General

The main characteristic of these valves is their poppet type construction. This offers superior resistance to adverse operating conditions such as dust particles in the compressed air, insufficient lubrication and so on.

On the other hand the valves operate as 3-ways or 2-ways only, normally closed, and the required operating force increases with increases in line pressure.

The main components constituting the valves of the Tecno228 series are manufactured with high performance technopolymer. The use of tecnopolymer has resulted in a light weight product which can be offered to the market at very interesting prices. This valve series is manufactured with 1/8" connections, 3 and 5 ways function, mechanical or pneumatically operated, monostable spring or pneumatic return, bistable and in 5 ways 3 positions version with closed, open and pressured centres. This series is completely interchangable with the standard 228 series (with alluminium body)

Construction characteristics

	G 1/8" - G 1/4" - G 1/2" - G 1"	G 1/8" (in Technopolymer T228 Series) Technopolymer		
Body	Aluminium			
Actuators	Aluminium	Technopolymer		
	Technopolymer			
Spool	Stainless steel	Technopolymer (5/2 version)		
	Technopolymer	Nickel plated steel (5/3 version)		
Seals	NBR NBR			
Spacers	Technopolymer (Aluminium for G 1")	G 1") Technopolymer		
Spring	Spring steel	Spring steel		
Pistons	Technopolymer	Technopolymer		

Maximum fitting torque (for T228 Series)

Thread	Maximum Torque (Nm)	
G 1/8"	4	

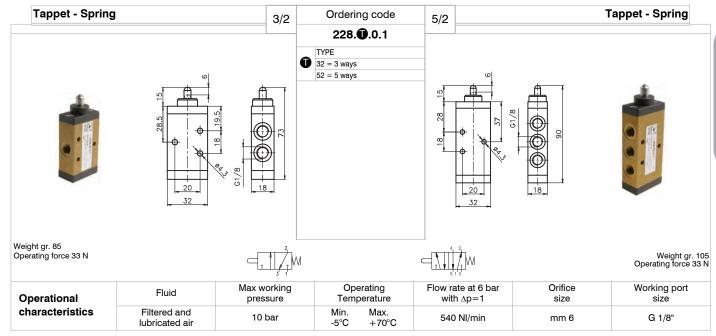
Use and maintenance

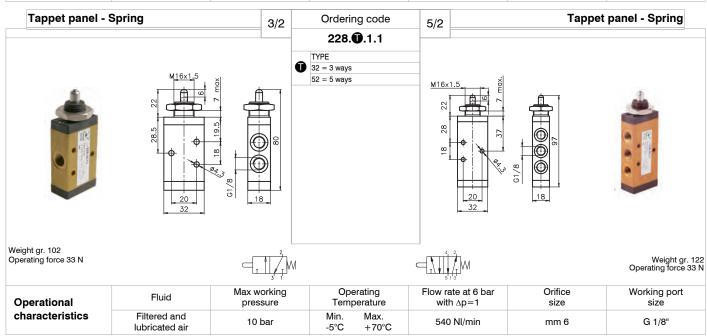
These valves have an average life of 15 million cycles depending on the application and air quality, filtered and lubricated air using specified lubricants will dramatically reduce the wear of the seals and ensures long and trouble free operation.

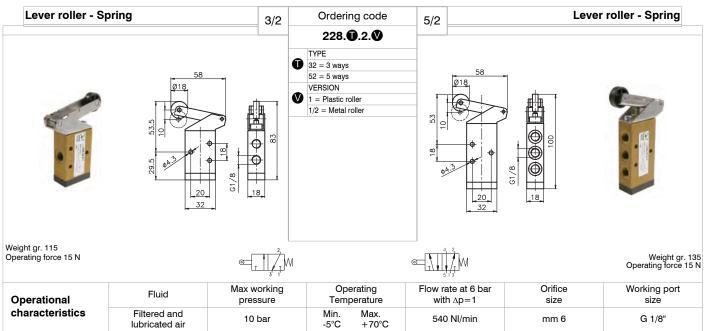
Please ensure that the valve is being used according with the manufacturers specification, such as air pressure and temperature and that exhaust ports 3 & 5 are protected against the possible ingress of dirt or debris.

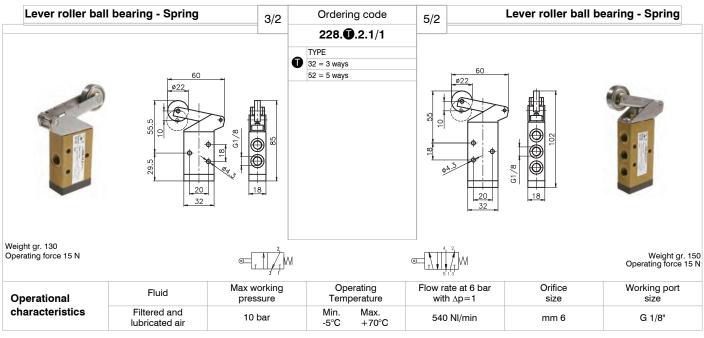
Repair kits including the spool complete with seals are available for overhauling the valves; however, although this is a simple operation it should be carried out by a competent person.

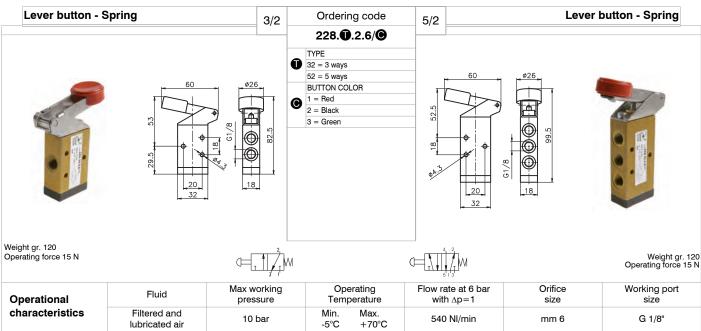
ATTENTION: use hydraulic oil class H for lubrication such as MAGNA GC 32 (Castrol).

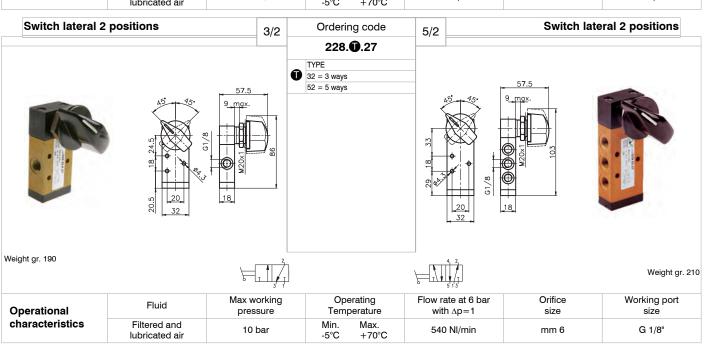


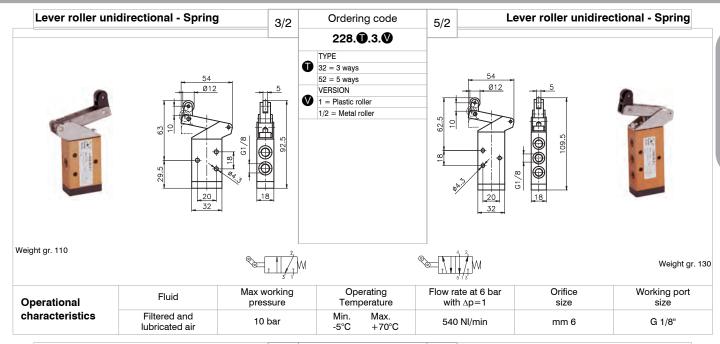


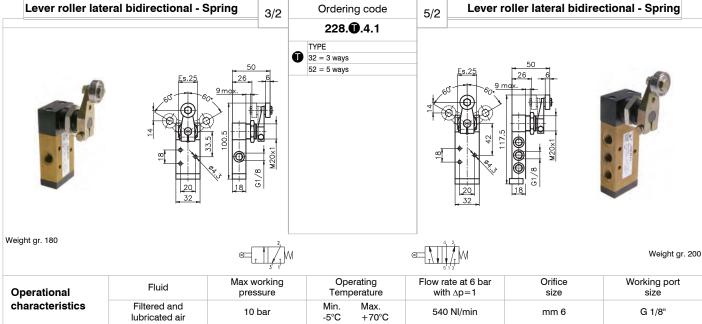


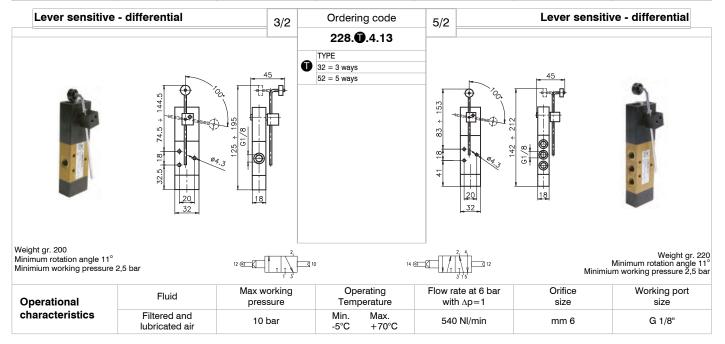


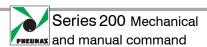


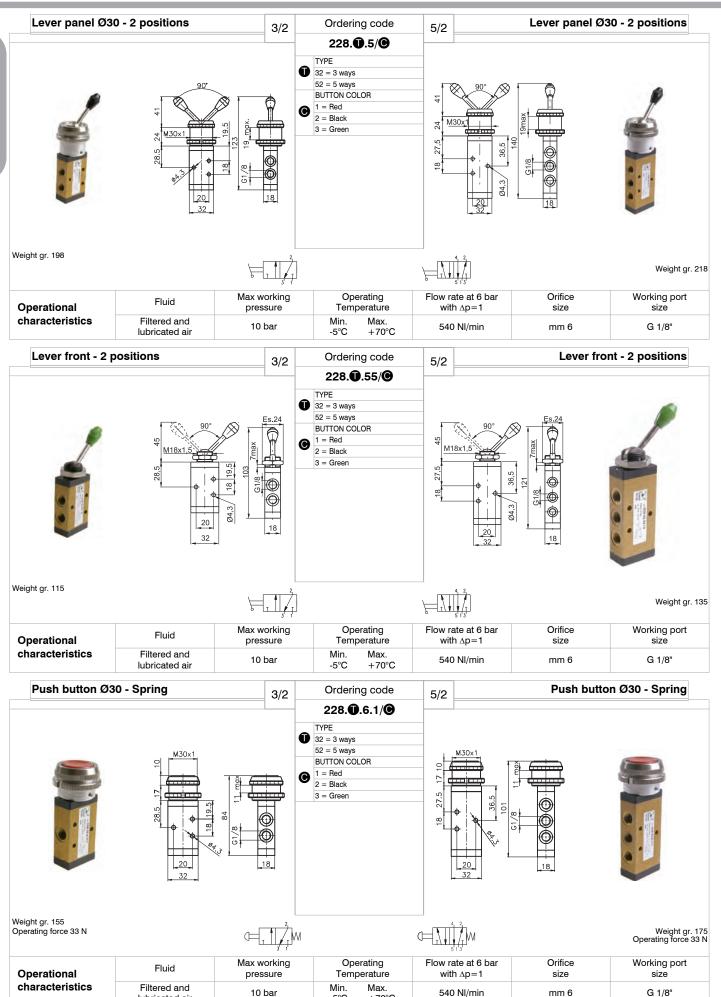








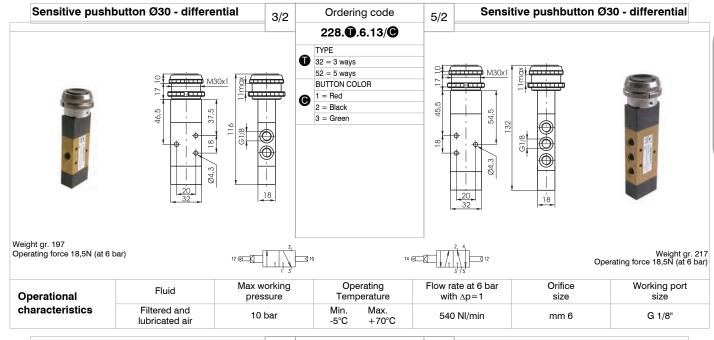


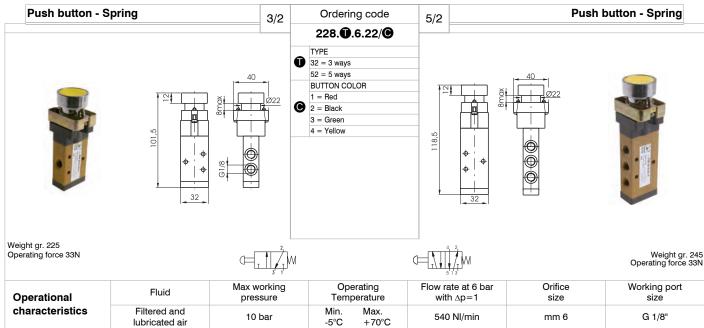


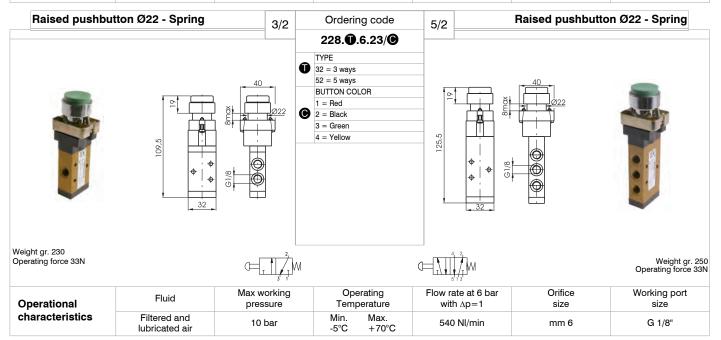
lubricated air

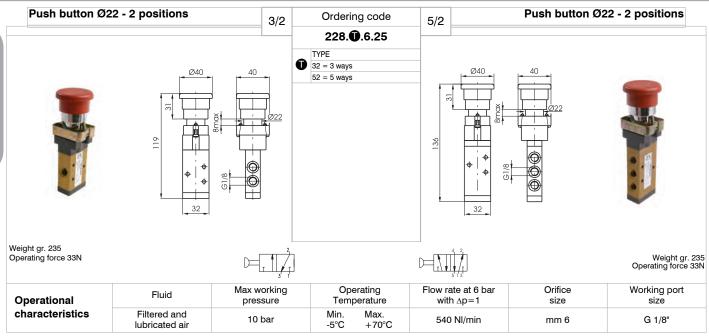
-5°C

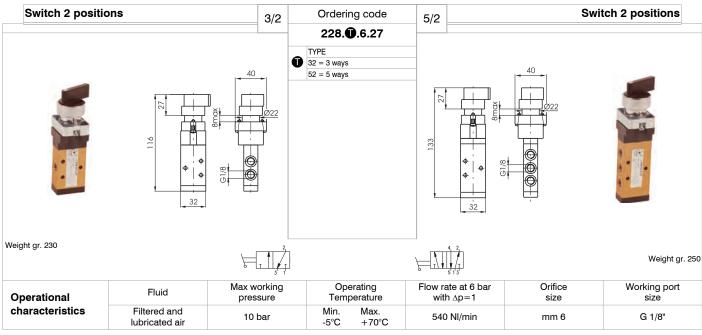
+70°C

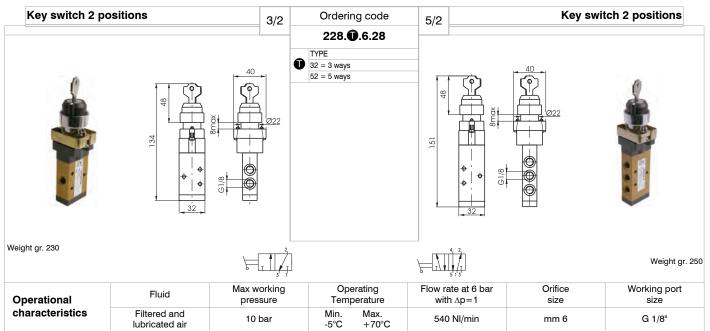




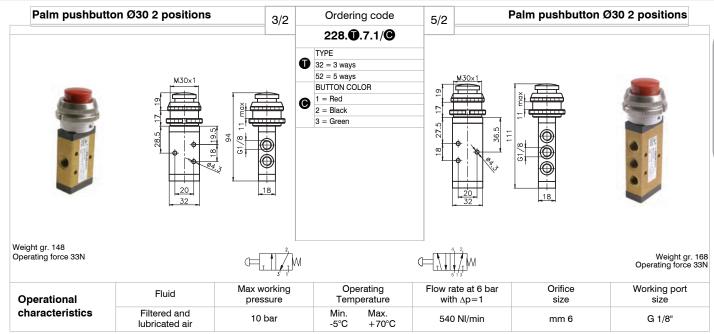


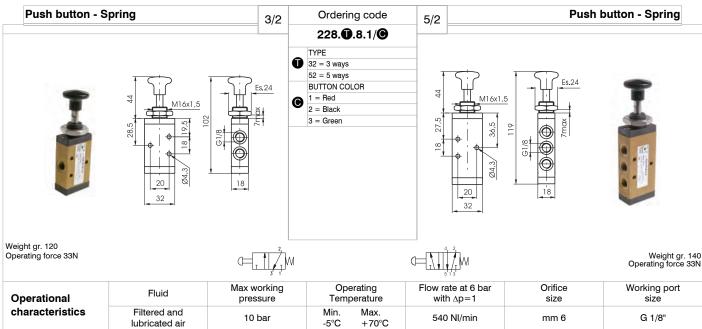


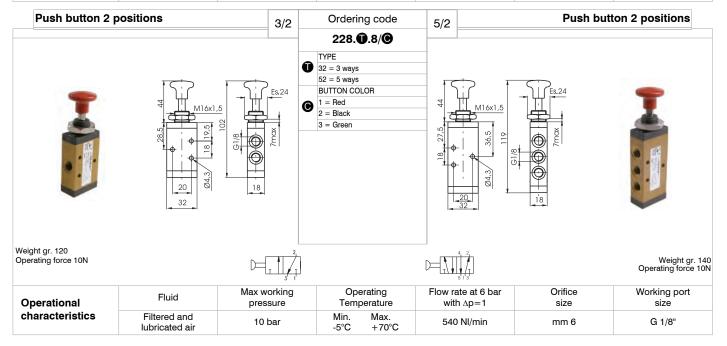


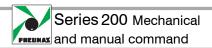


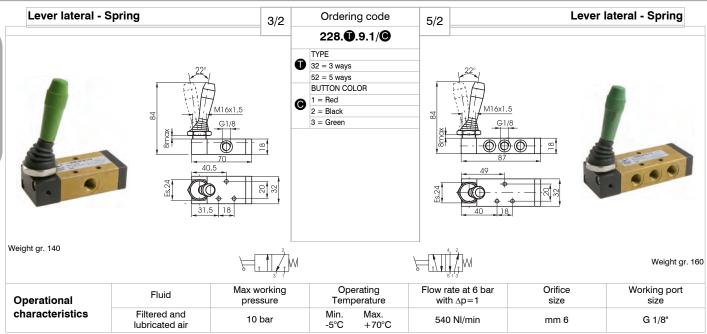


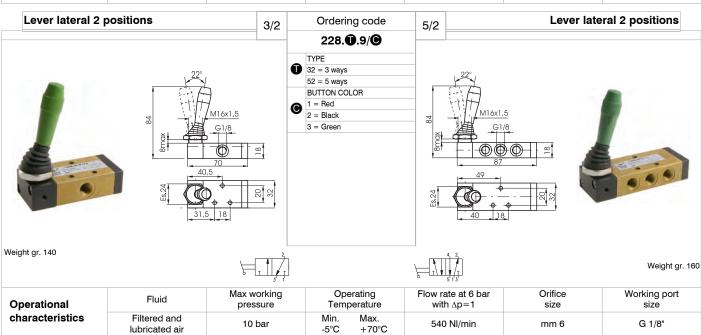














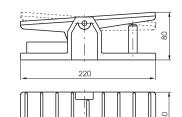


Pedal aluminium - Spring











Weight gr. 790 (3/2) Weight gr. 810 (5/2)

Operational
characteristics

Fluid	Max wo press	
Filtered and	10 b	

working	Upe	Operating		
essure	Temp	Temperature		
10 bar	Min.	Max.		
i o bai	-5°C	+70°C		

7 1/ 1 1/ 1 NM
Flow rate at 6 bar with ∆p=1

540 NI/min

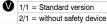
Orifice size	Working port	
mm 6	G 1/8"	

Pedal protected - Spring

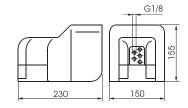
Ord	lering	code

228.	D .10. ▼
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Ū	TYPE
	32 = 3 ways
	52 = 5 ways
	VERSION













Operational characteristics	Fluid	Max working pressure	Operating Temperature	Flow rate at 6 bar with ∆p=1	Orifice size	Working port size
	Filtered and lubricated air	10 bar	Min. Max. -5°C +70°C	540 NI/min	mm 6	G 1/8"

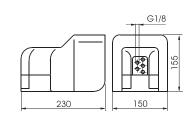
Pedal protected 2 positions

Ordering code

228. 10/1







Weight gr. 1.120

Operational characteristics



10 bar

Max working	Operating
proceure	Temperature

Min.

-5°C

Max.

+70°C

\$\frac{4}{513}\$
Flow rate at 6 bar

Flow rate at 6 bar	Orifice	Working port		
with ∆p=1	size	size		
540 NI/min	mm 6	G 1/8"		

Pedal plastic miniaturized - Spring

Fluid

Filtered and

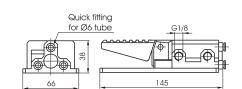
lubricated air

Ordering code

228.52.10.

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

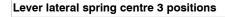




Weight gr. 230

4,	2,
,	<u>/</u>]/

Operational	Fluid	Max working pressure	Operating Temperature	Flow rate at 6 bar with ∆p=1	Orifice size	Working port size
characteristics	Filtered and lubricated air	10 bar	Min. Max. -5°C +70°C	540 NI/min	mm 6	G 1/8"



Ordering code

228.53. 3.9.1/ 3

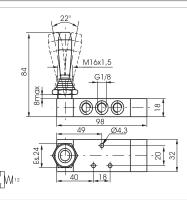
FUNCTION 31 = Closed centres 32 = Open centres **BUTTON COLOR**

1 = Red 2 = Black 3 = Green

Weight gr. 190







Operational characteristics	Fluid	Max working pressure	Operating Temperature	Flow rate at 6 bar with ∆p=1	Orifice size	Working port size
	Filtered and lubricated air	10 bar	Min. Max. -5°C +70°C	410 NI/min	mm 6	G 1/8"

Lever lateral 3 positions detent Ordering code 228.53. 3.9/ 3 84 G1/8 FUNCTION 31 = Closed centres 8 32 = Open centres BUTTON COLOR 1 = Red 2 = Black 3 = Green 8 Weight gr. 160

Operational	Fluid	Max working pressure	Operating Temperature	Flow rate at 6 bar with ∆p=1	Orifice size	Working port size
characteristics	Filtered and lubricated air	10 bar	Min. Max. -5°C +70°C	410 NI/min	mm 6	G 1/8"

Lever central (spring 3 pos.) Operator, Levar and Spole in Techno-

Ordering code

228.53.32.99P/@

LEVER COLOR 1 = Red 2 = Black

Weight gr. 140





30 30 50 S1/8 30 S1/8 30 S1/8 S1/8 S1/8 S1/8 S1/8 S1/8 S1/8 S1/8
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Operational characteristics	Fluid	Max working pressure	Operating Temperature	Flow rate at 6 bar with ∆p=1	Orifice size	Working port size
	Filtered and lubricated air	10	-5 ÷ +70	410	6	G 1/8"

Lever central (spring 3 pos.) Levar in Technopolymer

Ordering code

228.53.32.99/@

LEVER COLOR 1 = Red 2 = Black

Weight gr. 140





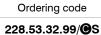
30.
40 50 G1/8

			0.10			
Operational	Fluid	Max working pressure	Operating Temperature	Flow rate at 6 bar with ∆p=1	Orifice size	Working port size
characteristics	Filtered and lubricated air	10	-5 ÷ +70	410	6	G 1/8"

5/3



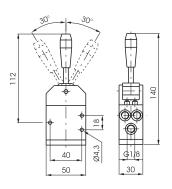
Lever central Metal (spring 3 pos.) One position stable



LEVER COLOR

1 = Red 2 = Black





Weight gr. 140



Operational characteristics	Fluid	Max working pressure	Operating Temperature	Flow rate at 6 bar with ∆p=1	Orifice size	Working port size
	Filtered and lubricated air	10	-5 ÷ +70	410	6	G 1/8"

Lever central Metal

5/3

Ordering code

228.53.32.99.**3**/**3**

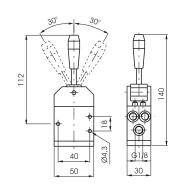
FUNCTION

2 = 2 Stable positions

3 = 3 Stable positions

LEVER COLOR
1 = Red
2 = Black





Weight gr. 140





Operational	Fluid	pressure	Temperature	with ∆p=1	Size	working port size
characteristics	Filtered and lubricated air	10	-5 ÷ +70	410	6	G 1/8"

Pedal - Spring 3 positions

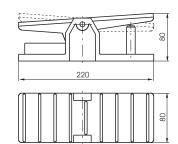
5/3

Ordering code

228.53. 3.10.1

FUNCTION
31 = Closed centres
32 = Open centres



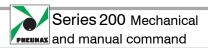


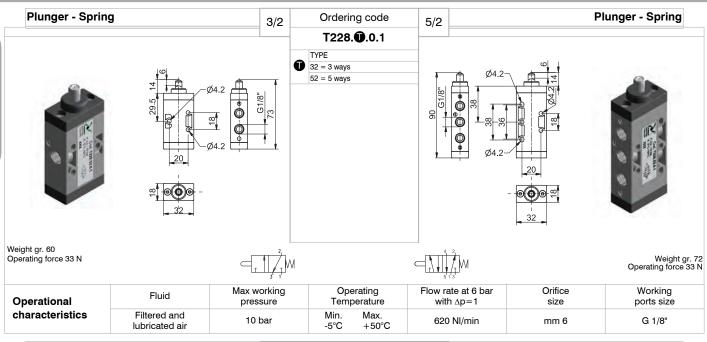
Weight gr. 810

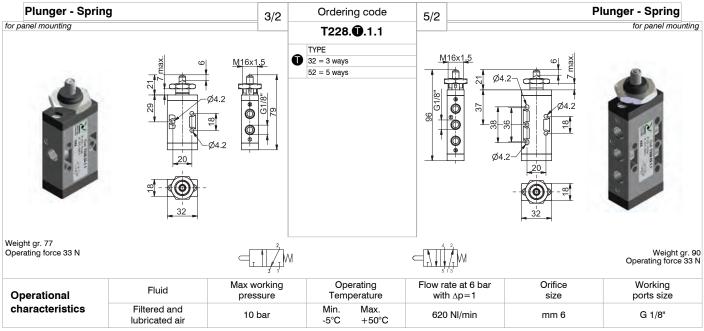


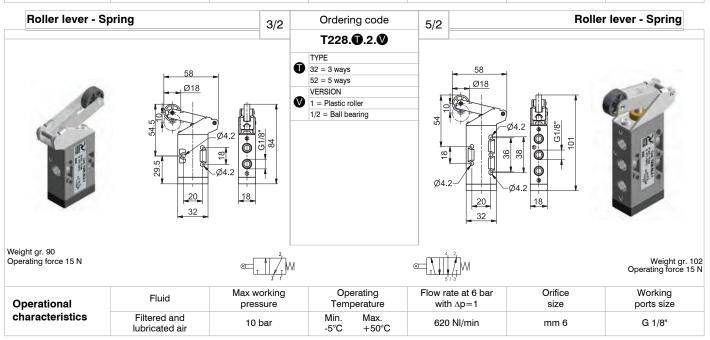


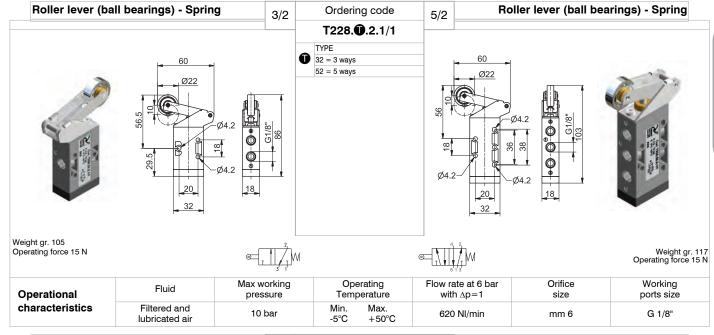
Operational	Fluid	Max working pressure	Operating Temperature	Flow rate at 6 bar with ∆p=1	Orifice size	Working port size
characteristics	Filtered and	10 bar	Min. Max. -5°C +70°C	410 NI/min	mm 6	G 1/8"

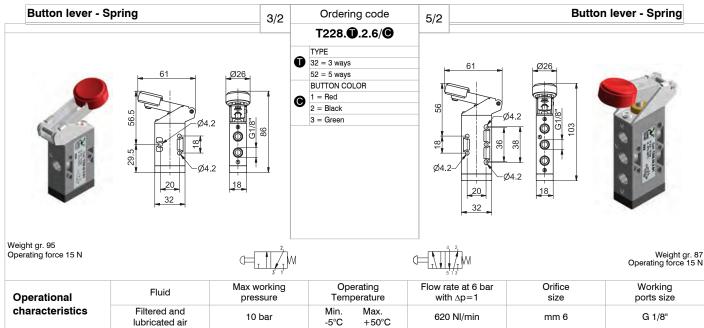


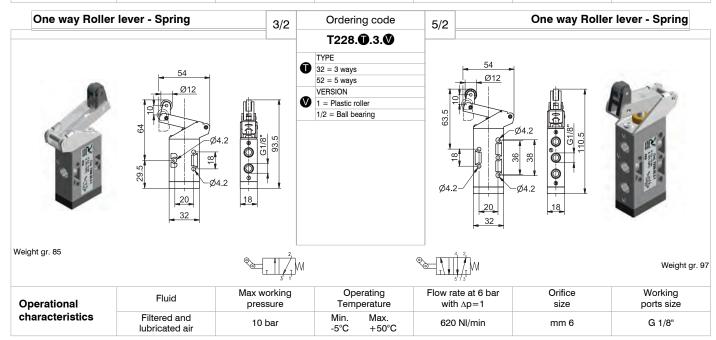


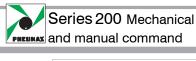


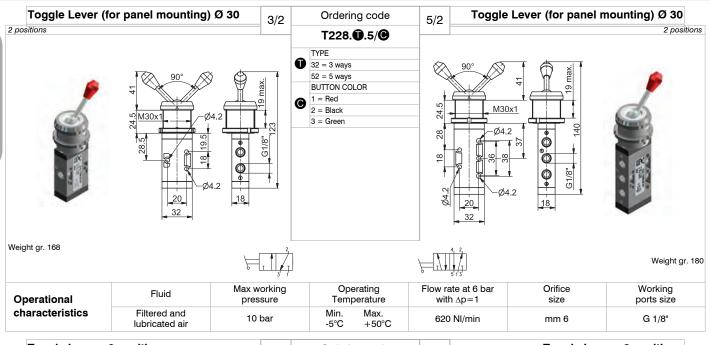


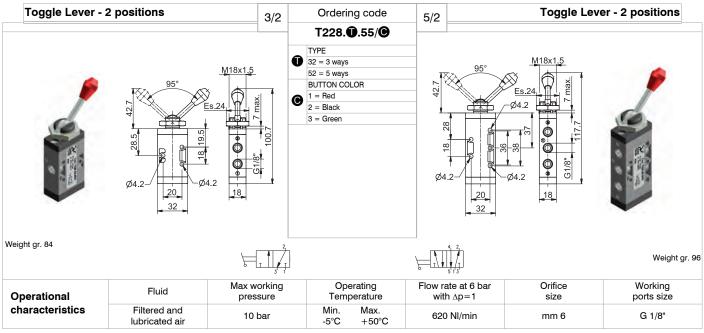


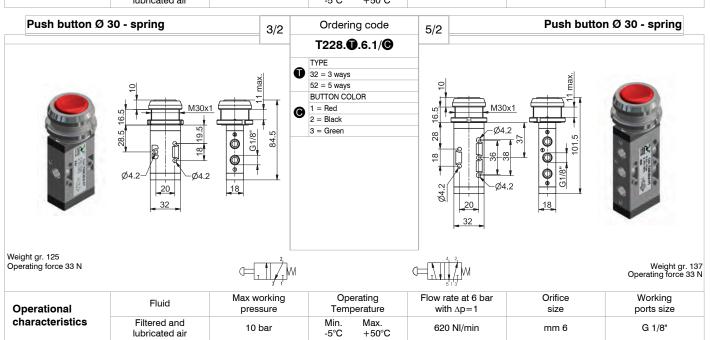


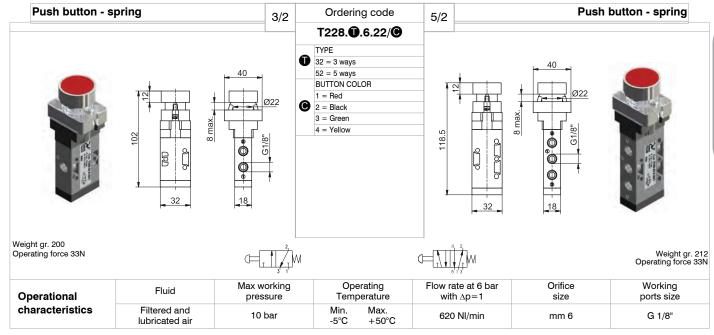


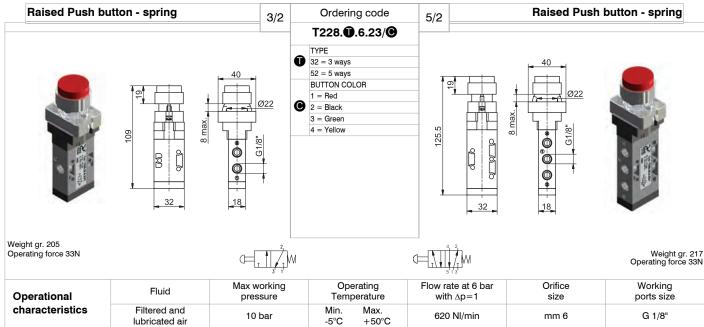


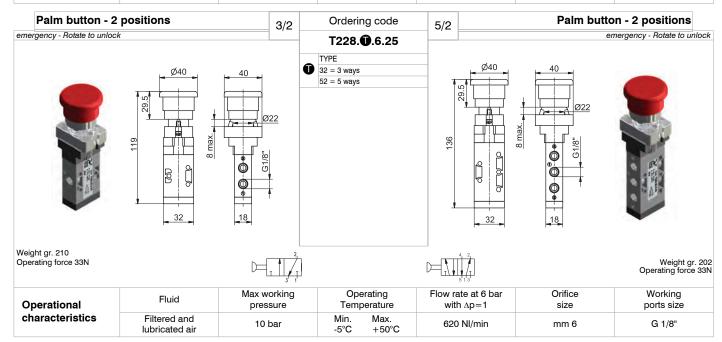


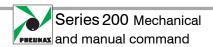


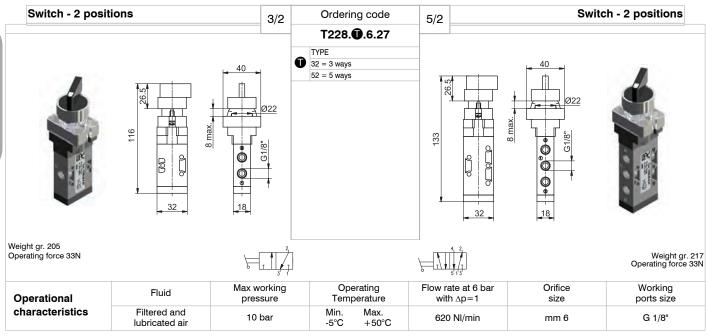


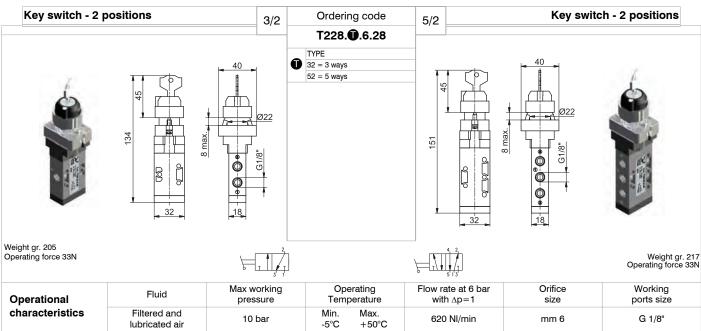


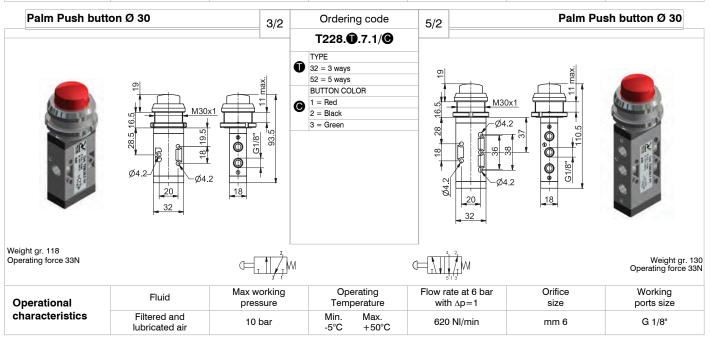


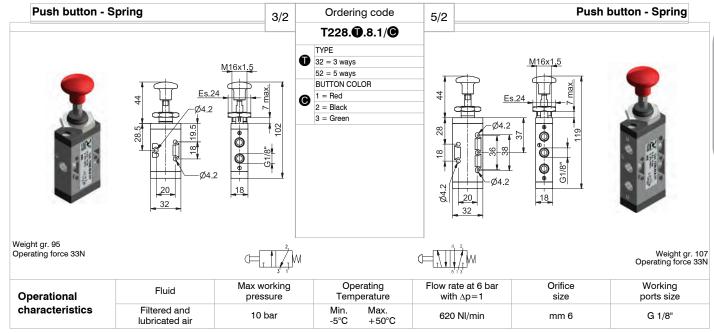


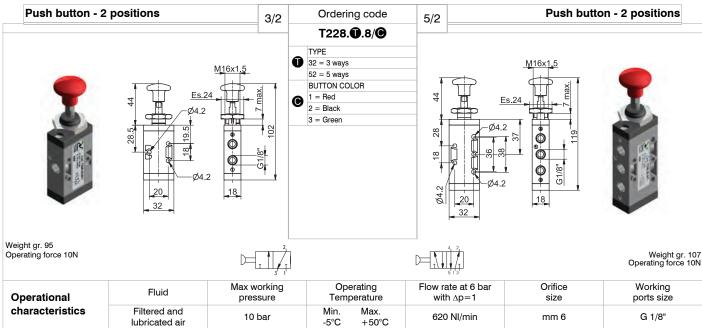


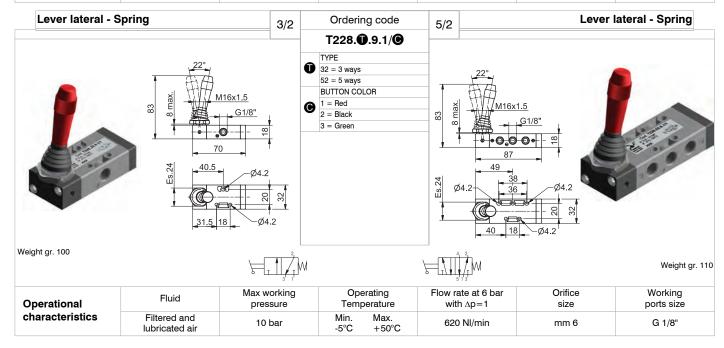


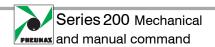


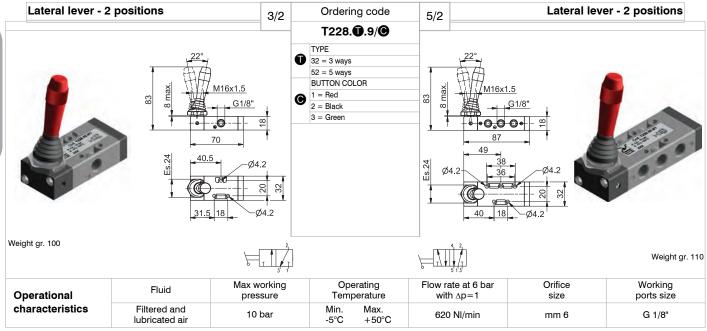


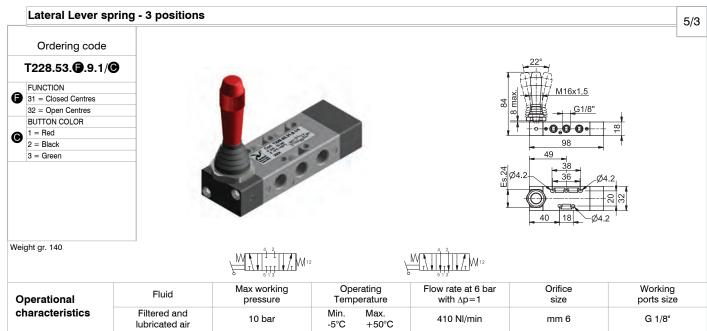


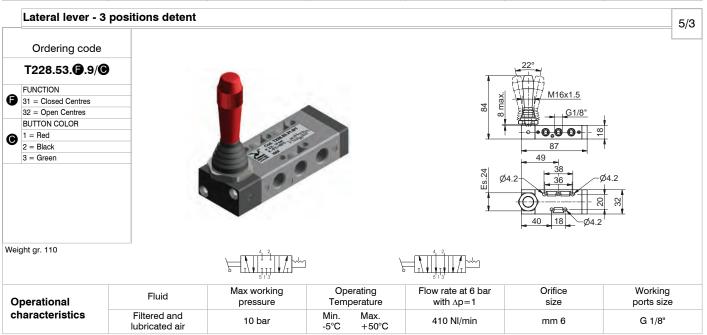


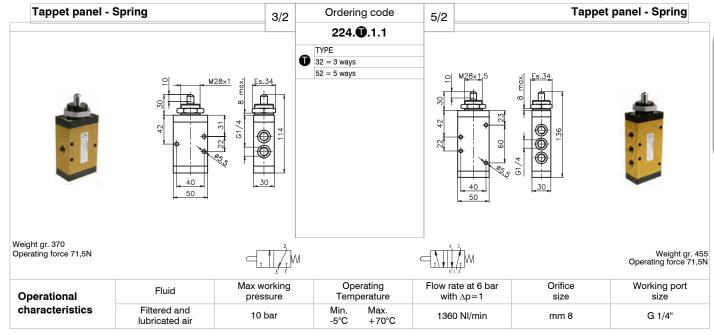


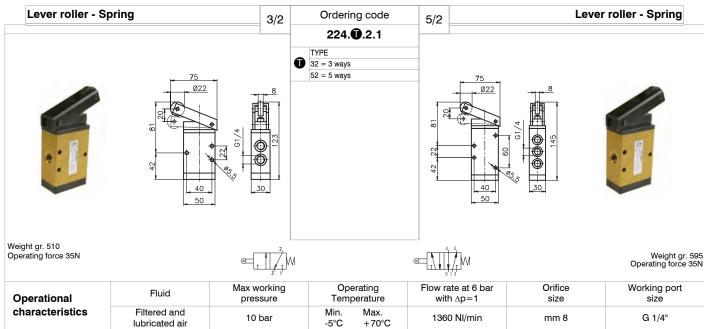


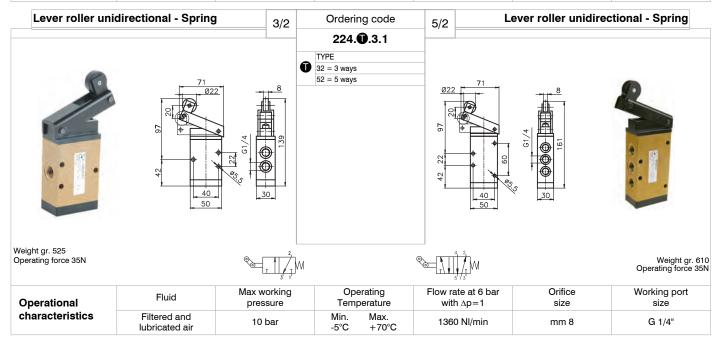


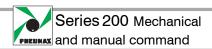


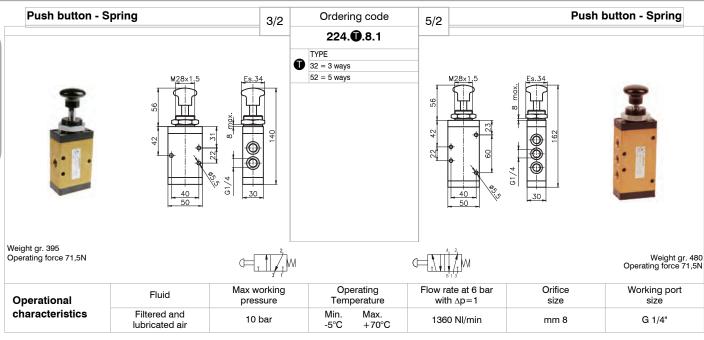


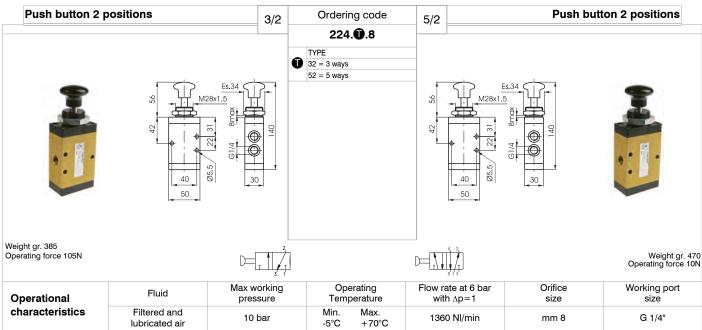


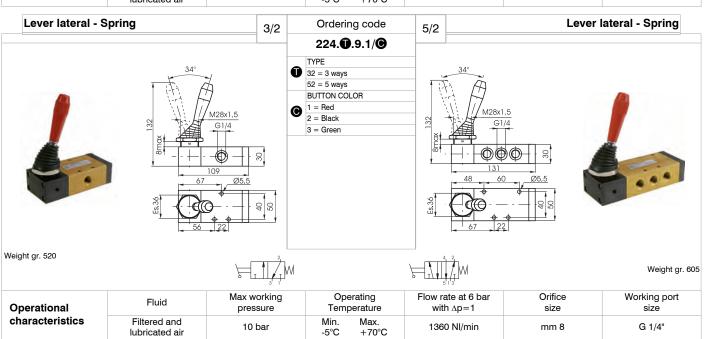


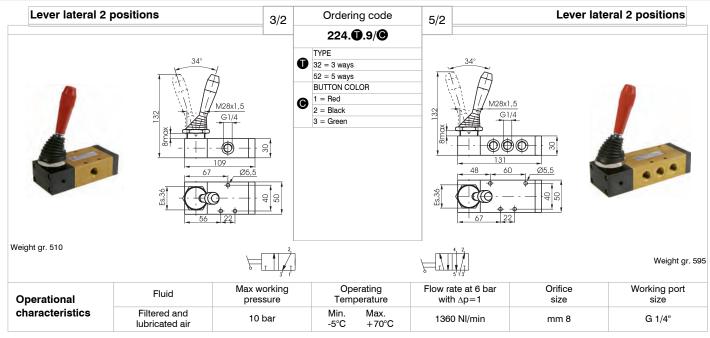


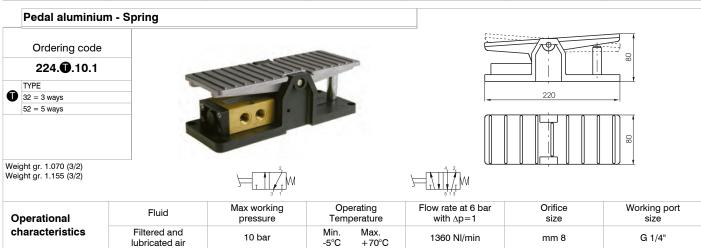


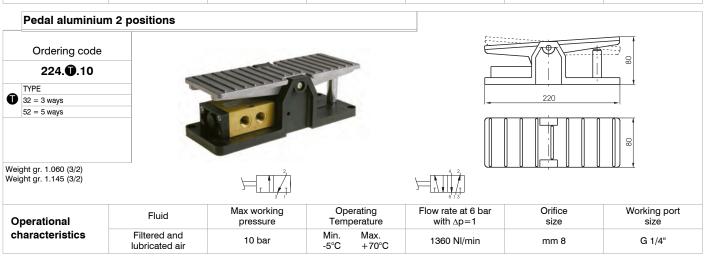


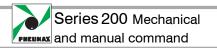


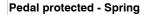












Ordering code

214.0.10.0

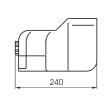
TYPE Û 32 = 3 ways 52 = 5 ways VERSION

1/1 = Standard version 2/1 = without safety device

Weight gr. 1.730





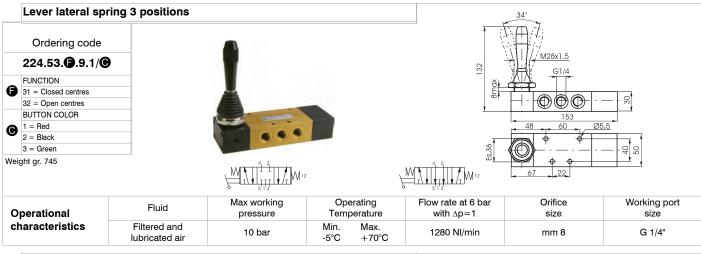


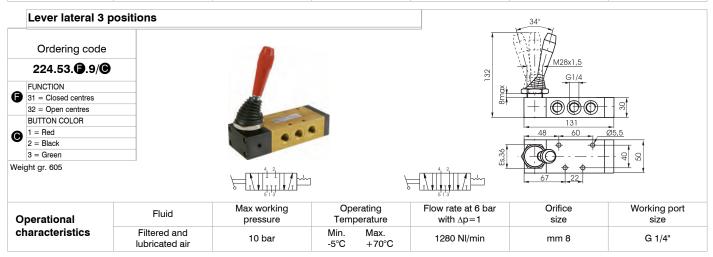




Operational	Fluid	Max working pressure	Operating Temperature	Flow rate at 6 bar with ∆p=1	Orifice size	Working port size
characteristics	Filtered and lubricated air	10 bar	Min. Max. -5°C +70°C	1360 NI/min	mm 8	G 1/4"

Pedal protected 2 positions Ordering code 214.0.10/1 TYPE 32 = 3 ways 52 = 5 ways 240 150 Weight gr. 1.730 Max working Operating Flow rate at 6 bar Orifice Working port Fluid Operational pressure Temperature with ∆p=1 size characteristics Filtered and Min Max G 1/4" 10 bar 1360 NI/min mm 8 +70°C -5°C lubricated air

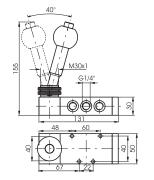




Lever lateral with locking device - 2 positions







Weight gr. 825

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\ [•	П	4
\Box	τ\ •	Н	1/T
8 -		5	13

Operational	Fluid	Max working pressure	Operating Temperature	Flow rate at 6 bar with ∆p=1	Orifice size	Working port size
characteristics	Filtered and lubricated air	10 bar	Min. Max. -5°C +70°C	1020 NI/min	mm 8	G 1/4"

Lever lateral with locking device - Spring 3 positions Ordering code 224.53. 3.9.2 FUNCTION 31 = Closed centres 32 = Open centres Weight gr. 965 Max working Operating Flow rate at 6 bar Orifice Working port Fluid Operational pressure Temperature with $\Delta p = 1$ size characteristics Filtered and Min

Max 10 bar 1020 NI/min mm 8 G 1/4" +70°C lubricated air -5°C Pedal - Spring 3 positions Ordering code 224.53. 3.10.1 FUNCTION 31 = Closed centres 32 = Open centres Weight gr. 1.285 M 12 MTTT M12

		513	,	513		
Operational	Fluid	Max working pressure	Operating Temperature	Flow rate at 6 bar with ∆p=1	Orifice size	Working port size
characteristics	Filtered and	10 bar	Min. Max. -5°C +70°C	1280 NI/min	mm 8	G 1/4"



