



Series 200

General

The series 200 consist of a broad range of valves with various type of actuation.

The connections for this series are from G 1/8" to G 1".

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

	G 1/8" - G 1/4" - G 1/2" - G 1"
Body	Aluminium
Operators	Aluminium Technopolymer
Seals	NBR PUR for 212/2
Spacer	Technopolymer Aluminium for G1" (211)
Spools	Steel Aluminium, for 212/2
Springs	Spring steel
Pistons	Technopolymer, for 228 pneumatic command valves Aluminium, for 224, 212, 212/2 e 211 pneumatic command valves

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).



AIR DISTRIBUTION

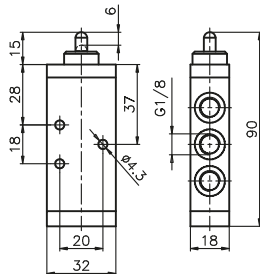
Tappet - Spring

Coding: 228.1.0.1

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

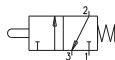
TYPE
1 32 = 3 ways
52 = 5 ways

3 ways

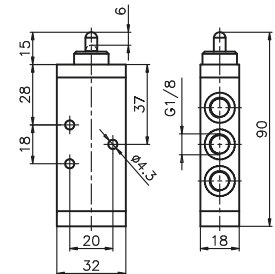


Weight 85 g
Operating force 33 N

228.32.0.1

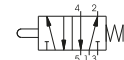


5 ways



Weight 105 g
Operating force 33 N

228.52.0.1



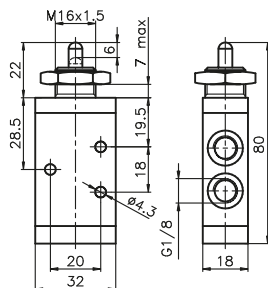
Tappet panel - Spring

Coding: 228.1.1.1

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

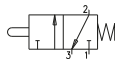
TYPE
1 32 = 3 ways
52 = 5 ways

3 ways

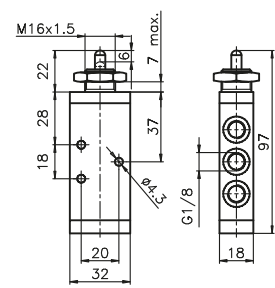


Weight 102 g
Operating force 33 N

228.32.1.1

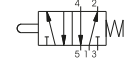


5 ways



Weight 122 g
Operating force 33 N

228.52.1.1



Lever roller - Spring

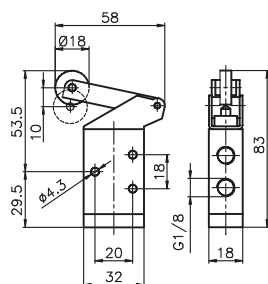
Coding: 228.1.2.V

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)	540
Orifice size (mm)	6
Working ports size	G1/8"

TYPE
1 32 = 3 ways
52 = 5 ways

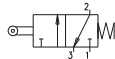
VERSION
1 = Plastic roller
1/2 = Metal roller

3 ways

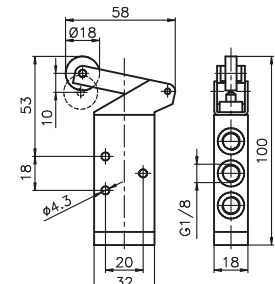


Weight 115 g
Operating force 15 N

228.32.2.V



5 ways



Weight 135 g
Operating force 15 N

228.52.2.V

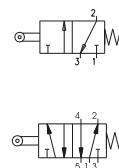


Lever roller ball bearing - Spring

Coding: 228.●.2.1/1

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

TYPE	
●	32 = 3 ways
●	52 = 5 ways

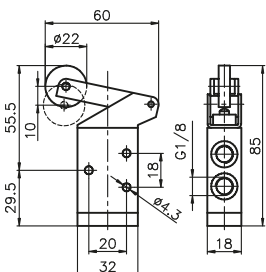


3 ways



Weight 130 g
Operating force 15 N

228.32.2.1/1

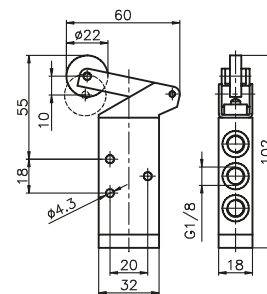


5 ways



Weight 150 g
Operating force 15 N

228.52.2.1/1

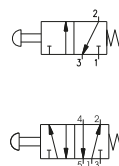


Lever button - Spring

Coding: 228.●.2.6/●

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

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

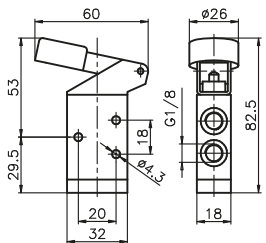


3 ways



Weight 120 g
Operating force 15 N

228.32.2.6/●

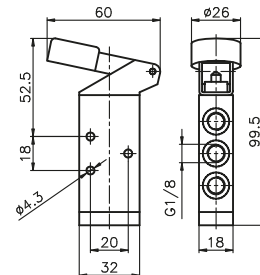


5 ways



Weight 120 g
Operating force 15 N

228.52.2.6/●

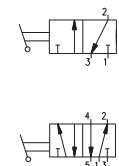


Switch lateral 2 positions

Coding: 228.●.27

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

TYPE	
●	32 = 3 ways
●	52 = 5 ways

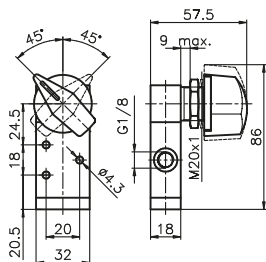


3 ways



Weight 190 g

228.32.27

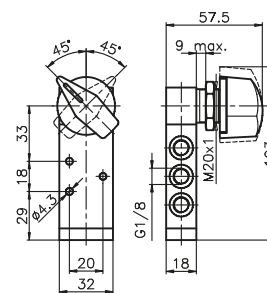


5 ways



Weight 210 g

228.52.27



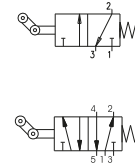
Lever roller unidirectional - Spring

Coding: 228.●.3.●

Operational characteristics

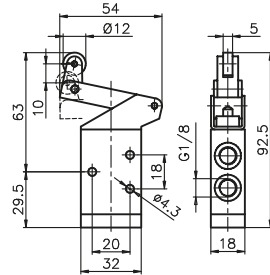
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

TYPE	
●	32 = 3 ways
	52 = 5 ways
VERSION	
●	1 = Plastic roller
	1/2 = Metal roller



AIR DISTRIBUTION

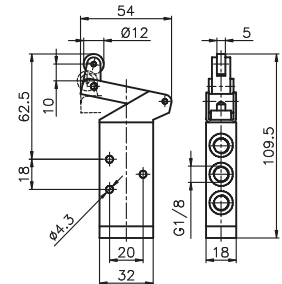
3 ways



Weight 110 g

228.32.3.●

5 ways



Weight 130 g

228.52.3.●

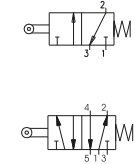
Lever roller lateral bidirectional - Spring

Coding: 228.●.4.1

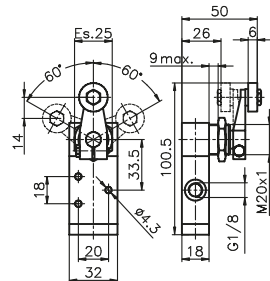
Operational characteristics

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

TYPE	
●	32 = 3 ways
	52 = 5 ways



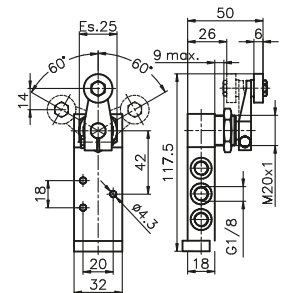
3 ways



Weight 180 g

228.32.4.1

5 ways



Weight 200 g

228.52.4.1

Lever sensitive - differential

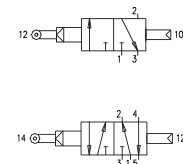
Coding: 228.●.4.13

Operational characteristics

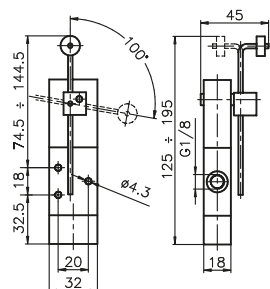
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

TYPE	
●	32 = 3 ways
	52 = 5 ways

Minimum rotation angle 11°



3 ways



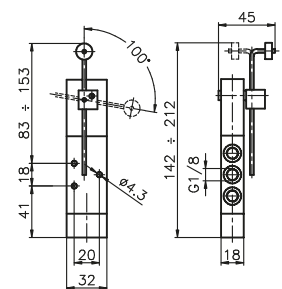
Weight 200 g

Minimum rotation angle 11°

Minimum working pressure 2,5 bar

228.32.4.13

5 ways



Weight 220 g

Minimum rotation angle 11°

Minimum working pressure 2,5 bar

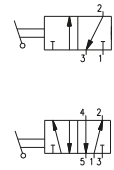
228.52.4.13

Lever panel Ø30 - 2 positions

Coding: 228.1.5/C

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

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

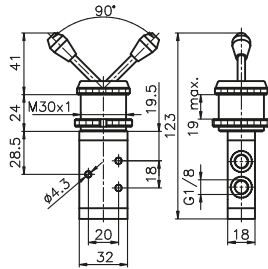


3 ways



Weight 198 g

228.32.5/C

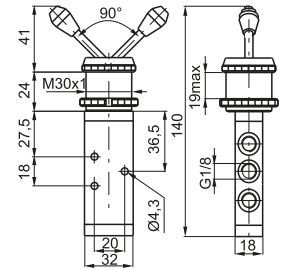


5 ways



Weight 218 g

228.52.5/C

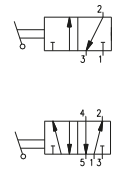


Frontal lever - 2 positions

Coding: 228.1.55/C

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

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

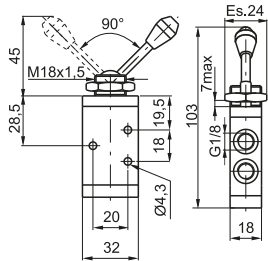


3 ways



Weight 115 g

228.32.55/C

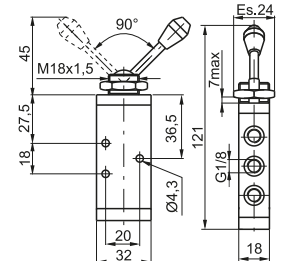


5 ways



Weight 135 g

228.52.55/C

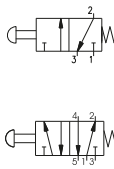


Push button Ø 30 - spring

Coding: 228.1.6.1/C

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

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

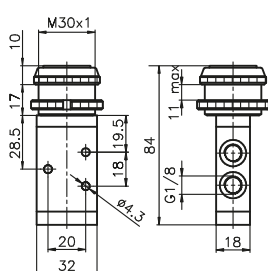


3 ways



Weight 155 g
Operating force 33 N

228.32.6.1/C

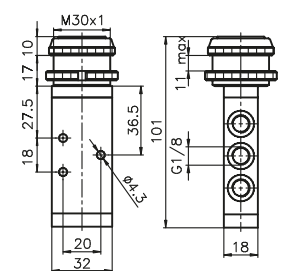


5 ways



Weight 175 g
Operating force 33 N

228.52.6.1/C



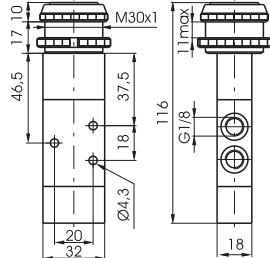
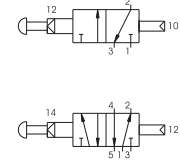
Sensitive push button Ø30 - differential

Coding: 228.1.6.13/C

Operational characteristics

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

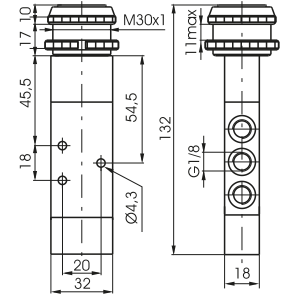
TYPE	32 = 3 ways 52 = 5 ways
BUTTON COLOR	1 = Red 2 = Black 3 = Green



Weight 197 g
Operating force 18,5 N (at 6 bar)

228.32.6.13/C

5 ways



Weight 217 g
Operating force 18,5 N (at 6 bar)

228.52.6.13/C

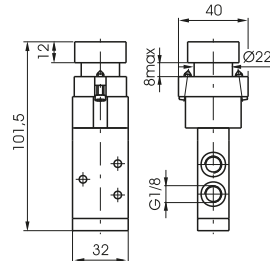
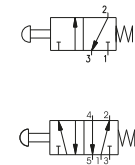
Push button - Spring

Coding: 228.1.6.22/C

Operational characteristics

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

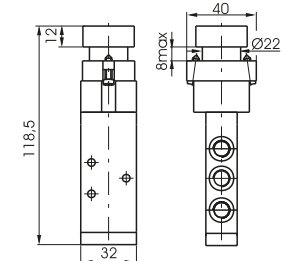
TYPE	32 = 3 ways 52 = 5 ways
BUTTON COLOR	1 = Red 2 = Black 3 = Green 4 = Yellow



Weight 225 g
Operating force 33 N

228.32.6.22/C

5 ways



Weight 245 g
Operating force 33 N

228.52.6.22/C

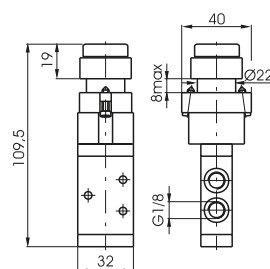
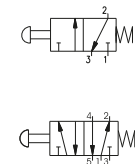
Raised push button Ø22 - Spring

Coding: 228.1.6.23/C

Operational characteristics

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

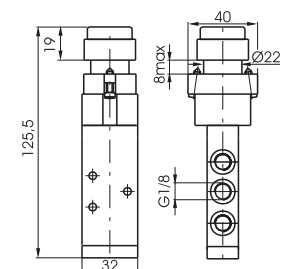
TYPE	32 = 3 ways 52 = 5 ways
BUTTON COLOR	1 = Red 2 = Black 3 = Green 4 = Yellow



Weight 230 g
Operating force 33 N

228.32.6.23/C

5 ways



Weight 250 g
Operating force 33 N

228.52.6.23/C

AIR DISTRIBUTION

1

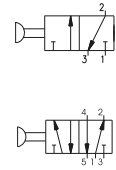
Push button Ø22 - 2 positions

Coding: 228.1.6.25

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)	540
Orifice size (mm)	6
Working ports size	G1/8"

TYPE	
32	= 3 ways
52	= 5 ways

Emergency - Rotate to unlock

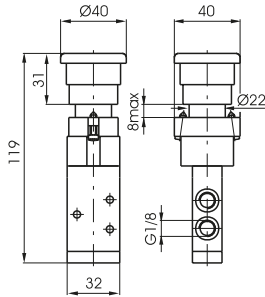


3 ways



Weight 235 g
Operating force 33 N

228.32.6.25

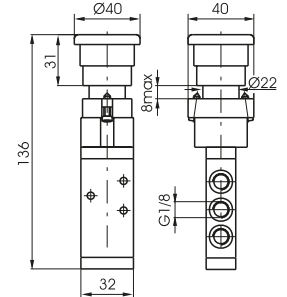


5 ways



Weight 235 g
Operating force 33 N

228.52.6.25

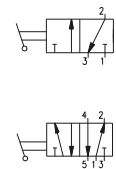


Switch 2 positions

Coding: 228.1.6.27

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

TYPE	
32	= 3 ways
52	= 5 ways

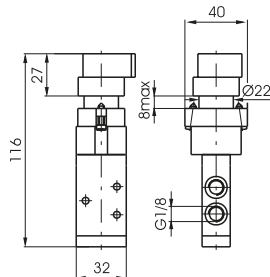


3 ways



Weight 230 g

228.32.6.27

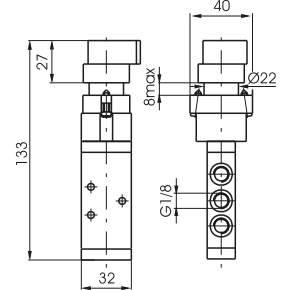


5 ways



Weight 250 g

228.52.6.27

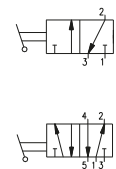


Key switch 2 positions

Coding: 228.1.6.28

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

TYPE	
32	= 3 ways
52	= 5 ways

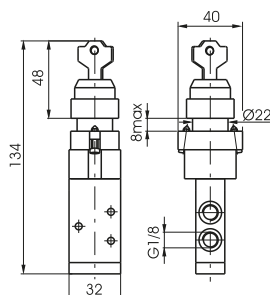


3 ways



Weight 230 g

228.32.6.28

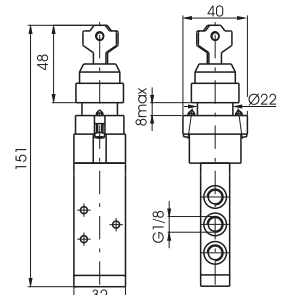


5 ways



Weight 250 g

228.52.6.28





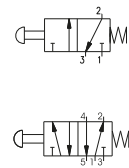
1 AIR DISTRIBUTION

Palm push button Ø30 2 positions

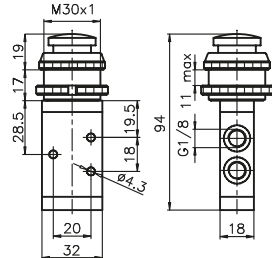
Coding: 228.1.7.1/C

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

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



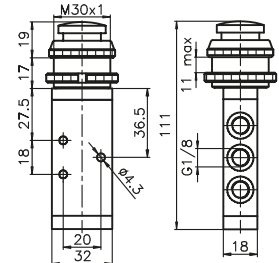
3 ways



Weight 148 g

228.32.7.1/C

5 ways



Weight 168 g

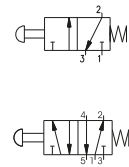
228.52.7.1/C

Push button - Spring

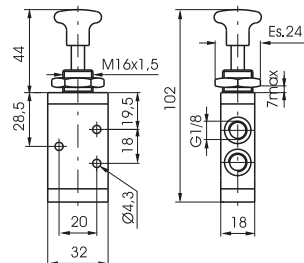
Coding: 228.1.8.1/C

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

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



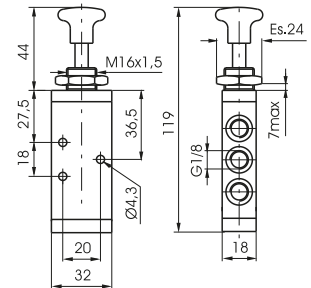
3 ways



Weight 120 g

228.32.8.1/C

5 ways



Weight 140 g

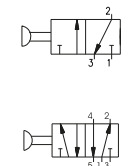
228.52.8.1/C

Push button 2 positions

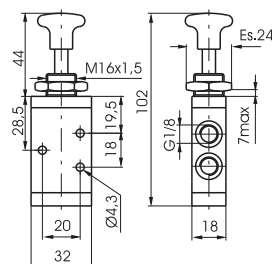
Coding: 228.1.8/C

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

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



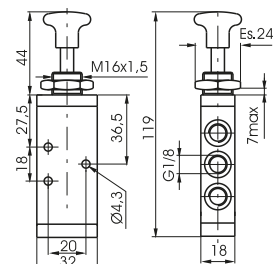
3 ways



Weight 120 g

228.32.8/C

5 ways



Weight 140 g

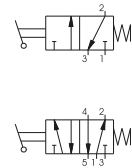
228.52.8/C

Lever lateral - Spring

Coding: 228.1.9.1/C

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

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

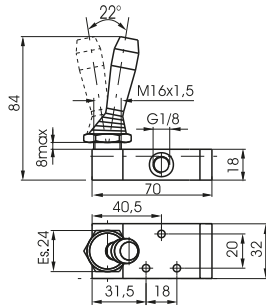


3 ways



Weight 140 g

228.32.9.1/C

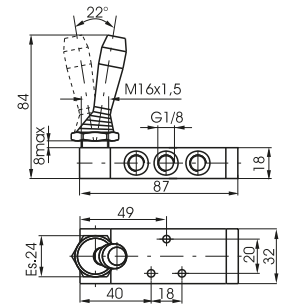


5 ways



Weight 160 g

228.52.9.1/C

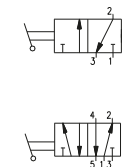


Lever lateral 2 positions

Coding: 228.1.9/C

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

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

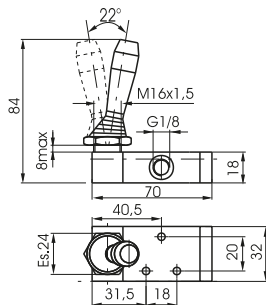


3 ways



Weight 140 g

228.32.9/C

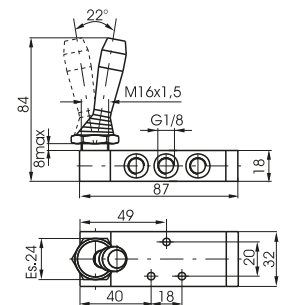


5 ways



Weight 160 g

228.52.9/C

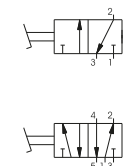


Pedal aluminium 2 positions

Coding: 228.1.10

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)	540
Orifice size (mm)	6
Working ports size	G1/8"

T	TYPE
	32 = 3 ways
	52 = 5 ways

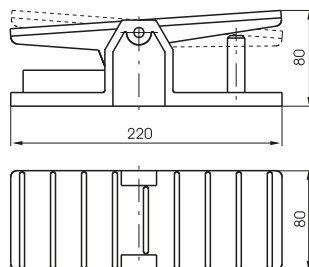


3 ways



Weight 790 g

228.32.10

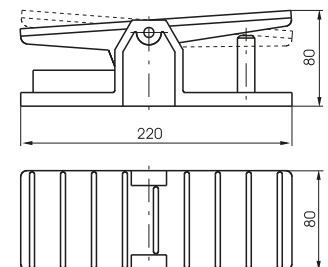


5 ways



Weight 810 g

228.52.10



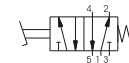
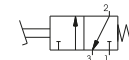
Pedal aluminium - Spring

Coding: 228.10.1

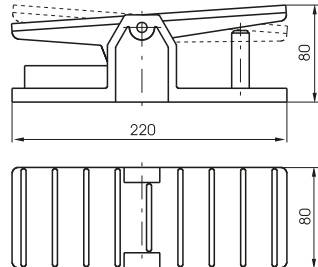
Operational characteristics

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

TYPE	
① 32 = 3 ways	
52 = 5 ways	



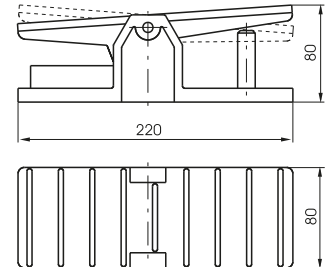
3 ways



Weight 790 g

228.32.10.1

5 ways



Weight 810 g

228.52.10.1

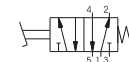
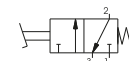
Pedal protected - Spring

Coding: 228.10.10.1

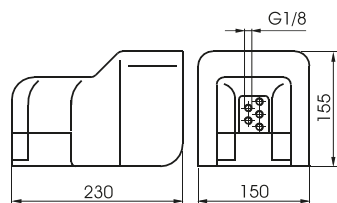
Operational characteristics

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

TYPE	
① 32 = 3 ways	
52 = 5 ways	
VERSION	
1/1 = Standard version	
2/1 = without safety device	



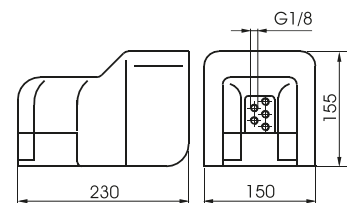
3 ways



Weight 1120 g

228.32.10.10.1

5 ways



Weight 1120 g

228.52.10.10.1

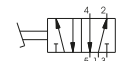
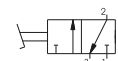
Pedal protected 2 positions

Coding: 228.10.10/1

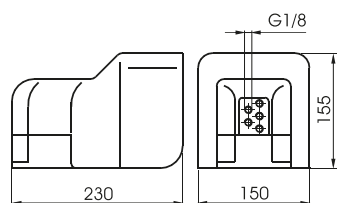
Operational characteristics

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

TYPE	
① 32 = 3 ways	
52 = 5 ways	



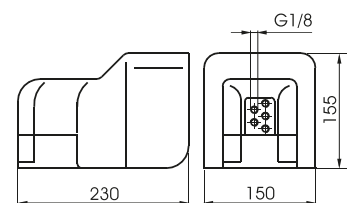
3 ways



Weight 1120 g

228.32.10/1

5 ways



Weight 1120 g

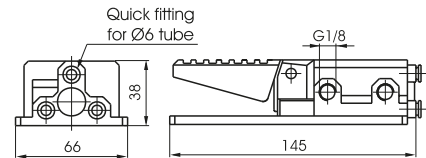
228.52.10/1

Pedal plastic miniaturized - Spring

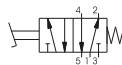
Coding: 228.52.10.F

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

FUNCTION	
F	1P = Standard version
	1PX = Stainless steel spool



Weight 230 g

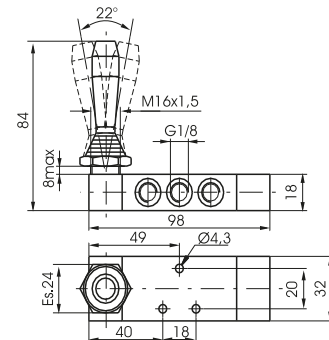
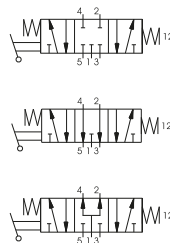


Lever lateral spring centre 3 positions

Coding: 228.53.F.9.1/C

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

FUNCTION	
F	31 = Closed centres
	32 = Open centres
	33 = Pressured centres
LEVER COLOR	
C	1 = Red
	2 = Black
	3 = Green



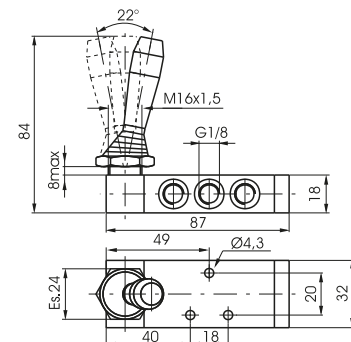
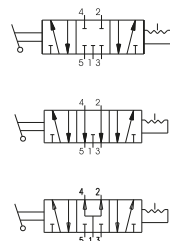
Weight 190 g

Lever lateral 3 positions detent

Coding: 228.53.F.9/C

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with $\Delta p=1$ (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"

FUNCTION	
F	31 = Closed centres
	32 = Open centres
	33 = Pressured centres
LEVER COLOR	
C	1 = Red
	2 = Black
	3 = Green



Weight 160 g



1
AIR DISTRIBUTION

Lever central (spring 3 pos.) Operator, Levar, Spole in Technopolymer

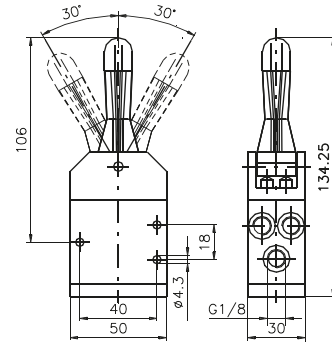
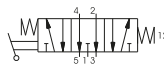
Coding: 228.53.32.99P/ⓐ

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)	410
Orifice size (mm)	6
Working ports size	G1/8"

LEVER COLOR	
ⓐ	1 = Red
	2 = Black



Weight 140 g



Lever central (spring 3 pos.) Levar in Technopolymer

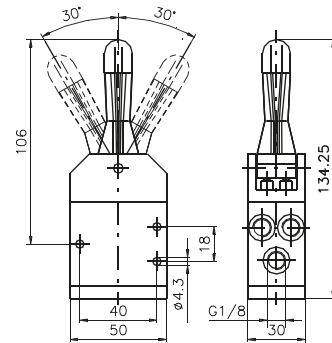
Coding: 228.53.32.99/ⓐ

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)	410
Orifice size (mm)	6
Working ports size	G1/8"

LEVER COLOR	
ⓐ	1 = Red
	2 = Black



Weight 140 g



Lever central Metal (spring 3 pos.) One position stable

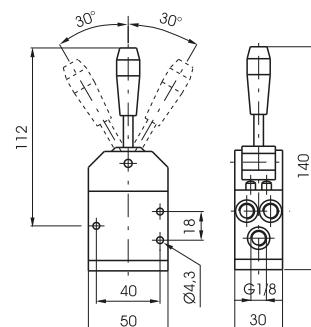
Coding: 228.53.32.99/ⓐ.S

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)	410
Orifice size (mm)	6
Working ports size	G1/8"

LEVER COLOR	
ⓐ	1 = Red
	2 = Black



Weight 140 g



Lever central Metal

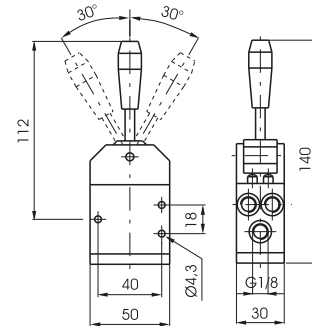
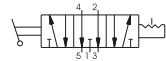
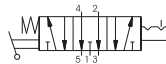
Coding: 228.53.32.99.F/C

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	410
Orifice size (mm)	6
Working ports size	G1/8"

F	FUNCTION
	2 = 2 Stable positions
	3 = 3 pos. stable
C	LEVER COLOR
	1 = Red 2 = Black



Weight 140 g



Pedal - Spring 3 positions

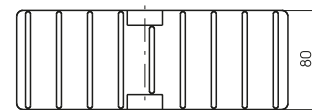
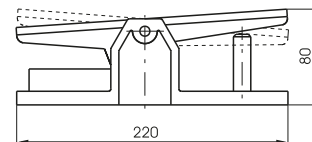
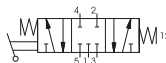
Coding: 228.53.F.10.1

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	410
Orifice size (mm)	6
Working ports size	G1/8"

F	FUNCTION
	31 = Closed centres
	32 = Open centres



Weight 810 g



1
AIR DISTRIBUTION



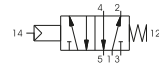
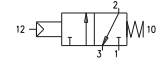
Pneumatic - Spring

Coding: 228.11.1

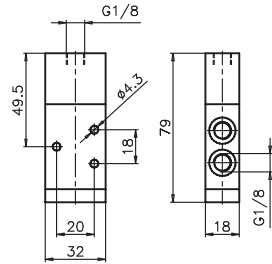
Operational characteristics

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"
Pilot ports size	G1/8"

TYPE	
① 32 = 3 ways	
52 = 5 ways	



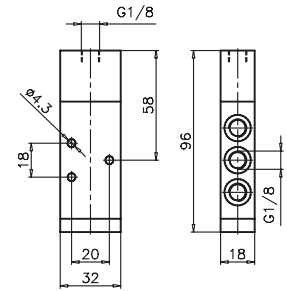
3 ways



Weight 110 g
Minimum piloting pressure 2,5 bar

228.32.11.1

5 ways



Weight 130 g
Minimum piloting pressure 2,5 bar

228.52.11.1

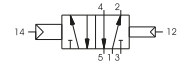
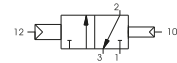
Pneumatic - Differential external

Coding: 228.11.12

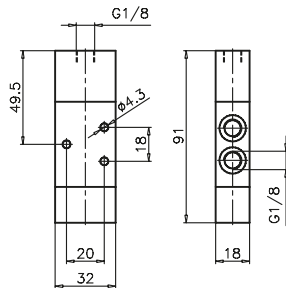
Operational characteristics

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"
Pilot ports size	G1/8"

TYPE	
① 32 = 3 ways	
52 = 5 ways	



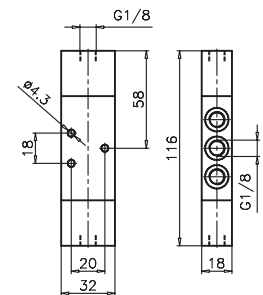
3 ways



Weight 140 g
Minimum piloting pressure 2,5 bar

228.32.11.12

5 ways



Weight 160 g
Minimum piloting pressure 2,5 bar

228.52.11.12

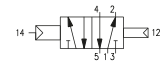
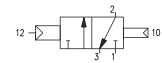
Pneumatic - Differential self aligned

Coding: 228.11.12/1

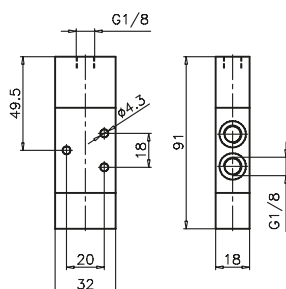
Operational characteristics

Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"
Pilot ports size	G1/8"

TYPE	
① 32 = 3 ways	
52 = 5 ways	



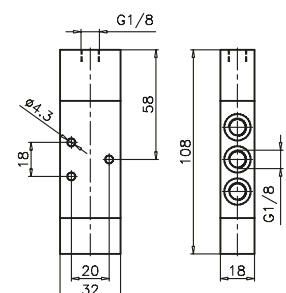
3 ways



Weight 130 g
Minimum piloting pressure 2,5 bar

228.32.11.12/1

5 ways



Weight 150 g
Minimum piloting pressure 2,5 bar

228.52.11.12/1

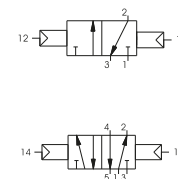
AIR DISTRIBUTION

Pneumatic - Pneumatic

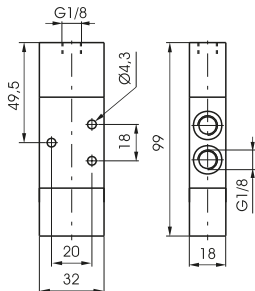
Coding: 228.1.11.11

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"
Pilot ports size	G1/8"

TYPE	
32	= 3 ways
52	= 5 ways



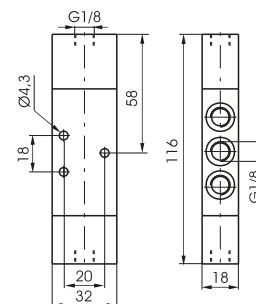
3 ways



Weight 140 g
Minimum piloting pressure 2 bar

228.32.11.11

5 ways



Weight 160 g
Minimum piloting pressure 2 bar

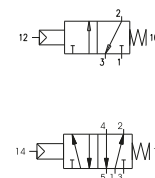
228.52.11.11

Amplified pneumatic - Spring

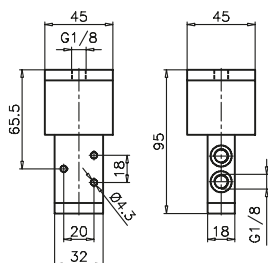
Coding: 228.1.13.1

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	540
Orifice size (mm)	6
Working ports size	G1/8"
Pilot ports size	G1/8"

TYPE	
32	= 3 ways
52	= 5 ways



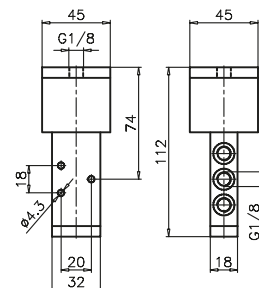
3 ways



Weight 260 g
Minimum piloting pressure 0,5 bar

228.32.13.1

5 ways



Weight 290 g
Minimum piloting pressure 0,5 bar

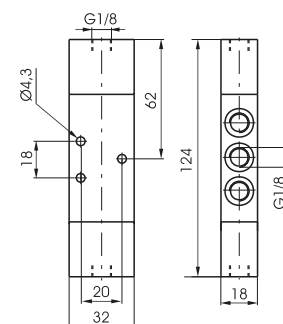
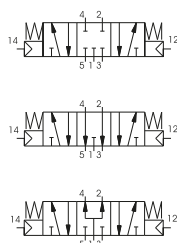
228.52.13.1

Pneumatic - Pneumatic 5 ways 3 connections

Coding: 228.53.F.11.11

Operational characteristics	
Fluid	Filtered air. No lubrication needed, if applied it shall be continuous
Max working pressure (bar)	10
Temperature °C	-5 ÷ +70
Flow rate at 6 bar with Δp=1 (NI/min)	410
Orifice size (mm)	6
Working ports size	G1/8"
Pilot ports size	G1/8"

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



Weight 180 g
Minimum piloting pressure 3 bar

228.53.F.11.11