

# Tecno FUN

## General



New compact 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:

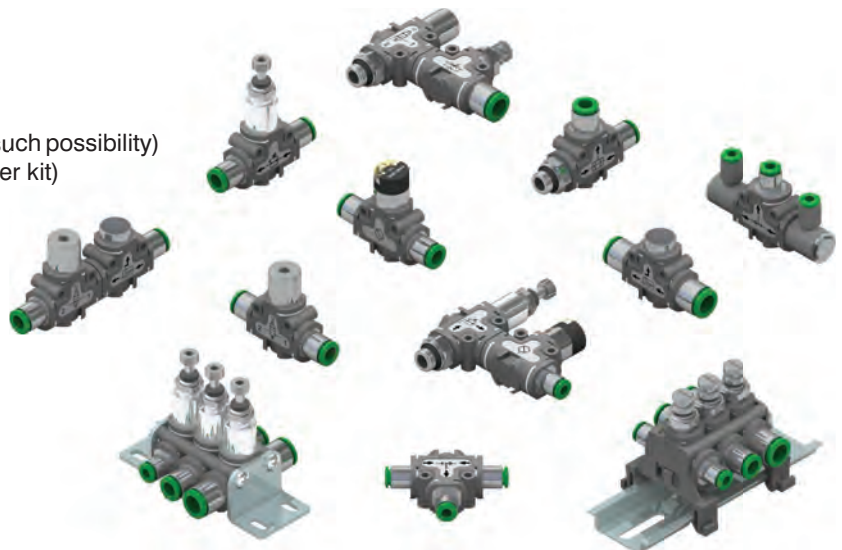
- Technopolymer body
- Input/output connection directly integrated into the body
- In line or 90° connection
- Possibility to build a manifold -parallel mounting-
- Different connection options:
  - Tube Ø4 Ø6 Ø8 (elbow version as well)
  - G1/8" G1/4" male straight cartridge
  - G1/8" female cartridge,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

### Different mounting options:

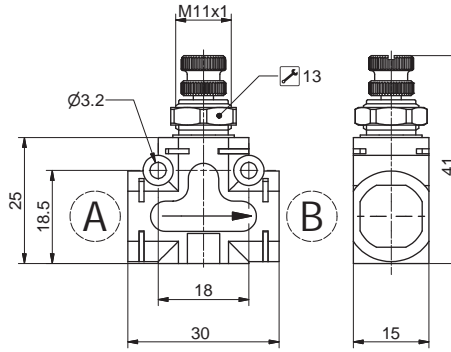
- Wall fixing through the holes in the body
- By means of the fixing bracket
- Panel mounting (for those function that include such possibility)
- On DIN rail EN 50022 (using the DIN rail adapter kit)

### Available functions:

- Flow control valve (FCV)
- pressure regulator (PR)
- block valve (BV)
- quick exhaust valve (QEV)
- OR gate (CSV-OR)
- AND gate (CSV-AND)
- pressure gauge (PI)
- pressure regulator + pressure gauge (PR+PI)
- block valve + Flow control valve (BV+FCV)
- block valve + quick exhaust valve (BV+QEV)



**Flow regulator**



**Ordering code**

**551.11T.A.B.XX**

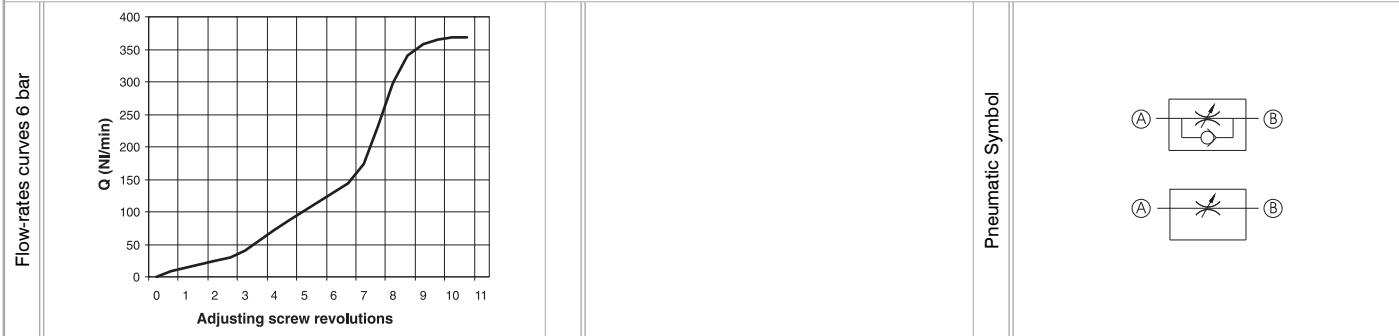
**VERSION**

- T** 1 = Unidirectional
- 2 = Bidirectional
- A** Connection A see CONNECTIONS LIST
- B** 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
- M1 = G1/8 male
- M2 = G1/4 male
- F1 = G1/8 female

NOTE : For the dimension including cartridges see page CONNECTIONS  
 Example: 551.111.D6.D6.XX  
 Flow control valve, unidirectional, CONNECTIONS "A" and "B" Tube Ø6



**Operational characteristics**

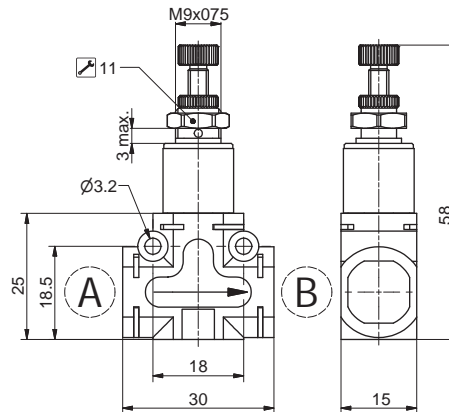
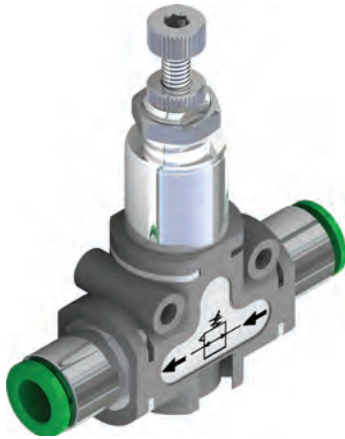
- The flow control valve is normally used to regulate the air flow and, as a consequence, for example, the speed of a cylinder. Two types of flow control valves are available: unidirectional and bidirectional. In the unidirectional valve the flow is regulated only in one direction while is free to move in the opposite direction; in the bidirectional valve the flow is regulated in both directions.
- Mounting options:
  - 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, with or without lubrication lubricated air or not
Connections	See CONNECTIONS LIST
Max working pressure (bar)	10 bar
Temperature °C	-5 - +50
Weight without connections	26 gr.
Ø Orifice size (mm)	Ø3 mm
Free exhaust flow rate in the opposite side of the regulation (for unidirectional version)	800 NI/min.

1

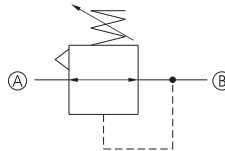
**In line pressure regulator**



Ordering code	
<b>551.12T.A.B.XX</b>	
VERSION	
<b>T</b>	2 = 0 - 2 bar
	4 = 0 - 4 bar
	8 = 0 - 8 bar
<b>A</b>	Connection A see CONNECTIONS LIST
<b>B</b>	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	
M1 = G1/8 male	
M2 = G1/4 male	
F1 = G1/8 female	

NOTE : For the dimension including cartridges see page CONNECTIONS  
 Example: 551.128.D8.D8.XX  
 In line pressure regulator, Pressure range (bar) 0 - 8 bar. CONNECTIONS "A" and "B" Tube Ø8

Pneumatic Symbol



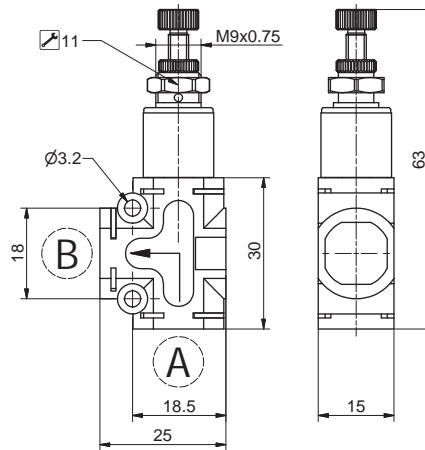
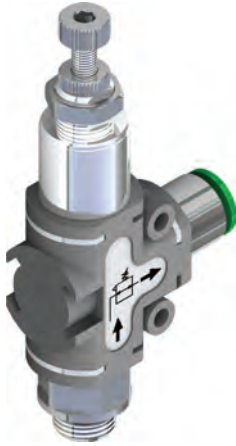
**Operational characteristics**

- 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.
- Mounting options:
  - 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, with or without lubrication lubricated air or not
Connections	See CONNECTIONS LIST
Max inlet pressure	10 bar
Temperature °C	-5 - +50
Weight without connections	31 gr.
Flow rate at 6 bar with Δp=1 (NI/min)	180 NI/min
Regulated Pressure range (bar)	0 - 2 bar
	0 - 4 bar
	0 - 8 bar

90° pressure regulator



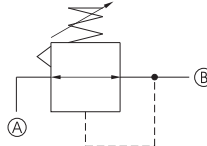
Ordering code

551.22T.A.B.XX

VERSION	
T	2 = 0 - 2 bar 4 = 0 - 4 bar 8 = 0 - 8 bar
A	Connection A see CONNECTIONS LIST
B	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	
M1 = G1/8 male	
M2 = G1/4 male	
F1 = G1/8 female	

NOTE : For the dimension including cartridges see page CONNECTIONS  
 Example: 551.224.M1.D6.XX  
 90° pressure regulator, Pressure range (bar) 0 - 4 bar. CONNECTIONS "A" Male G1/8 and "B" Tube Ø6

Pneumatic Symbol



Operational characteristics

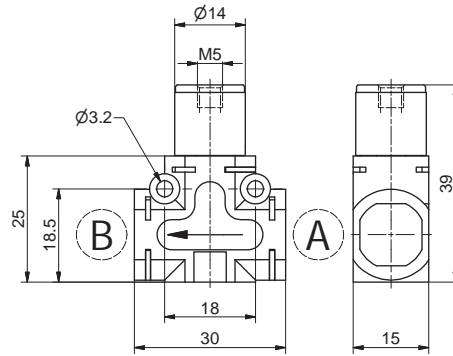
- The pressure regulator is a device which is used to reduce, regulate and stabilize the air pressure in a conduit in order to adapt it to the needs of the equipments to be supplied. The pressure regulator incorporates the relieving function.
- Mounting options:
  - panel mounting using the lock nut 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, with or without lubrication lubricated air or not
Connections	See CONNECTIONS LIST
Max inlet pressure	10 bar
Temperature °C	-5 - +50
Weight without connections	31 gr.
Flow rate at 6 bar with Δp=1 (NI/min)	180 NI/min
Regulated Pressure range (bar)	0 - 2 bar 0 - 4 bar 0 - 8 bar

1

**Blocking valve**



Ordering code

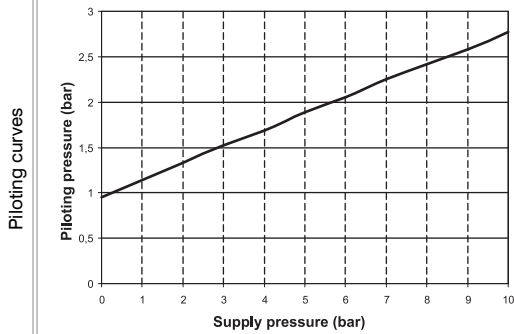
**551.13T.A.B.XX**

- VERSION
- T 1 = Unidirectional
  - 2 = Bidirectional
- Connection A  
see CONNECTIONS LIST
- Connection B  
see CONNECTIONS LIST

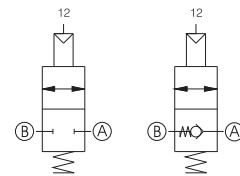
CONNECTIONS LIST

- 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
- M1 = G1/8 male
- M2 = G1/4 male
- F1 = G1/8 female

NOTE : For the dimension including cartridges see page CONNECTIONS  
 Example: 551.131.D4.D4.XX  
 In line blocking valve, unidirectional, CONNECTIONS "A" and "B" Tube Ø4



Pneumatic Symbol



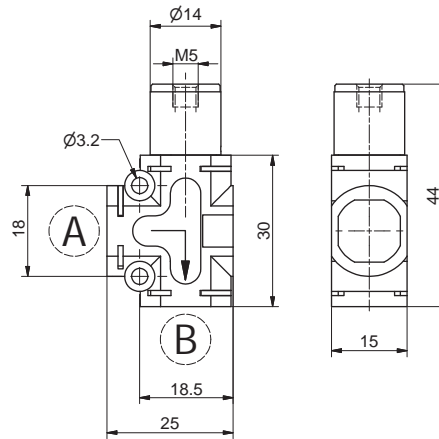
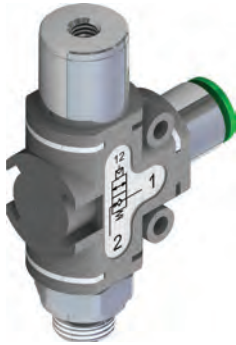
**Operational characteristics**

- 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. 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.
- Mounting options:
  - 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, with or without lubrication lubricated air or not
Connections	See CONNECTIONS LIST
Working pressure	0,5 - 10 bar
Temperature °C	-5 - +50
Weight without connections	26 gr.
Flow rate at 6 bar with Δp=1 (NI/min)	
Unidirectional and bidirectional version	285 NI/min
Flow rate at 6 bar with free exhaust	
Unidirectional and bidirectional version	450 NI/min

90° blocking valve



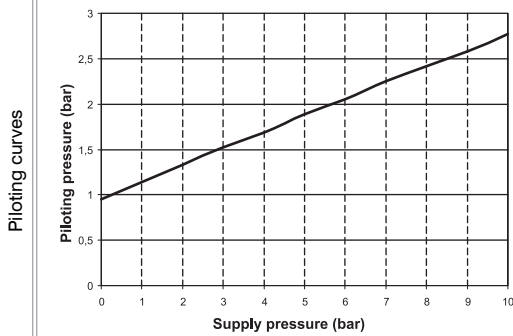
Ordering code

551.231.T.A.B.XX

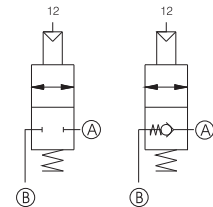
VERSION	
T	1 = Unidirectional 2 = Bidirectional
A	Connection A see CONNECTIONS LIST
B	Connection B see CONNECTIONS LIST

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
M1	G1/8 male
M2	G1/4 male
F1	G1/8 female

NOTE : For the dimension including cartridges see page CONNECTIONS  
 Example: 551.231.M1.D6.XX  
 90° blocking valve, unidirectional, CONNECTIONS "A" Male G1/8 and "B" Tube Ø6



Pneumatic Symbol



Operational characteristics

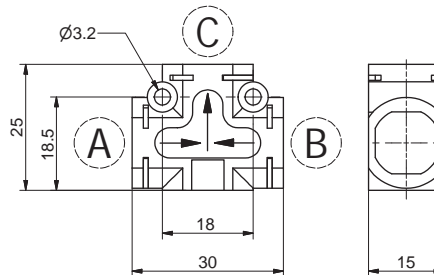
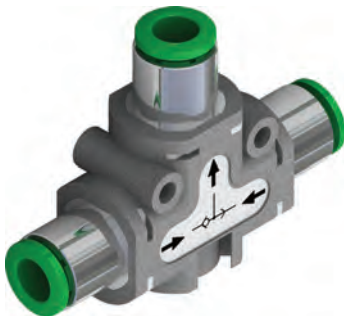
- The blocking valve function is to maintain the circuit downstream pressure in the event of loss of supply pressure. It is normally fitted directly onto the cylinder connections ports in order to ensure that, in case of accidental loss of the supply pressure, the units positions is maintained. This is achieved as the blocking valve preserves the pressure inside the pressurised chamber. Blocking valves can be unidirectional or bidirectional. 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.
- Mounting options:
  - 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, with or without lubrication lubricated air or not
Connections	See CONNECTIONS LIST
Working pressure	0,5 - 10 bar
Temperature °C	-5 - +50
Weight without connections	26 gr.
Flow rate at 6 bar with Δp=1 (NI/min) Unidirectional and bidirectional version	285 NI/min
Flow rate at 6 bar with free exhaust Unidirectional and bidirectional version	450 NI/min

1

**Circuit selector valve - OR**



**Ordering code**

**551.141.A.B.C**

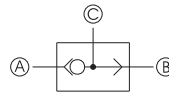
- A** Connection A see CONNECTIONS LIST
- B** CONNECTIONS B see CONNECTIONS LIST
- C** Connection C see CONNECTIONS LIST

**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
- M1 = G1/8 male
- M2 = G1/4 male
- F1 = G1/8 female

NOTE : For the dimension including cartridges see page CONNECTIONS  
 Example: 551.141.D8.D8.D8  
 Circuit selector valve OR, CONNECTIONS "A", "B" and "C" Tube Ø8

Pneumatic Symbol



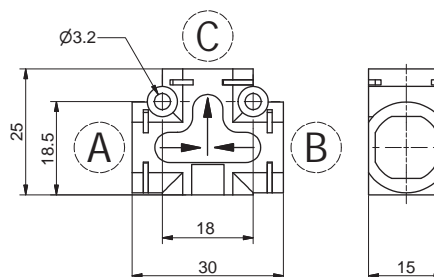
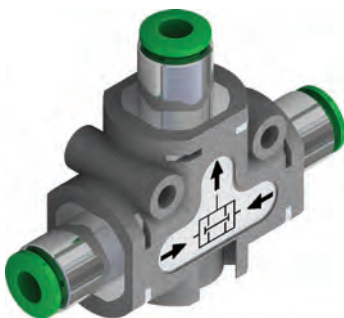
**Operational characteristics**

- 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.
- Mounting options:
  - 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, with or without lubrication lubricated air or not
Connections	See CONNECTIONS LIST
Max working pressure (bar)	10 bar
Temperature °C	-5 - +50
Weight without connections	10 gr.
Flow rate at 6 bar with Δp=1 (NI/min)	600 NI/min

**Circuit selector valve - AND**



**Ordering code**

**551.151.A.B.C**

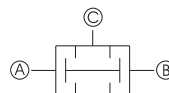
- A** Connection A see CONNECTIONS LIST
- B** CONNECTIONS B see CONNECTIONS LIST
- C** Connection C see CONNECTIONS LIST

**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
- M1 = G1/8 male
- M2 = G1/4 male
- F1 = G1/8 female

NOTE : For the dimension including cartridges see page CONNECTIONS  
 Example: 551.151.D6.D6.D6  
 Circuit selector valve AND, CONNECTIONS "A", "B" and "C" Tube Ø6

Pneumatic Symbol



**Operational characteristics**

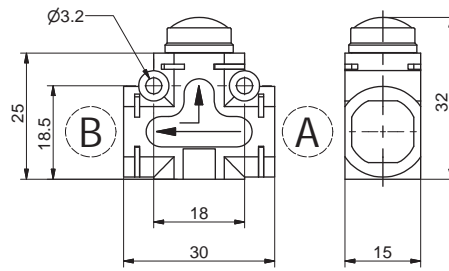
- These valves have two inlets and one output connection and are normally called low pressure selector valves as, when receiving two separate pressure supply, only allow the passage of the lowest pressure. The most common application is to operate a component from two separate positions.
- Mounting options: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

**Technical characteristics**

Fluid	Filtered air, with or without lubrication lubricated air or not
Connections	See CONNECTIONS LIST
Max working pressure (bar)	10 bar
Temperature °C	-5 - +50



**Quick exhaust valve**



**Ordering code**

**551.161.A.B.XX**

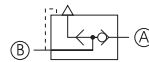
- A** Connection A see CONNECTIONS LIST
- B** Connection B see CONNECTIONS LIST

**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
- M1 = G1/8 male
- M2 = G1/4 male
- F1 = G1/8 female

NOTE : For the dimension including cartridges see page CONNECTIONS  
 Example: 551.161.D8.D8.XX  
 Quick exhaust valve, CONNECTIONS "A" and "B" Tube Ø8

Pneumatic Symbol



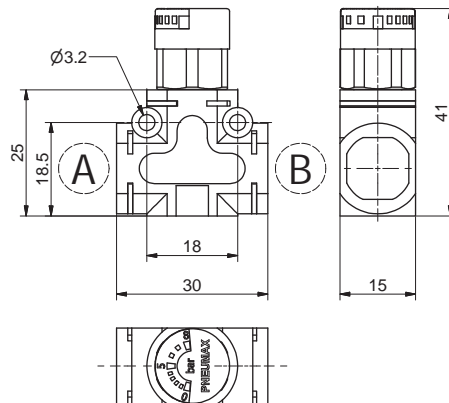
**Operational characteristics**

- 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.
- Mounting options:
  - 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, with or without lubrication lubricated air or not
Connections	See CONNECTIONS LIST
Max working pressure (bar)	10 bar
Temperature °C	-5 - +50
Weight without connections	15 gr.
Flow rate at 6 bar with Δp=1 (NI/min) (from 1 to 2)	250 NI/min
Flow rate at 6 bar with free exhaust (from 2 to 3)	500 NI/min

**Pressure indicator**



**Ordering code**

**551.178.A.B.XX**

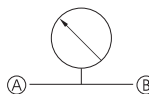
- A** Connection A see CONNECTIONS LIST
- B** Connection B see CONNECTIONS LIST

**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
- M1 = G1/8 male
- M2 = G1/4 male
- F1 = G1/8 female

NOTE : For the dimension including cartridges see page CONNECTIONS  
 Example: 551.178.D6.D4.XX  
 Pressure indicator, CONNECTIONS "A" Tube Ø6, "B" Tube Ø4

Pneumatic Symbol



**Operational characteristics**

- 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.
- Mounting options:
  - 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

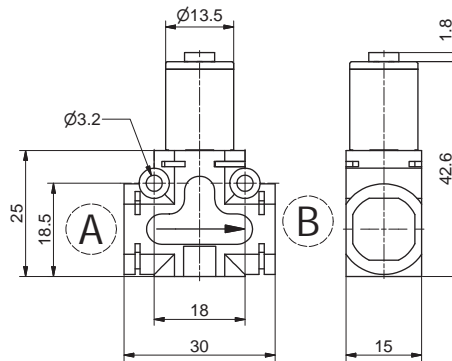
**Technical characteristics**

Fluid	Filtered air, with or without lubrication lubricated air or not
Connections	See CONNECTIONS LIST
Max working pressure (bar)	8 bar
Visualization scale	0 - 8 bar
Temperature °C	-5 - +50
Weight without connections	20,5 gr.



1

**In line progressive star-up valve**



Ordering code	
<b>551.181.A.B.XX</b>	
<b>A</b>	Connection A see CONNECTIONS LIST
<b>B</b>	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	
M1 = G1/8 male	
M2 = G1/4 male	
F1 = G1/8 female	

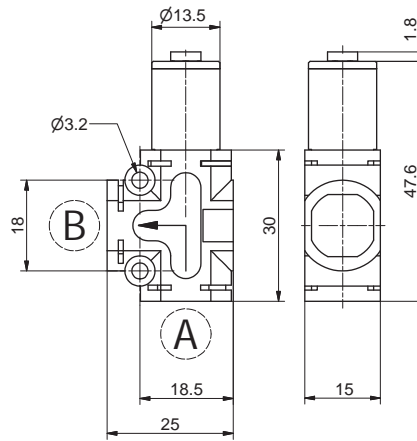
NOTE : For the dimension including cartridges see page CONNECTIONS  
 Example: 551.181.D6.D4.XX  
 Progressive start-up, CONNECTIONS "A" Tube Ø6, "B" Tube Ø4

<p><b>Piloting curves</b></p>	<p><b>Pneumatic Symbol</b></p>	<p><b>Adjustment curve</b></p>
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Operational characteristics	Technical characteristics	
<ul style="list-style-type: none"> <li>The soft start valve is a device designed to gradually pressurise the downstream circuit until 50% of the upstream pressure value is reached.</li> <li>Once the 50% of the upstream pressure value is reached in the down stream circuit the valve fully opens allowing full air passage.</li> <li>The filling time can be adjusted thanks to the built in flow regulator.</li> <li>This device is used in order to ensure that during the pneumatic circuit start up the cylinders will return to their home position slowly avoiding collisions or sudden movements.</li> </ul>	Fluid	Filtered air, with or without lubrication lubricated air or not
	Connections	See CONNECTIONS LIST
	Max working pressure (bar)	2 - 10 bar
	Opening pressure (Pa)	50% of the inlet pressure (Pi)
	Flow rate at 6 bar with free exhaust (NI/min)	650 NI/min (from 1 to 2 with opening circuit)
	Flow rate at 6 bar with Δp=1 (NI/min)	350 NI/min (from 1 to 2 with opening circuit)
	Flow rate at 6 bar with Δp=1 (NI/min)	600 NI/min (from 2 to 1 with opening pin)
	Temperature °C	-5 - +50
	Weight without connections	31 gr.



90° progressive star-up valve



Ordering code

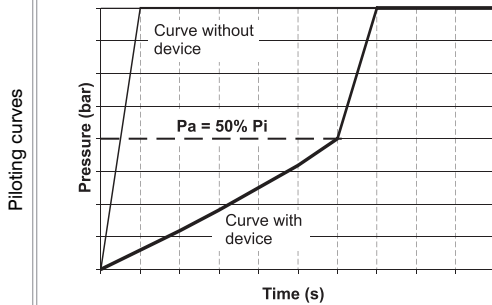
551.281.A.B.XX

- A** Connection A see CONNECTIONS LIST
- B** Connection B see CONNECTIONS LIST

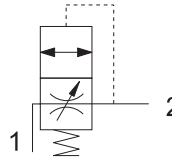
CONNECTIONS LIST

- 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
- M1 = G1/8 male
- M2 = G1/4 male
- F1 = G1/8 female

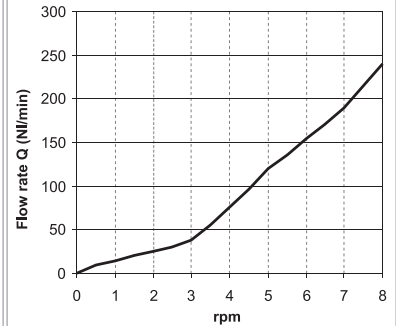
NOTE : For the dimension including cartridges see page CONNECTIONS  
 Example: 551.281.M1.D4.XX  
 Progressive start-up, CONNECTIONS "A" Tube Ø6, "B" Tube Ø4



Pneumatic Symbol



Adjustment curve



Operational characteristics

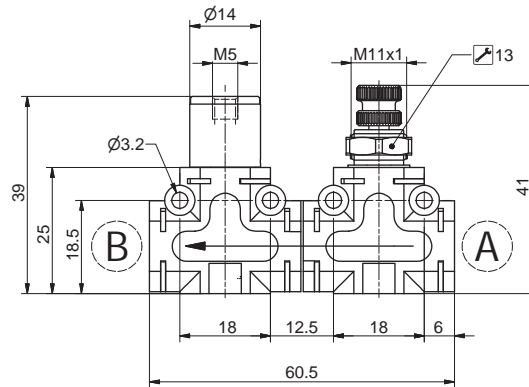
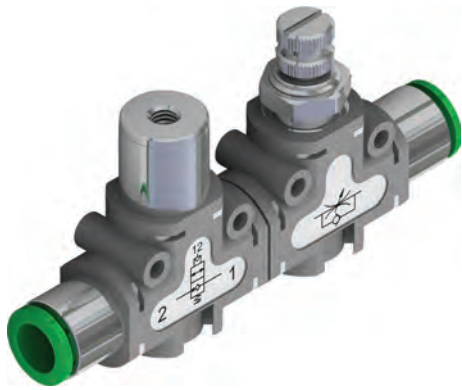
- The soft start valve is a device designed to gradually pressurise the downstream circuit until 50% of the upstream pressure value is reached.
- Once the 50% of the upstream pressure value is reached in the down stream circuit the valve fully opens allowing full air passage.
- The filling time can be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

Technical characteristics

Fluid	Filtered air, with or without lubrication lubricated air or not
Connections	See CONNECTIONS LIST
Max working pressure (bar)	2 - 10 bar
Opening pressure (Pa)	50% of the inlet pressure (Pi)
Flow rate at 6 bar with free exhaust (NI/min)	650 NI/min (from 1 to 2 with opening circuit)
Flow rate at 6 bar with Δp=1 (NI/min)	350 NI/min (from 1 to 2 with opening circuit)
Flow rate at 6 bar with Δp=1 (NI/min)	600 NI/min (from 2 to 1 with opening pin)
Temperature °C	-5 - +50
Weight without connections	31 gr.

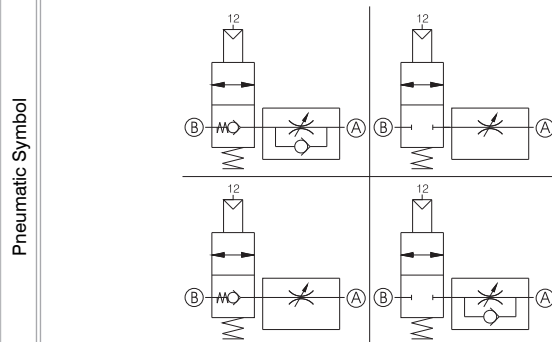
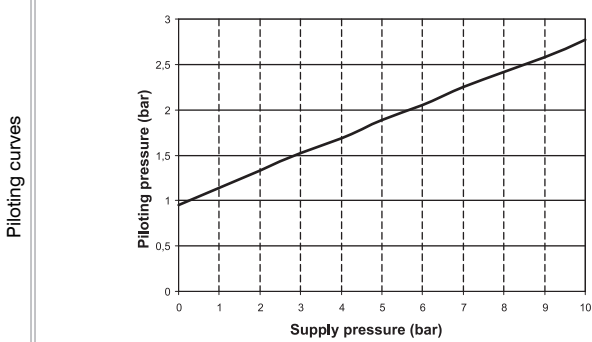
1

In line blocking valve + flow control valve



Ordering code	
<b>551.1F</b> <b>T</b> . <b>A</b> . <b>B</b> .XX	
VERSION	
1	Unidirectional blocking valve + Unidirectional flow control valve
2	Bidirectional blocking valve + Bidirectional flow control valve
<b>T</b>	Bidirectional flow control valve
3	Unidirectional blocking valve + Bidirectional flow control valve
4	Bidirectional blocking valve + Unidirectional flow control valve
<b>A</b>	see CONNECTIONS LIST A
<b>B</b>	see CONNECTIONS LIST B
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	
F1 = G1/8 female	

NOTE : For the dimension including cartridges see page CONNECTIONS  
 Example: 551.1F1.00.00.XX  
 In line unidirectional blocking valve + unidirectional flow control valve, without CONNECTIONS "A" and "B"



Operational characteristics

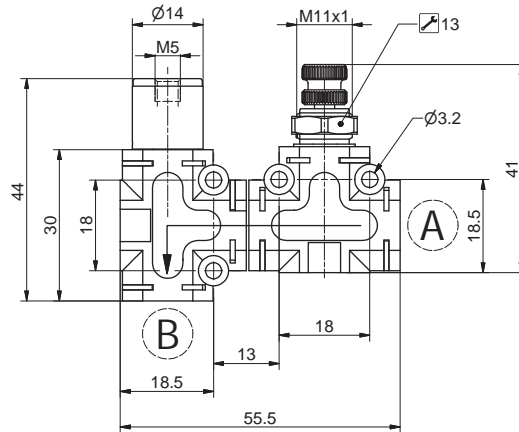
- The combination of this two functions ensures that the downstream pressure is maintained in case of accidental loss of supply pressure and at the same time grants the possibility to regulate the circuit flow rate. A typical application of this combination is close to or directly assembled onto the 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 + unidirectional 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, with or without lubrication lubricated air or not
Connections	See CONNECTIONS LIST
Max working pressure (bar)	0,5 - 10 bar
Temperature °C	-5 - +50
Ø Orifice size (mm)	Ø3 mm
Flow rate at 6 bar with Δp=1 (NI/min)	285 NI/min
Weight without connections	62 gr.



90° blocking valve + flow control valve



Ordering code

551.2F<sup>T</sup>.A.B.XX

VERSION

- 1 = Unidirectional blocking valve + Unidirectional flow control valve
- 2 = Bidirectional blocking valve + Bidirectional flow control valve
- T** 3 = Unidirectional blocking valve + Bidirectional flow control valve
- 4 = Bidirectional blocking valve + Unidirectional flow control valve

- A** see CONNECTIONS LIST A
- B** see CONNECTIONS LIST B

CONNECTIONS LIST

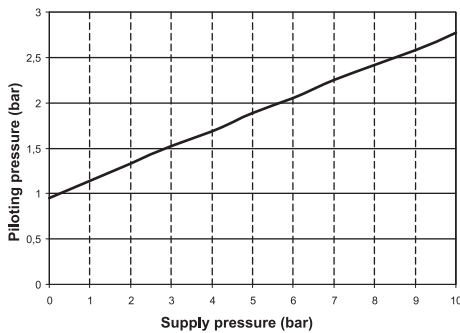
- 00 = None
- D4 = Straight Ø4
- D6 = Straight Ø6
- D8 = Straight Ø8
- L1 = Female banjo G1/8"
- G4 = Rotating banjo Ø 4
- G6 = Rotating banjo Ø 6
- G8 = Rotating banjo Ø 8
- M1 = G1/8 male
- M2 = G1/4 male
- F1 = G1/8 female

NOTE : For the dimension including cartridges see page CONNECTIONS

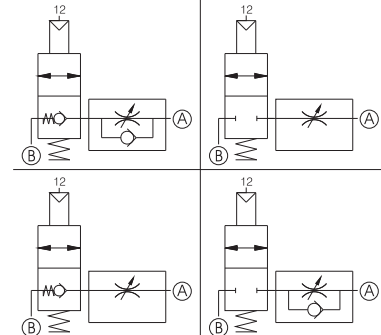
Example: 551.2F1.00.00.XX

90° unidirectional blocking valve + unidirectional flow control valve, without CONNECTIONS "A" and "B"

Pilotng curves



Pneumatic Symbol



Operational characteristics

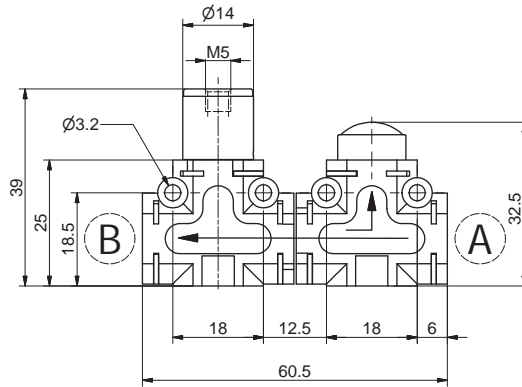
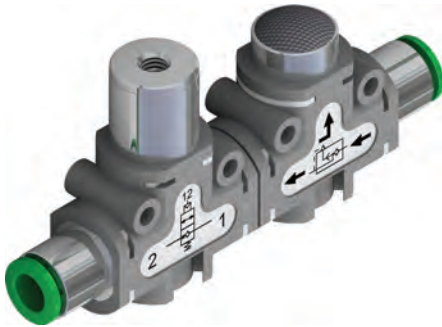
- The combination of these two functions ensures that the downstream pressure is maintained in case of accidental loss of supply pressure and at the same time grants the possibility to regulate the circuit flow rate. A typical application of this combination is close to or directly assembled onto the 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:
  - 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

Technical characteristics

Fluid	Filtered air, with or without lubrication lubricated air or not
Connections	See CONNECTIONS LIST
Max working pressure (bar)	0,5 - 10 bar
Temperature °C	-5 - +50
Ø Orifice size (mm)	Ø3 mm
Flow rate at 6 bar with Δp=1 (NI/min)	285 NI/min
Weight without connections	62 gr.

1

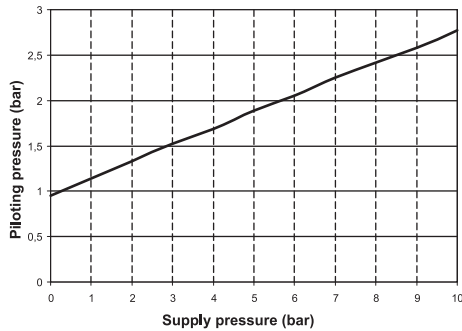
**In line blocking valve + quick exhaust valve**



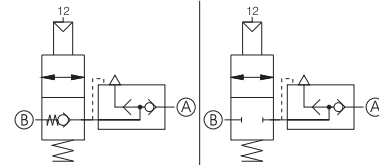
<b>Ordering code</b>	
<b>551.1G<sup>T</sup>.A.B.XX</b>	
VERSION	
<b>T</b>	1 = Unidirectional blocking valve + quick exhaust valve
	2 = Bidirectional blocking valve + quick exhaust valve
<b>A</b>	Connection A see CONNECTIONS LIST
<b>B</b>	Connection B see CONNECTIONS LIST
CONNECTIONS LIST	
00 = None	
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	
M1 = G1/8male	
M2 = G1/4 male	
F1 = G1/8 female	

NOTE : For the dimension including cartridges see page CONNECTIONS  
 Example: 551.1G1.00.00.XX  
 In line unidirectional blocking valve + quick exhaust valve, without CONNECTIONS "A" and "B"

Piloting curves



Pneumatic Symbol



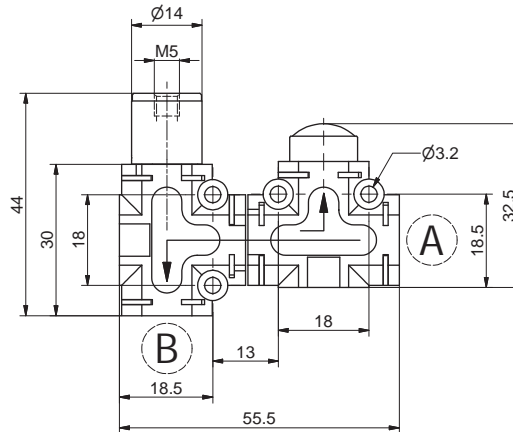
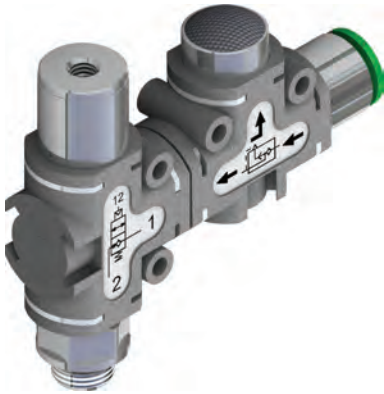
**Operational characteristics**

- 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 combination are the following:
  - unidirectional blocking valve + quick exhaust valve
  - bidirectional blocking valve + quick exhaust valve.

**Technical characteristics**

Fluid	Filtered air, with or without lubrication lubricated air or not
Connections	See CONNECTIONS LIST
Max working pressure (bar)	0,5 - 10 bar
Temperature °C	-5 - +50
Weight without connections	51 gr.
Flow rate at 6 bar with Δp=1 (NI/min)	285 NI/min

90° blocking valve + quick exhaust valve



Ordering code

551.2G<sup>T</sup>.A.B.XX

VERSION

- T 1 = 90° Unidirectional blocking valve + quick exhaust valve
- 2 = 90° Bidirectional blocking valve + quick exhaust valve

A Connection A see CONNECTIONS LIST

B Connection B see CONNECTIONS LIST

CONNECTIONS LIST

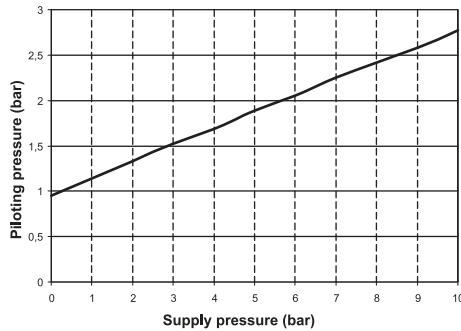
- 00 = None
- D4 = Straight Ø4
- D6 = Straight Ø6
- D8 = Straight Ø8
- L1 = Female banjo G1/8"
- G4 = Rotating banjo Ø 4
- G6 = Rotating banjo Ø 6
- G8 = Rotating banjo Ø 8
- M1 = G1/8 male
- M2 = G1/4 male
- F1 = G1/8female

NOTE : For the dimension including cartridges see page CONNECTIONS

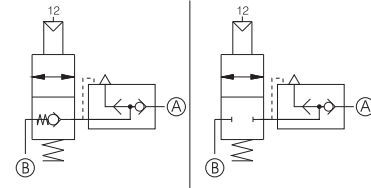
Example: 551.2G1.00.00.XX

90° unidirectional blocking valve + quick exhaust valve, without CONNECTIONS "A" and "B"

Piloting curves



Pneumatic Symbol



Operational characteristics

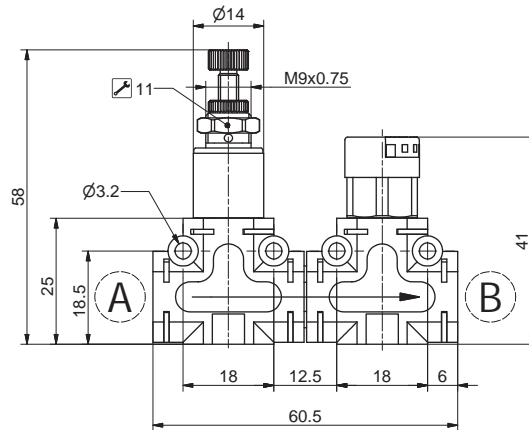
- The combination of this two functions ensures that the downstream pressure is maintained in case of accidental loss of supply pressure and at the same time allows for the air to be directly discharged into the atmosphere without going through the pneumatic circuit. A typical application of this combination 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 combination are the following:
  - 90° unidirectional blocking valve + quick exhaust valve
  - 90° bidirectional blocking valve + quick exhaust valve.

Technical characteristics

Fluid	Filtered air, with or without lubrication lubricated air or not
Connections	See CONNECTIONS LIST
Max working pressure (bar)	0,5 - 10 bar
Temperature °C	-5 - +50
Weight without connections	51 gr.
Flow rate at 6 bar with Δp=1 (NI/min)	285 NI/min



In line pressure regulator + pressure indicator



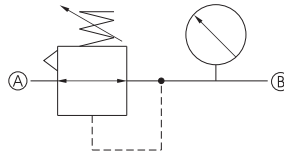
Ordering code	
<b>551.1H.T.A.B.XX</b>	
VERSION	
<b>T</b>	2 = 0 - 2 bar
	4 = 0 - 4 bar
	8 = 0 - 8 bar
<b>A</b>	Connection A see CONNECTIONS LIST
<b>B</b>	Connection B see CONNECTIONS LIST
CONNECTIONS LIST	
00 = None	
D4 = Straight Ø4	
D6 = Straight Ø6	
D8 = Straight Ø8	
L1 = Female banjo G1/8"	
G4 = Rotating banjo Ø 4	
G6 = Rotating banjo Ø 6	
G8 = Rotating banjo Ø 8	
M1 = G1/8 male	
M2 = G1/4 male	
F1 = G1/8 female	

NOTE : For the dimension including cartridges see page CONNECTIONS

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

Pneumatic Symbol



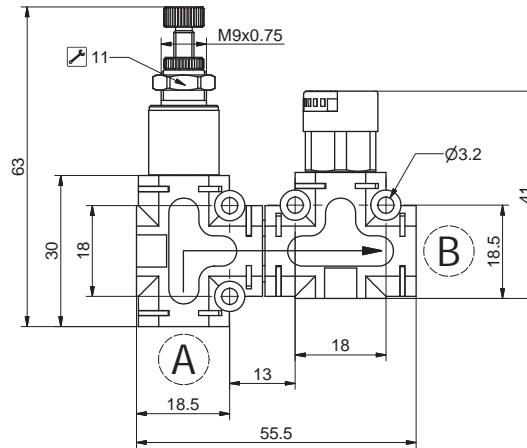
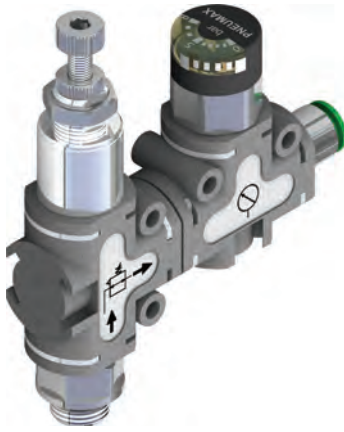
**Operational characteristics**

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

**Technical characteristics**

Fluid	Filtered air, with or without lubrication lubricated air or not
Connections	See CONNECTIONS LIST
Max working pressure (bar)	8 bar
Temperature °C	-5 - +50
Visualization scale	0 - 8 bar
Regulated Pressure range (bar)	0 - 2 bar
	0 - 4 bar
	0 - 8 bar
Weight without connections	62 gr.

90° pressure regulator + pressure indicator



Ordering code

551.2H**T**.**A**.**B**.XX

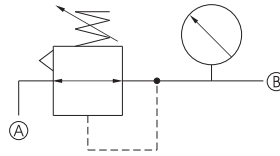
VERSION	
<b>T</b>	2 = 0 - 2 bar 4 = 0 - 4 bar 8 = 0 - 8 bar
<b>A</b>	Connection A see CONNECTIONS LIST
<b>B</b>	Connection B see CONNECTIONS LIST
CONNECTIONS LIST	
00 = None	
D4 = Straight Ø4	
D6 = Straight Ø6	
D8 = Straight Ø8	
L1 = Female banjo G1/8"	
G4 = Rotating banjo Ø 4	
G6 = Rotating banjo Ø 6	
G8 = Rotating banjo Ø 8	
M1 = G1/8 male	
M2 = G1/4 male	
F1 = G1/8 female	

NOTE : For the dimension including cartridges see page CONNECTIONS

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

Pneumatic Symbol



Operational characteristics

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

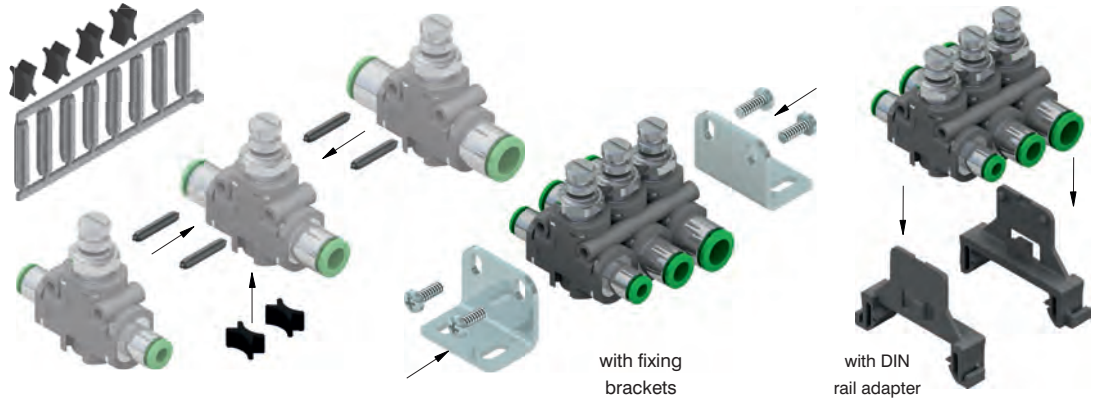
Technical characteristics

Fluid	Filtered air, with or without lubrication lubricated air or not
Connections	See CONNECTIONS LIST
Max working pressure (bar)	8 bar
Temperature °C	-5 - +50
Visualization scale	0 - 8 bar
Regulated Pressure range (bar)	0 - 2 bar 0 - 4 bar 0 - 8 bar
Weight without connections	62 gr.

**Coupling kit (pins and forks)**

Ordering code

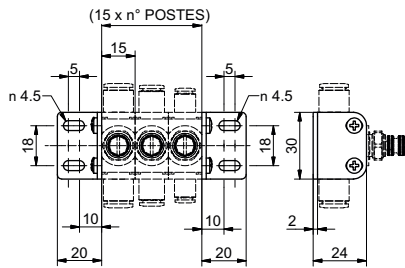
**55160**



Weight 2,5 gr. - 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 sideways (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.

**Fixing brackets**

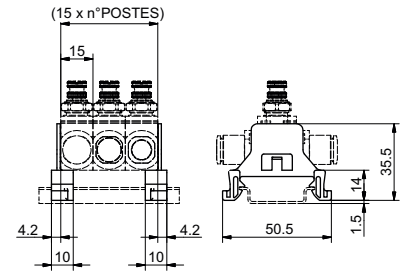
**DIN rail adapter**



Ordering code

**55150**

Weight gr. 18  
The kit comprises two fixing brackets and the screws



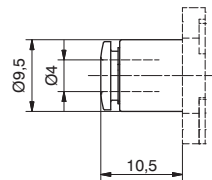
Ordering code

**55116**

Weight gr. 4  
The kit comprises two adapters

**Ø4 straight cartridge**

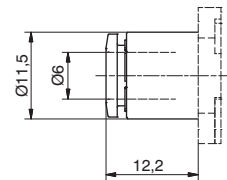
**Ø6 straight cartridge**



Ordering code

**551KD4**

Weight 7,5 gr.



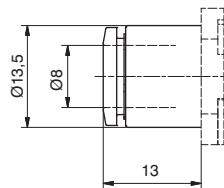
Ordering code

**551KD6**

Weight 7,3 gr.

**Ø8 straight cartridge**

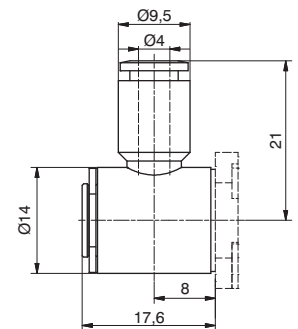
**Ø4 banjo PL cartridge**



Ordering code

**551KD8**

Weight 7 gr.

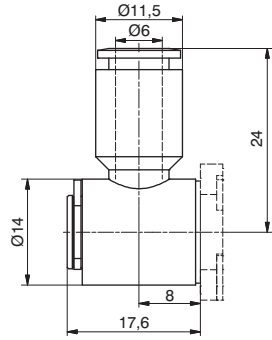


Ordering code

**551KG4**

Weight 13,6 gr.

**Ø6 banjo PL cartridge**

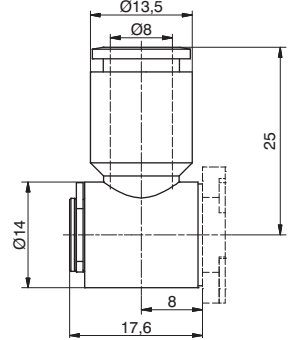


Ordering code

**551KG6**

Weight 14 gr.

**Ø8 banjo PL cartridge**

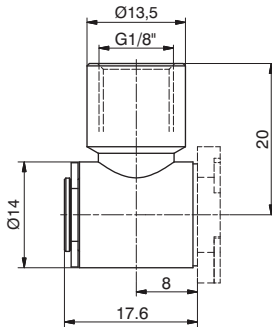


Ordering code

**551KG8**

Weight 14,3 gr.

**G1/8" banjo female cartridge**

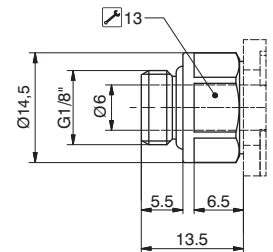


Ordering code

**551KL1**

Weight 30 gr.

**G1/8" male straight cartridge**

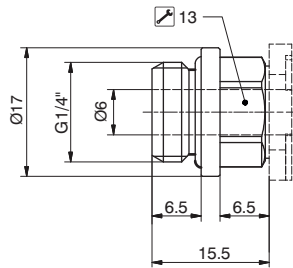


Ordering code

**551KM1**

Weight 14 gr.

**G1/4" male straight cartridge**

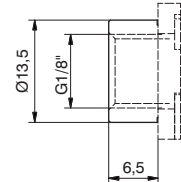


Ordering code

**551KM2**

Weight 20 gr.

**G1/8" female straight cartridge**



Ordering code

**551KF1**

Weight 9 gr.

**Connection for multiple function**



Ordering code

**551KUU**

Weight 14 gr.