



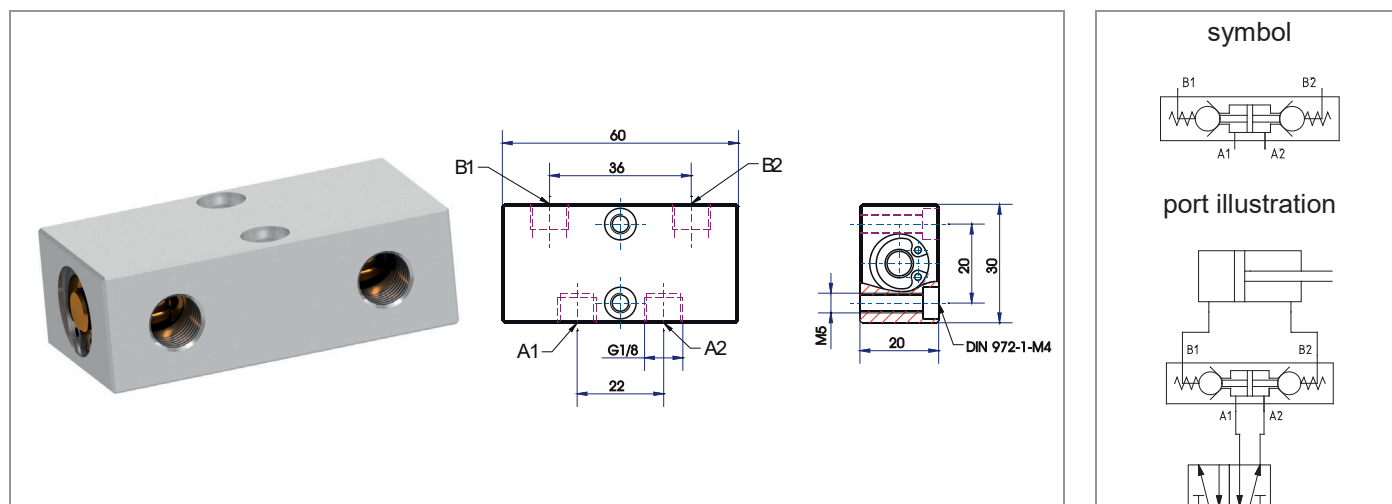
Stop valves

Version: 10/2021



pressure-safety-valve

type DSV, port 1/8"



The pressure-safety-valve is used to fix the position of a double-effect-cylinder, if the pressure will be lost. The valve consists of two pneumatically operated non-return-valves. The valve is mounted between the control-valve (port A1, A2) and the cylinder (port B1, B2), as shown on the port illustration. If the pressure is lost, both outlet ports for the cylinder will be closed.

SPECIFICATION	
general	
type	seat valve
operator	pneumatic
reset	spring
ports	G1/8"
ambient temperature	-20°C to +60°C
fluid temperature	-20°C to +60°C
material	body anodized aluminium, internal parts brass and POM, seal NBR, ball ceramics
mounting	mounting holes or M5 inner thread
installation	in any position
pneumatic	
fluid	filtered, lubricated or non-lubricated air
operating pressure	1 - 10 bar
nominal flow	A → B (fill) 230 NI/min, B → A (exhaust) 360 NI/min ($p_1=6\text{bar}$, $\Delta p=1\text{bar}$)
nominal diameter	DN 4 mm
special functions	The pressure between the pressure-safety-valve and the cylinder is 0.25bar lower than the air supply pressure.

type	article-nr.	weight (approx. g)
DSV1	90 000 107	100
DSV1 with manual exhaust	90 000 969	100

Non return valve pneumatic controlled

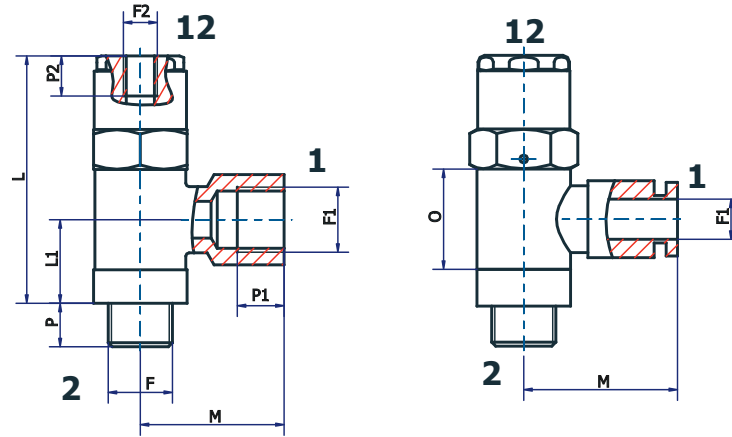
type HRP..., size 1/8" to 1/2"



SPECIFICATION	
general	
type	non return valve with elastic seat
operator	by compressed air
return	spring return
ports	port 2 male thread BSP, port 1 female thread BSP or push in raccord, port 12 female thread M5 or 1/8" BSP
ambient temperature	-10°C to +60°C
fluid temperature	-10°C to +60°C
material	metal parts: brass nickel plated and stainless steel springs: stainless steel seals: perbunan (NBR), FPM on request washer: nylon
installation	in any position, ring piece turn able 360° before the valve is tightened
pneumatic	
fluid	neutral gazes, filtered, lubricated or non lubricated compressed air, other fluids on request
operating pressure	0.3 - 10 bar
control Pressure	see diagram

Non return valve pneumatic controlled

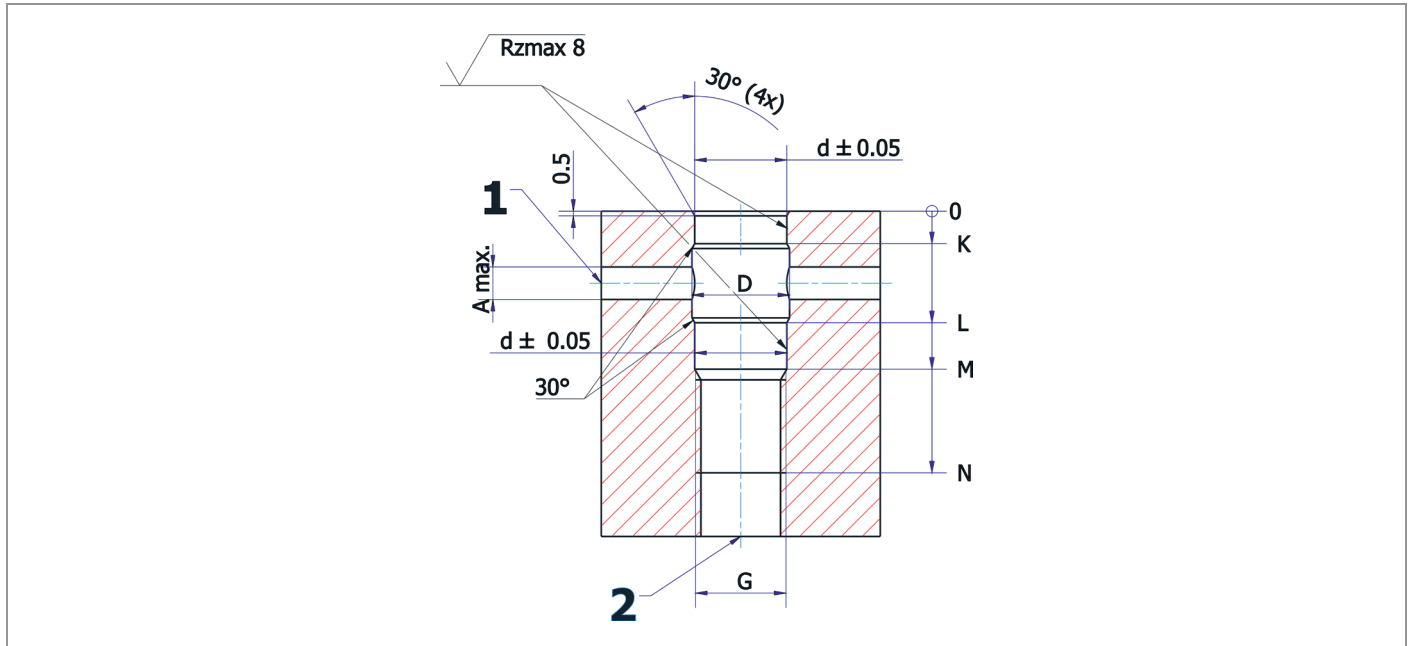
type HRP..., size 1/8" to 1/2"



type	article-nr.	F	F1	F2	L	L1	M	O*	P	P1	P2	SW	weight (approx. g)
HRP1X	90 000 038	G1/8 A	-	M5	37.5	-	-	15	6.5	-	6	14	30
HRP11	90 000 039	G1/8 A	G1/8			21	7			48			
HRP1A	90 000 613	G1/8 A	4			21	-			48			
HRP1C	90 000 146	G1/8 A	6			25	-			48			
HRP2X	90 000 023	G1/4 A	-	G1/8	42.5	-	-	17	7	-	7	17	50
HRP22	90 000 040	G1/4 A	G1/4			25	8			75			
HRP2C	90 000 147	G1/4 A	6			27.5	-			75			
HRP2D	90 000 148	G1/4 A	8			32	-			82			
HRP3X	90 000 133	G3/8 A	-	G1/8	46	-	-	20	9	-	7	19	90
HRP33	90 000 110	G3/8 A	G3/8			31	10			120			
HRP3D	90 000 149	G3/8 A	8			31.5	-			110			
HRP3E	90 000 150	G3/8 A	10			36	-			120			
HRP4X	90 000 132	G1/2 A	-	G1/8	51.5	-	-	24	10	-	7	24	155
HRP44	90 000 151	G1/2 A	G1/2			40	14			210			
HRP4F	90 000 152	G1/2 A	12			40.5	-			210			
HRP5X	90 000 978	G3/4 A	G3/4	G1/8	57	-	-	27	12	-	7	36	95
HRP55	90 000 950	G3/4 A	G3/4			18.5	39			14			140

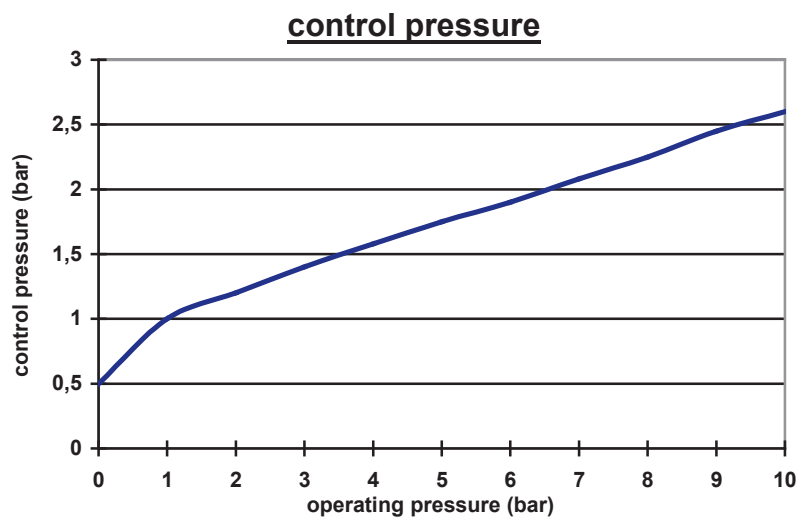
Non return valve pneumatic controlled

type HRP..., size 1/8" to 1/2"



screw-in geometry for HRP.X (without ring piece)									
for typ:	article-nr.	G	d	D	A	K	L	M	N
HRP1X	90 000 038	G1/8	9.9	10.5	7	3.5	12	17	28
HRP2X	90 000 023	G1/4	13.3	14	8	3.5	12	19	30
HRP3X	90 000 133	G3/8	16.8	17.5	11	4	15	20	35
HRP4X	90 000 132	G1/2	21	22	13	4.2	20	25	40
HRP5X	90 000 878	G3/4	26.6	28.5	17.8	4.2	22	32	45

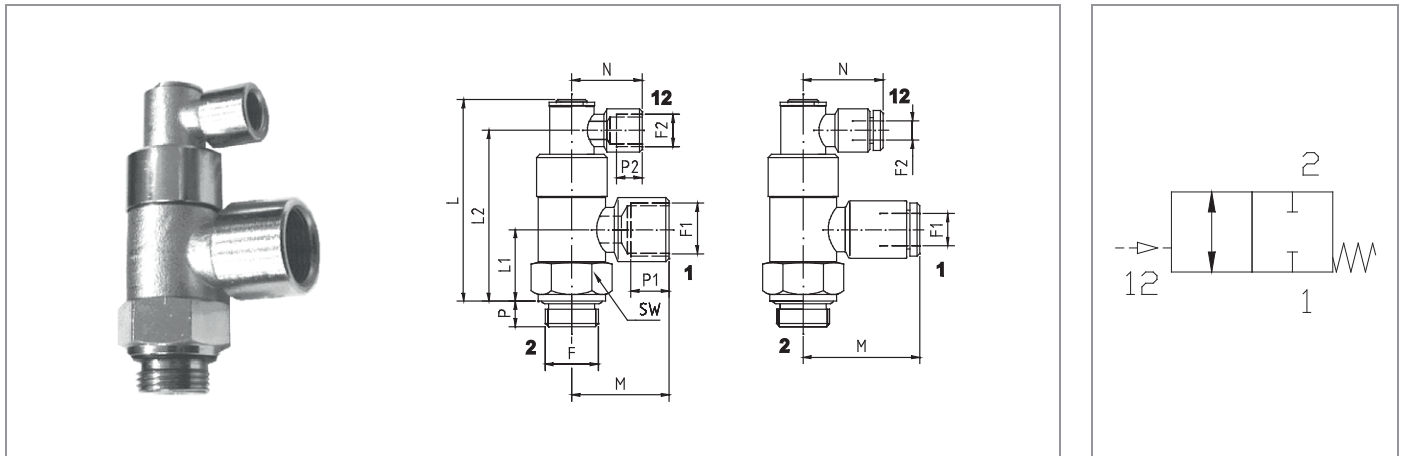
size	DN [mm]	QN 1→2 [NI/min]	QN 2→1 [NI/min]	max. torque moment [Nm]	min. pressure in flow direction [bar]
1/8"	3.0	220	280	1.2	0.2
1/4"	4.4	340	460	1.8	0.2
3/8"	5.7	700	910	3.5	0.2
1/2"	8.8	1450	1660	4.0	0.15



Stop-valve

pneumatic controlled

type HVP..., size G1/8" to G1/2"



SPECIFICATION	
general	
construction	2/2-spool valve, normally closed (NC)
operator	pneumatic
return	spring return
connections	port 2: male thread BSP, port 1: female thread BSP or push in raccord port 12: female thread 1/8" BSP or push in raccord 4mm diameter
ambient temperature	-10°C to +70°C
fluid temperature	-10°C to +70°C
material	metal parts: brass nickel plated and stainless steel springs: stainless steel seals: perbunan (NBR), FPM on request
installation position	in any position, ring pieces revolvable also if the valve is tightened
pneumatic	
fluid	neutral gazes, filtered, lubricated or non lubricated compressed air, other fluids on request
operating pressure	0 – 10bar
control pressure	see diagram
special version	with T-ring piece or as manual operated version on request

type	article-nr.	F	F1	F2	L	L1	L2	M	N	P	P1	P2	SW	weight (approx. g)
HVP111	90 000 115	G1/8 A	G1/8	G1/8	51.5	16	42	21	21	6	7	7	14	68
HVP11A	90 000 160	G1/8 A	G1/8	4				21	21.3		7	-		
HVP1CA	90 000 139	G1/8 A	6	4				25	25		-	-		
HVP221	90 000 116	G1/4 A	G1/4	G1/8	57.5	19.5	48	25	21	8	8	7	17	104
HVP22A	90 000 161	G1/4 A	G1/4	4				25	21.3		8	-		
HVP2CA	90 000 140	G1/4 A	6	4				27.5	25		-	-		
HVP2DA	90 000 141	G1/4 A	8	4				32	21.3		-	-		
HVP331	90 000 117	G3/8 A	G3/8	G1/8	63	22.5	53.5	31	21	8	10	7	22	150
HVP33A	90 000 162	G3/8 A	G3/8	4				31	21.3		10	-		
HVP33C	90 000 352	G3/8 A	G3/8	6				31	23		10	-		
HVP3DA	90 000 142	G3/8 A	8	4				31.5	25		-	-		
HVP3EA	90 000 143	G3/8 A	10	4				36	21.3		-	-		
HVP441	90 000 144	G1/2 A	G1/2	G1/8	71.5	27	61.5	40	21	12	14	7	27	239
HVP4FA	90 000 145	G1/2 A	12	4				40.5	25		-	-		
HVP551	90 000 878	G3/4 A	G3/4	G1/8	81.6	32.7	72	39	21.6	12	14	7	32	160

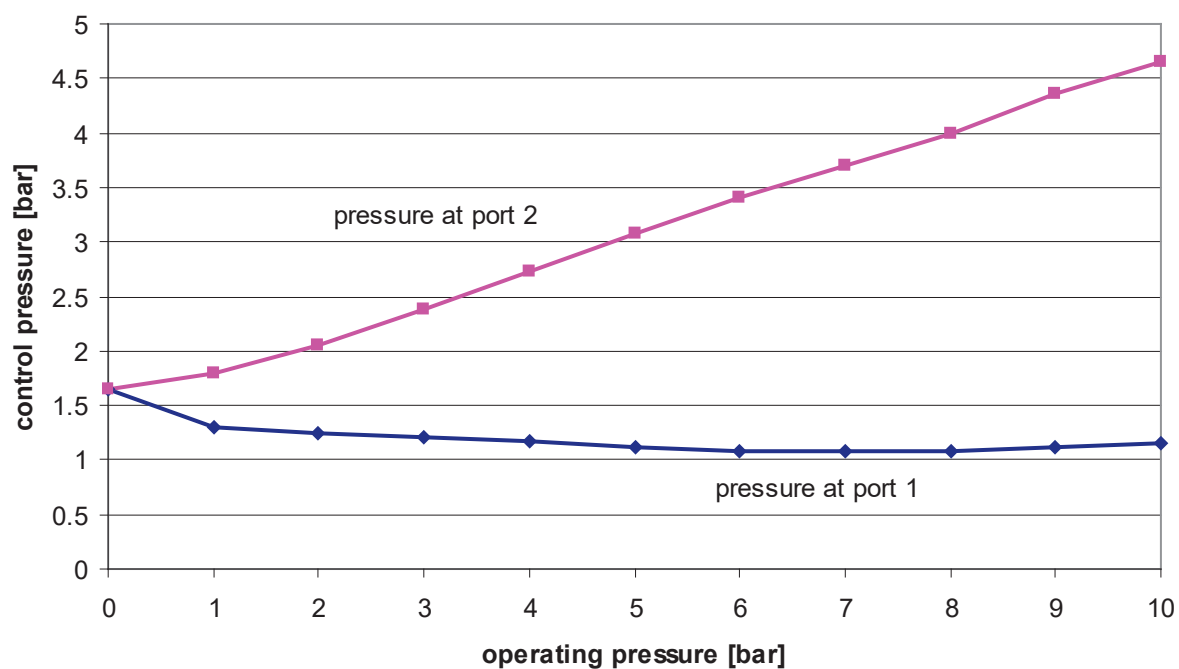
Stop-valve

pneumatic controlled

type HVP..., size G1/8" to G1/2"

size	DN [mm]	QN [NI/min]	max. torque-moment [Nm]
1/8"	4.0	300	3.0
1/4"	5.6	700	7.0
3/8"	7.7	1200	9.0
1/2"	10.0	2100	15.0

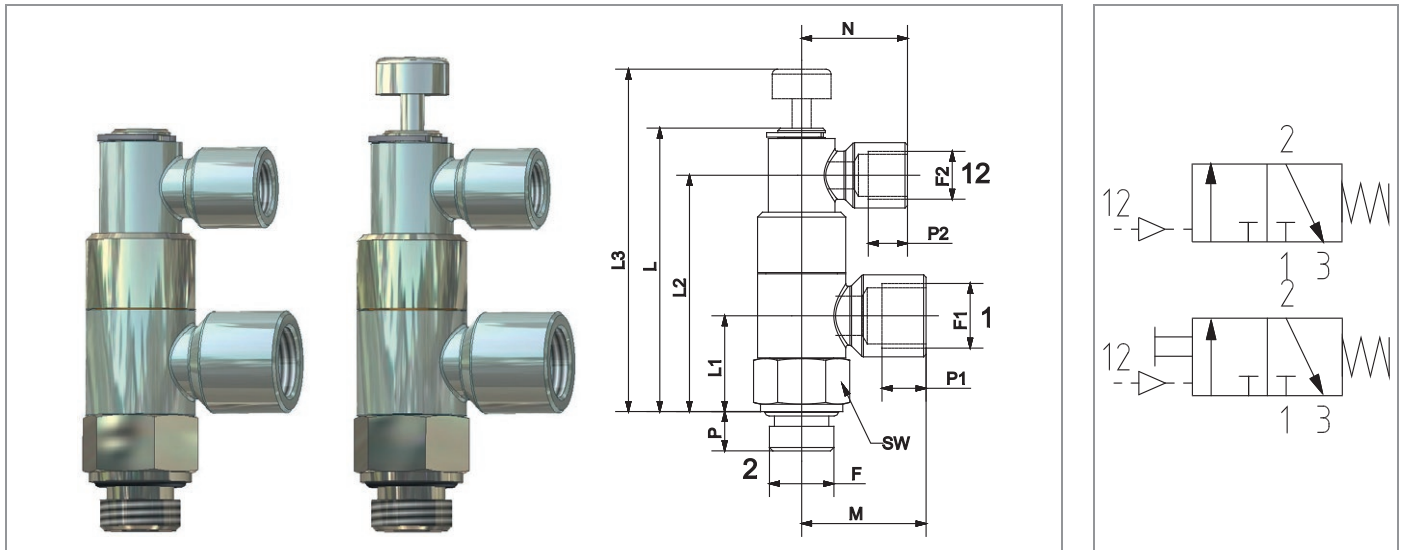
Control pressure



3/2-way non return valve pneumatic controlled

type HEP..., size 1/8" and 1/4"

type HEP...M, size 1/8" and 1/4", with manual override



SPECIFICATION	
general	
type	3/2-spool valve, normal closed (NC)
operator	pneumatic or manual
return	spring return
ports	port 2: male thread BSP, port 1: female thread BSP or push in raccord port 12: female thread M5 or 1/8" BSP
ambient temperature	-10°C to +70°C
fluid temperature	-10°C to +70°C
material	metal parts: brass nickel plated and stainless steel springs: stainless steel seals: perbunan (NBR)
installation	in any position, ring pieces revolvable also if the valve is tightened
pneumatic	
fluid	neutral gazes, filtered, lubricated or non lubricated compressed air, other fluids on request
operating pressure	0 - 10 bar
control pressure	see diagram

type	article-nr.	F	F1	F2	L	L1	L2	L3	M	N	P	P1	P2	SW	weight (approx. g)
HEP111	90 000 438	G1/8 A	G1/8	G1/8	51.5	16	42		21.5	21.5	6	7	7	14	66
HEP1CA	90 000 439	G1/8 A	6	4					25	25		-	-		68
HEP221	90 000 440	G1/4 A	G1/4	G1/8					25.5	21.5		8	7		102
HEP2CA	90 000 441	G1/4 A	6	4	57.5	19.5	48		27.5	25	8	-	-	17	102
HEP2DA	90 000 442	G1/4 A	8						32			-	-		108
HEP111M	90 000 443	G1/8 A	G1/8	G1/8						16		42	64.5		21.5
HEP1CAM	90 000 444	G1/8 A	6	4					25	25	-	-	72		
HEP221M	90 000 445	G1/4 A	G1/4	G1/8					25.5	21.5	8	7	106		
HEP2CAM	90 000 446	G1/4 A	6	4	19.5	48	71.0		27.5	25	8	-	-	17	106
HEP2DAM	90 000 447	G1/4 A	8						32			-	-		112

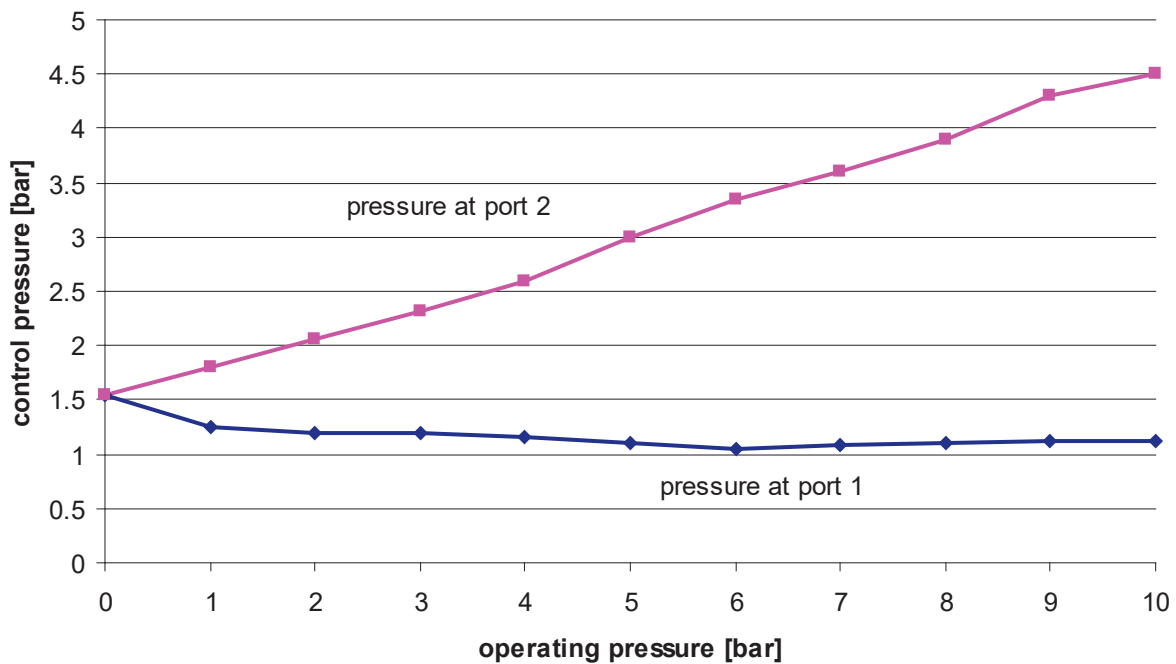
3/2-way non return valve pneumatic controlled

type HEP..., size 1/8" and 1/4"

type HEP...M, size 1/8" and 1/4", with manual override

size	DN (mm)	QNn 1→2 (NI/min)	QNn 2→3 (NI/min)	max. torque moment (Nm)
1/8"	4.0	300	75	3.0
1/4"	5.6	700	100	7.0

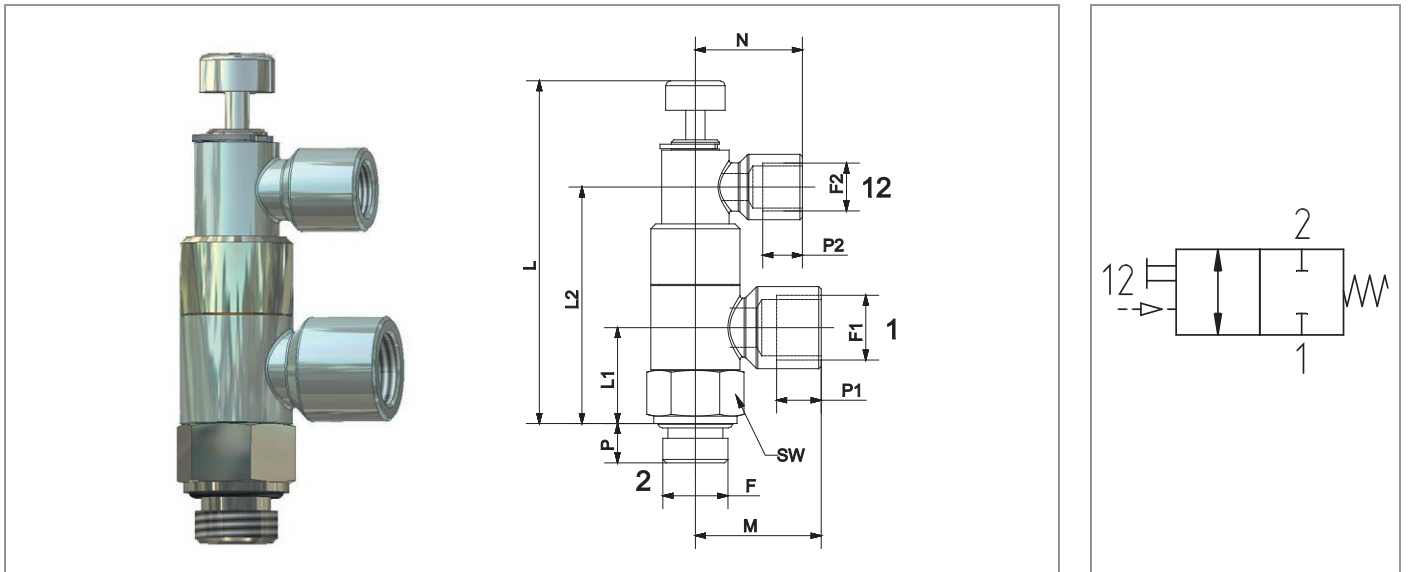
Control pressure



Stop-valve

pneumatic controlled, with manual override

type HVP...M, size 1/8" and 1/4"



SPECIFICATION	
general	
construction	2/2-spool valve, normal closed (NC)
operator	pneumatic or manual
return	spring return
connections	port 2: male thread BSP, port 1: female thread BSP or push in raccord, port 12: female thread M5 or 1/8" BSP
ambient temperature	-10°C to +70°C
fluid temperature	-10°C to +70°C
material	metal parts: brass nickel plated and stainless steel springs: stainless steel seals: perbunan (NBR)
installation position	in any position, ring piece revolvable also if the valve is tightened
pneumatic	
fluid	neutral gazes, filtered, lubricated or non lubricated compressed air, other fluids on request
operating pressure	0-10 bar
control pressure	see diagram

type	article-nr.	F	F1	F2	L	L1	L2	M	N	P	P1	P2	SW	weight (approx. g)
HVP111M	90 000 433	G1/8 A	G1/8	G1/8	64.5	16	42	21.5	21.5	6	7	7	14	72
HVP1CA M	90 000 434	G1/8 A	6	4				25	25		-	-		74
HVP221M	90 000 435	G1/4 A	G1/4	G1/8	71.0	19.5	48	25.5	21.5	8	8	7	17	108
HVP2CA M	90 000 436	G1/4 A	6	4				27.5	25		-	-		108
HVP2DA M	90 000 437	G1/4 A	8					32			-	-		114

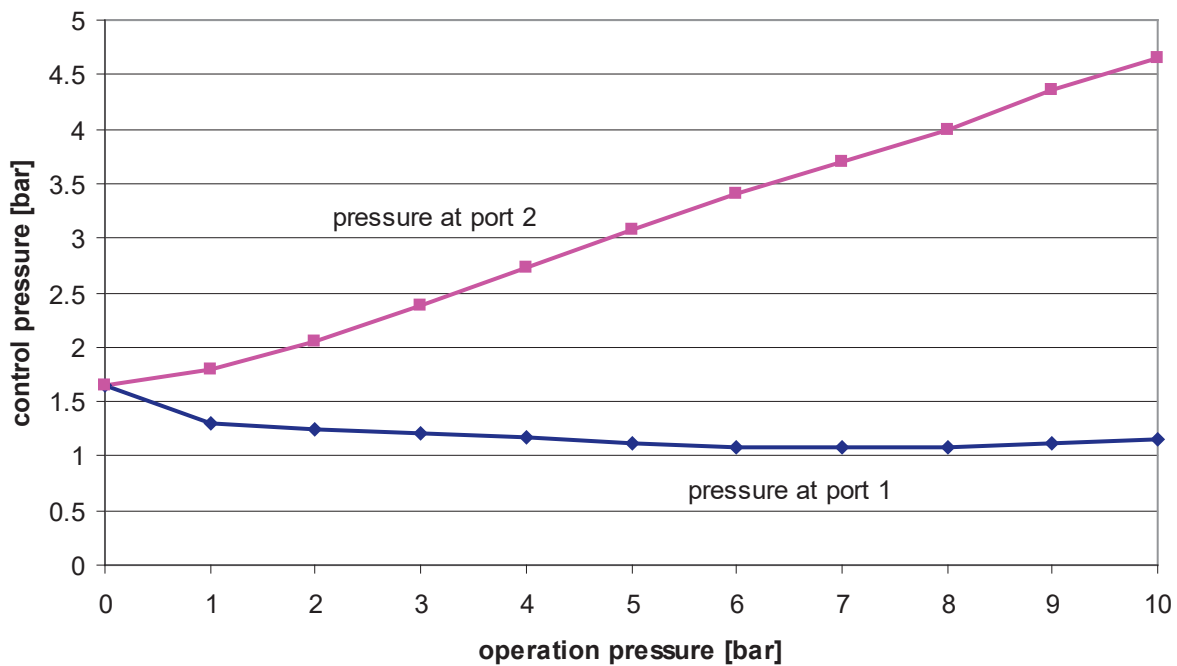
Stop-valve

pneumatic controlled, with manual override

type HVP...M, size 1/8" and 1/4"

size	DN [mm]	QNn [NI/min]	max. torque moment [Nm]
1/8"	4.0	300	3.0
1/4"	5.6	700	7.0

Control pressure

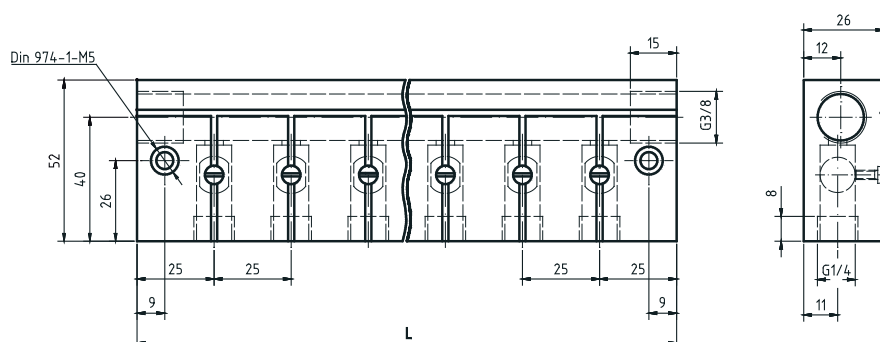


Distributor block with integral ball valves

type KPV



SPECIFICATION	
description	distributor block with integral ball valves
type	KPV 5226-...E
pressure range	vacuum to 10 bar
operation	screwdriver (width 4 to 6 mm)
rotation angle	90°
temperature range	-10° C to +100° C
orifice (per channel)	DN 8 mm
material	body: anodised aluminium alloy ball and spindle: chromed brass ball seals: PTFE O-Ring: perbunan (NBR)
mounting	via 2 holes in body, for M5 screws
other versions	on application: specified number of outlets, control knob operation



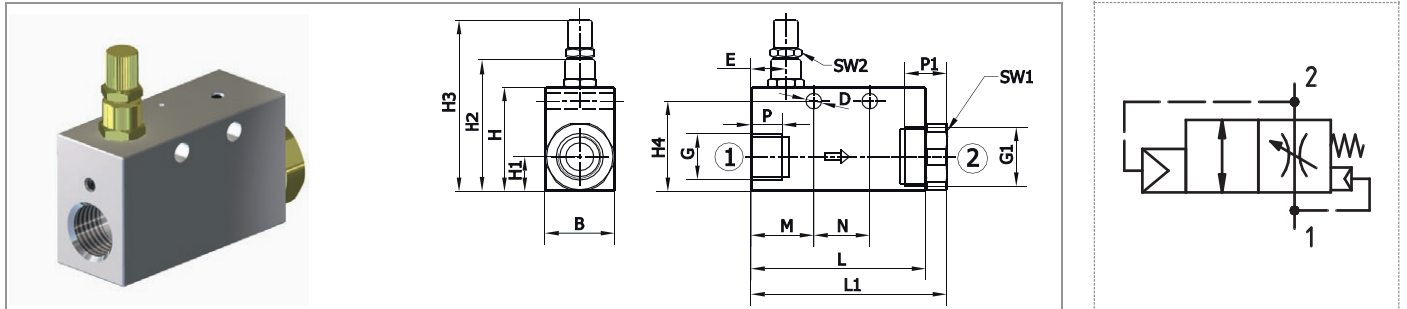
This handy unit serves as a compact distributor and isolator block in complex machines and installations, where it is necessary to open or close individual circuits.

The slot in the spindles indicates the open or closed status of the individual channels.

type	article-nr.	number of outlets	length (mm)	weight (approx. g)
KPV 5226 - 6E	90 000 010	6	175	650
KPV 5226 - 8E	90 000 427	8	225	730
KPV 5226 - 10E	90 000 459	10	275	890

2/2- way soft start valve

Typ WSV..., size G1/4 to G1/2



Specification														
generell														
type of construction	coaxial system													
operator	by compressed air, load valve adjustable and lockable													
return	mechanical spring													
ambient temperature	-10°C bis +70°C													
fluid temperature	-10°C bis +70°C													
material	body and internal parts: aluminium anodized, POM spring: stainless steel load valve and hexagonal fitting: brass seals: perbunan (NBR) and polyurethane (AU)													
mounting	2 holes for screws M4 or pipe installation													
installation	in any position													
pneumatic data														
function	2/2-NC													
fluid	filtered, lubricated or non lubricated compressed air, other fluids on request													
operating pressure	0,5 - 10 bar													
nominal flow	G 1/4": 1380 NI/min (kv – Wert: 1,26 m3/h), G 1/2": 3500 NI/min (kv – Wert: 3,24 m3/h)													
nominal flow load valve	G 1/4": 0 – 100 NI/min, G 1/2": 0-200 NI/min													
nominal diameter	G 1/4": DN 7.5 mm, G 1/2": DN 12 mm													
free flow	appr. 60% of input pressure $p_e = 6 \text{ bar}$ ($p_1 = 0.6 p_e$)													
max. frequency	5/Sec.													
type	code	G	G1	B	D	E	H	H1	H2	H3	H4	L	L1	
WSV2	90000178	G1/4	G1/4	20	4.5	10	30	10	38	49 - 52	26	50	56	
WSV4	90000179	G1/2	G1/2	30	4.5	13	40	15	48	59 - 62	36	65	75.8	

type	M	N	SW1	SW2	P	P1	QNn (NI/min)	Weight (ca. g)
WSV2	18	16	19	8	9	9	1380	90
WSV4	26.5	16	27	8	11	11	3500	220

Soft start valves type WSV are used to provide a controlled pressure build-up in pneumatic systems. They are equally suitable for use with a group of valves or between a single valve and cylinder. The main pressure p_e at inlet port 1 passes to the outlet port 2 via a load valve (adjustable). Adjusting the load valve allows the pressure build-up time to be set as required. The valve switches over if 60% of the inlet pressure is reached.

In the absence of main pressure p_e at the inlet port of the soft start valve, the valve exhausts from port 2 back through port 1.

