Series 105

General

The series 105 consist of a broad range of miniature valves and valves with various type of actuation.
The connections are M5 for this series
Due to their special construction with a balanced spool, these valves can be used interchangeably as 3 ways or 5 ways.
The 3 ways can be used normally closed or normally open and the 5 ways can be fed through the exhausts 3 and 5 with different pressures according to the need.
The spool, as it is moving, isolates the connections without being affected by the inlet pressure.

Construction characteristics

	M5
Body	Aluminium
Operators	Nickel plated brass Stainless steel for roller levers and button levers; Zinc plated steel for side levers; Plastic material for handles, buttons and switches Aluminium (for pneumatic command version)
Seals	NBR
Spacer	Technopolymer
Spools	Steel
Springs	Spring steel
Pistons	Aluminium (for pneumatic command version)

Use and maintenance

This valves have an average life of 15 million cycles depending on the application and air quality.
Filtered and lubricated air using specified lubricants will reduce the wear of the seals and ensures long and trouble free operation.
Please ensure that the valve is being used according with the manufacturers specification, such as air pressure and temperature.
The exhaust port of the distributor has to be protected in a dusty and dirty environment.
Repair kits including the spool complete with seals are available for overhauling the valves.
However, although this is a simple operation it should be carried out by a competent person.

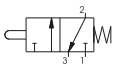
ATTENTION: use hydraulic oil class H for lubrication such as MAGNA GC 32 (Castrol).

Tappet panel - Spring

Coding: 105.Ⓣ.0.1

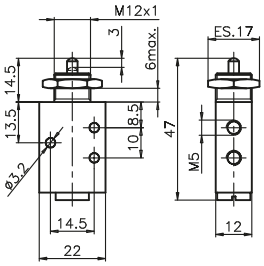
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways


105.32.0.1

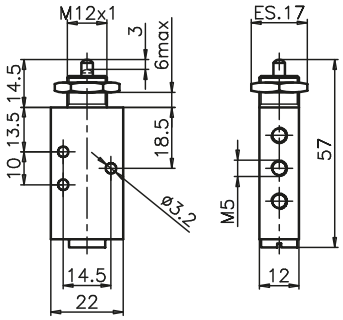

105.52.0.1

3 ways



Weight 70 g
Operating force 14 N

5 ways



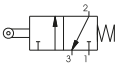
Weight 87 g
Operating force 14 N

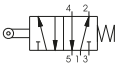
Lever roller - Spring

Coding: 105.Ⓣ.2.1

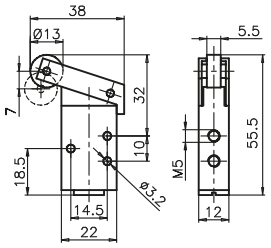
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways


105.32.2.1

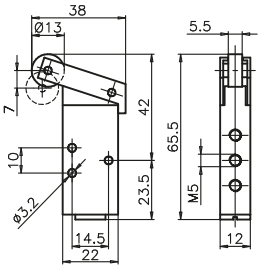

105.52.2.1

3 ways



Weight 85 g
Operating force 6 N

5 ways



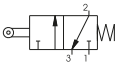
Weight 102 g
Operating force 6 N

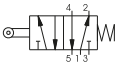
Lever roller ball bearing - Spring

Coding: 105.Ⓣ.2.1/1

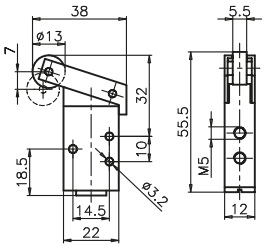
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways


105.32.2.1/1

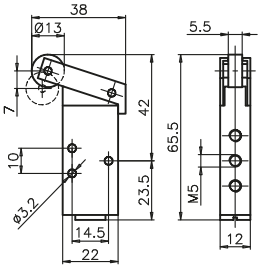

105.52.2.1/1

3 ways



Weight 100 g
Operating force 6 N

5 ways



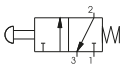
Weight 177 g
Operating force 6 N

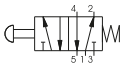
Lever button - Spring

Coding: 105.Ⓣ.2.6/Ⓒ

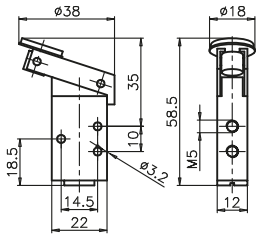
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓒ	BUTTON COLOR
	1 = Red
	2 = Black
	3 = Green


105.32.2.6/Ⓒ

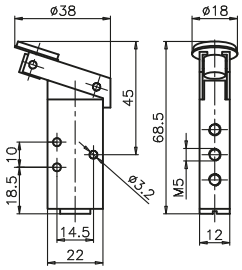

105.52.2.6/Ⓒ

3 ways



Weight 85 g
Operating force 6 N

5 ways



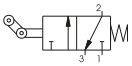
Weight 102 g
Operating force 6 N

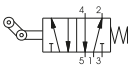
Lever unidirectional - Spring

Coding: 105.Ⓣ.3.1

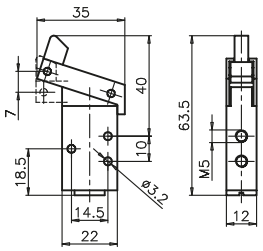
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways


105.32.3.1

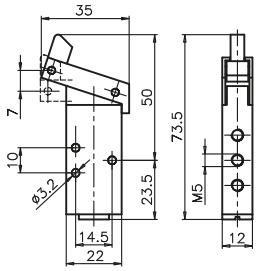

105.52.3.1

3 ways



Weight 85 g
Operating force 6 N

5 ways



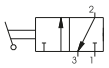
Weight 102 g
Operating force 6 N

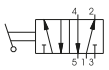
Lever panel Ø22 - 2 positions

Coding: 105.Ⓣ.4/Ⓒ

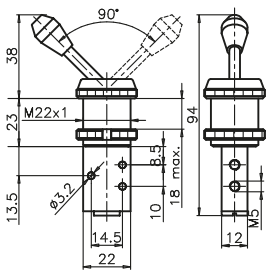
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓒ	LEVER COLOR
	1 = Red
	2 = Black
	3 = Green


105.32.4/Ⓒ

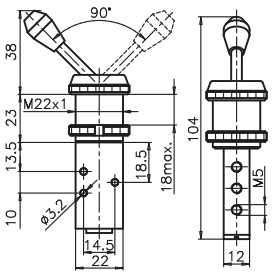

105.52.4/Ⓒ

3 ways



Weight 125 g

5 ways



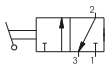
Weight 142 g

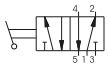
Lever panel Ø30 - 2 positions

Coding: 105.Ⓣ.5/Ⓒ

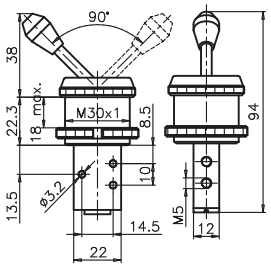
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓒ	LEVER COLOR
	1 = Red
	2 = Black
	3 = Green


105.32.5/Ⓒ

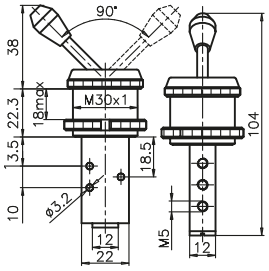

105.52.5/Ⓒ

3 ways



Weight 165 g

5 ways



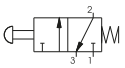
Weight 182 g

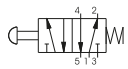
Push button Ø30 - Spring

Coding: 105.Ⓣ.6.1/Ⓒ

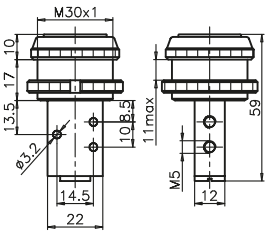
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓒ	BUTTON COLOR
	1 = Red
	2 = Black
	3 = Green


105.32.6.1/Ⓒ

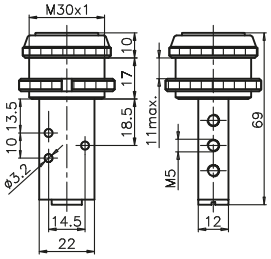

105.52.6.1/Ⓒ

3 ways



Weight 123 g
Operating force 14 N

5 ways



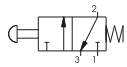
Weight 140 g
Operating force 14 N

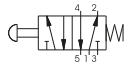
Push button Ø22 - Spring

Coding: 105.Ⓣ.6.2/Ⓒ

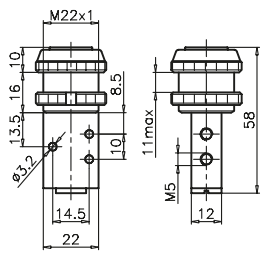
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓒ	BUTTON COLOR
	1 = Red
	2 = Black
	3 = Green


105.32.6.2/Ⓒ

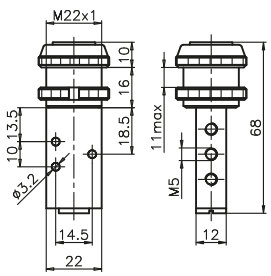

105.52.6.2/Ⓒ

3 ways



Weight 102 g
Operating force 14 N

5 ways



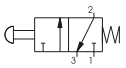
Weight 119 g
Operating force 14 N

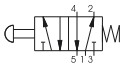
Push button - Spring

Coding: 105.Ⓣ.6.22/Ⓒ

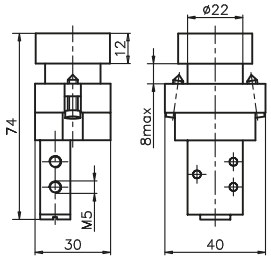
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓒ	BUTTON COLOR
	1 = Red
	2 = Black
	3 = Green
	4 = Yellow


105.32.6.22/Ⓒ

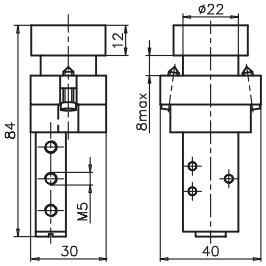

105.52.6.22/Ⓒ

3 ways



Weight 165 g
Operating force 14 N

5 ways



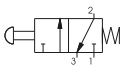
Weight 182 g
Operating force 14 N

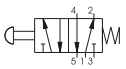
Raised Push button - Spring

Coding: 105.Ⓣ.6.23/Ⓒ

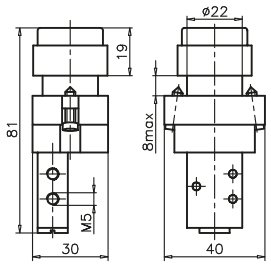
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓒ	BUTTON COLOR
	1 = Red
	2 = Black
	3 = Green
	4 = Yellow


105.32.6.23/Ⓒ

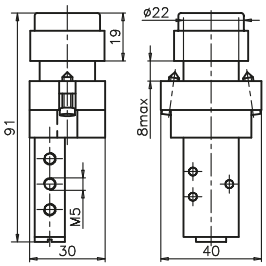

105.52.6.23/Ⓒ

3 ways



Weight 170 g
Operating force 14 N

5 ways



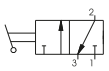
Weight 187 g
Operating force 14 N

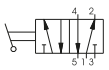
Switch 2 positions

Coding: 105.Ⓣ.6.27

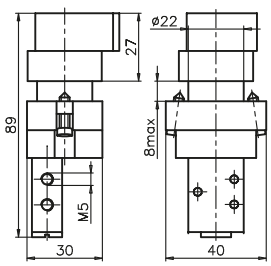
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways


105.32.6.27

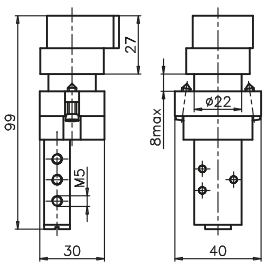

105.52.6.27

3 ways



Weight 185 g

5 ways



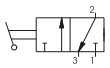
Weight 202 g

Key switch 2 positions

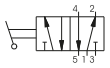
Coding: 105.Ⓣ.6.28

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways

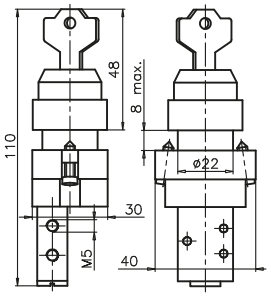


105.32.6.28



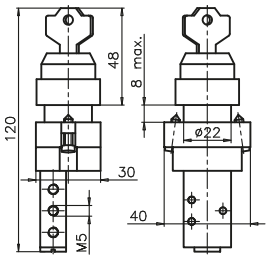
105.52.6.28

3 ways



Weight 215 g

5 ways



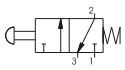
Weight 232 g

Palm pushbutton Ø30 - Spring

Coding: 105.Ⓣ.7.1/Ⓒ

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5

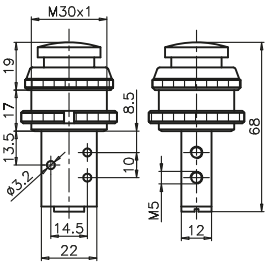
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓒ	BUTTON COLOR
	1 = Red
	2 = Black
	3 = Green



105.32.7.1/Ⓒ

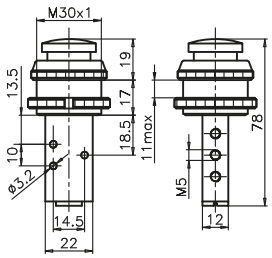
105.52.7.1/Ⓒ

3 ways



Weight 126 g
Operating force 14 N

5 ways



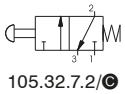
Weight 143 g
Operating force 14 N

Palm pushbutton Ø22 - Spring

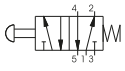
Coding: 105.Ⓣ.7.2/Ⓒ

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓒ	BUTTON COLOR
	1 = Red
	2 = Black
	3 = Green

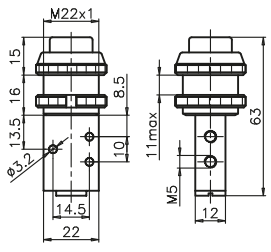


105.32.7.2/Ⓒ



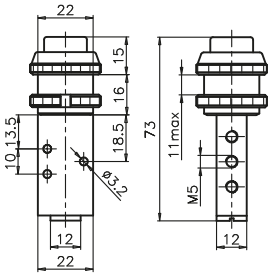
105.52.7.2/Ⓒ

3 ways



Weight 103 g
Operating force 14 N

5 ways



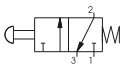
Weight 120 g
Operating force 14 N

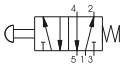
Push button

Coding: 105.Ⓣ.8.1/Ⓒ

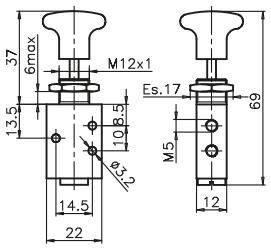
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓒ	BUTTON COLOR
	1 = Red
	2 = Black
	3 = Green


105.32.8.1/Ⓒ

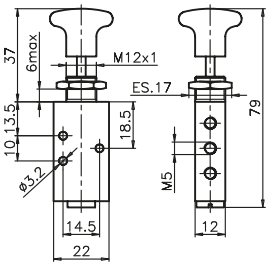

105.52.8.1/Ⓒ

3 ways



Weight 75 g
Operating force 14 N

5 ways



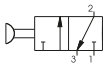
Weight 92 g
Operating force 14 N

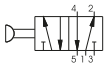
Push button 2 positions

Coding: 105.Ⓣ.8/Ⓒ

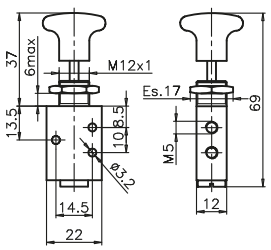
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓒ	BUTTON COLOR
	1 = Red
	2 = Black
	3 = Green


105.32.8/Ⓒ

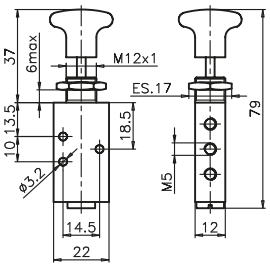

105.52.8/Ⓒ

3 ways



Weight 75 g
Operating force 14 N

5 ways



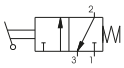
Weight 92 g
Operating force 14 N

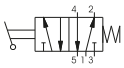
Whisker - Spring

Coding: 105.Ⓣ.9.1

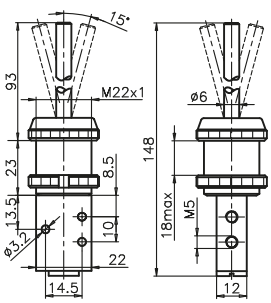
Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways


105.32.9.1

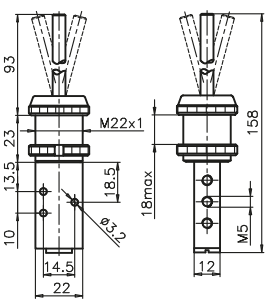

105.52.9.1

3 ways



Weight 136 g

5 ways



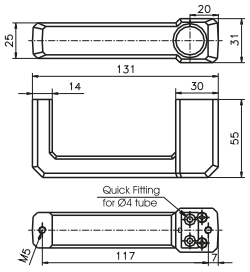
Weight 153 g

Handle with valve

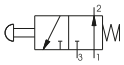
Coding: 105.Ⓣ.6.Ⓐ.Ⓕ

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5 - Quick Fitting for Ø4 tube

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways
Ⓐ	FEEDING
	40 = Left feeding
	40D = Right feeding
Ⓕ	FUNCTION (only for 3 ways)
	A = Normally Open
	C = Normally Closed

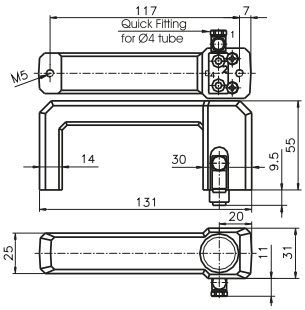


Weight 165 g
Operating force 14 N

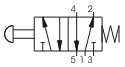


105.32.6.40.Ⓕ

Left feeding

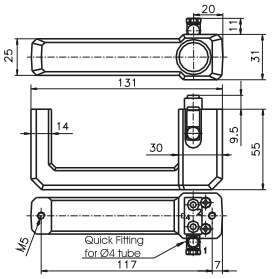


Weight 190 g
Operating force 14 N

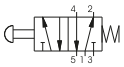


105.52.6.40

Right feeding



Weight 190 g
Operating force 14 N



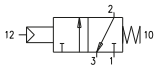
105.52.6.40.Ⓓ

Pneumatic - Spring

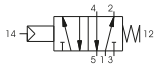
Coding: 105.Ⓣ.11.1

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5
Pilot ports size	M5

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways

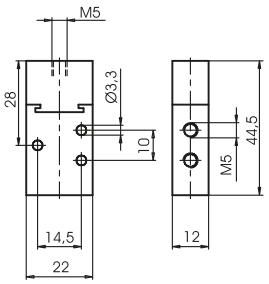


105.32.11.1



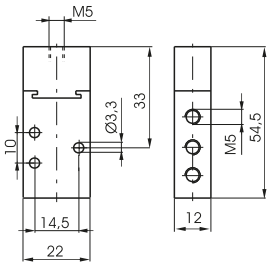
105.52.11.1

3 ways



Weight 90 g
Minimum piloting pressure 2,5 bar

5 ways



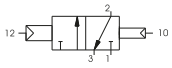
Weight 100 g
Minimum piloting pressure 2,5 bar

Pneumatic - Differential external

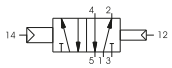
Coding: 105.Ⓣ.11.12

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5
Pilot ports size	M5

Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways

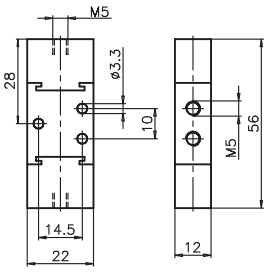


105.32.11.12



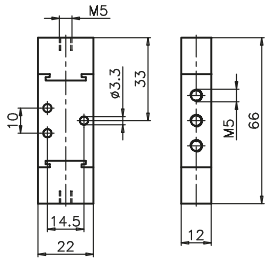
105.52.11.12

3 ways



Weight 110 g
Minimum piloting pressure 2,5 bar

5 ways



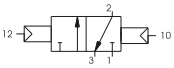
Weight 120 g
Minimum piloting pressure 2,5 bar

Pneumatic - Pneumatic

Coding: 105.Ⓣ.11.11

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (Nl/min)	120
Orifice size (mm)	2.5
Working ports size	M5
Pilot ports size	M5

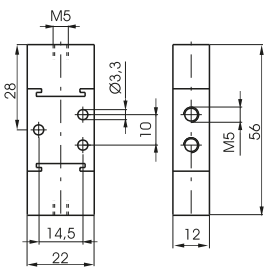
Ⓣ	TYPE
	32 = 3 ways
	52 = 5 ways



105.32.11.11

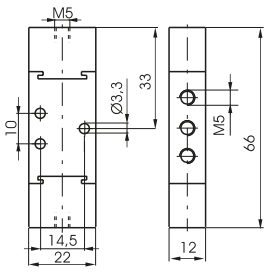
105.52.11.11

3 ways



Weight 110 g
Minimum piloting pressure 2,5 bar

5 ways



Weight 120 g
Minimum piloting pressure 2,5 bar