



PN 10/16 - DN 150...1000

KAT-A 2014-P

Product characteristics and benefits

- Low actuating torque due to pressure balanced valve piston
- Control valve in straightway type
- With customized control device depending on operating conditions
- Rotationally symmetrical flow guidance
- Annular flow cross section in each position
- Axial movement of the plunger by means of crank gear mechanism
- Elastic profile sealing ring located in the no-flow zone for high durability
- Wear-resistant, corrosion-resistant and infiltration-proof piston guides in the body by micro-finished bronze weld overlay
- Regulation is effected by own-medium controlled operation; the pressure difference of the medium generates the torque necessary for operation (the pressure difference must be at least 2 bar)
- Independent of the inlet pressure / flow fluctuations the valve regulates a higher inlet pressure down to a constant, lower outlet pressure
- Weight lever with double bearing, prevents the transmission of drop-weight forces to the valve bearing
- Drop weights in modular design for customised adaptation to operating conditions
- Face-to-face length acc. to EN 558, basic series 15 - from DN 500 1.5 x DN
- With flange ends on both sides acc. to EN 1092-2

Materials

- Body: Ductile iron EN-GJS-400-15 (GGG-40)
- Piston: Stainless steel 1.4301
- Piston guide rails: Bronze overlay welded
- Valve sealing: EPDM
- Inner parts: Stainless steel
- Actuator:
 - Cylinder: stainless steel, guides made of bronze
 - Drop weight, bracket, lever: SJ235
 - Bearing bolts, bolts: Stainless steel 1.4021
 - Lever bearing: 1.4305 and/or bronze and PTFE
- Control circuit:
 - All working parts: Stainless steel 1.4404
 - Pipes: stainless steel A4

Corrosion protection

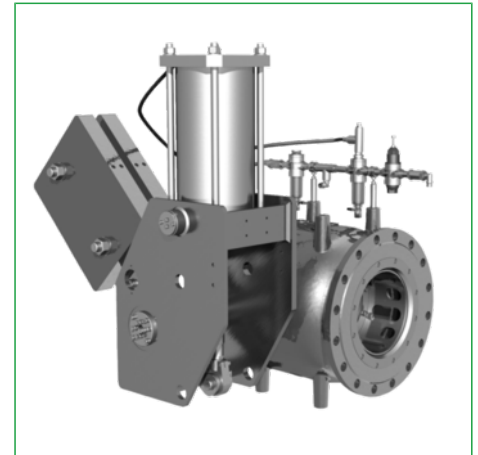
- Internally and externally epoxy coated

Versions

- Standard version as described
- Special designs available on request
- Besides its pressure-reducing function, the actuator can also be designed to have a pressure-retaining / level-control function

Field of application

- Chamber installation
- Installation in plants



Tests and approvals

- Final inspection test acc. to EN 12266

Operation data

- Specify operating pressure when inquiring/ordering.:
 - Static pressure downstream of valve
 - Maximum flow rate and minimum differential pressure
 - Minimum flow rate and maximum differential pressure

Note

For proper installation and safe operation please follow the installation and operation instructions:

“Installation and Operating Instructions for Valves”

Field of application

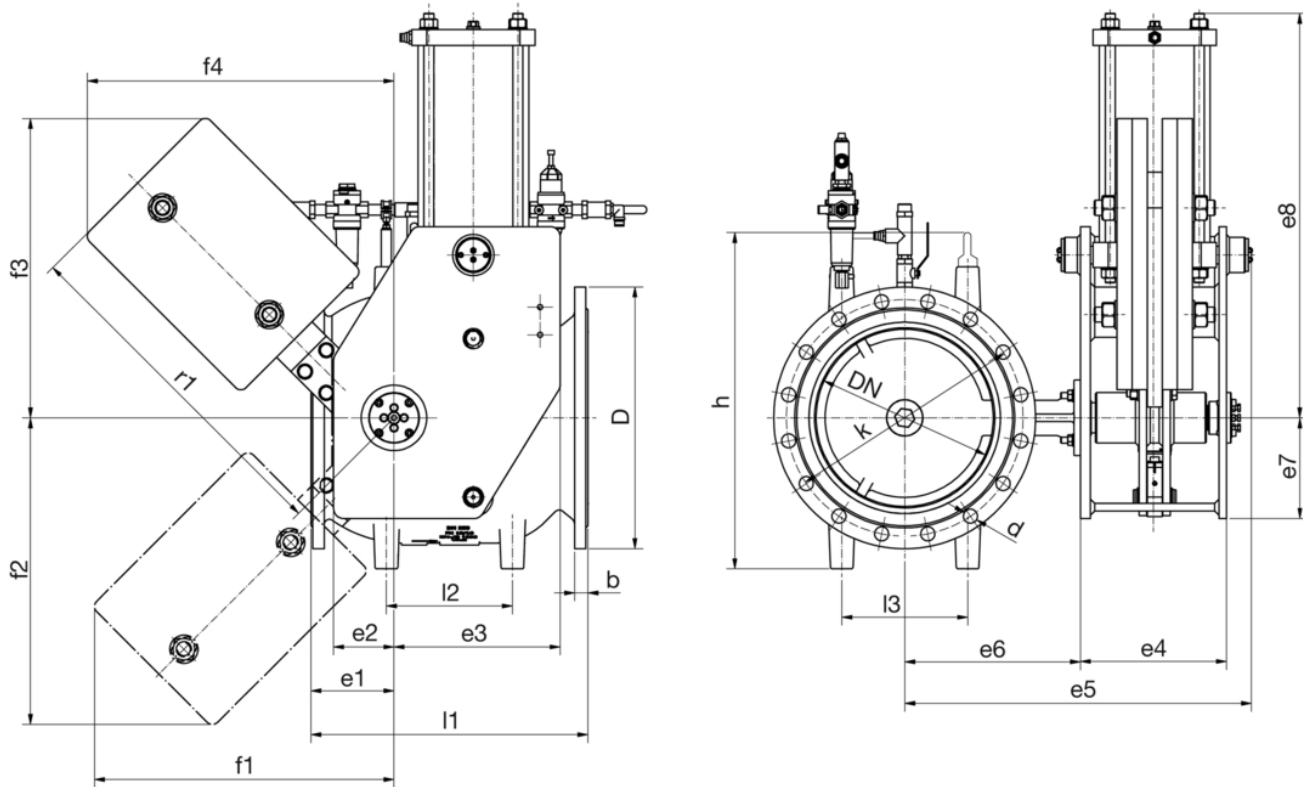
DN	PN	Maximum operating pressure [bar]	Maximum operating temperature for neutral liquids [°C]
150...1000	16	16	50
150...1000	10	10	50

Pressure test acc. to EN 12266

Test pressure body with water [bar]	Test pressure seat with water [bar]
24	16
15	11



Drawing



Technical data

PN 10

DN		150	200	250	300	400	450	500	600	700	800	900	1000
D	[mm]	285	340	395	445	565	615	670	780	895	1015	1115	1230
b	[mm]	26	22	24.5	24.5	28	30	31.5	36	39.5	43	46.5	50
d	[mm]	22	22	23	23	28	28	28	31	31	34	34	37
e1	[mm]	130	150	145	160	170	150	175	280	315	400	420	460
e2	[mm]	100	100	100	100	100	100	100	150	150	150	150	150
e3	[mm]	210	210	250	250	330	330	360	500	600	600	750	750
e4	[mm]	190	190	230	230	270	270	320	420	520	520	600	600
e5	[mm]	465	465	580	580	730	730	845	990	1250	1250	1425	1500
e6	[mm]	225	225	300	300	410	410	475	500	650	650	725	800
e7	[mm]	140	140	160	160	200	200	250	340	370	370	400	400
e8	[mm]	570	570	660	660	750	750	880	1160	1400	1400	1900	1900
h	[mm]	355	425	513	573	741	761	841	1010	1150	1309	1428	1568
k	[mm]	240	295	350	400	515	565	620	725	840	950	1050	1160
l1	[mm]	350	400	450	500	600	650	750	900	1050	1200	1350	1500
l2	[mm]	130	130	170	230	300	350	400	500	560	600	700	750
l3	[mm]	140	140	170	230	300	350	400	500	560	600	700	750
r1	[mm]	570	570	570	570	720	720	850	1150	1250	1250	1350	1550
f1	[mm]	490	490	490	490	630	630	730	1050	1100	1100	1180	1300
f2	[mm]	490	490	490	490	630	630	730	1050	1100	1100	1180	1300
f3	[mm]	490	490	490	490	630	630	730	1050	1100	1100	1180	1300
f4	[mm]	490	490	490	490	630	630	730	1050	1100	1100	1180	1300
No. of holes		8	8	12	12	16	20	20	20	24	24	28	28
Drop weight	[kg]	80	80	100	140	250	300	350	550	700	800	1200	1200

Dimensions depend on present existing differential pressure. Data refer to a differential pressure (hydraulic actuator) dp = 2bar and may vary due to working conditions.



Technical data

PN 16

DN		150	200	250	300	400	450	500	600	700	800	900	1000
D	[mm]	285	340	405	460	580	640	715	840	970	1025	1125	1255
b	[mm]	26	22	24.5	24.5	28	30	31.5	36	39.5	43	46.5	50
d	[mm]	22	23	28	28	31	31	34	37	37	40	41	44
e1	[mm]	130	150	145	160	170	150	175	280	315	400	420	460
e2	[mm]	100	100	100	100	100	100	150	150	150	150	150	150
e3	[mm]	250	250	250	330	360	360	500	600	750	750	750	750
e4	[mm]	230	230	230	270	320	320	420	520	600	600	600	600
e5	[mm]	505	505	580	620	780	780	965	1100	1350	1350	1425	1500
e6	[mm]	225	225	300	300	410	410	475	500	650	350	725	800
e7	[mm]	160	160	160	200	250	250	340	370	400	400	400	400
e8	[mm]	660	660	660	750	880	900	1160	1400	1900	1900	1900	1900
h	[mm]	355	425	513	573	741	761	841	1010	1150	1309	1428	1568
k	[mm]	240	295	355	410	525	858	650	770	840	950	1050	1170
l1	[mm]	350	400	450	500	600	650	750	900	1050	1200	1350	1500
l2	[mm]	130	130	170	230	300	350	400	500	560	600	700	750
l3	[mm]	140	140	170	230	300	350	400	500	560	600	700	750
r1	[mm]	570	570	570	720	850	850	1150	1250	1350	1350	1550	1550
f1	[mm]	490	490	490	630	730	730	1050	1100	1180	1180	1300	1300
f2	[mm]	490	490	490	630	730	730	1050	1100	1180	1180	1300	1300
f3	[mm]	490	490	490	630	730	730	1050	1100	1180	1180	1300	1300
f4	[mm]	490	490	490	630	730	730	1050	1100	1180	1180	1300	1300
No. of holes		8	12	12	12	16	20	20	20	24	24	28	28
Drop weight	[kg]	100	100	150	250	350	400	500	700	900	1100	1300	1400

Dimensions depend on present existing differential pressure. Data refer to a differential pressure (hydraulic actuator) $dp = 2\text{bar}$ and may vary due to working conditions.