

## Series 55 Tecno-FUN

## General

This line of different logic functions that can be used in any place of the secondary pneumatic circuit, developed to be installed directly onto the main pneumatic components (distributors or cylinders).

Thanks to the modular design it is possible to easily join together multiple logic functions without the need of using pipes to connect them; it is also possible to choose the type and style of each connection. The connections available are the following: straight cartridge; Banjo PL cartridge; male cartridge threaded 1/8" or 1/4" and female cartridge threaded 1/8".

Function fittings can also be assembled side by side in order to be assembled on the DIN EN 50022 rail (using the relevant kit).



#### Other characteristics:

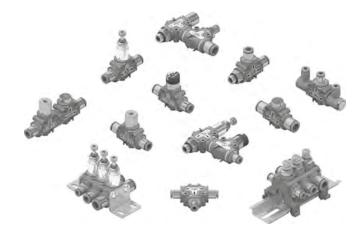
Technopolymer body Input/output connection directly integrated into the body In line or 90° connection Possibility to build a manifold -parallel mounting-Different connection options: Tube Ø4 Ø6 Ø8 (elbow version as well) G1/8" G1/4" male straight cartridge G1/8" female cartridge, in line or 90°

## Different mounting options:

- Wall fixing through the holes in the bodyBy means of the fixing bracket
- Panel mounting (for those function that include such possibility)
- On DIN rail EN 50022 (using the DIN rail adapter kit)

### **Available functions**

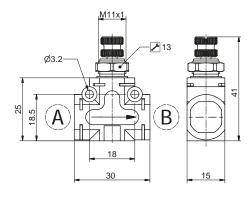
- Flow control valve
- Pressure regulator
- Block valve
- Quick exhaust valve
- OR gate
- AND gate
- Pressure gauge
- Progressive start-up valve
- Pressure regulator + pressure gauge
- Block valve + Flow control valve
- Block valve + quick exhaust valve





# Flow regulator

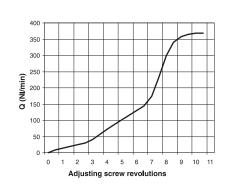




Codi	ng: 551.11 <b>①.②.③</b> .XX	
	TYPE	
0	1 = Unidirectional	
	2 = Bidirectional	
A	CONNECTION A	
	SEE CONNECTIONS LIST	
B	CONNECTION B SEE CONNECTIONS LIST	
•		
	CONNECTIONS LIST	
	00 = None	
	D4 = StraightØ4	
	D6 = Straight Ø6	
	D8 = StraightØ8	
	L1 = Female banjo G1/8"	
	G4= Rotating banjo Ø 4	
	G6= Rotating banjo Ø 6	
	G8= Rotating banjo Ø8	
	M1 = G1/8" male	
	M2 = G1/4" male	
	F1 = G1/8" female	

Flow control valve unidirectional, CONNECTIONS "A" and "B" Tube Ø6 NOTE: For the dimension including cartridges see page Accessories - Function fittings

## Piloting curves





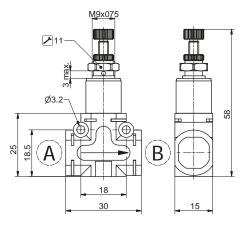
- The flow control valve is normally used to regulate the air flow and, as a consequence, for example, the speed of a cylinder. Two types of flow control valves are available: unidirectional and bidirectional. In the unidirectional valve the flow is regulated only in one direction while is free to move in the opposite direction; in the bidirectional valve the flow is regulated in both directions.

- Panel mounting using the lock nut supplied as standard
   on DIN rail using the relevant adaptor kit (see accessories)
   With 90° bracket (see accessories)
   directly on the support plate thanks to two through holes on the body

Technical characteristics		
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous	
Working ports size	See CONNECTIONS LIST	
Max working pressure (bar)	10	
Orifice size (mm)	Ø3	
Free exhaust flow rate in the opposite side of the regulation	800 (for unidirectional version)	
Temperature °C	-5 ÷ +50	
Weight (g)	26	

# In line pressure regulator





TYPE 2 = 0-2 bar O 4 = 0-4 bar  $8 = 0.8 \, \text{bar}$ CONNECTION A SEE CONNECTIONS LIST **CONNECTION B** SEE CONNECTIONS LIST **CONNECTIONS LIST** 00 = NoneD4 = Straight Ø4 D6 = StraightØ6 D8 = StraightØ8 L1 = Female banjo G1/8" G4= Rotating banjo Ø 4 G6= Rotating banjo Ø 6 G8= Rotating banjo Ø8 М1 G1/8" male M2 = G1/4" male

F1 = G1/8" female

551.12**①**.**②**.**③**.XX

Coding:

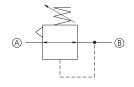
Example: 551.128.D8.D8.XX

In line pressure regulator, pressure range (bar) 0-8 bar. Connections "A" and "B" Tube Ø6 NOTE: For the dimension including cartridges see page Accessories - Function fittings

## **Construction characteristics**

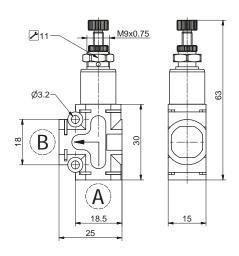
- The pressure regulator is a device which is used to reduce, regulate and stabilize the air pressure in a conduit in order to adapt it to the needs of the equipments to be supplied. The pressure regulator incorporates the relieving function.
- Panel mounting using the lock nut supplied as standard
- on DIN rail using the relevant adaptor kit (see accessories) With 90° bracket (see accessories)
- directly on the support plate thanks to two through holes on the body

Technical characteristics		
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous	
Working ports size	See CONNECTIONS LIST	
Max working pressure (bar)	10	
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	180	
Pressure range (bar)	0÷2/0÷4/0÷8	
Temperature °C	-5 ÷ +50	
Weight (g)	31	



# 90° pressure regulator





# 551.22**①**.**②**.**③**.XX

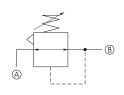
TYPE  2 = 0-4 bar  4 = 0-2 bar  8 = 0-8 bar  CONNECTION A  SEE CONNECTIONS LIST  CONNECTIONS LIST  CONNECTIONS LIST  OO = None  D4 = Straight Ø4  D6 = Straight Ø6  D8 = Straight Ø8  L1 = Female banjo G1/8*  G4 = Rotating banjo Ø 6  G8 = Rotating banjo Ø 8		5	
# = 0-2 bar # = 0-8 bar CONNECTION A SEE CONNECTIONS LIST CONNECTIONS LIST CONNECTIONS LIST O0 = None D4 = Straight Ø4 D6 = Straight Ø6 D8 = Straight Ø8 L1 = Female banjo Ø1/8* G4 = Rotating banjo Ø 4 G6 = Rotating banjo Ø 8		TYPE	
4 = 0-2 bar 8 = 0-8 bar CONNECTION A SEE CONNECTIONS LIST CONNECTIONS LIST CONNECTIONS LIST  CONNECTIONS LIST 00 = None D4 = Straight Ø4 D6 = Straight Ø6 D8 = Straight Ø8 L1 = Female banjo G1/8" G4 = Rotating banjo Ø 4 G6 = Rotating banjo Ø 6 G8 = Rotating banjo Ø 8		2 = 0-4 bar	
CONNECTION A SEE CONNECTIONS LIST CONNECTIONS LIST CONNECTIONS LIST CONNECTIONS LIST OO = None D4 = Straight Ø4 D6 = Straight Ø6 D8 = Straight Ø8 L1 = Female banjo G1/8* G4 = Rotating banjo Ø 4 G6 = Rotating banjo Ø 6 G8 = Rotating banjo Ø 8	U	4 = 0-2 bar	
SEE CONNECTIONS LIST  CONNECTION B SEE CONNECTIONS LIST  CONNECTIONS LIST  00 = None D4 = Straight Ø4 D6 = Straight Ø6 D8 = Straight Ø8 L1 = Female banjo G1/8" G4 = Rotating banjo Ø 4 G6 = Rotating banjo Ø 6 G8 = Rotating banjo Ø 8		8 = 0-8 bar	
GONNECTIONS LIST  CONNECTIONS LIST  CONNECTIONS LIST  OO = None  D4 = Straight Ø4  D6 = Straight Ø6  D8 = Straight Ø8  L1 = Female banjo G1/8"  G4 = Rotating banjo Ø 4  G6 = Rotating banjo Ø 6  G8 = Rotating banjo Ø 8		CONNECTION A	
SEE CONNECTIONS LIST		SEE CONNECTIONS LIST	
SEE CONNECTIONS LIST		CONNECTION B	
00 = None  D4 = Straight Ø4  D6 = Straight Ø6  D8 = Straight Ø8  L1 = Female banjo G1/8"  G4 = Rotating banjo Ø 4  G6 = Rotating banjo Ø 6  G8 = Rotating banjo Ø 8	9	SEE CONNECTIONS LIST	
D4 = Straight Ø4 D6 = Straight Ø6 D8 = Straight Ø8 L1 = Female banjo G1/8" G4 = Rotating banjo Ø 4 G6 = Rotating banjo Ø 6 G8 = Rotating banjo Ø 8		CONNECTIONS LIST	
D6 = Straight Ø6  D8 = Straight Ø8  L1 = Female banjo G1/8"  G4 = Rotating banjo Ø 4  G6 = Rotating banjo Ø 6  G8 = Rotating banjo Ø 8		00 = None	
D8 = Straight Ø8 L1 = Female banjo G1/8* G4 = Rotating banjo Ø 4 G6 = Rotating banjo Ø 6 G8 = Rotating banjo Ø 8		D4 = Straight Ø4	
L1 = Female banjo G1/8"  G4= Rotating banjo Ø 4  G6= Rotating banjo Ø 6  G8= Rotating banjo Ø 8		D6 = StraightØ6	
G4= Rotating banjo Ø 4 G6= Rotating banjo Ø 6 G8= Rotating banjo Ø 8		D8 = StraightØ8	
G6= Rotating banjo Ø 6 G8= Rotating banjo Ø 8		L1 = Female banjo G1/8"	
G8= Rotating banjo Ø 8		G4= Rotating banjo Ø 4	
04/01			
M1 = G1/8" male		M1 = G1/8" male	
M2 = G1/4" male		M2 = G1/4" male	
F1 = G1/8"female		F1 = G1/8" female	

Example: 551.224.M1.D6.XX

90° pressure regulator, pressure range (bar) 0 - 4 bar. Connections "A" Male G1/8 and "B" Tube Ø6 NOTE: For the dimension including cartridges see page Accessories - Function fittings

- The pressure regulator is a device which is used to reduce, regulate and stabilize the air pressure in a conduit in order to adapt it to the needs of the equipments to be supplied. The pressure regulator incorporates the relieving function.
- Panel mounting using the lock nut supplied as standard on DIN rail using the relevant adaptor kit (see accessories)
- With 90° bracket (see accessories)
- directly on the support plate thanks to two through holes on the body

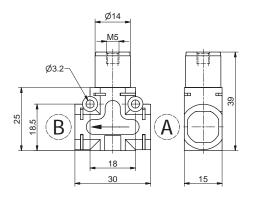
Technical characteristics		
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous	
Working ports size	See CONNECTIONS LIST	
Max working pressure (bar)	10	
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	180	
Pressure range (bar)	0÷2/0÷4/0÷8	
Temperature °C	-5 ÷ +50	
Weight (g)	31	





# **Blocking valve**



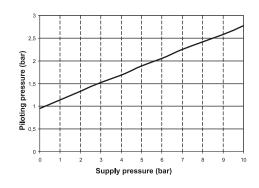


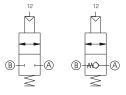
Codi	ing: 551.13 <b>①</b> . <b>②</b> . <b>③</b> .XX	
	TYPE	
•	1 = Unidirectional	
	2 = Bidirectional	
A	CONNECTION A	
	SEE CONNECTIONS LIST	
В	CONNECTION B SEE CONNECTIONS LIST	
•		
	CONNECTIONS LIST	
	00 = None	
	D4 = StraightØ4	
	D6 = Straight Ø6	
	D8 = Straight Ø8	
	L1 = Female banjo G1/8"	
	G4= Rotating banjo Ø 4	
	G6= Rotating banjo Ø 6 G8= Rotating banjo Ø 8	
	M1 = G1/8" male	
	M2 = G1/4" male	
	F1 = G1/8"female	

Example: 551.131.D4.D4.XX

In line blocking valve, unidirectional. Connections "A" and "B" Tube Ø4 NOTE: For the dimension including cartridges see page Accessories - Function fittings

## Piloting curves





- The blocking valve function is to maintain the circuit downstream pressure in the event of loss of supply pressure. It is normally fitted directly onto the cylinder connections ports in order to ensure that, in case of accidental loss of the supply pressure, the units positions is maintained. This is achieved as the blocking valve preserves the pressure inside the pressurised chamber. Blocking valves can be unidirectional or bidirectional.
- valves can be unidirectional of bidirectional.

  In the unidirectional version the air flow is free in one direction while in order to allow the flow in the opposite direction is necessary to send a pneumatic signal to the unit connection 12.

  The bidirectional version requires a pneumatic signal on connection 12 to allow the flow in any of the two directions.

  on DIN rail using the relevant adaptor kit (see accessories)

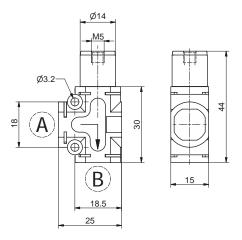
- With 90° bracket (see accessories)
   directly on the support plate thanks to two through holes on the body

Technical characteristics		
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous	
Working ports size	See CONNECTIONS LIST	
Max working pressure (bar)	0,5 ÷ 10	
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	285	
Flow rate at 6 bar with free exhaust (NI/min)	450	
Temperature °C	-5 ÷ +50	
Weight (g)	26	



# 90° blocking valve





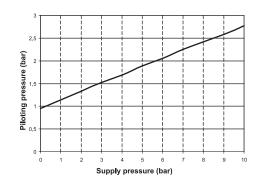
TYPE Ū 1 = Unidirectional 2 = Bidirectional CONNECTION A A SEE CONNECTIONS LIST CONNECTION B ₿ SEE CONNECTIONS LIST CONNECTIONS LIST 00 = None  $\mathbf{D4} = \operatorname{Straight} \emptyset 4$ D6 = StraightØ6 D8 = StraightØ8 L1 = Female banjo G1/8" G4 = Rotating banjo Ø 4 G6= Rotating banjo Ø 6 G8= Rotating banjo Ø 8 M1 = G1/8" male М2 G1/4" male F1 = G1/8" female

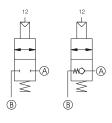
551.23**①**.**②**.**③**.XX

Coding:

Example: 551.231.D6.M1.XX 90° blocking valve. Connections "A" Male G1/8 and "B" Tube  $\emptyset$ 6 NOTE: For the dimension including cartridges see page Accessories - Function fittings

## Piloting curves





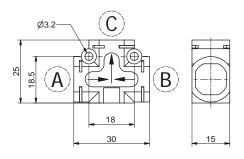
- $The \ blocking \ valve \ function \ is \ to \ maintain \ the \ circuit \ downstream \ pressure \ in \ the \ event \ of \ loss \ of$ supply pressure. It is normally fitted directly onto the cylinder connections ports in order to ensure that, in case of accidental loss of the supply pressure, the units positions is maintained. This is achieved as the blocking valve preserves the pressure inside the pressurised chamber.
- Unidirectional and bidirectional version are both available.
- In the unidirectional version the  $\,$  air flow is free in one direction while in order to allow the flow in the opposite direction is necessary to send a pneumatic signal to the unit connection 12.
- The bidirectional version requires a pneumatic signal on connection 12 to allow the flow in any of the two directions.
- on DIN rail using the relevant adaptor kit (see accessories)
- With 90° bracket (see accessories) directly on the support plate thanks to two through holes on the body

Technical characteristics		
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous	
Working ports size	See CONNECTIONS LIST	
Max working pressure (bar)	0,5 ÷ 10	
Flow rate at 6 bar with Δp=1 (NI/min)	285	
Flow rate at 6 bar with free exhaust (NI/min)	450	
Temperature °C	-5 ÷ +50	
Weight (g)	26	



#### Circuit selector valve - OR





Coding: 551.141. **A.B.** CONNECTION A SEE CONNECTIONS LIST CONNECTION B B SEE CONNECTIONS LIST CONNECTION C 0 SEE CONNECTIONS LIST CONNECTIONS LIST **00** = None D4 = Straight Ø4 D6 = StraightØ6 D8 = StraightØ8 L1 = Female banjo G1/8" G4= Rotating banjo Ø 4 G6= Rotating banjo Ø 6 G8 = Rotating banjo Ø 8 M1 G1/8" male M2 = G1/4" male F1 = G1/8" female

Example: 551.141.D8.D8.D8

Circuit selector valve - OR. Connections "A". "B" and "C" Tube Ø8

NOTE: For the dimension including cartridges see page Accessories - Function fittings

#### Construction characteristics

- These valves have two inlets and one output connection and are normally called high pressure selector valves as, when receiving two separate pressure supply, only allow the passage of the highest pressure. The most common application is to operate a component from two separate positions.
  on DIN rail using the relevant adaptor kit (see accessories)
- With 90° bracket (see accessories)
- directly on the support plate thanks to two through holes on the body

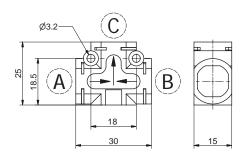
Technical characteristics		
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous	
Working ports size	See CONNECTIONS LIST	
Max working pressure (bar)	10	
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	600	
Temperature °C	-5 ÷ +50	
Weight (g)	10	



Coding:

# Circuit selector valve - AND





#### CONNECTION A A SEE CONNECTIONS LIST CONNECTION B ₿ SEE CONNECTIONS LIST CONNECTION C SEE CONNECTIONS LIST

551.151.**△**.**❸**.**⊘** 

**CONNECTIONS LIST** 00 = None D4 = Straight Ø4 D6 = StraightØ6 D8 = StraightØ8 L1 = Female banjo G1/8" G4= Rotating banjo Ø 4 G6 = Rotating banjo Ø 6 G8 = Rotating banjo Ø 8 М1 G1/8" male М2 = G1/4" male

F1 = G1/8" female

Example: 551.151.D6.D6.D6

Circuit selector valve AND. Connections "A", "B" and "C" Tube Ø6

 ${\tt NOTE:} For the \ dimension\ including\ cartridges\ see\ page\ Accessories\ -\ Function\ fittings$ 

- These valves have two inlets and one output connection and are normally called low pressure selector valves as, when receiving two separate pressure supply, only allow the passage of the lowest pressure. The most common application is to operate a component from two separate
- on DIN rail using the relevant adaptor kit (see accessories)
- With 90° bracket (see accessories)
   directly on the support plate thanks to two through holes on the body

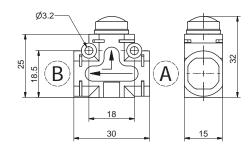
Technical characteristics		
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous	
Working ports size	See CONNECTIONS LIST	
Max working pressure (bar)	10	
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	550	
Temperature °C	-5 ÷ +50	
Weight (g)	10	





# **Quick exhaust valve**





Coding: 551.161. (A.B. XX)

A	CONNECTION A		
A	SEE CONNECTIONS LIST		
ß	CONNECTION B		
U	SEE CONNECTIONS LIST		
	CONNECTIONS LIST		
	00 = None		
	D4 = StraightØ4		
	D6 = StraightØ6		
	D8 = StraightØ8		
	L1 = Female banjo G1/8"		
	G4= Rotating banjo Ø 4		
	G6= Rotating banjo Ø 6		
	G8= Rotating banjo Ø8		
	M1 = G1/8" male		
	<b>M2</b> = G1/4" male		
	F1 = G1/8" female		

Example: 551.161.D8.D8.XX

Quick exhaust valve. Connections "A" and "B" Tube Ø6

NOTE: For the dimension including cartridges see page Accessories - Function fittings

# **Construction characteristics**

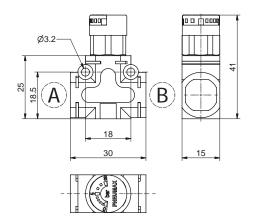
- These are 3 ways, two positions valves which can be directly mounted onto the actuator or between the actuator and the control valve. Their function is to discharge the air directly into the atmosphere without going through the pneumatic circuit enabling the actuator to reach the maximum speed.
- on DIN rail using the relevant adaptor kit (see accessories) With 90° bracket (see accessories)
- With  $90^\circ$  bracket (see accessories) directly on the support plate thanks to two through holes on the body

Technical characteristics		
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous	
Working ports size	See CONNECTIONS LIST	
Max working pressure (bar)	10	
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	250	
Flow rate at 6 bar with free exhaust (NI/min)	500	
Temperature °C	-5 ÷ +50	
Weight (g)	15	



#### **Pressure indicator**





Coding: 551.178.**A**.**B**.XX

A	CONNECTION A	
•	SEE CONNECTIONS LIST	
B	CONNECTION B	
U	SEE CONNECTIONS LIST	
	CONNECTIONS LIST	
	00 = None	
	D4 = StraightØ4	
	D6 = StraightØ6	
	D8 = StraightØ8	
	L1 = Female banjo G1/8"	
	G4= Rotating banjo Ø 4	
	G6= Rotating banjo Ø 6	
	G8= Rotating banjo Ø8	
	M1 = G1/8" male	
	M2 = G1/4" male	
	F1 = G1/8" female	

Example: 551.178.D6.D4.XX

Pressure indicator. Connections "A" Tube Ø6, "B" Tube Ø4

 ${\tt NOTE:} For the \ dimension\ including\ cartridges\ see\ page\ Accessories\ -\ Function\ fittings$ 

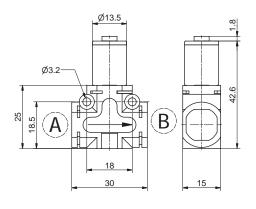
- The pressure visual indicator is a device which measures the pressure inside a pneumatic circuit. The 0 to 8 bar visual indicator makes very easy to monitor the pressure state inside the circuit. It can be use on its own or can be coupled with another device. It can be use on its own or can be coupled with another device.
- on DIN rail using the relevant adaptor kit (see accessories)
- With 90° bracket (see accessories)
  directly on the support plate thanks to two through holes on the body

Technical characteristics		
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous	
Working ports size	See CONNECTIONS LIST	
Max working pressure (bar)	8	
Visualization scale (bar)	0 ÷ 8	
Temperature °C	-5 ÷ +50	
Weight (g)	20.5	



# In line progressive start-up valve





Coding: 551.181. (A.B.XX) CONNECTION A SEE CONNECTIONS LIST CONNECTION B B SEE CONNECTIONS LIST CONNECTIONS LIST **00** = None D4 = Straight Ø4 D6 = Straight Ø6 D8 = StraightØ8 L1 = Female banjo G1/8" G4= Rotating banjo Ø 4 G6 = Rotating banjo Ø 6 G8= Rotating banjo Ø 8 М1 G1/8" male G1/4" male F1 = G1/8" female

Example: 551.181.D6.D4.XX

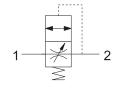
In line progressive start-up valve. Connections "A" Tube Ø6, "B" Tube Ø4 NOTE: For the dimension including cartridges see page Accessories - Function fittings

#### **Construction characteristics**

- The soft start valve is a device designed to gradually pressurise the downstream
- circuit until 50% of the upstream pressure value is reached.
  Once the 50% of the upstream pressure value is reached in the down stream circuit the valve fully opens allowing full air passage.
- The filling time can be adjusted thanks to the built in flow regulator.

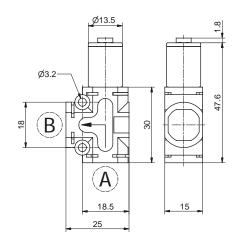
  This device is used in order to ensure that during the pneumatic circuit start up the cylinders will return to theirs home position slowly avoiding collisions of sudden movements.

Technical characteristics		
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous	
Working ports size	See CONNECTIONS LIST	
Opening pressure (Pa)	50% of the inlet pressure (Pi)	
Flow rate at 6 bar with free exhaust (NI/min) from 1 to 2 with opening ciruit	350	
Flow rate at 6 bar with $\Delta p = 1$ from 1 to 2 with opening ciruit	600	
Flow rate at 6 bar with $\Delta p=1$ from 2 to 1 with opening pin	650	
Temperature °C	-5 ÷ +50	
Weight (g)	31	



#### 90° progressive start-up valve





Codi	ing: 551.281. <b>A.B</b> .XX
A	CONNECTION A
	SEE CONNECTIONS LIST
₿	CONNECTION B
•	SEE CONNECTIONS LIST
	CONNECTIONS LIST
	00 = None
	D4 = Straight Ø4
	D6 = Straight Ø6
	D8 = StraightØ8
	L1 = Female banjo G1/8"
•	G4= Rotating banjo Ø 4
	G6= Rotating banjo Ø 6
	G8= Rotating banjo Ø8
	M1 = G1/8" male
	<b>M2</b> = G1/4" male
	F1 = G1/8" female

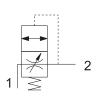
Example: 551.281.M1.D4.XX

90° progressive start-up valve. connections "A" Male G1/8", "B" Tube Ø4

 ${\tt NOTE:} For the \ dimension\ including\ cartridges\ see\ page\ Accessories\ -\ Function\ fittings$ 

- The soft start valve is a device designed to gradually pressurise the downstream
- circuit until 50% of the upstream pressure value is reached.
  Once the 50% of the upstream pressure value is reached in the down stream circuit the valve fully opens allowing full air passage.
- The filling time can be adjusted thanks to the built in flow regulator.
  This device is used in order to ensure that during the pneumatic circuit start up the cylinders will return to theirs home position slowly avoiding collisions or sudden movements.

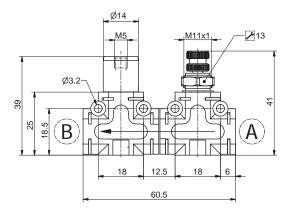
	Technical	characteristics
m	Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
	Working ports size	See CONNECTIONS LIST
	Opening pressure (Pa)	50% of the inlet pressure (Pi)
	Flow rate at 6 bar with free exhaust (NI/min) from 1 to 2 with opening ciruit	350
	Flow rate at 6 bar with $\Delta p=1$ from 1 to 2 with opening ciruit	600
	Flow rate at 6 bar with $\Delta p=1$ from 2 to 1 with opening pin	650
	Temperature °C	-5 ÷ +50
	Weight (g)	31





# In line blocking valve with flow control valve





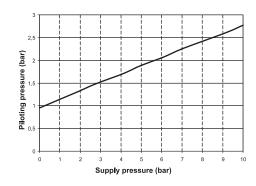
551.1F**①**.**②**.**③**.XX Coding:

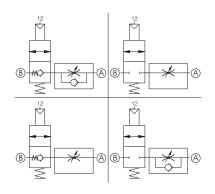
TYPE

1 = Unidirectional blocking valve + Unidirectional flow control valve 2 = Bidirectional flow control valve + Bidirectional flow control valve + Bidirectional flow control valve + Bidirectional blocking valve + Bidirectional flow control valve 4 = Bidirectional blocking valve + Unidirectional flow control valve  CONNECTION A  SEE CONNECTIONS LIST  CONNECTIONS LIST  CONNECTIONS LIST  OO = None  D4 = Straight Ø4  D6 = Straight Ø6  D8 = Straight Ø8  L1 = Female banjo G1/8*  G4 = Rotating banjo Ø 4  G6 = Rotating banjo Ø 6  G8 = Rotating banjo Ø 8  M1 = G1/8* male  M2 = G1/4* male  F1 = G1/8* female		TYPE	
2 = Bidirectional blocking valve + Bidirectional flow control valve 3 = Unidirectional blocking valve + Bidirectional flow control valve 4 = Bidirectional blocking valve + Unidirectional blocking valve + Unidirectional flow control valve  CONNECTION A  SEE CONNECTIONS LIST  CONNECTIONS LIST  CONNECTIONS LIST  00 = None  D4 = Straight Ø4  D6 = Straight Ø6  D8 = Straight Ø8  L1 = Female banjo Ø1/8*  G4 = Rotating banjo Ø 4  G6 = Rotating banjo Ø 6  G8 = Rotating banjo Ø 8  M1 = G1/8* male  M2 = G1/4* male		1 = Unidirectional blocking valve	
Bidirectional flow control valve  3 = Unidirectional blocking valve + Bidirectional blocking valve + Unidirectional flow control valve  4 = Bidirectional blocking valve + Unidirectional flow control valve  CONNECTION A  SEE CONNECTIONS LIST  CONNECTIONS LIST  CONNECTIONS LIST  OO = None  D4 = Straight Ø4  D6 = Straight Ø6  D8 = Straight Ø8  L1 = Female banjo Ø1/8"  G4 = Rotating banjo Ø 4  G6 = Rotating banjo Ø 6  G8 = Rotating banjo Ø 8  M1 = G1/8" male  M2 = G1/4" male		+ Unidirectional flow control valve	
3 = Unidirectional blocking valve + Bidirectional flow control valve 4 = Bidirectional flow control valve CONNECTION A SEE CONNECTIONS LIST CONNECTIONS LIST CONNECTIONS LIST CONNECTIONS LIST OO = None D4 = Straight Ø4 D6 = Straight Ø6 D8 = Straight Ø8 L1 = Female banjo Ø1/8" G4 = Rotating banjo Ø 4 G6 = Rotating banjo Ø 6 G8 = Rotating banjo Ø 8 M1 = G1/8" male M2 = G1/4" male		2 = Bidirectional blocking valve +	
+ Bidirectional flow control valve  4 = Bidirectional blocking valve + Unidirectional flow control valve  CONNECTION A  SEE CONNECTIONS LIST  CONNECTIONS LIST  CONNECTIONS LIST  CONNECTIONS LIST  OO = None  D4 = Straight Ø4  D6 = Straight Ø6  D8 = Straight Ø6  D8 = Straight Ø8  L1 = Female banjo Ø1/8*  G4 = Rotating banjo Ø 4  G6 = Rotating banjo Ø 8  M1 = G1/8*male  M2 = G1/4*male	0	Bidirectional flow control valve	
4 = Bidirectional blocking valve + Unidirectional flow control valve  CONNECTION A SEE CONNECTIONS LIST CONNECTIONS LIST  CONNECTIONS LIST  OO = None D4 = Straight Ø4 D6 = Straight Ø6 D8 = Straight Ø8 L1 = Female banjo Ø1/8* G4 = Rotating banjo Ø 4 G6 = Rotating banjo Ø 6 G8 = Rotating banjo Ø 8 M1 = G1/8*male M2 = G1/4*male		3 = Unidirectional blocking valve	
Unidirectional flow control valve  CONNECTION A  SEE CONNECTIONS LIST  CONNECTIONS LIST  CONNECTIONS LIST  OO = None  D4 = Straight Ø4  D6 = Straight Ø6  D8 = Straight Ø8  L1 = Female banjo Ø4  G6 = Rotating banjo Ø 4  G6 = Rotating banjo Ø 6  G8 = Rotating banjo Ø 8  M1 = G1/8" male  M2 = G1/4" male		+ Bidirectional flow control valve	
CONNECTION A SEE CONNECTIONS LIST CONNECTION B SEE CONNECTIONS LIST CONNECTIONS LIST  OO = None D4 = Straight Ø4 D6 = Straight Ø8 L1 = Female banjo Ø1/8* G4 = Rotating banjo Ø 4 G6 = Rotating banjo Ø 6 G8 = Rotating banjo Ø 8 M1 = G1/8* male M2 = G1/4* male		4 = Bidirectional blocking valve +	
SEE CONNECTIONS LIST		Unidirectional flow control valve	
SEE CONNECTIONS LIST		CONNECTION A	
SEE CONNECTIONS LIST	•	SEE CONNECTIONS LIST	
CONNECTIONS LIST  CONNECTIONS LIST  00 = None  D4 = Straight Ø4  D6 = Straight Ø6  D8 = Straight Ø8  L1 = Female banjo G1/8"  G4 = Rotating banjo Ø 4  G6 = Rotating banjo Ø 6  G8 = Rotating banjo Ø 8  M1 = G1/8" male  M2 = G1/4" male	A	CONNECTION B	
00 = None  D4 = Straight Ø4  D6 = Straight Ø6  D8 = Straight Ø8  L1 = Female banjo Ø1/8*  G4 = Rotating banjo Ø 4  G6 = Rotating banjo Ø 6  G8 = Rotating banjo Ø 8  M1 = G1/8*male  M2 = G1/4*male		SEE CONNECTIONS LIST	
D4 = Straight Ø4 D6 = Straight Ø6 D8 = Straight Ø8 L1 = Female banjo G1/8* G4 = Rotating banjo Ø 4 G6 = Rotating banjo Ø 6 G8 = Rotating banjo Ø 8 M1 = G1/8* male M2 = G1/4* male		CONNECTIONS LIST	
D6 = Straight Ø6  D8 = Straight Ø8  L1 = Female banjo G1/8*  G4 = Rotating banjo Ø 4  G6 = Rotating banjo Ø 6  G8 = Rotating banjo Ø 8  M1 = G1/8* male  M2 = G1/4* male		00 = None	
D8 = Straight Ø8  L1 = Female banjo G1/8*  G4 = Rotating banjo Ø 4  G6 = Rotating banjo Ø 6  G8 = Rotating banjo Ø 8  M1 = G1/8* male  M2 = G1/4* male		D4 = StraightØ4	
L1 = Female banjo G1/8" G4 = Rotating banjo Ø 4 G6 = Rotating banjo Ø 6 G8 = Rotating banjo Ø 8 M1 = G1/8" male M2 = G1/4" male		D6 = StraightØ6	
G4 = Rotating banjo Ø 4 G6 = Rotating banjo Ø 6 G8 = Rotating banjo Ø 8 M1 = G1/8" male M2 = G1/4" male		D8 = StraightØ8	
G6 = Rotating banjo Ø 6 G8 = Rotating banjo Ø 8 M1 = G1/8" male M2 = G1/4" male		L1 = Female banjo G1/8"	
G8= Rotating banjo Ø 8  M1 = G1/8" male  M2 = G1/4" male		G4= Rotating banjo Ø 4	
M1 = G1/8" male  M2 = G1/4" male		G6= Rotating banjo Ø 6	
<b>M2</b> = G1/4" male		G8= Rotating banjo Ø8	
, , ,		<b>M2</b> = G1/4" male	
F1 = G1/8" female			

In line blocking valve + flow control valve. Without connections "A" and "B" NOTE: For the dimension including cartridges see page Accessories - Function fittings

## Piloting curves





- The combination of this two functions ensures that the downstream pressure is maintained in case of The combination of this two functions ensures that the downstream pressure is maintained in case of accidental loss of supply pressure and at the same time grants the possibility to regulate the circuit flow rate. A typical application of this combination is close to or directly assembled onto the actuator connection ports. This allows to keep pressurised the cylinder chamber in case of accidental loss of supply pressure and to regulate the exhaust flow rate when the blocking valve is actuated. The possible combinations are the following:

  Unidirectional blocking valve + bidirectional flow control valve

  Bidirectional blocking valve + bidirectional flow control valve

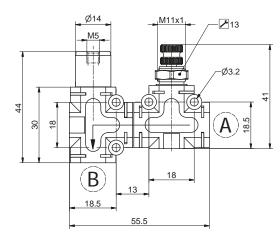
  Bidirectional blocking valve + unidirectional flow control valve

- Unidirectional blocking valve + bidirectional flow control valve

Technical characteristics		
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous	
Working ports size	See CONNECTIONS LIST	
Max working pressure (bar)	0,5 ÷ 10	
Flow rate at 6 bar with Δp=1 (NI/min)	285	
Orifice size (mm)	Ø3	
Temperature °C	-5 ÷ +50	
Weight (g)	62	

# 90° blocking valve + flow control valve





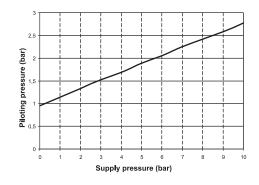
551.2F**①**.**④**.**B**.XX Coding:

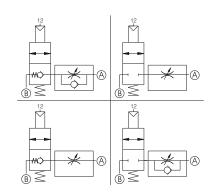
	ing. 001.21 <b>0.0</b> .3.70		
	TYPE		
	1 = 90° Unidirectional blocking		
	valve + Unidirectional flow control		
	valve		
	2 = 90° Bidirectional blocking		
	valve + Bidirectional flow control		
•	valve		
	3 = 90° Unidirectional blocking		
	valve + Bidirectional flow control		
	valve		
	4 = 90° Bidirectional blocking		
	valve + Unidirectional flow control		
	valve		
A	CONNECTION A		
_	SEE CONNECTIONS LIST		
B	CONNECTION B		
	SEE CONNECTIONS LIST		
	CONNECTIONS LIST		
	00 = None		
	D4 = StraightØ4		
	D6 = StraightØ6		
	D8 = StraightØ8		
	L1 = Female banjo G1/8"		
	G4= Rotating banjo Ø4		
	G6= Rotating banjo Ø 6		
	G8= Rotating banjo Ø8		
	M1 = G1/8" male		
	<b>M2</b> = G1/4" male		
	F1 = G1/8" female		

Example: 5512F1.00.00.XX

90° blocking valve + flow control valve. Without connections "A" and "B" NOTE: For the dimension including cartridges see page Accessories - Function fittings

#### Piloting curves





- The combination of this two functions ensures that the downstream pressure is maintained in case of accidental loss of supply pressure and at the same time grants the possibility to regulate the circuit flow rate. A typical application of this combination is close to or directly assembled onto the actuator connection ports. This allows to keep pressurised the cylinder chamber in case of accidental loss of
- connection poins. In its aliaiows to keep pressurised the cylinder chamber in case or accider supply pressure and to regulate the exhaust flow rate when the blocking valve is actuated.

  The possible combinations are the following:

  90° Unidirectional blocking valve + Unidirectional flow control valve

  90° Bidirectional blocking valve + Bidirectional flow control valve

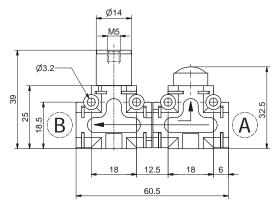
  90° Bidirectional blocking valve + Unidirectional flow control valve
- 90° Unidirectional blocking valve + Bidirectional flow control valve

Fluid		Filtered air. No lubrication needed, if applied it shall be continuous
Working p	orts size	See CONNECTIONS LIST
Max worki	ng pressure (bar)	0,5 ÷ 10
Flow rate a	at 6 bar with Δp=1 (NI/min)	285
Orifice size	e (mm)	Ø3
Temperatu	ıre °C	-5 ÷ +50
Weight (g)		62



# In line blocking valve + quick exhaust valve



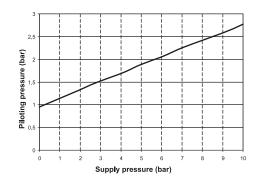


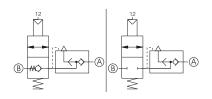
551.1G**①**.**②**.**③**.XX Coding:

	TYPE	
	1 = Unidirectional blocking valve	
0	+ quick exhaust valve	
	2 = Bidirectional blocking valve +	
	quick exhaust valve	
A	CONNECTION A	
•	SEE CONNECTIONS LIST	
₿	CONNECTION B	
U	SEE CONNECTIONS LIST	
	CONNECTIONS LIST	
	00 = None	
	D4 = Straight Ø4	
	D6 = StraightØ6	
	D8 = StraightØ8	
	L1 = Female banjo G1/8"	
	G4= Rotating banjo Ø 4	
	G6= Rotating banjo Ø 6	
	G8= Rotating banjo Ø 8	
	M1 = G1/8" male	
	M2 = G1/4" male	
	F1 = G1/8" female	

In line blocking valve + quick exhaust valve. Without connections "A" and "B" NOTE: For the dimension including cartridges see page Accessories - Function fittings

Piloting curves





- The combination of this two functions ensures that the downstream pressure is maintained in case of accidental loss of supply pressure and at the same time allows for the air to be directly discharged into the atmosphere without going through the pneumatic circuit. A typical application of this combination is close to or directly assembled onto the actuator connection ports. This allows to keep pressurised the cylinder chamber in case of accidental loss of supply pressure and to quickly discharge the same chamber when the blocking valve is actuated.
- The possible combinations are the following:
  Unidirectional blocking valve + quick exhaust valve
  Bidirectional blocking valve + quick exhaust valve

Technical characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Working ports size	See CONNECTIONS LIST
Max working pressure (bar)	0.5 ÷ 10
Flow rate at 6 bar with Δp=1 (NI/min)	285
Temperature °C	-5 ÷ +50
Weight (g)	51

Coding:

М1

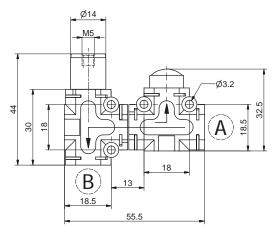
M2

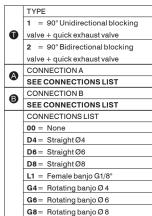
F1 = G1/8" female

551.2GT.A.B.XX

# 90° blocking valve + quick exhaust valve





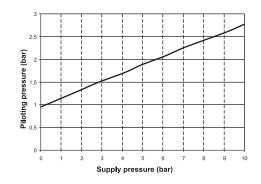


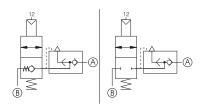
G1/8" male

G1/4" male

90° bidirectional blocking valve + quick exhaust valve. Without connections "A" and "B" NOTE: For the dimension including cartridges see page Accessories - Function fittings

## Piloting curves



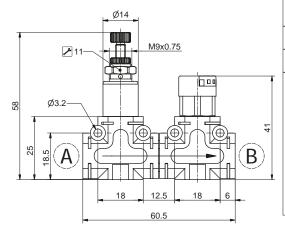


- The combination of this two functions ensures that the downstream pressure is maintained in case of accidental loss of supply pressure and at the same time allows for the air to be directly discharged into the atmosphere without going through the pneumatic circuit. A typical application of this combination is close to or directly assembled onto the actuator connection ports. This allows to keep pressurised the cylinder chamber in case of accidental loss of supply pressure and to quickly discharge the same chamber when the blocking valve is actuated.
- The possible combinations are the following:
   90° Unidirectional blocking valve + quick exhaust valve
   90° Bidirectional blocking valve + quick exhaust valve

Technical characteristics		
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous	
Working ports size	See CONNECTIONS LIST	
Max working pressure (bar)	0,5 ÷ 10	
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	285	
Temperature °C	-5 ÷ +50	
Weight (g)	51	

# In line pressure regulator + pressure indicator





TYPE 2 = 0-2 bar O 4 = 0-4 bar  $8 = 0.8 \, \text{bar}$ CONNECTION A SEE CONNECTIONS LIST **CONNECTION B** SEE CONNECTIONS LIST **CONNECTIONS LIST** 00 = NoneD4 = Straight Ø4 D6 = Straight Ø6 D8 = StraightØ8 L1 = Female banjo G1/8" G4= Rotating banjo Ø 4 G6= Rotating banjo Ø 6 G8= Rotating banjo Ø8 М1 G1/8" male M2 = G1/4" male

551.1H**①**.**②**.**③**.XX

Coding:

Example: 551.1H2.M1.D4.XX

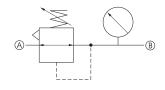
In line pressure regulator, adjusting range 0 - 2 bar + pressure indicator. Connections "A" Male G 1/8 and "B" Tube Ø4 NOTE: For the dimension including cartridges see page Accessories - Function fittings

# Construction characteristics

- The combination of this two functions ensures the possibility to regulate the  $downstream\ pressure\ while\ directly\ visualising\ the\ adjusted\ pressure$
- The possible combinations are the following:

- O to 2 bar pressure regulator + pressure visual indicator
  O to 4 bar pressure regulator + pressure visual indicator
  O to 8 bar pressure regulator + pressure visual indicator
  The visual indicator Pressure range (bar) is always 0 to 8 bar

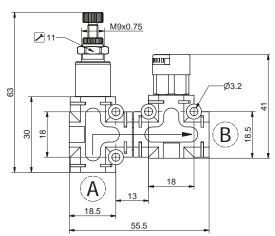
Technical characteristics				
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous			
Working ports size	See CONNECTIONS LIST			
Max working pressure (bar)	8			
Visualization scale (bar)	0 ÷ 8			
	0 ÷ 2			
Pressure range (bar)	0 ÷ 4			
	0 ÷ 8			
Temperature °C	-5 ÷ +50			
Weight (g)	62			



F1 = G1/8" female

# 90° pressure regulator + pressure indicator





Coding:

	TYPE		
0	2 = 0-2 bar		
U	4 = 0-4 bar		
	<b>8</b> = 0-8 bar		
A	CONNECTION A		
	SEE CONNECTIONS LIST		
в	CONNECTION B		
U	SEE CONNECTIONS LIST		
	CONNECTIONS LIST		
	00 = None		
	D4 = Straight Ø4		
	D6 = StraightØ6		
	D8 = StraightØ8		
	L1 = Female banjo G1/8"		
	G4= Rotating banjo Ø 4		
	G6= Rotating banjo Ø 6		
	G8= Rotating banjo Ø 8		
	M1 = G1/8" male		
	M2 = G1/4" male		
	F1 = G1/8" female		

Example: 551.2H2.M1.D4.XX

90° pressure regulator, adjusting range 0 - 2 bar + pressure indicator. Connections "A" Male G 1/8 and "B" Tube Ø4 NOTE: For the dimension including cartridges see page Accessories - Function fittings

- The combination of this two functions ensures the possibility to regulate th downstream pressure while directly visualising the adjusted pressure value.

- value.

  The possible combinations are the following:

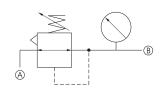
  0 to 2 bar pressure regulator + pressure visual indicator

  0 to 4 bar pressure regulator + pressure visual indicator

  0 to 8 bar pressure regulator + pressure visual indicator

  The visual indicator Pressure range (bar) is always 0 to 8 bar

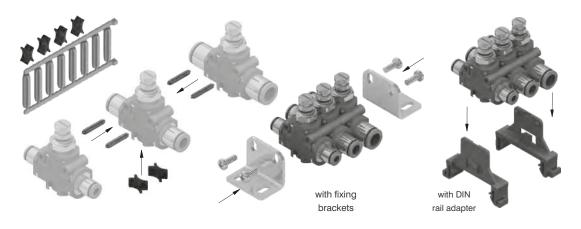
reclifical characteristics		
Filtered air. No lubrication needed, if applied it shall be continuous		
See CONNECTIONS LIST		
8		
0 ÷ 8		
0 ÷ 2 0 ÷ 4 0 ÷ 8		
-5 ÷ +50		
62		



Coding:

55160

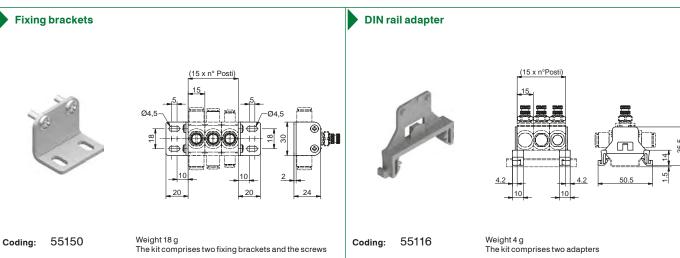
# Coupling kit (pins and forks)

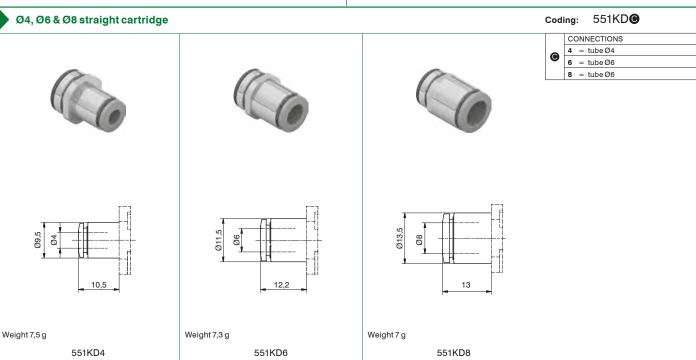


- Weight 2,5 g
   The kit, which includes a series of pins and forks, enables to join together in a fast and safe way the function fittings. The pins, once inserted in the front holes, ensure resistance against forces applied
- perpendicularly and sideway (for example the insertion of the tube in the cartridges).

  The forks, once located in the profiled housing ensures that the parts are held together tightly.

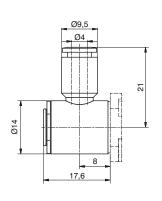
  The kit allows for 5 function fittings to be mounted together.



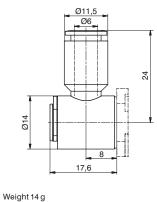


# Ø4, Ø6 & Ø8 banjo PL cartridge



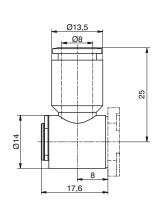


Weight 13,6 g 551KG4



551KG6





Weight 14,3 g

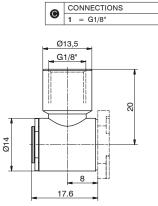
551K0

# G1/8" banjo artridge



Weight 30 g

# Coding: 551KL



551KL1

# Connection for multiple function



Coding:

Coding: 551KG@

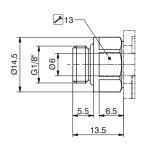
CONNECTIONS
4 = tube Ø4

6 = tube Ø6 8 = tube Ø6

**(** 

Coding: 551KUU Weight 14 g

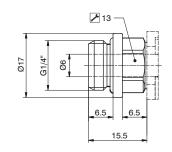
# Cartridge



Weight 14 g G1/8" male straight cartridge

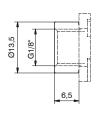
551KM1





Weight 20 g G1/4" male straight cartridge 551KM2





Weight 9 g
G1/8" female straight cartridge
551KF1

		CONNECTIONS		
		M1	=	G1/8" male straight
		cartridge		
	Θ	M2	=	G1/4" male straight
	cartridge	idge		
	F	F1 =	G1/8" fe	emale straight cartridge

551K**⊚**