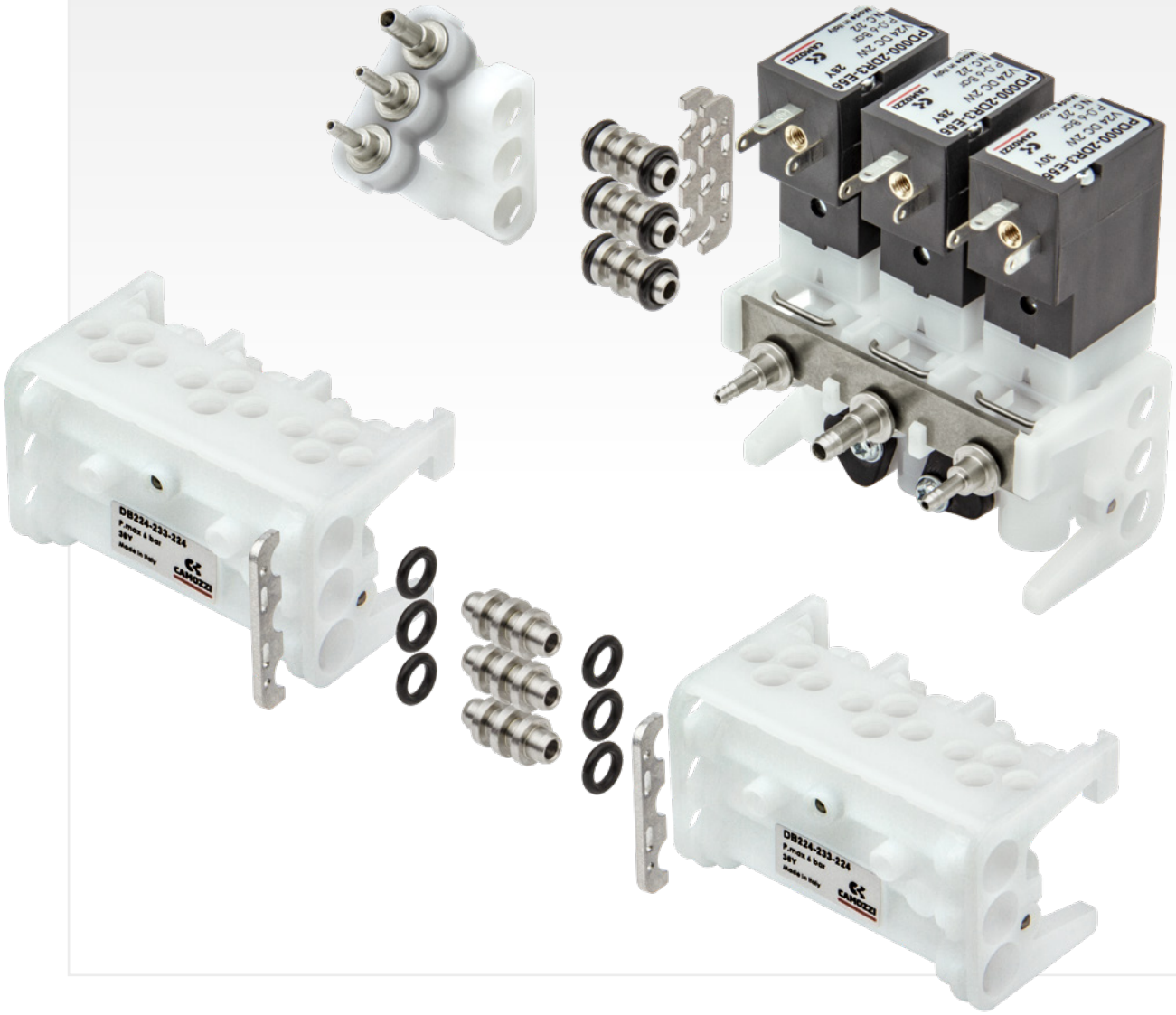
BENEFITS

- **Easy to install**
- **Modular**
- **Configuration flexibility**
- **Compact and light design**

Designed to be flexible

Modularity

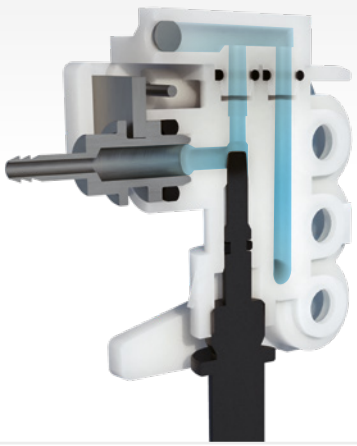
The manifolds can be quickly and simply assembled



Plugs for valve positions

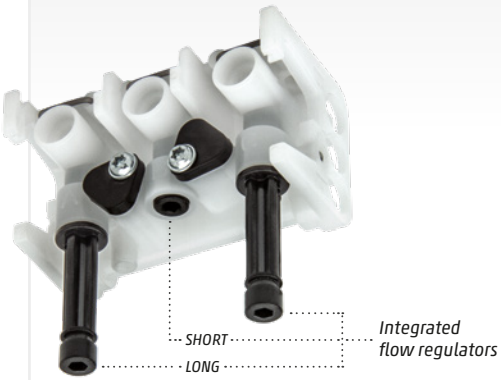
"Closed version" plug

"Open version" plug



Integrated flow regulators

- "Short" flow regulator for factory settings.
- "Long" flow regulators accessible to the user.

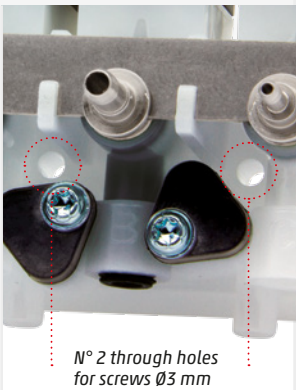


Connections for external flow regulators

Hose barb fittings in 303 stainless steel material suitable for I.D. tubing Ø 1.6 mm

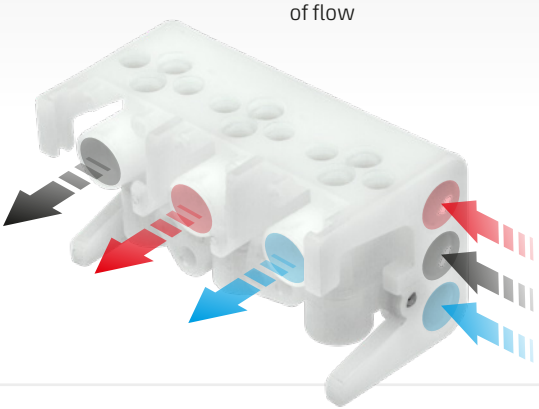
Fixing holes

Located on the bottom and on the front of the manifold



Flow direction

The standard direction of flow is from the lateral port to the frontal ports. It is possible to configure the manifold in order to reverse the direction of flow

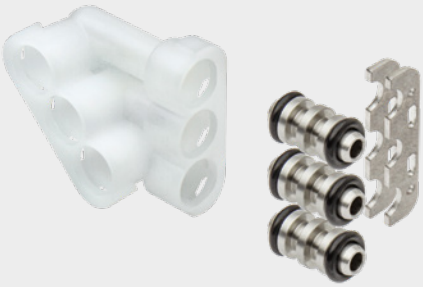


Accessories

Connection fittings

a. Manifold interconnection nipples
b. Hose barb fittings I.D. tubing Ø 1.6 - 3 - 4 mm
c. Threaded M5 female fittings for input and output ports
d. Plugs for input and output ports

Angled element



Made of acetal resin (POM), the angled element allows the input ports of the manifold to turn through 90°

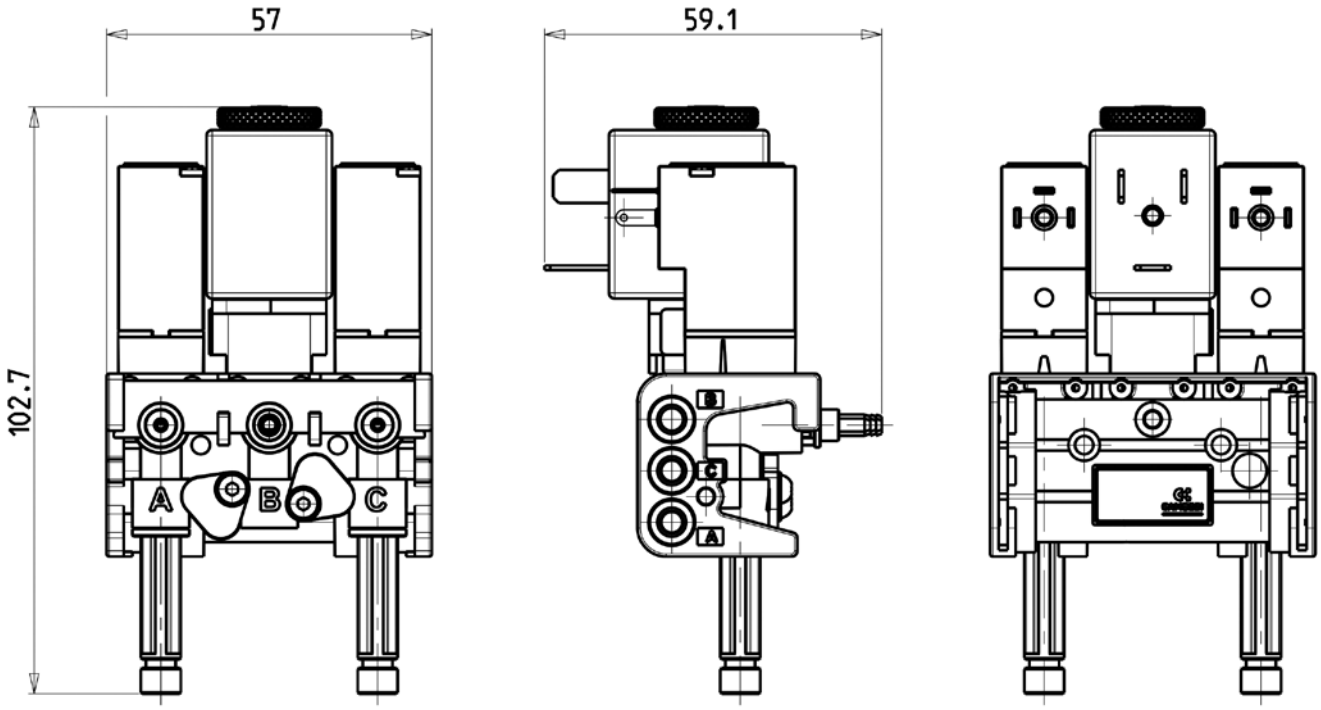
General data

TECHNICAL FEATURES			
Valve function	2/2 N.C.	2/2 proportional	2/2 proportional
Operation	direct acting poppet type		
Pneumatic connection	hose barb fittings for I.D. tubing Ø 1.6 - 3 - 4 mm / M5 threaded		
Valve orifice diameter	1.6 mm	1.6 mm	2.0 mm
Flow coefficient kv (l/min)	0.6	0.9	1.1
Nominal flow (air @ 6 bar free flow)	55 Nl/min	83 Nl/min	87 Nl/min
Operating pressure	6 bar	6 bar	5 bar
Operating temperature	0 ÷ 50 °C		
Media	filtered air class 5.4.4 according to ISO 8573-1, inert gas, potable water	filtered air class 5.4.4 according to ISO 8573-1, inert gas	
Installation	in any position		

MATERIAL IN CONTACT WITH THE MEDIUM			
Manifold and valve body	POM		
Seals	EPDM	FKM	FKM
Internal valve parts	IXEF - stainless steel 303 - 430	brass - stainless steel 303 - 430	
Fittings	stainless steel 303		

ELECTRICAL FEATURES			
Voltage	24 Vdc - Other voltage on request		
Power consumption	2W	6.5W	6.5W
Duty cycle	ED 100%		
Electrical connection	Micro Industrial Standard pitch 9.4 mm	EN 175 301-803-B pitch 11 mm	EN 175 301-803-B pitch 11 mm

Dimensional characteristics



Coding example

DB	2	2	4	-	6	3	3	-	2	2	4		

DB	SERIES	
2	SECTION A - VALVE POSITION 0 = plug element 1 = bypass element 2 = valve 2/2 NC - Ø 1.6 mm - rear electrical contacts 3 = valve 2/2 NC - Ø 1.6 mm - front electrical contacts	6 = valve 2/2 PROPORTIONAL - Ø 1.6 mm - rear electrical contacts 7 = valve 2/2 PROPORTIONAL - Ø 1.6 mm - front electrical contacts A = valve 2/2 PROPORTIONAL - Ø 2.0 mm - rear electrical contacts B = valve 2/2 PROPORTIONAL - Ø 2.0 mm - front electrical contacts
2	SECTION A - OUTPUT PORT POSITION 0 = none 1 = plug fitting 2 = hose barb fitting for tubing Ø 1.6 x 3.17 mm	3 = hose barb fitting for tubing Ø 3 x 5 mm 4 = hose barb fitting for tubing Ø 4 x 6 mm 5 = threaded M5 female fitting
4	SECTION A - FLOW REGULATOR POSITION 0 = none 1 = plug and external flow regulator hose barb fittings 2 = plug	3 = short flow regulator 4 = long flow regulator 5 = threaded M5 female fitting 6 = threaded M5 female fitting and external flow regulator hose barb fittings
-	SECTION A - FLOW DIRECTION POSITION - = standard (output on the front or bottom of the manifold)	R = reverse mode (input on the front or bottom of the manifold)
6	SECTION B - VALVE POSITION 0 = plug element 1 = bypass element 2 = valve 2/2 NC - Ø 1.6 mm - rear electrical contacts 3 = valve 2/2 NC - Ø 1.6 mm - front electrical contacts	6 = valve 2/2 PROPORTIONAL - Ø 1.6 mm - rear electrical contacts 7 = valve 2/2 PROPORTIONAL - Ø 1.6 mm - front electrical contacts A = valve 2/2 PROPORTIONAL - Ø 2.0 mm - rear electrical contacts B = valve 2/2 PROPORTIONAL - Ø 2.0 mm - front electrical contacts
3	SECTION B - OUTPUT PORT POSITION 0 = none 1 = plug fitting 2 = hose barb fitting for tubing Ø 1.6 x 3.17 mm	3 = hose barb fitting for tubing Ø 3 x 5 mm 4 = hose barb fitting for tubing Ø 4 x 6 mm 5 = threaded M5 female fitting
3	SECTION B - FLOW REGULATOR POSITION 0 = none 2 = plug	3 = short flow regulator 4 = long flow regulator 5 = threaded M5 female fitting
-	SECTION B - FLOW DIRECTION POSITION - = standard (output on the front or bottom of the manifold)	R = reverse mode (input on the front or bottom of the manifold)
2	SECTION C - VALVE POSITION 0 = plug element 1 = bypass element 2 = valve 2/2 NC - Ø 1.6 mm - rear electrical contacts 3 = valve 2/2 NC - Ø 1.6 mm - front electrical contacts	6 = valve 2/2 PROPORTIONAL - Ø 1.6 mm - rear electrical contacts 7 = valve 2/2 PROPORTIONAL - Ø 1.6 mm - front electrical contacts A = valve 2/2 PROPORTIONAL - Ø 2.0 mm - rear electrical contacts B = valve 2/2 PROPORTIONAL - Ø 2.0 mm - front electrical contacts
2	SECTION C - OUTPUT PORT POSITION 0 = none 1 = plug fitting 2 = hose barb fitting for tubing Ø 1.6 x 3.17 mm	3 = hose barb fitting for tubing Ø 3 x 5 mm 4 = hose barb fitting for tubing Ø 4 x 6 mm 5 = threaded M5 female fitting
4	SECTION C - FLOW REGULATOR POSITION 0 = none 1 = plug and external flow regulator hose barb fittings 2 = plug	3 = short flow regulator 4 = long flow regulator 5 = threaded M5 female fitting 6 = threaded M5 female fitting and external flow regulator hose barb fittings
	SECTION C - FLOW DIRECTION POSITION - = standard (output on the front or bottom of the manifold)	R = reverse mode (input on the front or bottom of the manifold)
	POWER SUPPLY = 24 VDC	2 = 12 VDC

Coding example accessories

DB	AT	-	2	2	3

DB	SERIES	
AT	ACCESSORIES AT = terminal fittings (supplied with 1 fixing plate and 3 O-rings) AJ = joint fittings (supplied with 2 fixing plates and 6 O-rings)	AL = angled element (supplied with 3 joint fittings, 2 fixing plates and 6 O-rings)
2	FITTING 1 1 = plug fitting 2 = hose barb fitting for tubing Ø 1.6 x 3.17 mm 3 = hose barb fitting for tubing Ø 3 x 5 mm	4 = hose barb fitting for tubing Ø 4 x 6 mm 5 = threaded M5 female fitting A = joint fitting C = blind joint fitting
2	FITTING 2 1 = plug fitting 2 = hose barb fitting for tubing Ø 1.6 x 3.17 mm 3 = hose barb fitting for tubing Ø 3 x 5 mm	4 = hose barb fitting for tubing Ø 4 x 6 mm 5 = threaded M5 female fitting A = joint fitting C = blind joint fitting
3	FITTING 3 1 = plug fitting 2 = hose barb fitting for tubing Ø 1.6 x 3.17 mm 3 = hose barb fitting for tubing Ø 3 x 5 mm	4 = hose barb fitting for tubing Ø 4 x 6 mm 5 = threaded M5 female fitting A = joint fitting C = blind joint fitting

Note only for the accessories: Please indicate after the dash, the numbers or letters in ascending order during the composition of the code. (i.e. DBAT-135).

M.IX COMUNICAZIONE - MI

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