

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 as can be seen in the functional schematics in section 0. This is important because, for example, 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 effected by the inlet pressure.

Construction characteristics

	M5	G 1/8" - G 1/4" - G 1/2" - G 1"
Body	Aluminium	Aluminium
Actuators	Nickel plated brass Stainless steel for roller levers and button levers. Zinc plated steel for side levers Plastic material for handles, buttons, switches	Aluminium
Seals	NBR	NBR
Spacer	Acetal resin	Technopolymer (Aluminium for G 1")
Spool	Stainless steel	Stainless steel / Technopolymer
Bottom plates		Technopolymer
Spring	Spring steel	Spring steel

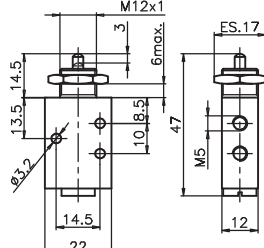
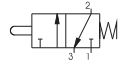
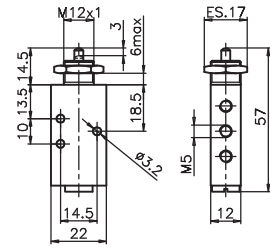
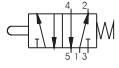
Use and maintenance

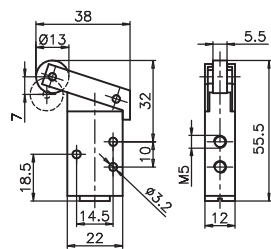
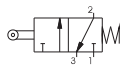
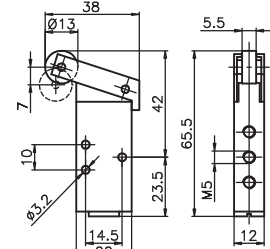
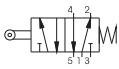
These valves have an average life of 15 million cycles depending on the application and air quality, filtered and lubricated air using specified lubricants will dramatically reduce the wear of the seals and ensures long and trouble free operation.

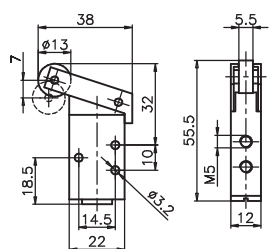
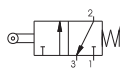
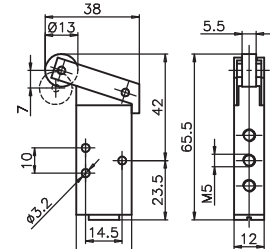
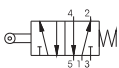
Please ensure that the valve is being used according with the manufacturers specification, such as air pressure and temperature and that exhaust ports 3 & 5 are protected against the possible ingress of dirt or debris.

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		3/2	Ordering code	5/2	Tappet panel - Spring	
  Weight gr. 70 Operating force 14 N 		105.T.0.1 TYPE T 32 = 3 ways 52 = 5 ways	  Weight gr. 87 Operating force 14 N 			
Operational characteristic						
Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size	
Filtered and lubricated air	10 bar	-5 - +70	120 Nl/min	mm 2,5	M5	

Lever roller - Spring		3/2	Ordering code	5/2	Lever roller - Spring
  Weight gr. 85 Operating force 6 N 		105.T.2.1 TYPE T 32 = 3 ways 52 = 5 ways	  Weight gr. 102 Operating force 6 N 		
Operational characteristic					
Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 - +70	120 Nl/min	mm 2,5	M5

Lever roller ball bearing - Spring		3/2	Ordering code	5/2	Lever roller ball bearing - Spring	
  Weight gr. 100 Operating force 6 N 		105.1.2.1/1	TYPE	  Weight gr. 177 Operating force 6 N 		
			32 = 3 ways			
			52 = 5 ways			
Operational characteristic						
Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (Nl/min)	Orifice size (mm)	Working ports size	
Filtered and lubricated air	10 bar	-5 - +70	120 Nl/min	mm 2,5	M5	

1

Lever button - Spring

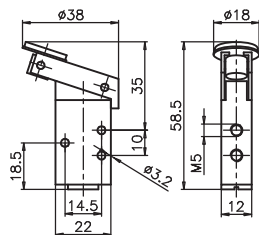
3/2

Ordering code

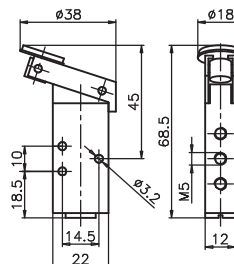
105.1.2.6/C

5/2

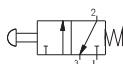
Lever button - Spring



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



Weight gr. 85
Operating force 6 N



Weight gr. 102
Operating force 6 N

Operational characteristic

Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 - +70	120 Nl/min	mm 2,5	M5

Lever unidirectional - Spring

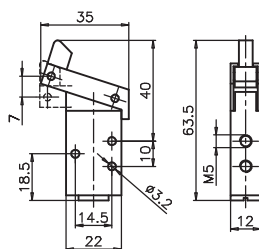
3/2

Ordering code

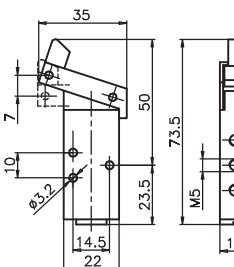
105.1.3.1

5/2

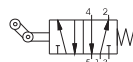
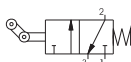
Lever unidirectional - Spring



TYPE
32 = 3 ways
52 = 5 ways



Weight gr. 85
Operating force 6 N



Weight gr. 102
Operating force 6 N

Operational characteristic

Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 - +70	120 Nl/min	mm 2,5	M5

Lever panel Ø22 - 2 positions

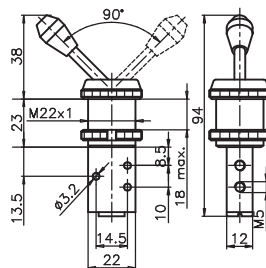
3/2

Ordering code

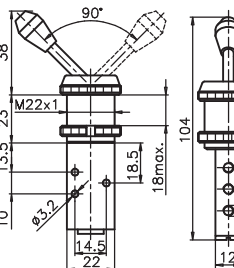
105.1.4/C

5/2

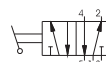
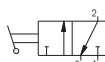
Lever panel Ø22 - 2 positions



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



Weight gr. 125



Weight gr. 142

Operational characteristic

Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 - +70	120 Nl/min	mm 2,5	M5

Lever panel Ø30 - 2 positions	3/2	Ordering code	5/2	Lever panel Ø30 - 2 positions
		105.1.5/C		
		TYPE		
		1 32 = 3 ways		
		52 = 5 ways		
		BUTTON COLOR		
		C 1 = Red		
		2 = Black		
		3 = Green		
Weight gr. 165		Weight gr. 182		

Operational characteristic					
Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 - +70	120 NI/min	mm 2,5	M5

Push button Ø30 - Spring	3/2	Ordering code	5/2	Push button Ø30 - Spring
		105.1.6.1/C		
		TYPE		
		1 32 = 3 ways		
		52 = 5 ways		
		BUTTON COLOR		
		C 1 = Red		
		2 = Black		
		3 = Green		
Weight gr. 123 Operating force 14 N		Weight gr. 140 Operating force 14 N		

Operational characteristic					
Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 - +70	120 NI/min	mm 2,5	M5

Push button Ø22 - Spring	3/2	Ordering code	5/2	Push button Ø22 - Spring
		105.1.6.2/C		
		TYPE		
		1 32 = 3 ways		
		52 = 5 ways		
		BUTTON COLOR		
		C 1 = Red		
		2 = Black		
		3 = Green		
Weight gr. 102 Operating force 14 N		Weight gr. 119 Operating force 14 N		

Operational characteristic					
Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 - +70	120 NI/min	mm 2,5	M5

1

Push button - Spring

3/2

Ordering code

105. **T**.6.22/ **C**

TYPE

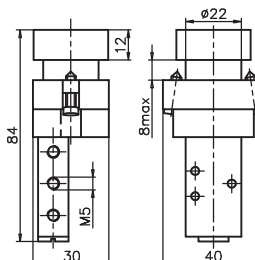
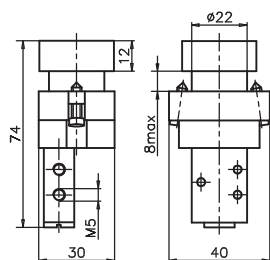
T
32 = 3 ways
52 = 5 ways

BUTTON COLOR

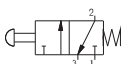
C
1 = Red
2 = Black
3 = Green
4 = Yellow

5/2

Push button - Spring



Weight gr. 165
Operating force 14 N



Weight gr. 182
Operating force 14 N

Operational characteristic

Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 - +70	120 Nl/min	mm 2,5	M5

Raised Push button - Spring

3/2

Ordering code

105. **T**.6.23/ **C**

TYPE

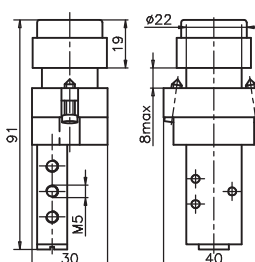
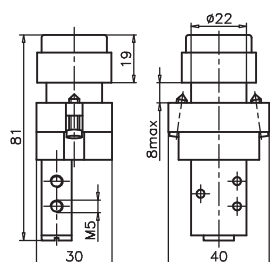
T
32 = 3 ways
52 = 5 ways

BUTTON COLOR

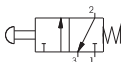
C
1 = Red
2 = Black
3 = Green
4 = Yellow

5/2

Raised Push button - Spring



Weight gr. 170
Operating force 14 N



Weight gr. 187
Operating force 14 N

Operational characteristic

Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 - +70	120 Nl/min	mm 2,5	M5

Switch 2 positions

3/2

Ordering code

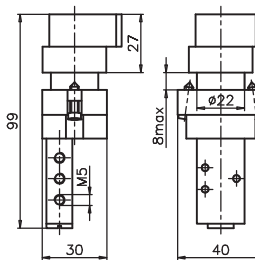
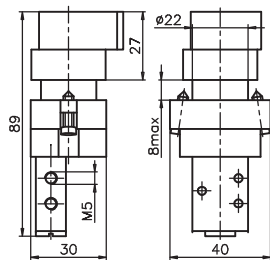
105. **T**.6.27

TYPE

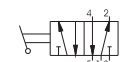
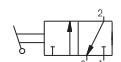
T
32 = 3 ways
52 = 5 ways

5/2

Switch 2 positions



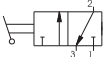
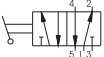
Weight gr. 185

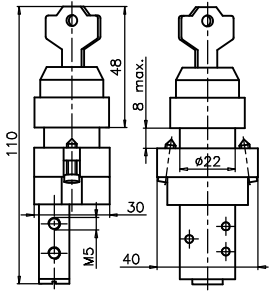


Weight gr. 202

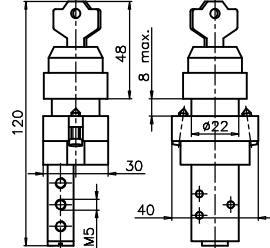
Operational characteristic

Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (Nl/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 - +70	120 Nl/min	mm 2,5	M5

Key switch 2 positions	3/2	Ordering code	5/2	Key switch 2 positions
		105.1.6.28		
		TYPE 1 32 = 3 ways 52 = 5 ways		
				

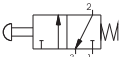



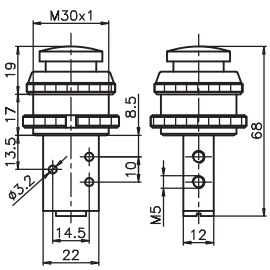
Weight gr. 215

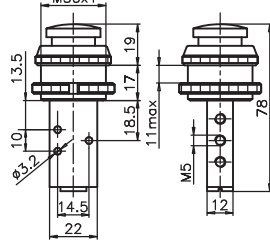
Weight gr. 232

Operational characteristic					
Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 - +70	120 NI/min	mm 2,5	M5

Palm pushbutton Ø30 - Spring	3/2	Ordering code	5/2	Palm pushbutton Ø30 - Spring
		105.1.7.1/C		
		TYPE 1 32 = 3 ways 52 = 5 ways BUTTON COLOR C 1 = Red 2 = Black 3 = Green		
		 		

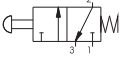



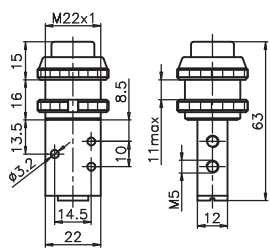
Weight gr. 126
Operating force 14 N

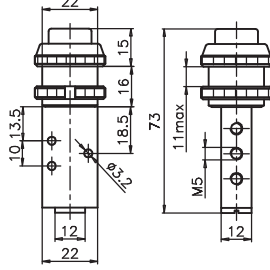
Weight gr. 143
Operating force 14 N

Operational characteristic					
Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 - +70	120 NI/min	mm 2,5	M5

Palm pushbutton Ø22 - Spring	3/2	Ordering code	5/2	Palm pushbutton Ø22 - Spring
		105.1.7.2/C		
		TYPE 1 32 = 3 ways 52 = 5 ways BUTTON COLOR C 1 = Red 2 = Black 3 = Green		
		 		

Weight gr. 103
Operating force 14 N

Weight gr. 120
Operating force 14 N

Operational characteristic					
Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 - +70	120 NI/min	mm 2,5	M5

Handle with valve

3/2

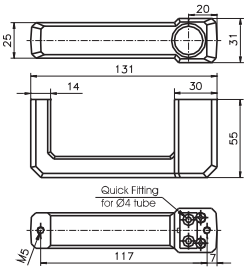
Ordering code

105.32.6.40**F**

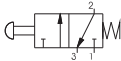
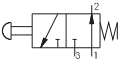
FUNCTION

F A = Normally Open
C = Normally Closed





Weight gr. 165
Operating force 14 N



Operational characteristic					
Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (NI/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 - + 70	120 NI/min	mm 2,5	M5 - Quick Fitting for Ø4 tube

Handle with valve

5/2

Ordering code

5/2

Handle with valve

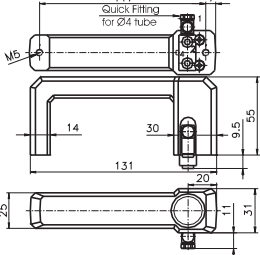
Left feeding

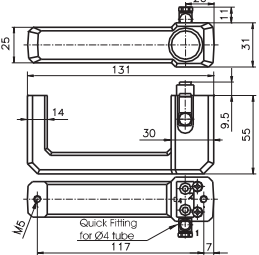
Right feeding

105.52.6.**T**

TYPE

T 40 = Left feeding
40D = Right feeding





Weight gr. 190
Operating force 14 N

Weight gr. 190
Operating force 14 N

Operational characteristic					
Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (NI/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10 bar	-5 - + 70	120 NI/min	mm 2,5	M5 - Quick Fitting for Ø4 tube

Overall dimensions and technical information are provided solely for informative purposes and may be modified without notice.

1.19