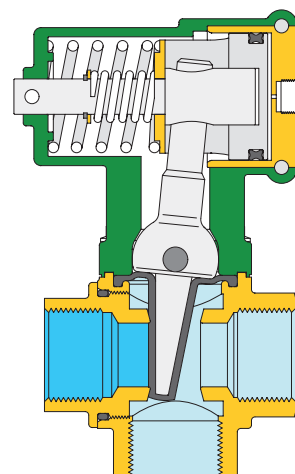


SIGMA Valves

SIGMA the valve concept
from AVS Römer



shown
3/2-way version



Especially economical valve series with coaxial flow or corner flow, in 2/2- and 3/2-way version with pneumatically operated piston.

The pivoting lever with the membrane placed on it, results in very low-friction force transfer with high sealing capacity. This constructional design also permits a small-dimensioned pneumo-drive due to the "lever effect" and thus very low space requirement

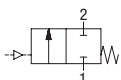
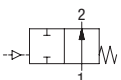
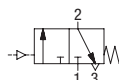
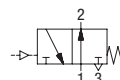
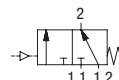
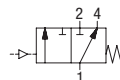
for the valve. An additional spring limits the force with which the membrane is pressed against the working seat.

Other features:

- Series encompasses all possible functions of 2/2- and 3/2-way valves
- large variety of membrane materials (in-house production!)

- variety of versions avoiding liquid pressure surges
- suitable for dirty media
- easily dismantled, e.g. for cleaning
- high flow performance
- Medium only comes into contact with body material (brass) and membrane material
- optical position display as standard

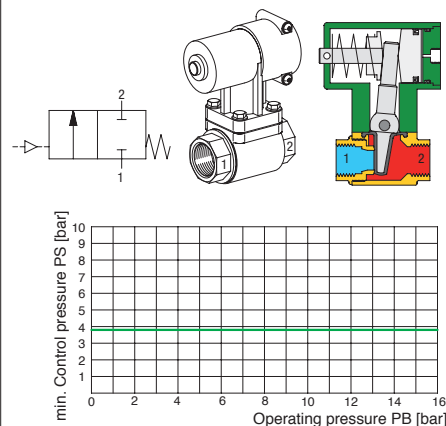
CHARACTERISTICS
GENERAL

Constructional design	Piston actuated valve with membrane seal					
Product name	2/2-way Piston actuated valve			3/2-way Piston actuated valve		
Product Type	PKV-13.-A..	PKV-13.-B..	PKV-137-C..	PKV-137-D..	PKV-137-E..	PKV-137-F..
Function	A 	B 	C 	D 	E 	F 
Nominal diameter DN	DN 15 and DN 20					
Port size	Thread (ISO 228) G 1/2 and G 3/4					
Ambient temperature	-10 °C to +60 °C (others on request)					
Medium temperature	NBR: 0 °C to +70 °C, HNBR: +10 °C to +90 °C, EPDM: -10 °C to +120 °C, FKM: +10 °C to +120 °C					
Medium viscosity	up to approx. 400 mm ² /s					
Valve body material	Brass					
Membrane material	NBR (nitrile rubber) HNBR (hydrogenated nitrile rubber) EPDM (ethylene propylene diene rubber) FKM (fluoride rubber)					
Drive material	shape-retaining plastic (PA)					
Mounting method	Installation in rigid pipe system					
Mounting position	optional, preferably drive above					
PNEUMATIC - HYDRAULIC						
Nominal pressure (bar)	up to PN 16 [bar] (observe permitted operating pressure OP!)					
Pressure range	0 up to permitted operating pressure OP in bar according to table (vacuum on request)					
Flow rate	Kv-value according to table					
Medium (examples)	gaseous or fluids Sealing material NBR: Compressed air, neutral gases, water, oils and grease without additives Sealing material HNBR: Compressed air, neutral gases, alloyed oils Sealing material EPDM: Hot water, alkaline detergent solutions, oil- and grease-free media, steam Sealing material FKM: Solvents, hot water, hot air above 90 °C					
Control medium	Compressed air and neutral gases					
Control medium temperature	-10 °C to +60 °C					
Control pressure	min. Control pressure according to table up to max. 10 bar					
Response time	Open and closing time: 50 ms to 900 ms respectively, according to media and control pressure					

2/2-Way Coaxial Piston Actuated Valve - Type PKV Series 100

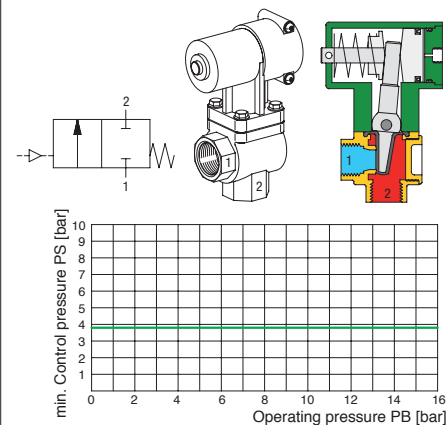
Price group	59	"A" in 0-position closed (closing against the flow)	For neutral, gaseous or fluids	DN 15 (G 1/2) and DN 20 (G 3/4)	Brass
-------------	-----------	---	--------------------------------	---------------------------------	--------------

DN	Kv-value water [m ³ /h]	G	OP	PS	Sealing material	Type	Order number	Price
15	4.8	G 1/2	0 - 16	3.8 - 10	NBR	PKV-131-A11-1/2B	626201	o. r.
15	4.8	G 1/2	0 - 16	3.8 - 10	HNBR	PKV-131-A11-1/2H	626202	o. r.
15	4.8	G 1/2	0 - 16	3.8 - 10	EPDM	PKV-131-A11-1/2P	626203	o. r.
15	4.8	G 1/2	0 - 16	3.8 - 10	FKM	PKV-131-A11-1/2F	626205	o. r.
20	8	G 3/4	0 - 10	3.8 - 10	NBR	PKV-131-A11-3/4B	626206	o. r.
20	8	G 3/4	0 - 10	3.8 - 10	HNBR	PKV-131-A11-3/4H	626207	o. r.
20	8	G 3/4	0 - 10	3.8 - 10	EPDM	PKV-131-A11-3/4P	626208	o. r.
20	8	G 3/4	0 - 10	3.8 - 10	FKM	PKV-131-A11-3/4F	626210	o. r.

Illustration

2/2-Way 90° Piston Actuated Valve - Type PKV Series 100

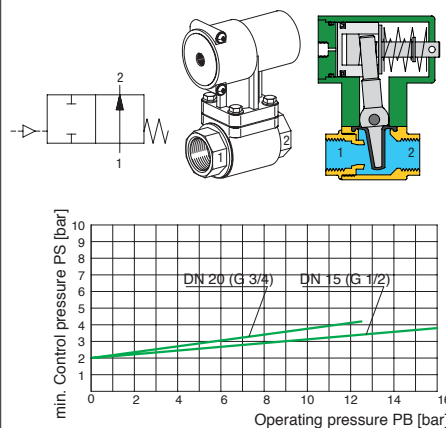
Price group	59	"A" in 0-position closed (closing against the flow)	For neutral, gaseous or fluids	DN 15 (G 1/2) and DN 20 (G 3/4)	Brass
-------------	-----------	---	--------------------------------	---------------------------------	--------------

DN	Kv-value water [m ³ /h]	G	OP	PS	Sealing material	Type	Order number	Price
15	5.8	G 1/2	0 - 16	3.8 - 10	NBR	PKV-134-A12-1/2B	626301	o. r.
15	5.8	G 1/2	0 - 16	3.8 - 10	HNBR	PKV-134-A12-1/2H	626302	o. r.
15	5.8	G 1/2	0 - 16	3.8 - 10	EPDM	PKV-134-A12-1/2P	626303	o. r.
15	5.8	G 1/2	0 - 16	3.8 - 10	FKM	PKV-134-A12-1/2F	626305	o. r.
20	11.7	G 3/4	0 - 10	3.8 - 10	NBR	PKV-134-A12-3/4B	626306	o. r.
20	11.7	G 3/4	0 - 10	3.8 - 10	HNBR	PKV-134-A12-3/4H	626307	o. r.
20	11.7	G 3/4	0 - 10	3.8 - 10	EPDM	PKV-134-A12-3/4P	626308	o. r.
20	11.7	G 3/4	0 - 10	3.8 - 10	FKM	PKV-134-A12-3/4F	626310	o. r.

Illustration

2/2-Way Coaxial Piston Actuated Valve - Type PKV Series 100

Price group	59	"B" in 0-position open (closing against the flow)	For neutral, gaseous or fluids	DN 15 (G 1/2) and DN 20 (G 3/4)	Brass
-------------	-----------	---	--------------------------------	---------------------------------	--------------

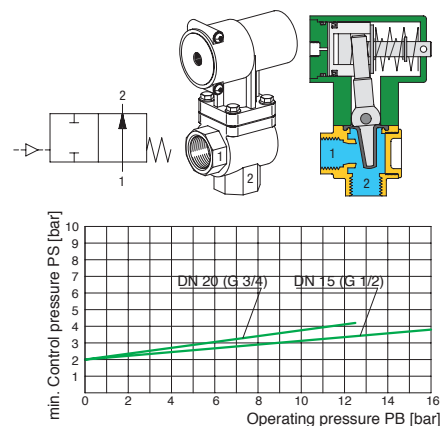
DN	Kv-value water [m ³ /h]	G	OP	PS	Sealing material	Type	Order number	Price
15	4.8	G 1/2	0 - 16	2 - 10	NBR	PKV-131-B82-1/2B	626401	o. r.
15	4.8	G 1/2	0 - 16	2 - 10	HNBR	PKV-131-B82-1/2H	626402	o. r.
15	4.8	G 1/2	0 - 16	2 - 10	EPDM	PKV-131-B82-1/2P	626403	o. r.
15	4.8	G 1/2	0 - 16	2 - 10	FKM	PKV-131-B82-1/2F	626405	o. r.
20	8	G 3/4	0 - 12.5	2 - 10	NBR	PKV-131-B82-3/4B	626406	o. r.
20	8	G 3/4	0 - 12.5	2 - 10	HNBR	PKV-131-B82-3/4H	626407	o. r.
20	8	G 3/4	0 - 12.5	2 - 10	EPDM	PKV-131-B82-3/4P	626408	o. r.
20	8	G 3/4	0 - 12.5	2 - 10	FKM	PKV-131-B82-3/4F	626410	o. r.

Illustration


2/2-Way 90° Piston Actuated Valve Type PKV Series 100

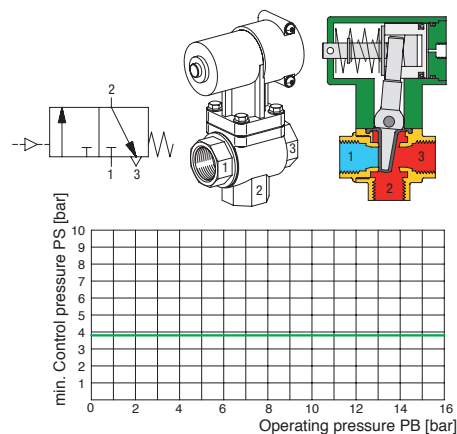
Price group	59	"B" in 0-position open (closing against the flow)	For neutral, gaseous or fluids	DN 15 (G 1/2) and DN 20 (G 3/4)	Brass
-------------	-----------	---	--------------------------------	---------------------------------	--------------

DN	Kv-value water [m³/h]	G	OP	PS	Sealing material	Type	Order number	Price
15	5.8	G 1/2	0 - 16	2 - 10	NBR	PKV-134-B81-1/2 B	626501	o. r.
15	5.8	G 1/2	0 - 16	2 - 10	HNBR	PKV-134-B81-1/2 H	626502	o. r.
15	5.8	G 1/2	0 - 16	2 - 10	EPDM	PKV-134-B81-1/2 P	626503	o. r.
15	5.8	G 1/2	0 - 16	2 - 10	FKM	PKV-134-B81-1/2 F	626505	o. r.
20	11.7	G 3/4	0 - 12.5	2 - 10	NBR	PKV-134-B81-3/4 B	626506	o. r.
20	11.7	G 3/4	0 - 12.5	2 - 10	HNBR	PKV-134-B81-3/4 H	626507	o. r.
20	11.7	G 3/4	0 - 12.5	2 - 10	EPDM	PKV-134-B81-3/4 P	626508	o. r.
20	11.7	G 3/4	0 - 12.5	2 - 10	FKM	PKV-134-B81-3/4 F	626510	o. r.

Illustration

3/2-Way Piston Actuated Valve - Type PKV Series 100

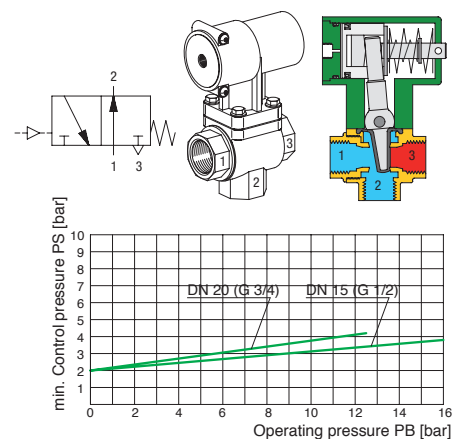
Price group	59	"C" in 0-position "1" closed, "2" to "3" discharged	For neutral, gaseous or fluids	DN 15 (G 1/2) and DN 20 (G 3/4)	Brass
-------------	-----------	---	--------------------------------	---------------------------------	--------------

DN	Kv-value water [m³/h]	G	OP	PS	Sealing material	Type	Order number	Price
15	5	G 1/2	0 - 16	3.8 - 10	NBR	PKV-137-C61-1/2B	626601	o. r.
15	5	G 1/2	0 - 16	3.8 - 10	HNBR	PKV-137-C61-1/2H	626602	o. r.
15	5	G 1/2	0 - 16	3.8 - 10	EPDM	PKV-137-C61-1/2P	626603	o. r.
15	5	G 1/2	0 - 16	3.8 - 10	FKM	PKV-137-C61-1/2F	626605	o. r.
20	8.9	G 3/4	0 - 10	3.8 - 10	NBR	PKV-137-C61-3/4B	626606	o. r.
20	8.9	G 3/4	0 - 10	3.8 - 10	HNBR	PKV-137-C61-3/4H	626607	o. r.
20	8.9	G 3/4	0 - 10	3.8 - 10	EPDM	PKV-137-C61-3/4P	626608	o. r.
20	8.9	G 3/4	0 - 10	3.8 - 10	FKM	PKV-137-C61-3/4F	626610	o. r.

Illustration

3/2-Way Piston Actuated Valve - Type PKV Series 100

Price group	59	"D" in 0-position "1" to "2" open, "3" closed	For neutral, gaseous or fluids	DN 15 (G 1/2) and DN 20 (G 3/4)	Brass
-------------	-----------	---	--------------------------------	---------------------------------	--------------

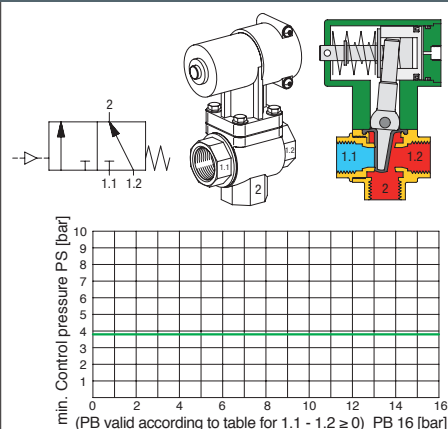
DN	Kv-value water [m³/h]	G	OP	PS	Sealing material	Type	Order number	Price
15	5	G 1/2	0 - 16	2 - 10	NBR	PKV-137-D82-1/2B	626651	o. r.
15	5	G 1/2	0 - 16	2 - 10	HNBR	PKV-137-D82-1/2H	626652	o. r.
15	5	G 1/2	0 - 16	2 - 10	EPDM	PKV-137-D82-1/2P	626653	o. r.
15	5	G 1/2	0 - 16	2 - 10	FKM	PKV-137-D82-1/2F	626655	o. r.
20	8.9	G 3/4	0 - 12.5	2 - 10	NBR	PKV-137-D82-3/4B	626656	o. r.
20	8.9	G 3/4	0 - 12.5	2 - 10	HNBR	PKV-137-D82-3/4H	626657	o. r.
20	8.9	G 3/4	0 - 12.5	2 - 10	EPDM	PKV-137-D82-3/4P	626658	o. r.
20	8.9	G 3/4	0 - 12.5	2 - 10	FKM	PKV-137-D82-3/4F	626660	o. r.

Illustration


3/2-Way Piston Actuated Valve - Type PKV Series 100

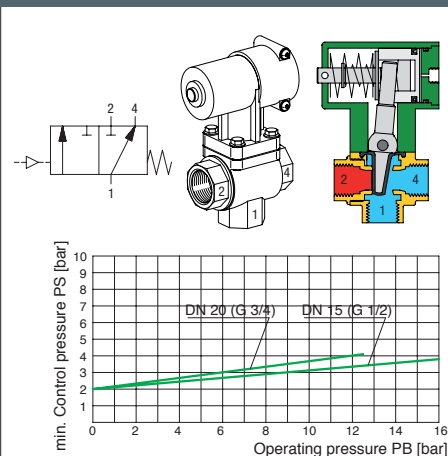
Price group	59	"E" in 0-position "1.1" to "2" closed, "1.2" to "2" open	For neutral, gaseous or fluids	DN 15 (G 1/2) and DN 20 (G 3/4)	Brass
-------------	-----------	--	--------------------------------	---------------------------------	--------------

DN	Kv-value water [m³/h]	G	OP	PS	Sealing material	Type	Order number	Price
15	5	G 1/2	0 - 16	3.8 - 10	NBR	PKV-137-E61-1/2B	626701	o. r.
15	5	G 1/2	0 - 16	3.8 - 10	HNBR	PKV-137-E61-1/2H	626702	o. r.
15	5	G 1/2	0 - 16	3.8 - 10	EPDM	PKV-137-E61-1/2P	626703	o. r.
15	5	G 1/2	0 - 16	3.8 - 10	FKM	PKV-137-E61-1/2F	626705	o. r.
20	8.9	G 3/4	0 - 10	3.8 - 10	NBR	PKV-137-E61-3/4B	626706	o. r.
20	8.9	G 3/4	0 - 10	3.8 - 10	HNBR	PKV-137-E61-3/4H	626707	o. r.
20	8.9	G 3/4	0 - 10	3.8 - 10	EPDM	PKV-137-E61-3/4P	626708	o. r.
20	8.9	G 3/4	0 - 10	3.8 - 10	FKM	PKV-137-E61-3/4F	626710	o. r.

Illustration

3/2-Way Piston Actuated Valve - Type PKV Series 100

Price group	59	"F" in 0-position "1" to "2" closed, "1" to "4" open	For neutral, gaseous or fluids	DN 15 (G 1/2) and DN 20 (G 3/4)	Brass
-------------	-----------	--	--------------------------------	---------------------------------	--------------

DN	Kv-value water [m³/h]	G	OP	PS	Sealing material	Type	Order number	Price
15	4.5	G 1/2	0 - 16	3 - 10	NBR	PKV-137-F71-1/2B	626751	o. r.
15	4.5	G 1/2	0 - 16	3 - 10	HNBR	PKV-137-F71-1/2H	626752	o. r.
15	4.5	G 1/2	0 - 16	3 - 10	EPDM	PKV-137-F71-1/2P	626753	o. r.
15	4.5	G 1/2	0 - 16	3 - 10	FKM	PKV-137-F71-1/2F	626755	o. r.
20	8	G 3/4	0 - 10	3 - 10	NBR	PKV-137-F71-3/4B	626756	o. r.
20	8	G 3/4	0 - 10	3 - 10	HNBR	PKV-137-F71-3/4H	626757	o. r.
20	8	G 3/4	0 - 10	3 - 10	EPDM	PKV-137-F71-3/4P	626758	o. r.
20	8	G 3/4	0 - 10	3 - 10	FKM	PKV-137-F71-3/4F	626760	o. r.

Illustration


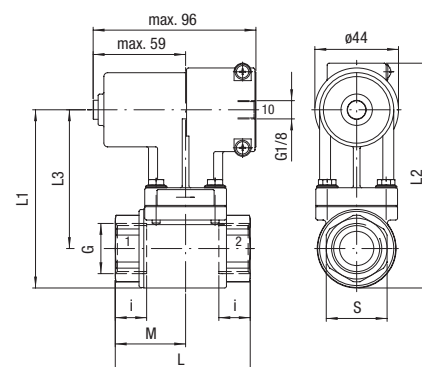
Dimension tables and drawings for SIGMA valves

2/2-Way Coaxial Piston Actuated Valve - Type PKV Series 100

Price group	59	DN 15 (G 1/2) and DN 20 (G 3/4)	Brass
-------------	-----------	---------------------------------	--------------

DN	G	L	i	L1	L2	L3	M	S
15	G 1/2	61	13.5	85	109.5	69	32	27
20	G 3/4	71	15.5	94	118.5	73	37	32

Illustration

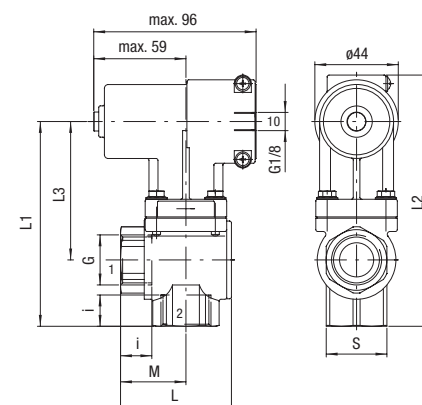


2/2-Way 90° Piston Actuated Valve - Type PKV Series 100

Price group	59	DN 15 (G 1/2) and DN 20 (G 3/4)	Brass
-------------	-----------	---------------------------------	--------------

DN	G	L	i	L1	L2	L3	M	S
15	G 1/2	53.5	13.5	99	123.5	69	29	27
20	G 3/4	58.5	15.5	108	132.5	73	34	32

Illustration



3/2-Way Piston actuated valve - Type PKV Series 100

Price group	59	DN 15 (G 1/2) and DN 20 (G 3/4)	Brass
-------------	-----------	---------------------------------	--------------

DN	G	L	i	L1	L2	L3	M	S
15	G 1/2	61	13.5	99	123.5	69	32	27
20	G 3/4	71	15.5	108	132.5	73	37	32

Illustration

