



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).

1
AIR DISTRIBUTION

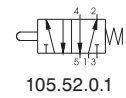
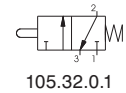


Tappet panel - Spring

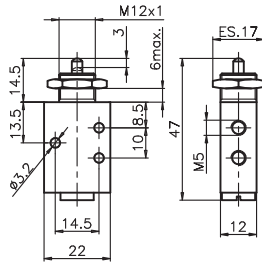
Coding: 105.1.0.1

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 $\Delta p=1$ (NI/min)	120
Orifice size (mm)	2.5
Working ports size	M5

TYPE	
32	= 3 ways
52	= 5 ways

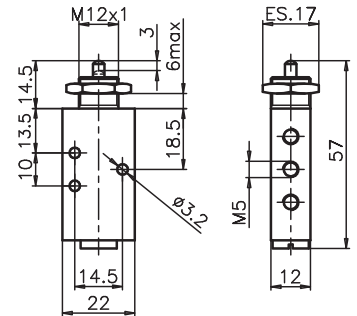


3 ways



Weight 70 g
Operating force 14 N

5 ways



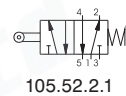
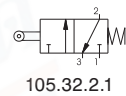
Weight 87 g
Operating force 14 N

Lever roller - Spring

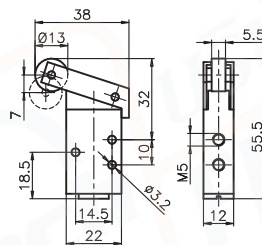
Coding: 105.2.1

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 $\Delta p=1$ (NI/min)	120
Orifice size (mm)	2.5
Working ports size	M5

TYPE	
32	= 3 ways
52	= 5 ways

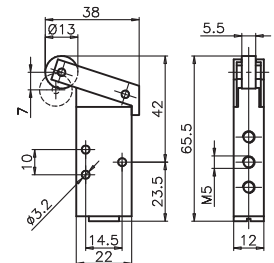


3 ways



Weight 85 g
Operating force 6 N

5 ways



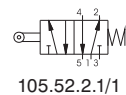
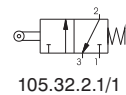
Weight 102 g
Operating force 6 N

Lever roller ball bearing - Spring

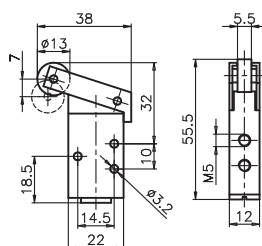
Coding: 105.2.1/1

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 $\Delta p=1$ (NI/min)	120
Orifice size (mm)	2.5
Working ports size	M5

TYPE	
32	= 3 ways
52	= 5 ways

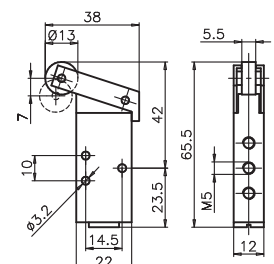


3 ways



Weight 100 g
Operating force 6 N

5 ways



Weight 177 g
Operating force 6 N

1
AIR DISTRIBUTION



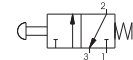
Lever button - Spring

Coding: 105.1.2.6/C

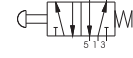
Operational characteristics

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 (NI/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

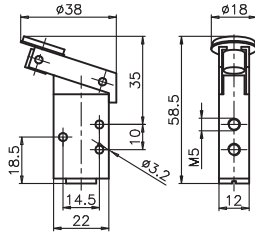


105.32.2.6/C



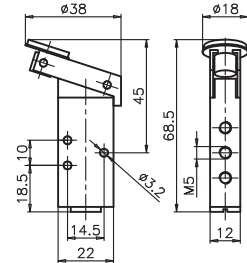
105.52.2.6/C

3 ways



Weight 85 g
Operating force 6 N

5 ways



Weight 102 g
Operating force 6 N

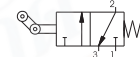
Lever unidirectional - Spring

Coding: 105.1.3.1

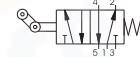
Operational characteristics

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 (NI/min)	120
Orifice size (mm)	2.5
Working ports size	M5

TYPE	32 = 3 ways 52 = 5 ways
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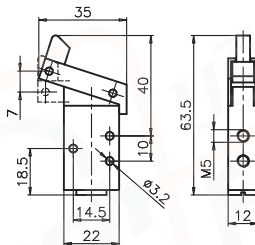


105.32.3.1



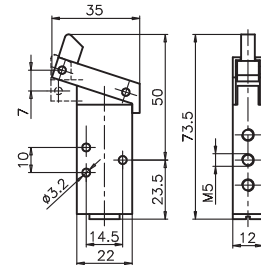
105.52.3.1

3 ways



Weight 85 g
Operating force 6 N

5 ways



Weight 102 g
Operating force 6 N

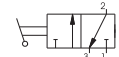
Lever panel Ø22 - 2 positions

Coding: 105.1.4/C

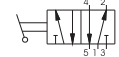
Operational characteristics

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 (NI/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

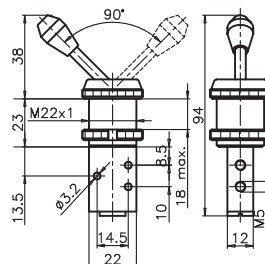


105.32.4/C



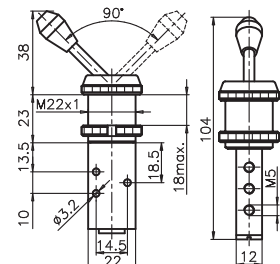
105.52.4/C

3 ways



Weight 125 g

5 ways



Weight 142 g

AIR DISTRIBUTION

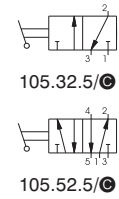
1

Lever panel Ø30 - 2 positions

Coding: 105.1.5/C

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 $\Delta p=1$ (NI/min)	120
Orifice size (mm)	2.5
Working ports size	M5

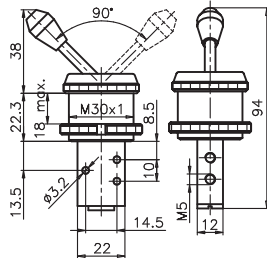
T	TYPE
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	52 = 5 ways
C	LEVER COLOR
	1 = Red
	2 = Black
	3 = Green



105.32.5/C

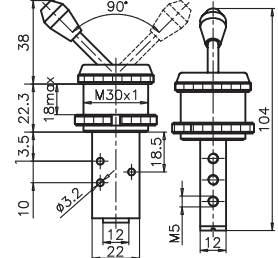
105.52.5/C

3 ways



Weight 165 g

5 ways



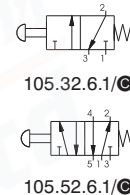
Weight 182 g

Push button Ø30 - Spring

Coding: 105.1.6.1/C

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 $\Delta p=1$ (NI/min)	120
Orifice size (mm)	2.5
Working ports size	M5

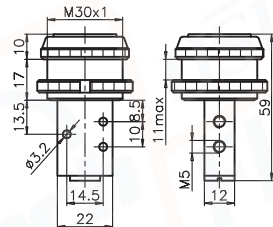
T	TYPE
	32 = 3 ways
	52 = 5 ways
C	BUTTON COLOR
	1 = Red
	2 = Black
	3 = Green



105.32.6.1/C

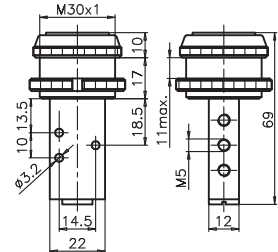
105.52.6.1/C

3 ways



Weight 123 g
Operating force 14 N

5 ways



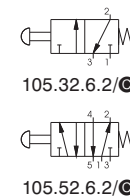
Weight 140 g
Operating force 14 N

Push button Ø22 - Spring

Coding: 105.1.6.2/C

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 $\Delta p=1$ (NI/min)	120
Orifice size (mm)	2.5
Working ports size	M5

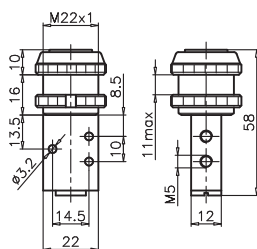
T	TYPE
	32 = 3 ways
	52 = 5 ways
C	BUTTON COLOR
	1 = Red
	2 = Black
	3 = Green



105.32.6.2/C

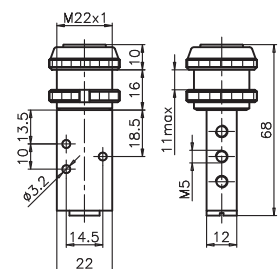
105.52.6.2/C

3 ways



Weight 102 g
Operating force 14 N

5 ways



Weight 119 g
Operating force 14 N



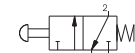
Push button - Spring

Coding: 105.1.6.22/©

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 (NI/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

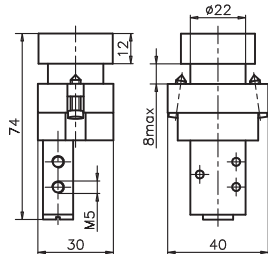


105.32.6.22/©



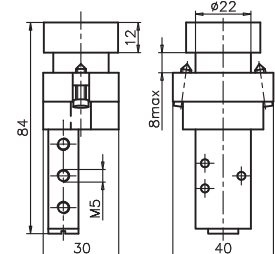
105.52.6.22/©

3 ways



Weight 165 g
Operating force 14 N

5 ways



Weight 182 g
Operating force 14 N

Raised Push button - Spring

Coding: 105.1.6.23/©

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 (NI/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

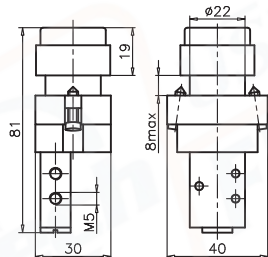


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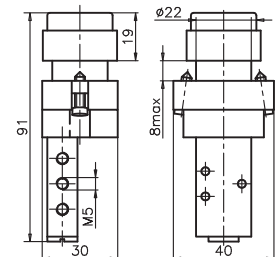
105.52.6.23/©

3 ways



Weight 170 g
Operating force 14 N

5 ways



Weight 187 g
Operating force 14 N

Switch 2 positions

Coding: 105.1.6.27

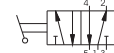
Operational characteristics

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 (NI/min)	120
Orifice size (mm)	2.5
Working ports size	M5

TYPE	32 = 3 ways 52 = 5 ways
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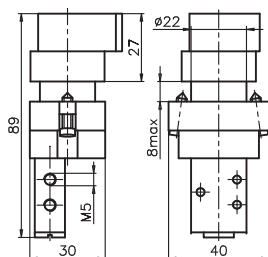


105.32.6.27



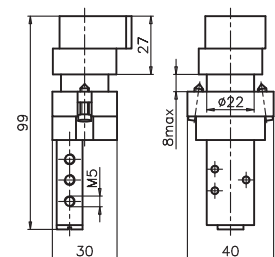
105.52.6.27

3 ways



Weight 185 g

5 ways



Weight 202 g

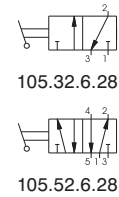
1 AIR DISTRIBUTION

Key switch 2 positions

Coding: 105.1.6.28

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 $\Delta p=1$ (NI/min)	120
Orifice size (mm)	2.5
Working ports size	M5

TYPE	
32	= 3 ways
52	= 5 ways



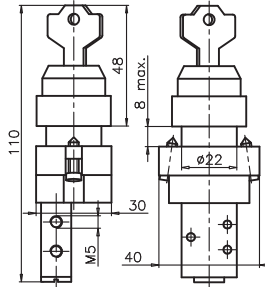
105.32.6.28

105.52.6.28

3 ways



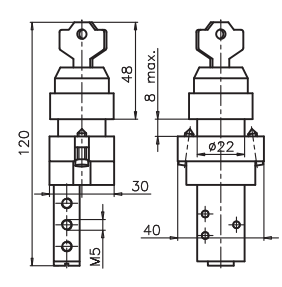
Weight 215 g



5 ways



Weight 232 g



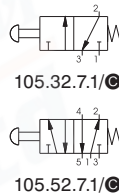
Palm pushbutton Ø30 - Spring

Coding: 105.1.7.1/C

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 $\Delta p=1$ (NI/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



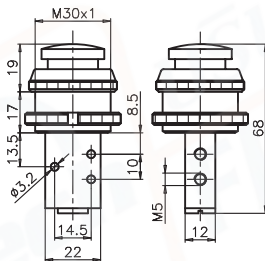
105.32.7.1/C

105.52.7.1/C

3 ways



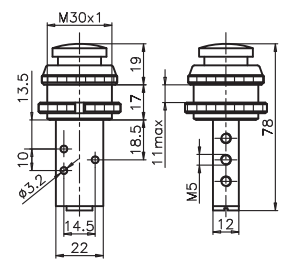
Weight 126 g
Operating force 14 N



5 ways



Weight 143 g
Operating force 14 N



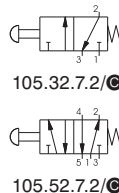
Palm pushbutton Ø22 - Spring

Coding: 105.1.7.2/C

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 $\Delta p=1$ (NI/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



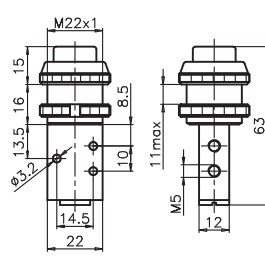
105.32.7.2/C

105.52.7.2/C

3 ways



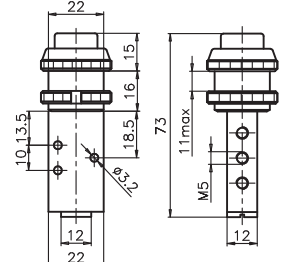
Weight 103 g
Operating force 14 N



5 ways



Weight 120 g
Operating force 14 N





AIR DISTRIBUTION

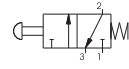
Push button

Coding: 105.1.8.1/C

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 (NI/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

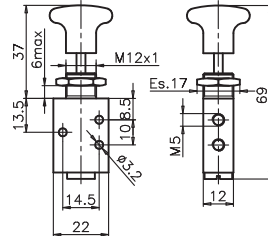


105.32.8.1/C



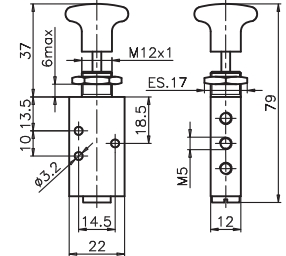
105.52.8.1/C

3 ways



Weight 75 g
Operating force 14 N

5 ways



Weight 92 g
Operating force 14 N

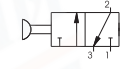
Push button 2 positions

Coding: 105.1.8/C

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 (NI/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

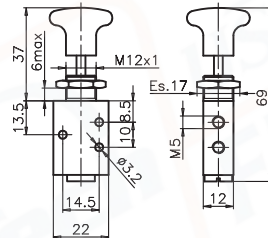


105.32.8/C



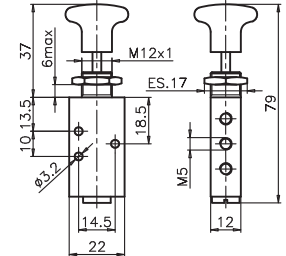
105.52.8/C

3 ways



Weight 75 g
Operating force 14 N

5 ways



Weight 92 g
Operating force 14 N

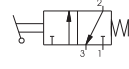
Whisker - Spring

Coding: 105.1.9.1

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 (NI/min)	120
Orifice size (mm)	2.5
Working ports size	M5

TYPE	32 = 3 ways 52 = 5 ways
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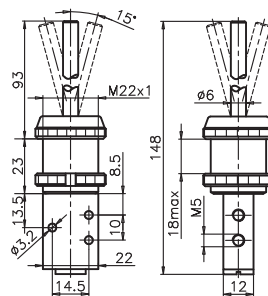


105.32.9.1



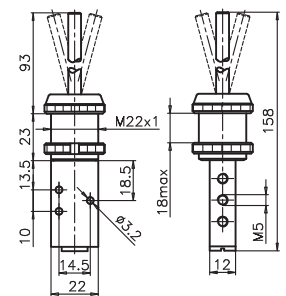
105.52.9.1

3 ways



Weight 136 g

5 ways



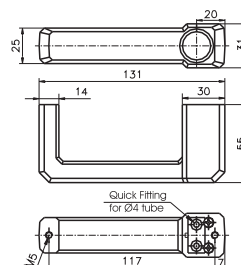
Weight 153 g

Handle with valve

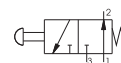
Coding: 105.T.6.A.F

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 (NI/min)	120
Orifice size (mm)	2.5
Working ports size	M5 - Quick Fitting for Ø4 tube

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



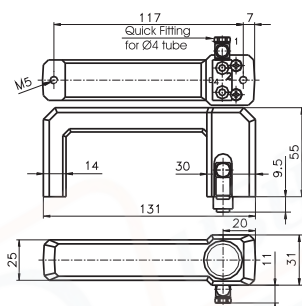
Weight 165 g
Operating force 14 N



105.32.6.40.Ⓣ

1
AIR DISTRIBUTION

Left feeding

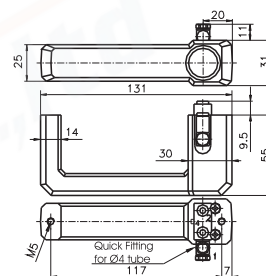


Weight 190 g
Operating force 14 N

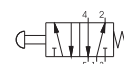


105.52.6.40

Right feeding



Weight 190 g
Operating force 14 N



105.52.6.40.Ⓡ



AIR DISTRIBUTION 1

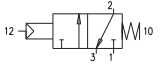
Pneumatic - Spring

Coding: 105.11.1

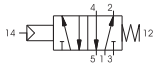
Operational characteristics

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 (NI/min)	120
Orifice size (mm)	2.5
Working ports size	M5
Pilot ports size	M5

TYPE
① 32 = 3 ways
52 = 5 ways

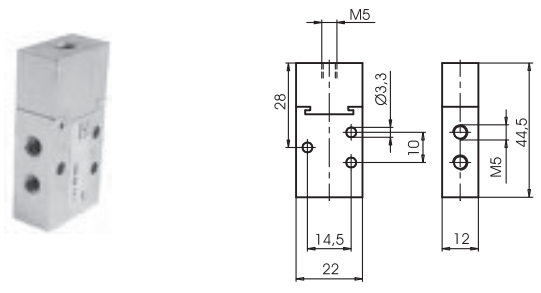


105.32.11.1



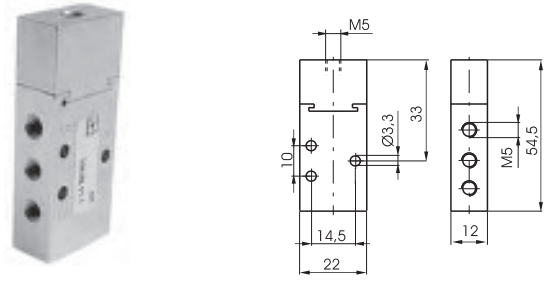
105.52.11.1

3 ways



Weight 90 g
Minimum piloting pressure 2,5 bar

5 ways



Weight 100 g
Minimum piloting pressure 2,5 bar

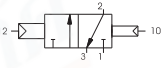
Pneumatic - Differential external

Coding: 105.11.12

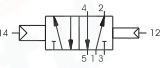
Operational characteristics

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 (NI/min)	120
Orifice size (mm)	2.5
Working ports size	M5
Pilot ports size	M5

TYPE
① 32 = 3 ways
52 = 5 ways

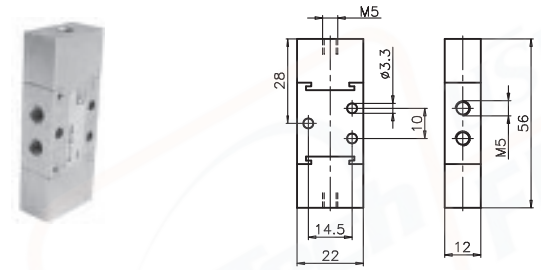


105.32.11.12



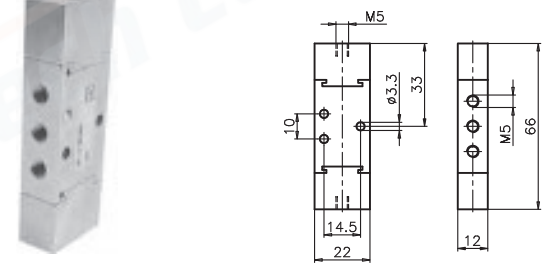
105.52.11.12

3 ways



Weight 110 g
Minimum piloting pressure 2,5 bar

5 ways



Weight 120 g
Minimum piloting pressure 2,5 bar

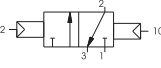
Pneumatic - Pneumatic

Coding: 105.11.11

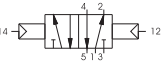
Operational characteristics

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 (NI/min)	120
Orifice size (mm)	2.5
Working ports size	M5
Pilot ports size	M5

TYPE
① 32 = 3 ways
52 = 5 ways

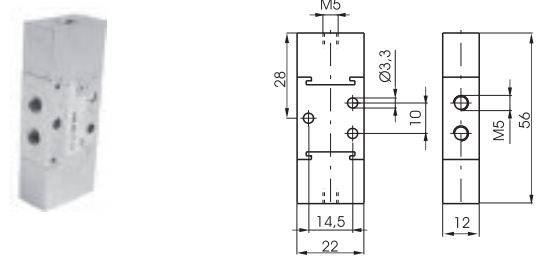


105.32.11.11



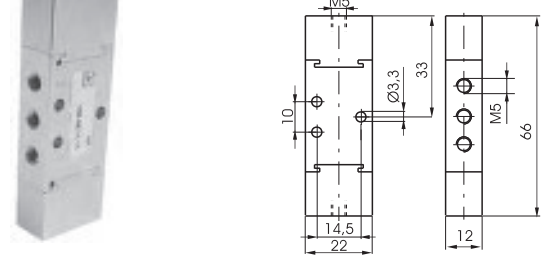
105.52.11.11

3 ways



Weight 110 g
Minimum piloting pressure 2,5 bar

5 ways



Weight 120 g
Minimum piloting pressure 2,5 bar