



#### Series 104

#### General

The micro valves 104 series are a cost effective solution with reduced overall dimensions, easy to install and manage.

Their main characteristic is the possibility to choose between the version with lateral or rear pneumatic connections realized with quick fitting for Ø4mm tube included.

The valves are available with 2 or 3 ways versions, normally closed or open, 5 ways and 5 ways 3 positions open centres and pressured centres.

The 5 ways version is made with two 3 ways valves placed side by side with common inlet.

The operators available for this valve are push button (different versions), selector (key, short and long lever), lever (lever roller or level undirectional) and pneumatic.

It is also possible to combine the 2 and 3 ways valves with electrical switches, normally closed or open.

#### **Construction characteristics**

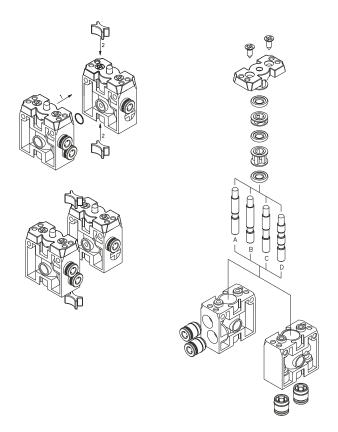
Body and cover	Technopolymer
Operators	Plastic material for buttons and switches
Seals	NBR
Spacer	Technopolymer
Spools	Steel
Springs	Spring steel
Pistons	Aluminium (for pneumatic command version)

#### 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.

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



A: 2/2 N.C. B: 2/2 N.A. C: 3/2 N.C. D: 3/2 N.A.



#### **Tappet - Spring**

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)	90			
Orifice size (mm)	2.5			
Working ports size	ø4 tube			

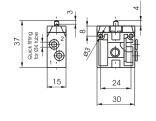
#### 104.**①**.0.1.**②**.**②** Coding:

2/2 - 3/2 - Rear connections

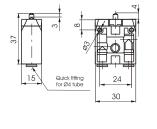
	TYPE	•	FUNCTION
0	22 = 2 ways		A = Normally Open
	<b>32</b> = 3 ways		C = Normally Closed
	CONNECTION TYPE		
0	L = Lateral		
	P = Rear		
		-	

2/2 - 3/2 - Lateral connections









Weight 20 g Operating force 13 N

104.**0**.0.1.L.**3** 

1,1		
	2	Weight 20 g





Operating force 13

2/2 - 3/2 - Rear connections

104.**0**.0.1.P.**6** 



#### Push button - Spring

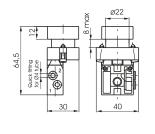
Operational characteristics			
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous		
Max working pressure (bar)	10		
Temperature °C	-5 ÷ +70		
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	90		
Orifice size (mm)	2.5		
Working ports size	ø4 tube		

#### 104.**1**.6.22/**9**.**1**.6.22 Coding:

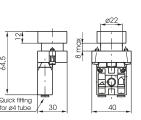
	TYPE		CONNECTION TYPE
0	22 = 2 ways	W	L = Lateral
U	<b>32</b> = 3 ways		P = Rear
	<b>52</b> = 5 ways		FUNCTION (only for 2 or 3 ways)
	BUTTON COLOR	(3)	A = Normally Open
	1 = Red		C = Normally Closed
•	2 = Black		
	3 = Green		
	4 = Yellow		

#### 2/2 - 3/2 - Lateral connections













Weight 50 g Operating force 18 N

104.**0**.6.22/**0**.L.**9** 





Weight 50 g Operating force 18 N

5/2 - Rear connections

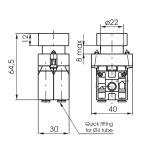
104.**0**.6.22/**0**.P.**0** 



#### 5/2 - Lateral connections







Weight 105 g Operating force 30 N

104.52.6.22/**@**.L



Weight 105 g Operating force 30 N

104.52.6.22/**@**.P



#### Push button 2 positions (step - step)

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)	90			
Orifice size (mm)	2.5			
Working ports size	ø4 tube			

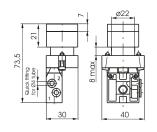
Coding: 10	4. <b>①</b> .6.31. <b>②.</b> €
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2/2 - 3/2 - Rear connections

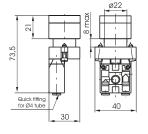
	TYPE		FUNCTION (only for 2/2 and 3/2 ways)
_	<b>22</b> = 2 ways	<b>(3</b> )	A = Normally Open
O	<b>32</b> = 3 ways		C = Normally Closed
	<b>52</b> = 5 ways		
	CONNECTION TYPE		
W	L = Lateral		
	P = Rear		

#### 2/2 - 3/2 - Lateral connections









Weight 60 g Operating force 18 N

104.**0**.6.31.L.**3** 





Weight 60 g Operating force 18 N

5/2 - Rear connections

104.**1**.6.31.P.

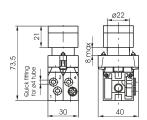




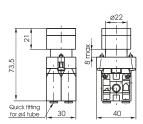
5/2 - Lateral connections











Weight 110 g Operating force 30 N

104.52.6.31.L



Weight 110 g Operating force 30 N

104.52.6.31.P





#### Raised Push button - Spring

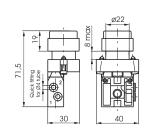
Operational characteristics			
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous		
Max working pressure (bar)	10		
Temperature °C	-5 ÷ +70		
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	90		
Orifice size (mm)	2.5		
Working ports size	ø4 tube		

104.**0**.6.23/**0**.**0**.**0** Coding:

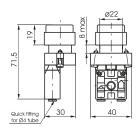
2/2 - 3/2 - Rear connections

		TYPE	<b>(3)</b>	CONNECTION TYPE
	•	<b>22</b> = 2 ways		L = Lateral
		<b>32</b> = 3 ways		P = Rear
IJ		<b>52</b> = 5 ways		FUNCTION (only for 2 or 3 ways)
		BUTTON COLOR		A = Normally Open
		1 = Red		C = Normally Closed
IJ	Θ	2 = Black		
IJ		3 = Green		
		4 V-II	1	

2/2 - 3/2 - Lateral connections







Weight 50 g Operating force 18 N

104.**0**.6.23/**0**.L.**6** 







Weight 50 g Operating force 18 N 104.**0**.6.23/**0**.P.**6** 

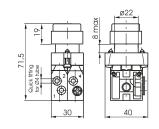




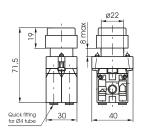
5/2 - Lateral connections











Weight 105 g Operating force 30 N

104.52.6.23/**@**.L



Weight 105 g Operating force 30 N

104.52.6.23/**@**.P





#### Palm button 2 position

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)	90			
Orifice size (mm)	2.5			
Working ports size	ø4 tube			

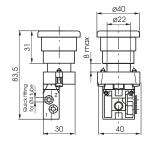
#### 104.**0**.6.25.**0**.**6** Coding:

2/2 - 3/2 - Rear connections

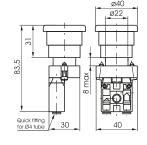
•	TYPE	•	FUNCTION (only for 2/2 and 3/2 ways)
	<b>22</b> = 2 ways		A = Normally Open
	<b>32</b> = 3 ways		C = Normally Closed
	<b>52</b> = 5 ways		
	CONNECTION TYPE		
W	L = Lateral		
	P = Rear		

#### 2/2 - 3/2 - Lateral connections









Weight 65 g Operating force 19 N Emergency - Rotate to unlock

104.**0**.6.25.L.**6** 





Weight 65 g Operating force 19 N Emergency - Rotate to unlock

104.**①**.6.25.P.**②** 

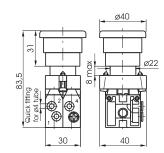






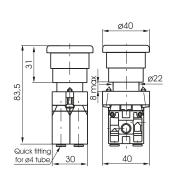
5/2 - Lateral connections





5/2 - Rear connections





Weight 120 g Operating force 32 N Emergency - Rotate to unlock

104.52.6.25.L



Weight 120 g Operating force 32 N Emergency - Rotate to unlock

104.52.6.25.P





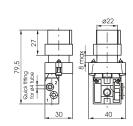
# Switch - short lever

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)	90		
Orifice size (mm)	2.5		
Working ports size	ø4 tube		

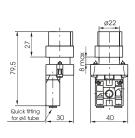
Coding: 104.**1**.**6**.30.**3**.**0**.**2** 

		TYPE		SWITCH POSITION (only for 2/2 and 3/2
		22 = 2 ways		ways)
	•	<b>32</b> = 3 ways	8	0 = 3 pos. instable
		<b>52</b> = 5 ways		1 = 3 pos. stable
IJ		<b>53</b> = 5 ways		CONNECTION TYPE
IJ		FUNCTION (only for 5/3 ways)	0	L = Lateral
IJ	<b>3</b> 1	32 = Open centres		P = Rear
J		33 = Pressured centres		FUNCTION (only for 2/2 or 3/2 ways)
			<b>9</b> 2	A = Normally Open
				C = Normally Closed

2/2 - 3/2 - Lateral connections







Weight 65 g Switch 2 positions stable

104.**0**.6.30.L.**6** 









Weight 65 g Switch 2 positions stable

2/2 - 3/2 - Rear connections

104.**①**.6.30.P.**②** 



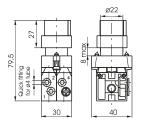






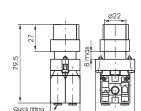
5/2 - Lateral connections











Weight 120 g Switch 2 positions stable

104.52.6.30.L



Weight 120 g Switch 2 positions stable

5/3 - Rear connections

104.52.6.30.P

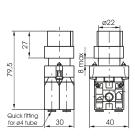
\$\frac{4}{5}\frac{2}{1}

5/3 - Lateral connections



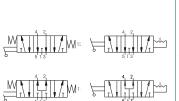
8222 For this point of the poi





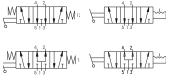
Weight 120 g

104.53.**3**.6.30.**3**.L



Weight 120 g

104.53.**3**.6.30.**9**.P





#### Switch - long lever

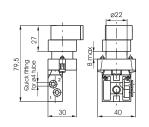
Operational characteristics				
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous			
Max working pressure (bar)	10			
Temperature °C	-5 ÷ +70			
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	90			
Orifice size (mm)	2.5			
Working ports size	ø4 tube			

Coding: 104.**1**.**2**1.6.27.**3**.**4**.**2**2

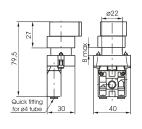
	TYPE		SWITCH POSITION (only for 2/2 and 3/2
	<b>22</b> = 2 ways	8	ways)
•	<b>32</b> = 3 ways	0	0 = 3 pos. instable
	<b>52</b> = 5 ways		1 = 3 pos. stable
	<b>53</b> = 5 ways		CONNECTION TYPE
	FUNCTION (only for 5/3 ways)	<b>W</b>	L = Lateral
<b>9</b> 1	32 = Open centres		P = Rear
	33 = Pressured centres	<b>3</b> 2	FUNCTION (only for 2/2 or 3/2 ways)
			A = Normally Open
			C = Normally Closed





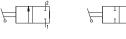






Weight 65 g Switch 2 positions stable

104.**1**.6.27.L.





2/2 - 3/2 - Rear connections

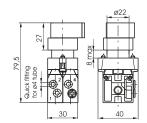
104.**1**.6.27.P.





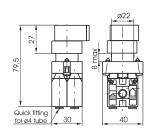
5/2 - Lateral connections











Weight 120 g Switch 2 positions stable

104.52.6.27.L



Weight 120 g Switch 2 positions stable

5/3 - Rear connections

104.52.6.27.P

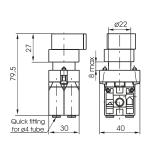


5/3 - Lateral connections



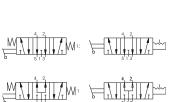
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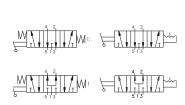
Weight 120 g

104.53.**@**.6.27.**⑤**.L



Weight 120 g

104.53.**@**.6.27.**⑤**.P





## Key switch

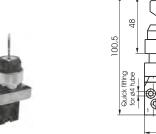
Operational characteristics				
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous			
Max working pressure (bar)	10			
Temperature °C	-5 ÷ +70			
Flow rate at 6 bar with Δp=1 (NI/min)	90			
Orifice size (mm)	2.5			
Working ports size	ø4 tube			

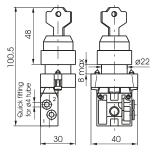
#### 104.**1**.**6**1.6.28.**9**.**9**.**2** Coding:

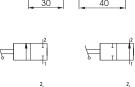
-				
П		TYPE		SWITCH POSITION (only for 2/2 and 3/2
11		<b>22</b> = 2 ways	8	ways)
IJ	0	<b>32</b> = 3 ways	9	0 = 3 pos. instable
$\ $		<b>52</b> = 5 ways		1 = 3 pos. stable
IJ		<b>53</b> = 5 ways		CONNECTION TYPE
1	<b>@</b> 1	FUNCTION 1 (only for 5/3 ways)	•	L = Lateral
11		32 = Open centres		P = Rear
]		33 = Pressured centres		FUNCTION 2 (only for 2/2 or 3/2 ways)
			<b>@</b> 2	A = Normally Open
				C = Normally Closed

2/2 - 3/2 - Lateral connections

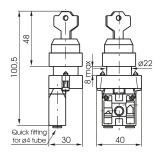








2/2 - 3/2 - Rear connections



Weight 100 g Switch 2 positions stable

5/2 - Rear connections

104.**0**.6.28.P.**6** 



5/2 - Lateral connections

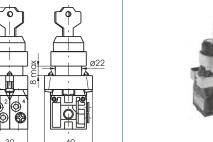
Weight 100 g Switch 2 positions stable



104.**0**.6.28.L.**9** 



48 100,5 Quick fitting for ø4 tube

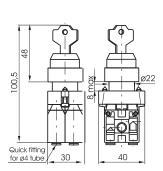




104.52.6.28.P

Weight 155 g

Switch 2 positions stable



Weight 155 g Switch 2 positions stable

104.52.6.28.L

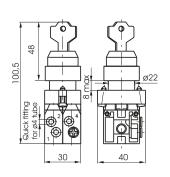


5/3 - Lateral connections



Weight 155 g

104.53.**3**.6.28.**3**.L





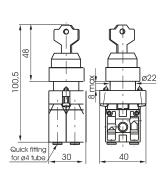


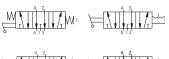
5/3 - Rear connections



Weight 155 g

104.53.**3**.6.28.**9**.P









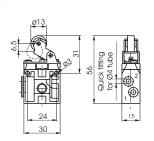
#### Lever roller - Spring

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)	90			
Orifice size (mm)	2.5			
Working ports size	ø4 tube			

#### Coding: 104.**①**.2.1.**②**.**②**

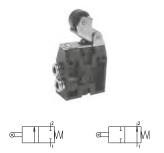
	TYPE	•	FUNCTION
0	<b>22</b> = 2 ways		A = Normally Open
	<b>32</b> = 3 ways		C = Normally Closed
	CONNECTION TYPE		
0	L = Lateral		
	P = Rear		

#### 2/2 - 3/2 - Lateral connections



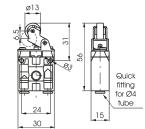
Weight 31 g Operating force 9 N

104.**0**.2.1.L.**9** 



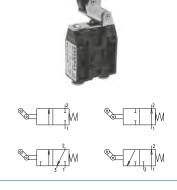


2/2 - 3/2 - Rear connections



Weight 31 g Operating force 9 N

104.**0**.2.1.P.**6** 



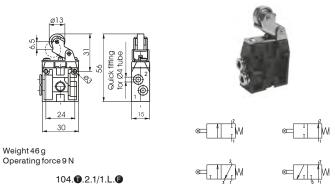
# Lever roller ball bearing - Spring

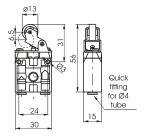
Operational characteristics				
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous			
Max working pressure (bar)	10			
Temperature °C	-5 ÷ +70			
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	90			
Orifice size (mm)	2.5			
Working ports size	ø4 tube			

#### 104.**①**.2.1/1.**②**.**②** Coding:

	TYPE	•	FUNCTION
0	22 = 2 ways		A = Normally Open
	<b>32</b> = 3 ways		C = Normally Closed
	CONNECTION TYPE		
0	L = Lateral		
	P = Rear		

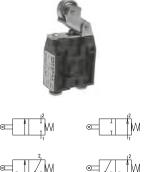
#### 2/2 - 3/2 - Lateral connections





Weight 46 g Operating force 9 N

104.**①**.2.1/1.P.**②** 



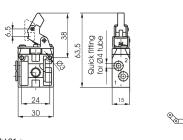
#### Lever unidirectional - Spring

7		
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)	90	
Orifice size (mm)	2.5	
Working ports size	ø4 tube	

#### 104.**①**.3.1.**②**.**②** Coding:

	TYPE		FUNCTION
•	<b>22</b> = 2 ways	•	A = Normally Open
	<b>32</b> = 3 ways		C = Normally Closed
	CONNECTION TYPE		
0	L = Lateral		
	P = Rear		

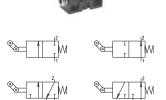
#### 2/2 - 3/2 - Lateral connections



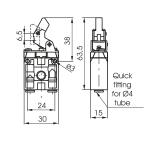
Weight 31 g Operating force 9 N

104.**①**.3.1.L.**②** 



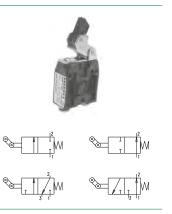


#### 2/2 - 3/2 - Rear connections



Weight 31 g Operating force 9 N

104.**0**.3.1.P.**3** 





#### Complete lever roller operator

104.2.1 Coding:



#### Complete lever unidirectional

104.3.1 Coding:



#### Push button

104.6.22/@ Coding:



	BUTTON COLOR
	1 = Red
Θ	2 = Black
_	3 = Green
	4 = Yellow

#### Push button 2 positions

104.6.31 Coding:



(step - step)

#### Switch - short lever

104.6.30. Coding:



		SWITCH POSITION (only for 3 position)
	8	0 = 3 pos. instable
		1 = 3 pos. stable

Switch 2 positions stable

Switch 3 positions

104.6.30 104.6.30.

## Key switch

104.6.28. Coding:



	SWITCH POSITION (only for 3 position)
8	0 = 3 pos. instable
	1 = 3 pos. stable
Switch 2 positions stable	
104.6.28	

Switch 3 positions

104.6.28.

#### Contact electric element

Coding: 104.



	FUN	CTION	I
<b>(3</b> )	NO	=	Normally Open
	NC	=	Normally Closed

#### Push button protection cover

Coding: 104.02



#### Complete lever roller ball bearing operator

Coding: 104.2.1/1



#### Fixing plate

104.00 Coding:



#### **Raised Push button**

Coding: 104.6.23/@



	BUTTON COLOR
	1 = Red
•	2 = Black
	3 = Green
	4 = Yellow

#### Palm button 2 position

Coding: 104.6.25



# Emergency - Rotate to unlock

#### Switch - long lever

104.6.27.**⑤** Coding:



		SWITCH POSITION (only for 3 position)
S 0 = 3 pos. instable		0 = 3 pos. instable
	_	1 = 3 pos. stable
		· ·

Switch 2 positions stable

104.6.27

Switch 3 positions

104.6.27.

#### Joystick selector switch

104.6.39.**⑤** Coding:



#### **Complete Pneumatic Operator**

Coding: 104.11



Spools

Springs

**Pistons** 



#### 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

Steel

Spring steel

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

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	

Coding: 105.0.0.1

l	•	TYPE
١		<b>32</b> = 3 ways
		<b>52</b> = 5 ways



105.32.0.1



105.52.0.1

3 ways



Weight 70 g Operating force 14 N

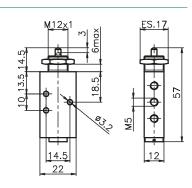
M12x1

M1



Weight 87 g Operating force 14 N

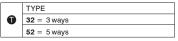
5 ways



#### Lever roller - Spring

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







105.32.2.1



105.52.2.1

3 ways



Weight 85 g Operating force 6 N

# 38 5.5

Weight 102 g Operating force 6 N

5 ways



#### Lever roller ball bearing - Spring

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	

#### Coding: 105. **1**.2.1/1

	TYPE
•	<b>32</b> = 3 ways
	<b>52</b> = 5 ways

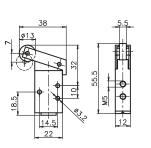


105.52.2.1/1

#### 3 ways



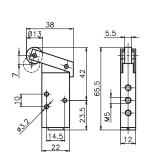
Weight 100 g Operating force 6 N



5 ways



Weight 177 g Operating force 6 N





#### Lever button - Spring

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	

105.0.2.6/ Coding:

	TYPE
0	<b>32</b> = 3 ways
	<b>52</b> = 5 ways
	BUTTON COLOR
•	1 = Red
	2 = Black
	3 = Green

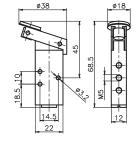




105.52.2.6/







Weight 85 g Operating force 6 N

Lever unidirectional - Spring

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	

105.0.3.1 Coding:

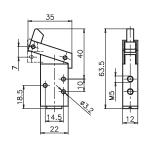
Weight 102 g Operating force 6 N

	TYPE	1
0	<b>32</b> = 3 ways	1
	<b>52</b> = 5 ways	1

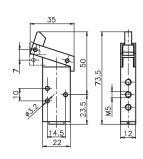


105.52.3.1









Weight 85 g Operating force 6 N

#### Lever panel Ø22 - 2 positions

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	

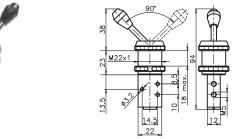
105.**①**.4/**②** Coding:

Weight 102 g Operating force 6 N

	TYPE
0	<b>32</b> = 3 ways
	<b>52</b> = 5 ways
	LEVER COLOR
	1 = Red
•	2 = Black
	3 = Green









Weight 142 g

1 | 14

Weight 125 g

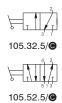
#### Lever panel Ø30 - 2 positions

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

	Codi	ng: 105. <b>0</b> .5/ <b>©</b>	
		TYPE	
7	0	<b>32</b> = 3 ways	
╛		<b>52</b> = 5 ways	
╛		LEVER COLOR	

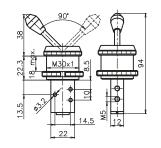
•

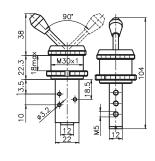
TYPE
<b>32</b> = 3 ways
<b>52</b> = 5 ways
LEVER COLOR
1 = Red
2 = Black
3 = Green



3 ways







Weight 165 g

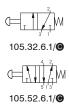
Push button Ø30 - Spring

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

105.**1**.6.1/ Coding:

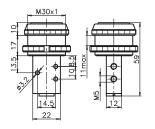
Weight 182 g

•	TYPE
	<b>32</b> = 3 ways
	<b>52</b> = 5 ways
Θ	BUTTON COLOR
	1 = Red
	2 = Black
	3 = Green



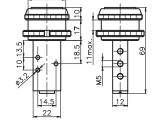
3 ways





5 ways





Weight 140 g Operating force 14 N

5 ways

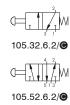
Push button Ø22 - Spring

Weight 123 g Operating force 14 N

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	

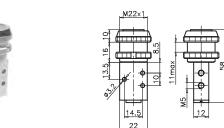
Coding: 105.0.6.2/

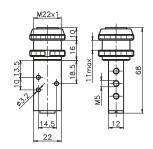
	TYPE
•	<b>32</b> = 3 ways
	<b>52</b> = 5 ways
	BUTTON COLOR
	1 = Red
•	2 = Black
	3 = Green



3 ways







Weight 102 g Operating force 14 N

Weight 119 g Operating force 14 N



#### Push button - Spring

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	

105.**①**.6.22/**②** Coding:

	TYPE
•	<b>32</b> = 3 ways
	<b>52</b> = 5 ways
	BUTTON COLOR
	1 = Red
•	2 = Black
	3 = Green
	4 = Yellow





105.52.6.22/@





Weight 165 g Operating force 14 N



Weight 182 g Operating force 14 N

	<u>2</u> 1	0:	22
30	8max	<del>+</del> +	•

#### Raised Push button - Spring

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	

105.0.6.23/@ Coding:

	TYPE
•	<b>32</b> = 3 ways
	<b>52</b> = 5 ways
	BUTTON COLOR
	1 = Red
Θ	2 = Black
	3 = Green
	4 = Yellow





105.52.6.23/

3 ways

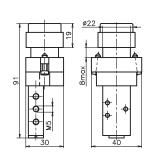


Weight 170 g Operating force 14 N

5 ways



Weight 187 g Operating force 14 N



#### Switch 2 positions

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	

105.0.6.27 Coding:

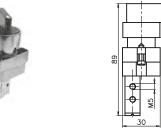
	TYPE
0	<b>32</b> = 3 ways
	<b>52</b> = 5 ways



105.52.6.27

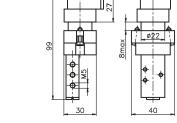
3 ways





5 ways





Weight 202 g

Weight 185 g

#### Key switch 2 positions

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	

105.0.6.28 Coding:

	TYPE
•	<b>32</b> = 3 ways
	<b>52</b> = 5 ways

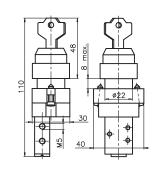


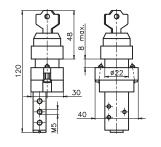


105.52.6.28

3 ways







Weight 215 g

Palm pushbutton Ø30 - Spring

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	

105.0.7.1/@ Coding:

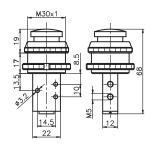
Weight 232 g

TYPE
<b>32</b> = 3 ways
<b>52</b> = 5 ways
BUTTON COLOR
1 = Red
2 = Black
3 = Green



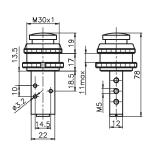
3 ways





5 ways





Weight 126 g Operating force 14 N

Weight 143 g Operating force 14 N

#### Palm pushbutton Ø22 - Spring

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	

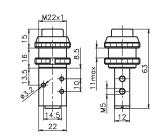
105.0.7.2/@ Coding:

TYPE	
•	<b>32</b> = 3 ways
	<b>52</b> = 5 ways
	BUTTON COLOR
	1 = Red
•	2 = Black
	3 = Green



3 ways





5 ways



Weight 103 g Operating force 14 N

Weight 120 g Operating force 14 N



#### **Push button**

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	

105.**①**.8.1/**②** Coding:

TYPE	
0	<b>32</b> = 3 ways
	<b>52</b> = 5 ways
	BUTTON COLOR
	1 = Red
•	2 = Black
	3 = Green



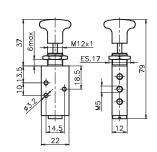


105.52.8.1/**@** 



Weight 75 g Operating force 14 N

Weight 92 g Operating force 14 N



#### Push button 2 positions

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	

105.**①**.8/**②** Coding:

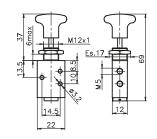
	TYPE
•	<b>32</b> = 3 ways
	<b>52</b> = 5 ways
	BUTTON COLOR
	1 = Red
•	2 = Black
	3 = Green



105.52.8/

#### 3 ways

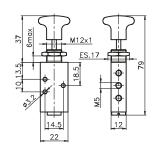




5 ways



Weight 92 g Operating force 14 N



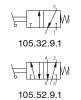
Whisker - Spring

Weight 75 g Operating force 14 N

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	

Coding: 105.0.9.1

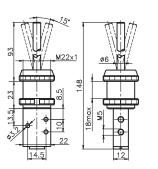
	TYPE
0	<b>32</b> = 3 ways
	<b>52</b> = 5 ways



3 ways

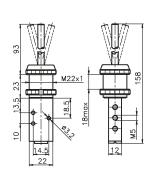


Weight 136 g



5 ways

Weight 153 g



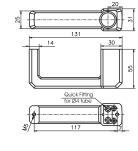
#### Handle with valve

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	

Coding:	105. <b>⊕</b> .6. <b>♠</b> . <b>⊕</b>
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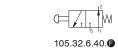
	TYPE		FUNCTION (only for 3 ways)
0	<b>32</b> = 3 ways	•	A = Normally Open
	<b>52</b> = 5 ways		C = Normally Closed
	FEEDING		
A	40 = Left feeding		
	40D = Right feeding		
		,	



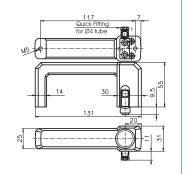


Weight 165 g Operating force 14 N

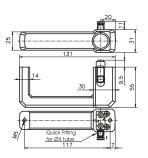
Left feeding











Weight 190 g Operating force 14 N



Weight 190 g Operating force 14 N

Right feeding

