

General

The pneumatic actuated valves are grouped in this part of catalogue because they have similar operating conditions of the solenoid valves. In fact the commutation signal is remote as it is for the manual and mechanical actuated valves.

In the first part of these catalogues are listed the pneumatic actuated valves for single use not suitable to be assembled on bases but eventually on manifold with one inlet port only.

The valves series 800 are suitable for both single and ganged applications. These valves have a diversified use of 3-ways and 5-ways based on balanced spool as shown on functional symbols. The repositions are made by spring, differential pneumatic spring or pneumatic for the bistable and centre spring return.

Construction characteristics

	Body	Actuators	Bottom plates	Pistons	Spacers	Seals	Spools	Springs
Series 104	Technopolymer		/	Aluminium	Technopolymer	NBR	Steel	Stainless steel
Series 105	Aluminium		/					Spring steel
Series 805	Aluminium				/	HNBR	Aluminium	Stainless steel
Series 808								Spring steel
Series 228	Aluminium	Aluminium Technopolymer	Technopolymer			NBR	Steel	Spring steel
Series T228 (Ver. 3/2-5/2)	Technopolymer					NBR	Technopolymer	Spring steel
Series T228 (Ver.5/3)							Steel	
Series 488	Aluminium	Technopolymer				NBR	Steel	Stainless steel
Series T488 (Ver. 3/2- 5/2)	Technopolymer					NBR	Technopolymer	
Series T488 (Ver. 5/3)							Steel	
Series 224	Aluminium		Technopolymer	Aluminium	Technopolymer	NBR	Steel	
Series T224 (Ver. 3/2-5/2)	Technopolymer					NBR	Technopolymer	Spring steel
Series T224 (Ver. 5/3)							Steel	Stainless steel
Series 212	Aluminium				Technopolymer	NBR	Steel	Spring steel
Series 212/2					/	PUR	Aluminium	
Series 211	Aluminium					NBR	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).

Pneumatic - Spring

2/2
3/2

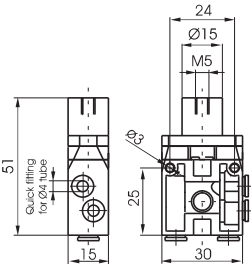
Ordering code

2/2
3/2

Pneumatic - Spring

Lateral connections

Rear connections



TYPE

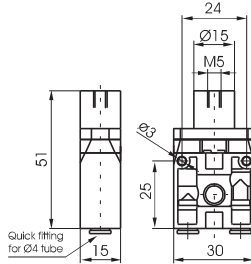
22 = 2 ways
32 = 3 ways

CONNECTION TYPE

L = Lateral
P = Rear

FUNCTION

A = Normally Open
C = Normally Closed

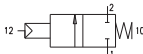


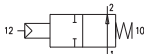
Weight gr. 25

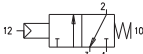
Minimum piloting pressure 2,5 bar

Weight gr. 25

Minimum piloting pressure 2,5 bar







Operational characteristic						
Fluid	Max working pressure (bar)	Temperature °C		Flow rate at 6 bar with Δp=1 (NI/min)	Orifice size (mm)	Pilot ports size
Filtered air, with or without lubrication	10 bar	Min.	Max.	90 NI/min	mm 2,5	ø4 tube M5

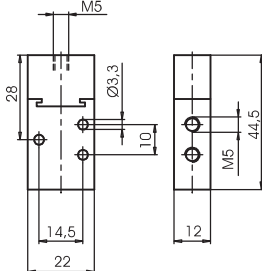
Pneumatic - Spring

3/2

Ordering code

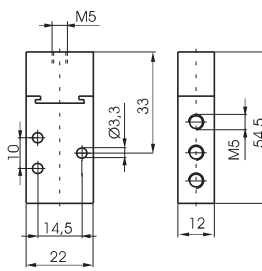
5/2

Pneumatic - Spring



TYPE

32 = 3 ways
52 = 5 ways

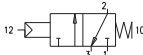


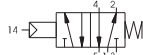
Weight gr. 90

Minimum piloting pressure 2,5 bar

Weight gr. 100

Minimum piloting pressure 2,5 bar





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

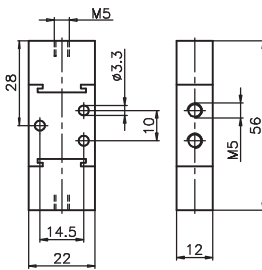
Pneumatic - Differential external

3/2

Ordering code

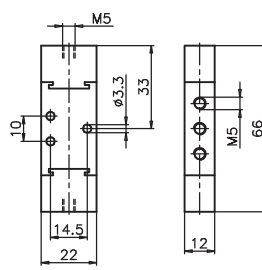
5/2

Pneumatic - Differential external



TYPE

32 = 3 ways
52 = 5 ways

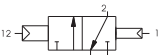


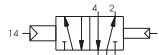
Weight gr. 110

Minimum piloting pressure 2,5 bar

Weight gr. 120

Minimum piloting pressure 2,5 bar





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

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

1.51



1

Pneumatic - Pneumatic

3/2

Ordering code

105.11.11

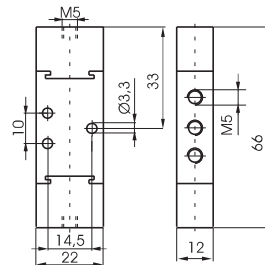
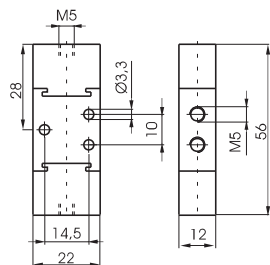
5/2

Pneumatic - Pneumatic

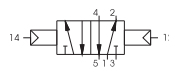
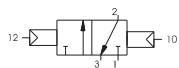
TYPE

32 = 3 ways

52 = 5 ways



Weight gr. 110
Minimum piloting pressure 2,5 bar



Weight gr. 120
Minimum piloting pressure 2,5 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	120 NI/min	mm 2,5	M5	M5

Pneumatic - Spring

3/2

Ordering code

805.11.1

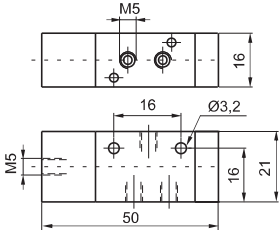
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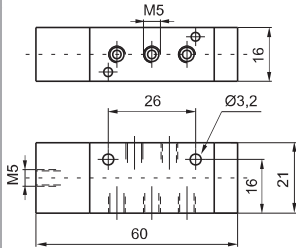
32 = 3 ways

52 = 5 ways

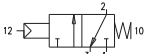
5/2

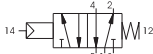
Pneumatic - Spring

Weight gr. 45
Minimum piloting pressure 2 bar





Weight gr. 50
Minimum piloting pressure 2 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	160 NI/min	mm 2,5	M5	M5

Pneumatic - Differential

3/2

Ordering code

805.11.12

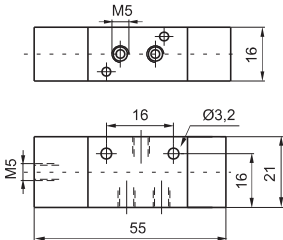
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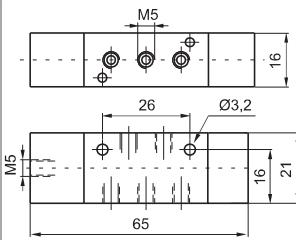
32 = 3 ways

52 = 5 ways

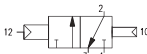
5/2

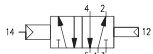
Pneumatic - Differential

Weight gr. 50
Minimum piloting pressure 2 bar





Weight gr. 55
Minimum piloting pressure 2 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	160 NI/min	mm 2,5	M5	M5

Pneumatic - Pneumatic

3/2

Ordering code

805.11.11

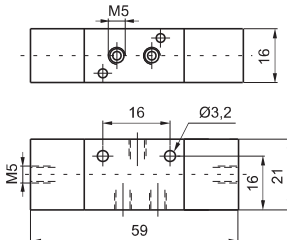
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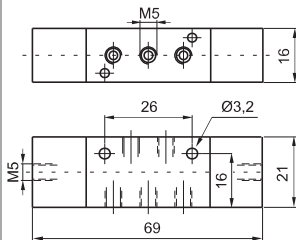
32 = 3 ways

52 = 5 ways

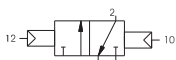
5/2

Pneumatic - Pneumatic

Weight gr. 55
Minimum piloting pressure 1,5 bar





Weight gr. 60
Minimum piloting pressure 1,5 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	160 NI/min	mm 2,5	M5	M5

1

Pneumatic - Spring

3/2

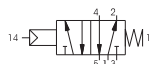
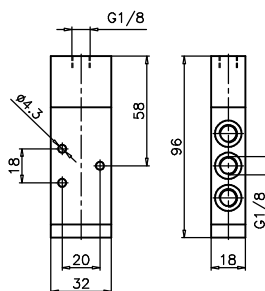
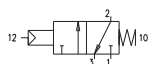
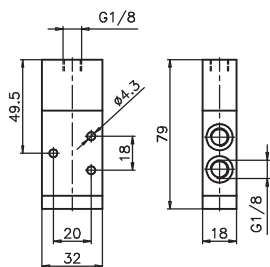
Ordering code

228.11.1

TYPE
32 = 3 ways
52 = 5 ways

5/2

Pneumatic - Spring



Weight gr. 110
Minimum piloting pressure 2,5 bar

Weight gr. 130
Minimum piloting pressure 2,5 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	540 NI/min	mm 6	G 1/8"	G 1/8"

Pneumatic - Differential external

3/2

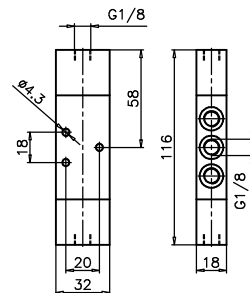
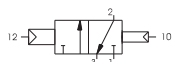
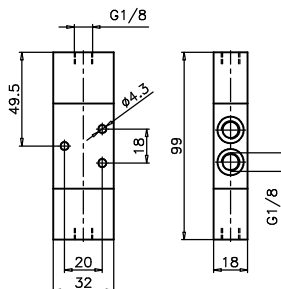
Ordering code

228.11.12

TYPE
32 = 3 ways
52 = 5 ways

5/2

Pneumatic - Differential external



Weight gr. 140
Minimum piloting pressure 2,5 bar

Weight gr. 160
Minimum piloting pressure 2,5 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	540 NI/min	mm 6	G 1/8"	G 1/8"

Pneumatic - Differential self aligned

3/2

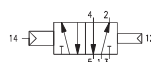
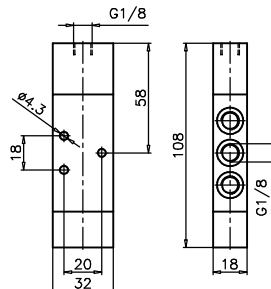
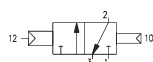
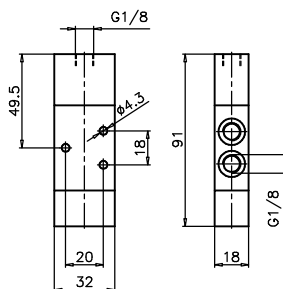
Ordering code

228.11.12/1

TYPE
32 = 3 ways
52 = 5 ways

5/2

Pneumatic - Differential self aligned



Weight gr. 130
Minimum piloting pressure 2,5 bar

Weight gr. 150
Minimum piloting pressure 2,5 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	540 NI/min	mm 6	G 1/8"	G 1/8"

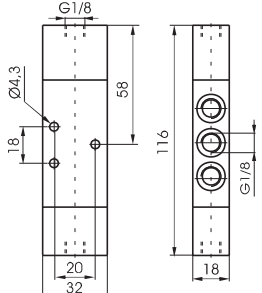
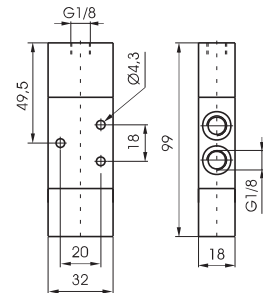
Pneumatic - Pneumatic

3/2

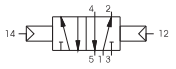
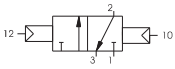
Ordering code
228.11.11

5/2

Pneumatic - Pneumatic



Weight gr. 140
Minimum piloting pressure 2 bar



Weight gr. 160
Minimum piloting pressure 2 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	540 NI/min	mm 6	G 1/8"	G 1/8"

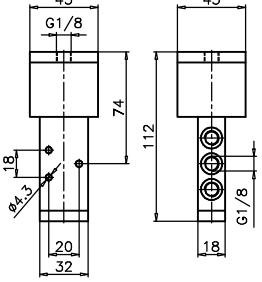
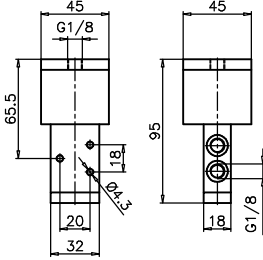
Amplified pneumatic - Spring

3/2

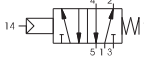
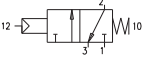
Ordering code
228.13.1

5/2

Amplified pneumatic - Spring



Weight gr. 260
Minimum piloting pressure 0,5 bar



Weight gr. 290
Minimum piloting pressure 0,5 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	540 NI/min	mm 6	G 1/8"	G 1/8"

Pneumatic - Pneumatic

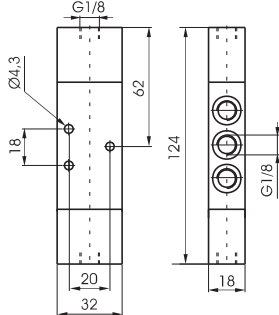
5/3

Ordering code
228.53.F.11.11

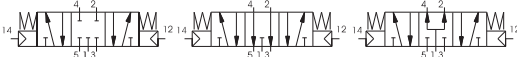
FUNCTION

F

31 = Closed centres
32 = Open centres
33 = Pressured centres



Weight gr. 180
Minimum piloting pressure 3 bar



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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	410 NI/min	mm 6	G 1/8"	G 1/8"

1

Pneumatic - Spring

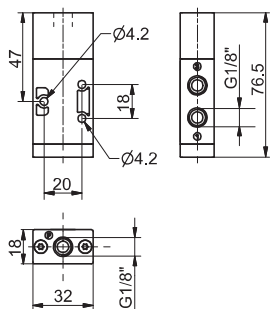
3/2

Ordering code

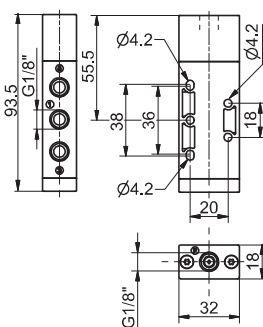
T228.11.1

5/2

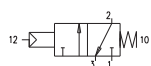
Pneumatic - Spring



TYPE
32 = 3 ways
52 = 5 ways



Weight gr. 65
Minimum operating pressure 2,5 bar



Weight gr. 78
Minimum operating pressure 2,5 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	Min.	Max.	620 NI/min	mm 6	G 1/8"	G 1/8"

Pneumatic - Differential (external)

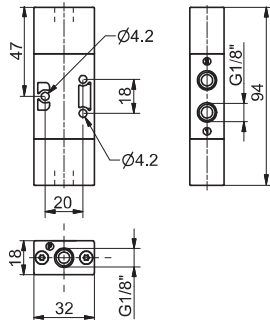
3/2

Ordering code

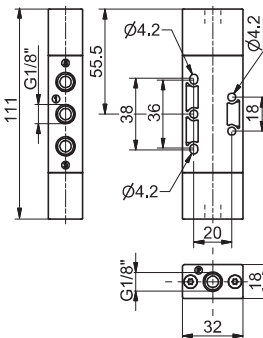
T228.11.12

5/2

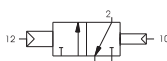
Pneumatic - Differential (external)



TYPE
32 = 3 ways
52 = 5 ways



Weight gr. 74
Minimum operating pressure 2,5 bar



Weight gr. 86
Minimum operating pressure 2,5 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	Min.	Max.	620 NI/min	mm 6	G 1/8"	G 1/8"

Pneumatic - Differential self-feeding

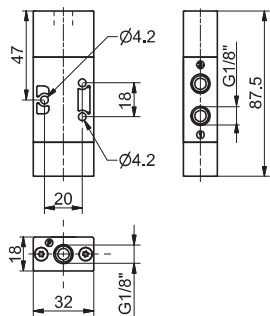
3/2

Ordering code

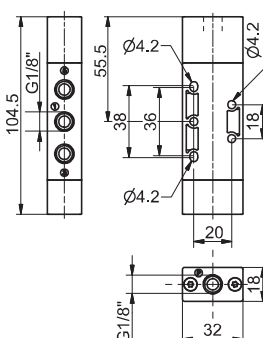
T228.11.12/1

5/2

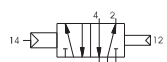
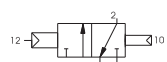
Pneumatic - Differential self-feeding



TYPE
32 = 3 ways
52 = 5 ways



Weight gr. 70
Minimum operating pressure 2,5 bar



Weight gr. 82
Minimum operating pressure 2,5 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	Min.	Max.	620 NI/min	mm 6	G 1/8"	G 1/8"

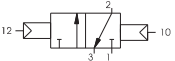
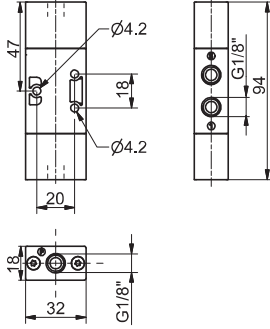
Pneumatic - Pneumatic

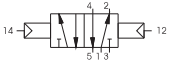
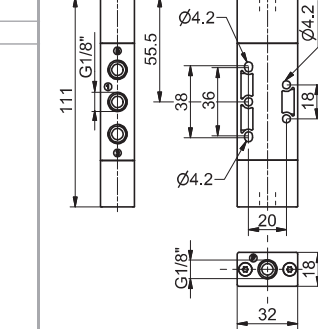
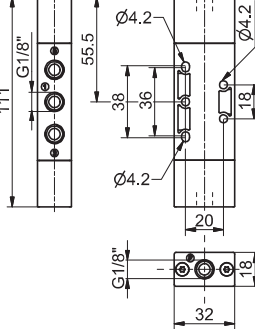
3/2

Ordering code
T228.11.11

5/2

Pneumatic - Pneumatic





Weight gr. 77
Minimum operating pressure 2 bar

Weight gr. 90
Minimum operating pressure 2 bar

Operational characteristic						
Fluid	Max working pressure (bar)	Temperature °C		Flow rate at 6 bar with Δp=1 (NI/min)	Orifice size (mm)	Pilot ports size
Filtered and lubricated air	10 bar	Min.	Max.	620 NI/min	mm 6	G 1/8"

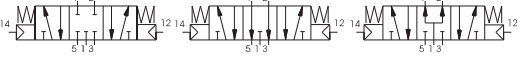
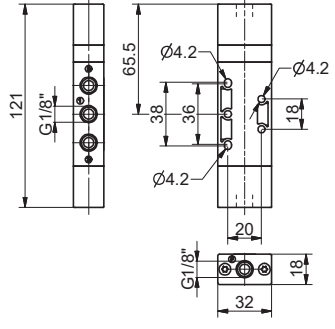
Pneumatic - Pneumatic 3 positions

5/3

Ordering code
T228.53.F.11.11

FUNCTION

F 32 = Open Centres
33 = Pressured Centres



Weight gr. 110
Minimum operating pressure 3 bar

Operational characteristic						
Fluid	Max working pressure (bar)	Temperature °C		Flow rate at 6 bar with Δp=1 (NI/min)	Orifice size (mm)	Pilot ports size
Filtered and lubricated air	10 bar	Min.	Max.	410 NI/min	mm 6	G 1/8"

Overall dimensions and technical information are provided solely for informative purposes and may be modified without notice. 1.57

1

Pneumatic - Spring

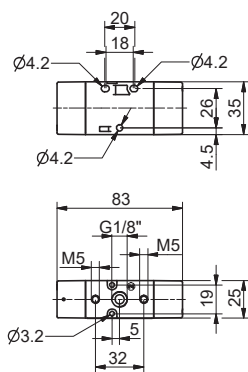
3/2

Ordering code

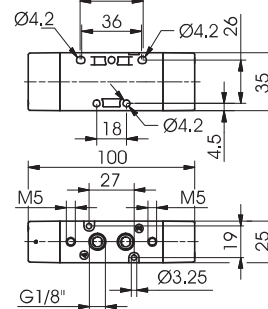
T488.11.1

5/2

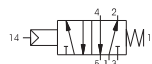
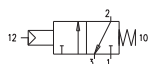
Pneumatic - Spring



TYPE
32 = 3 ways
52 = 5 ways



Weight gr. 75
Minimum operating pressure 2,5 bar



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	-5 - +50	620	6	G 1/8"

Pneumatic - Differential (external)

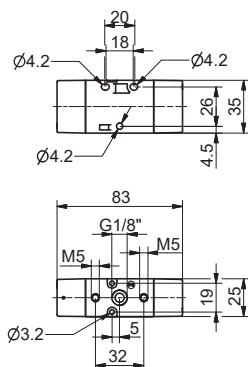
3/2

Ordering code

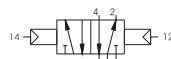
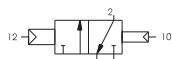
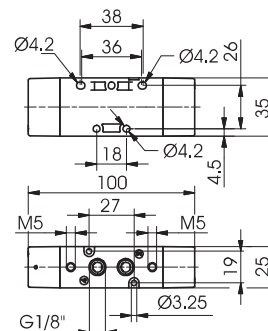
T488.11.12

5/2

Pneumatic - Differential (external)



TYPE
32 = 3 ways
52 = 5 ways



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	-5 - +50	620	6	G 1/8"

Pneumatic - Pneumatic

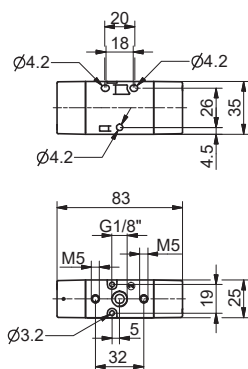
3/2

Ordering code

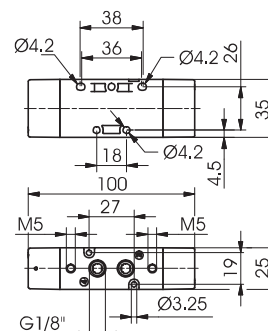
T488.11.11

5/2

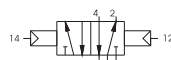
Pneumatic - Pneumatic



TYPE
32 = 3 ways
52 = 5 ways



Minimum operating pressure 2 bar (for Pneumatic-Pneumatic version)



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	-5 - +50	620	6	G 1/8"



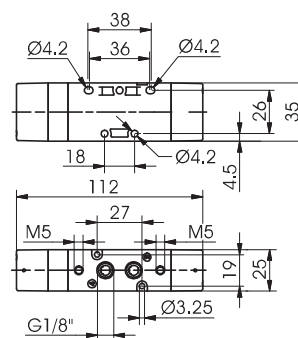
Pneumatic - Pneumatic

Ordering code

T488.53.ⓕ.11.11

FUNCTION

F 32 = Open Centres
33 = Pressured Centres



Weight gr. 140
Minimum operating pressure 3 bar



Operational characteristic

Operational characteristic					
Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with $\Delta p = 1$ (l/min)	Orifice size (mm)	Working ports size
Filtered and lubricated air	10	-5 - +50	410	6	G 1/8"

1

Pneumatic - Spring		3/2	Ordering code	5/2	Pneumatic - Spring		
		808.11.11	TYPE 32 = 3 ways 52 = 5 ways				
Weight gr. 95 Minimum piloting pressure 2 bar						Weight gr. 100 Minimum piloting pressure 2 bar	
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	Pilot ports size	
Filtered and lubricated air	10 bar	-5 - +70	520 NI/min	mm 4	G 1/8"	M5	

Pneumatic - Differential		3/2	Ordering code	5/2	Pneumatic - Differential		
		808.11.12	TYPE 32 = 3 ways 52 = 5 ways				
Weight gr. 105 Minimum piloting pressure 2 bar						Weight gr. 110 Minimum piloting pressure 2 bar	
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	Pilot ports size	
Filtered and lubricated air	10 bar	-5 - +70	520 NI/min	mm 4	G 1/8"	M5	

Pneumatic - Pneumatic		3/2	Ordering code	5/2	Pneumatic - Pneumatic		
		808.11.11	TYPE 32 = 3 ways 52 = 5 ways				
Weight gr. 115 Minimum piloting pressure 1,5 bar						Weight gr. 120 Minimum piloting pressure 1,5 bar	
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	Pilot ports size	
Filtered and lubricated air	10 bar	-5 - +70	520 NI/min	mm 4	G 1/8"	M5	

Manifolds

Ordering code

808.N

N. POSITIONS

02 = 2 pos. (weight gr. 180)

03 = 3 pos. (weight gr. 245)

04 = 4 ports (weight gr. 310)

05 = 5 pos. (weight gr. 375)

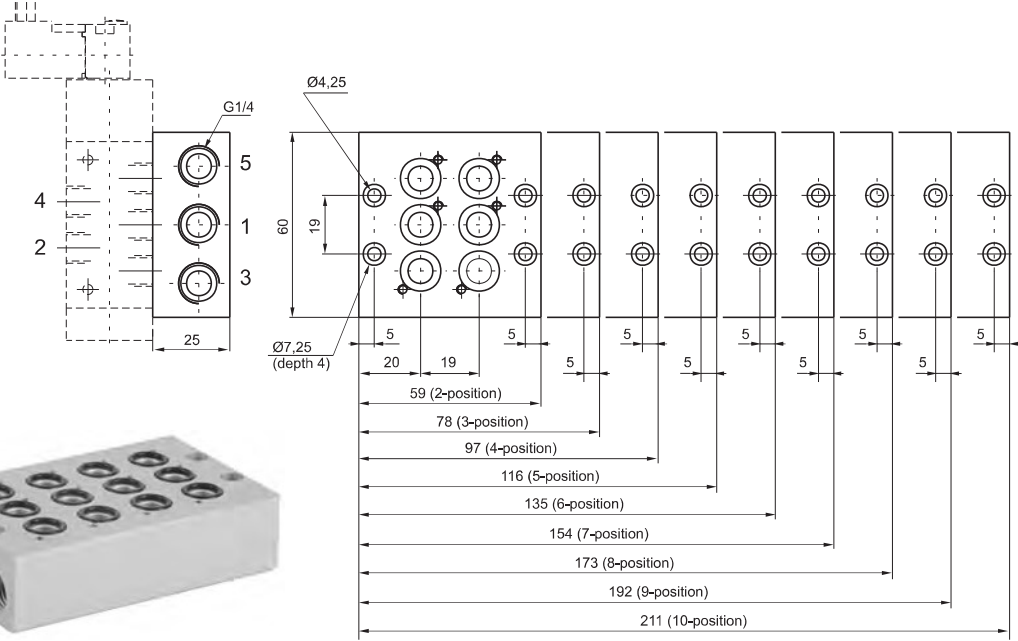
06 = 6 pos. (weight gr. 440)

07 = 7 pos. (weight gr. 500)

08 = 8 pos. (weight gr. 560)

09 = 9 pos. (weight gr. 620)

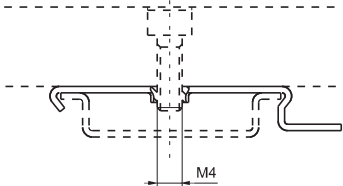
10 = 10 pos. (weight gr. 680)



Clip

Ordering code

800.00

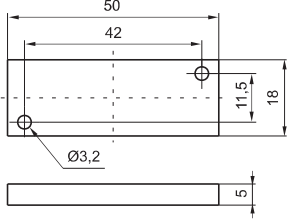


Weight gr. 5
(for mounting the distributors groups on guide DIN 46277/3)

Closing plate

Ordering code

808.00



Weight gr. 65

1

Pneumatic - Spring

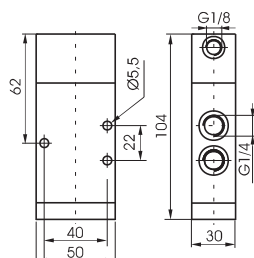
3/2

Ordering code

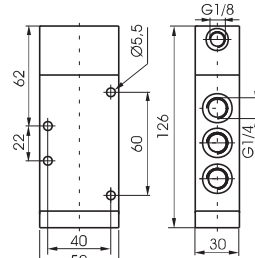
224.11.1

5/2

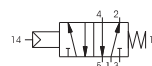
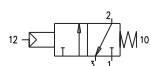
Pneumatic - Spring



TYPE
32 = 3 ways
52 = 5 ways



Weight gr. 370
Minimum piloting pressure 2,5 bar



Weight gr. 450
Minimum piloting pressure 2,5 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	1360 NI/min	mm 8	G 1/4"	G 1/8"

Pneumatic - Differential external

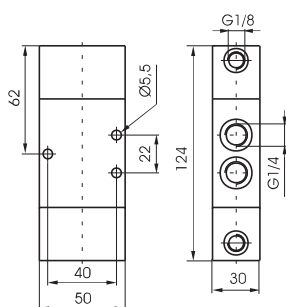
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Ordering code

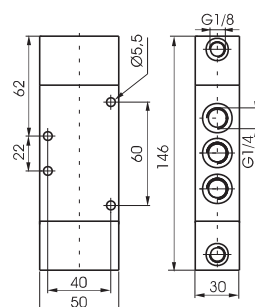
224.11.12

5/2

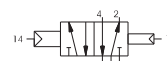
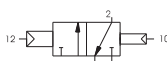
Pneumatic - Differential external



TYPE
32 = 3 ways
52 = 5 ways



Weight gr. 480
Minimum piloting pressure 2,5 bar



Weight gr. 550
Minimum piloting pressure 2,5 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	1360 NI/min	mm 8	G 1/4"	G 1/8"

Pneumatic - Pneumatic

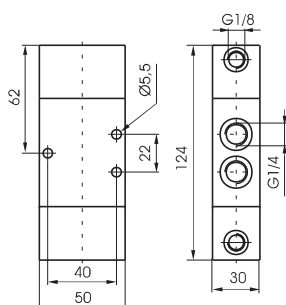
3/2

Ordering code

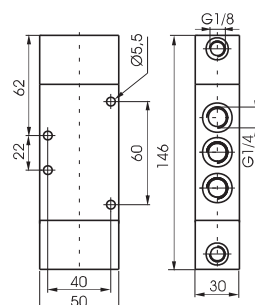
224.11.11

5/2

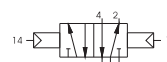
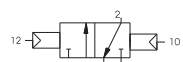
Pneumatic - Pneumatic



TYPE
32 = 3 ways
52 = 5 ways



Weight gr. 470
Minimum piloting pressure 2 bar

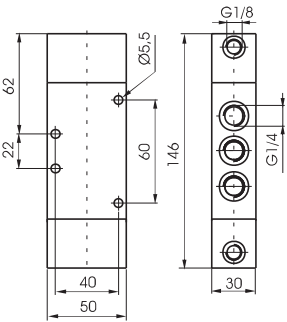
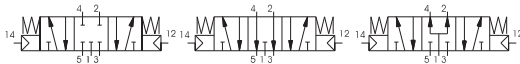


Weight gr. 540
Minimum piloting pressure 2 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	1360 NI/min	mm 8	G 1/4"	G 1/8"



Pneumatic - Pneumatic						
Ordering code						
224.53.F.11.11						
FUNCTION						
F 31 = Closed centres						
32 = Open centres						
33 = Pressured centres						
						
						
Weight gr. 550 Minimum piloting pressure 3 bar						
						
Operational characteristic						
Fluid	Max working pressure (bar)	Temperature °C	Flow rate at 6 bar with Δp=1 (l/min)	Orifice size (mm)	Working ports size	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	1280 l/min	mm 8	G 1/4"	G 1/8"

1

Pneumatic - Spring

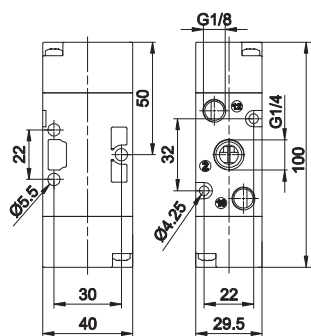
3/2

Ordering code

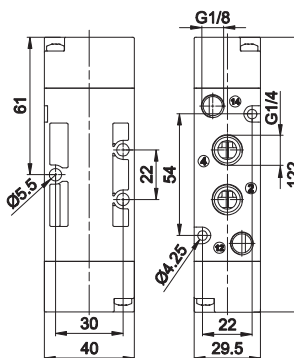
T224.11.1

5/2

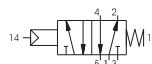
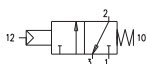
Pneumatic - Spring



TYPE
32 = 3 ways
52 = 5 ways



Weight gr. 110
Minimum operating pressure 2,5 bar



Weight gr. 140
Minimum operating pressure 2,5 bar

Operational characteristic

Fluid	Max working pressure (bar)	Temperature °C		Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Ø Orifice size (mm)	Working ports size	Pilot ports size
Filtered and lubricated air	10 bar	Min.	Max.	1050 NI/min	mm 8,5	G 1/4"	G 1/8"

Pneumatic - Differential (external)

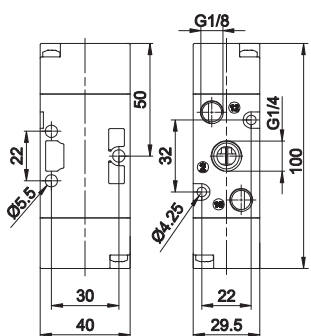
3/2

Ordering code

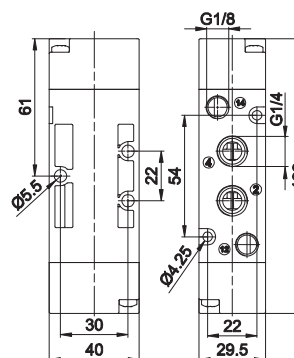
T224.11.12

5/2

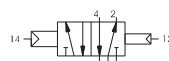
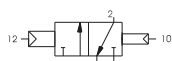
Pneumatic - Differential (external)



TYPE
32 = 3 ways
52 = 5 ways



Weight gr. 110
Minimum operating pressure 2 bar



Weight gr. 140
Minimum operating pressure 2 bar

Operational characteristic

Fluid	Max working pressure (bar)	Temperature °C		Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Ø Orifice size (mm)	Working ports size	Pilot ports size
Filtered and lubricated air	10 bar	Min.	Max.	1050 NI/min	mm 8,5	G 1/4"	G 1/8"

Pneumatic - Pneumatic

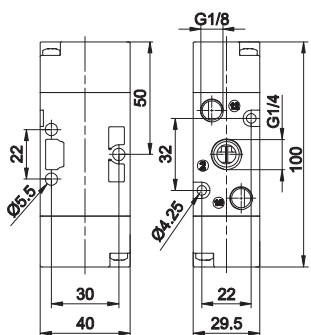
3/2

Ordering code

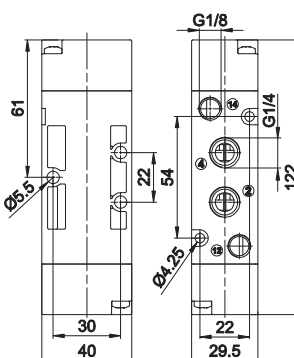
T224.11.11

5/2

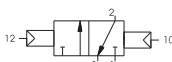
Pneumatic - Pneumatic



TYPE
32 = 3 ways
52 = 5 ways



Weight gr. 110
Minimum operating pressure 2 bar



Weight gr. 140
Minimum operating pressure 2 bar

Operational characteristic

Fluid	Max working pressure (bar)	Temperature °C		Flow rate at 6 bar with $\Delta p=1$ (NI/min)	Ø Orifice size (mm)	Working ports size	Pilot ports size
Filtered and lubricated air	10 bar	Min.	Max.	1050 NI/min	mm 8,5	G 1/4"	G 1/8"



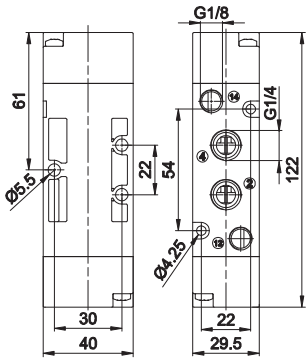
Pneumatic - Pneumatic 3 positions

Ordering code

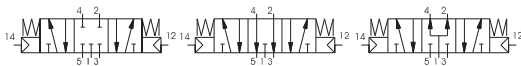
T224.53.F.11.11

FUNCTION

- F 31 = Closed centres
32 = Open centres
33 = Pressured centres



Weight gr. 160
Minimum operating pressure 3 bar



Operational characteristic

Fluid	Max working pressure (bar)	Temperature °C		Flow rate at 6 bar with $\Delta p = 1$ (l/min)	Ø Orifice size (mm)	Working ports size	Pilot ports size
		Min.	Max.				
Filtered and lubricated air	10 bar			900 l/min	mm 8,5	G 1/4"	G 1/8"

1

Pneumatic - Spring

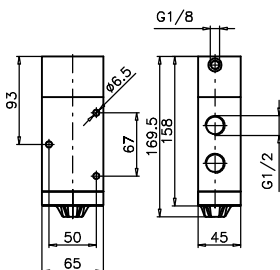
3/2

Ordering code

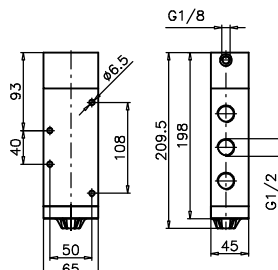
212.11.1

5/2

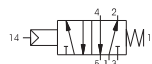
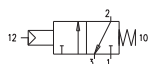
Pneumatic - Spring



TYPE
32 = 3 ways
52 = 5 ways



Weight gr. 1110
Minimum piloting pressure 2,5 bar



Weight gr. 1390
Minimum piloting pressure 2,5 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	3500 NI/min	mm 15	G 1/2"	G 1/8"

Pneumatic - Differential external

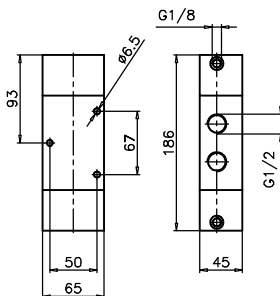
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Ordering code

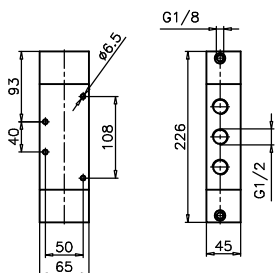
212.11.12

5/2

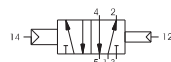
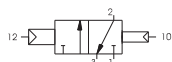
Pneumatic - Differential external



TYPE
32 = 3 ways
52 = 5 ways



Weight gr. 1380
Minimum piloting pressure 2,5 bar



Weight gr. 1660
Minimum piloting pressure 2,5 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	3500 NI/min	mm 15	G 1/2"	G 1/8"

Pneumatic - Pneumatic

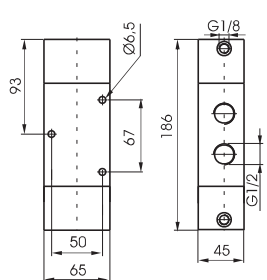
3/2

Ordering code

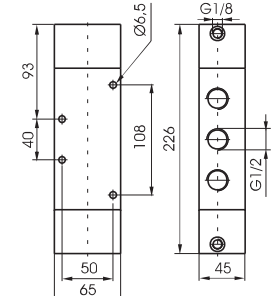
212.11.11

5/2

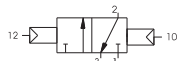
Pneumatic - Pneumatic



TYPE
32 = 3 ways
52 = 5 ways



Weight gr. 1350
Minimum piloting pressure 2 bar

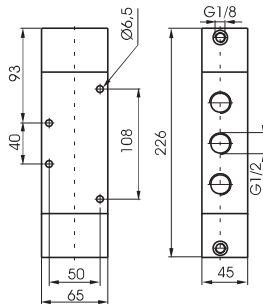


Weight gr. 1630
Minimum piloting pressure 2 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	3500 NI/min	mm 15	G 1/2"	G 1/8"



Pneumatic - Pneumatic							5/3
Ordering code							
212.53.1.11.11							
F	FUNCTION						
	31 = Closed centres						
	32 = Open centres						
	33 = Pressured centres						
							
							
Weight gr. 1650 Minimum piloting pressure 3 bar							
							
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	Pilot ports size	
Filtered and lubricated air	10 bar	-5 - +70	3000 NI/min	mm 15	G 1/2"	G 1/8"	

1

Pneumatic - Spring

3/2

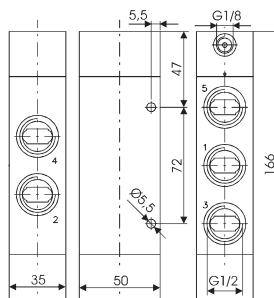
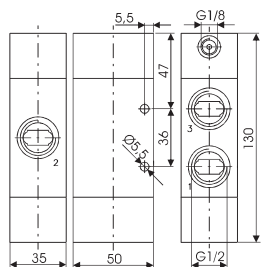
Ordering code

212/2.11.11

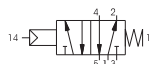
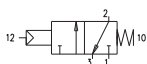
TYPE
32 = 3 ways
52 = 5 ways

5/2

Pneumatic - Spring



Weight gr. 524
Minimum piloting pressure 2,5 bar



Weight gr. 644
Minimum piloting pressure 2,5 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	3600 NI/min	mm 15	G 1/2"	G 1/8"

Pneumatic - Differential

3/2

Ordering code

212/2.11.12

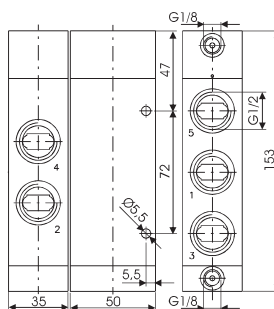
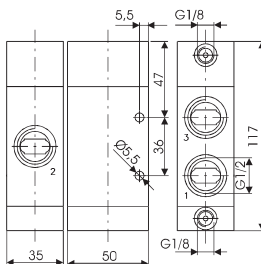
TYPE
32 = 3 ways
52 = 5 ways

5/2

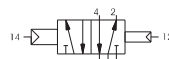
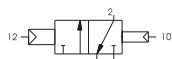
Pneumatic - Differential

Diff. external - Normally closed

Diff. external



Weight gr. 464
Minimum piloting pressure 2,5 bar



Weight gr. 586
Minimum piloting pressure 2,5 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	3600 NI/min	mm 15	G 1/2"	G 1/8"

Pneumatic - Differential

3/2

Ordering code

212/2.11.12/1

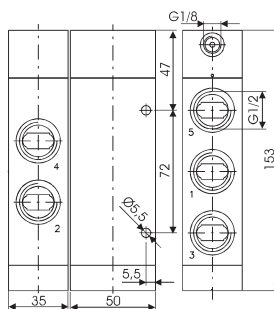
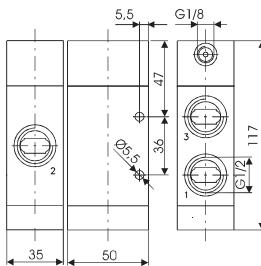
TYPE
32 = 3 ways
52 = 5 ways
FUNCTION
1.C = 3 ways Normally Closed
1.A = 3 ways Normally Open
1 = 5 ways diff. self aligned

5/2

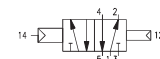
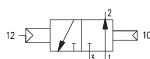
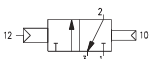
Pneumatic - Differential

Diff. self aligned

Diff. self aligned



Weight gr. 466
Minimum piloting pressure 2,5 bar



Weight gr. 588
Minimum piloting pressure 2,5 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	3600 NI/min	mm 15	G 1/2"	G 1/8"

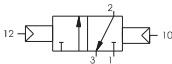
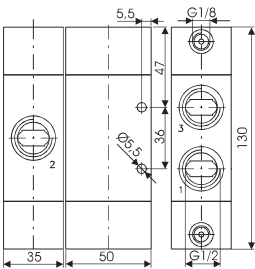
Pneumatic - Pneumatic

3/2

Ordering code
212/2.1.11.11

5/2

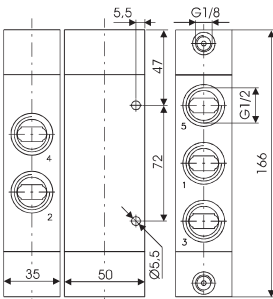
Pneumatic - Pneumatic



TYPE

32 = 3 ways

52 = 5 ways



Weight gr. 518
Minimum piloting pressure 2,5 bar

Weight gr. 640
Minimum piloting pressure 2,5 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	3600 NI/min	mm 15	G 1/2"	G 1/8"

Pneumatic - Pneumatic

5/3

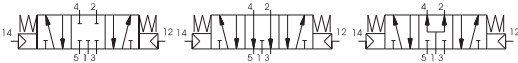
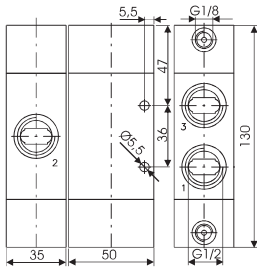
Ordering code
212/2.53.F.11.11

FUNCTION

31 = Closed centres

32 = Open centres

33 = Pressured centres



Weight gr. 684
Minimum piloting pressure 3 bar

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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	3300 NI/min	mm 15	G 1/2"	G 1/8"

1

Pneumatic - Spring

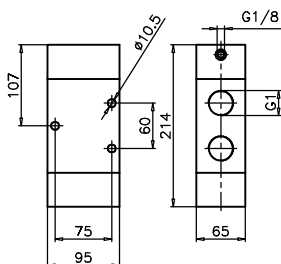
3/2

Ordering code

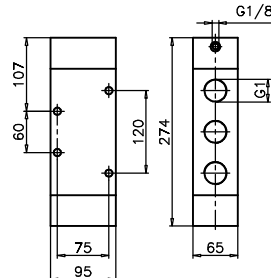
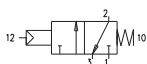
211.11.1

5/2

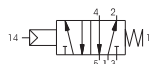
Pneumatic - Spring



Weight gr. 3330
Minimum piloting pressure 2,5 bar



Weight gr. 4200
Minimum piloting pressure 2,5 bar



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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	6500 NI/min	mm 20	G 1"	G 1/8"

Pneumatic - Differential external

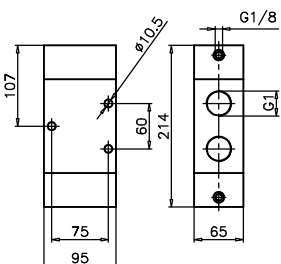
3/2

Ordering code

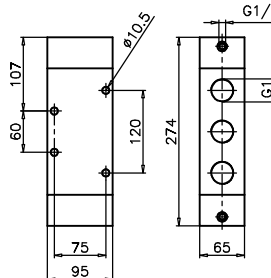
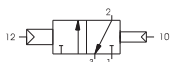
211.11.12

5/2

Pneumatic - Differential external



Weight gr. 3330
Minimum piloting pressure 2,5 bar



Weight gr. 4200
Minimum piloting pressure 2,5 bar



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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	6500 NI/min	mm 20	G 1"	G 1/8"

Pneumatic - Pneumatic

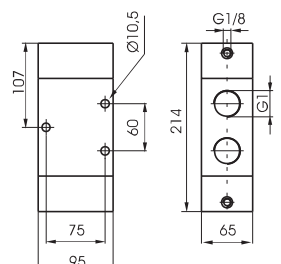
3/2

Ordering code

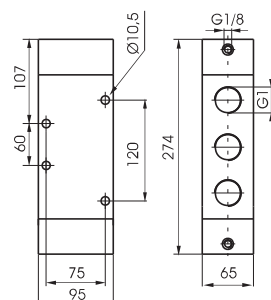
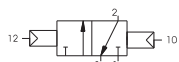
211.11.11

5/2

Pneumatic - Pneumatic



Weight gr. 3330
Minimum piloting pressure 2 bar

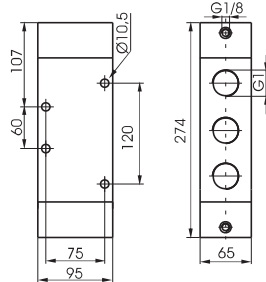


Weight gr. 4200
Minimum piloting pressure 2 bar



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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	6500 NI/min	mm 20	G 1"	G 1/8"

Pneumatic - Pneumatic		5/3				
Ordering code						
211.53.F.11.11						
FUNCTION						
31 = Closed centres						
32 = Open centres						
33 = Pressured centres						
Weight gr. 4200 Minimum piloting pressure 3 bar						
						
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	Pilot ports size
Filtered and lubricated air	10 bar	-5 - +70	6500 NI/min	mm 20	G 1"	G 1/8"

