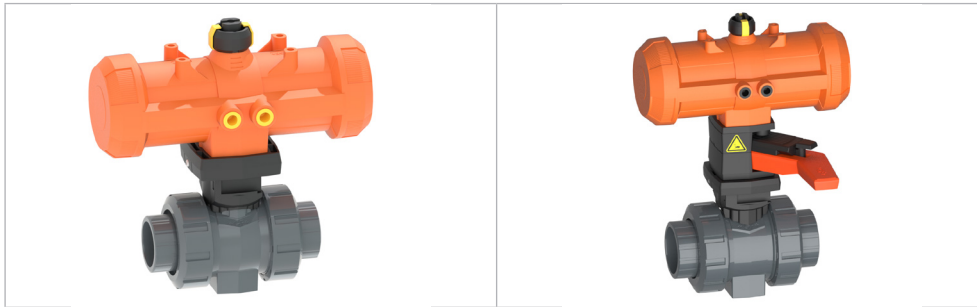


Ball Valve Type 230–235



Type 230 – 235
With pneumatic actuators PA11 – PA45
Without manual override

Type 230 – 235
With pneumatic actuators PA11 – PA45
With manual override

Product description

The 230 – 235 series is designed as a modular adjustable ball valve for applications which demand special process requirements. Ball valves of types 230, 231, 232, 233, 234 and 235 are based on the Ball Valve Type 546 Pro and the electric actuators PA11, PA21, PA30 and PA45.

Applications

- Chemical process industry
- Water treatment
- Microelectronics
- Measurement and control
- Shipbuilding
- Cooling

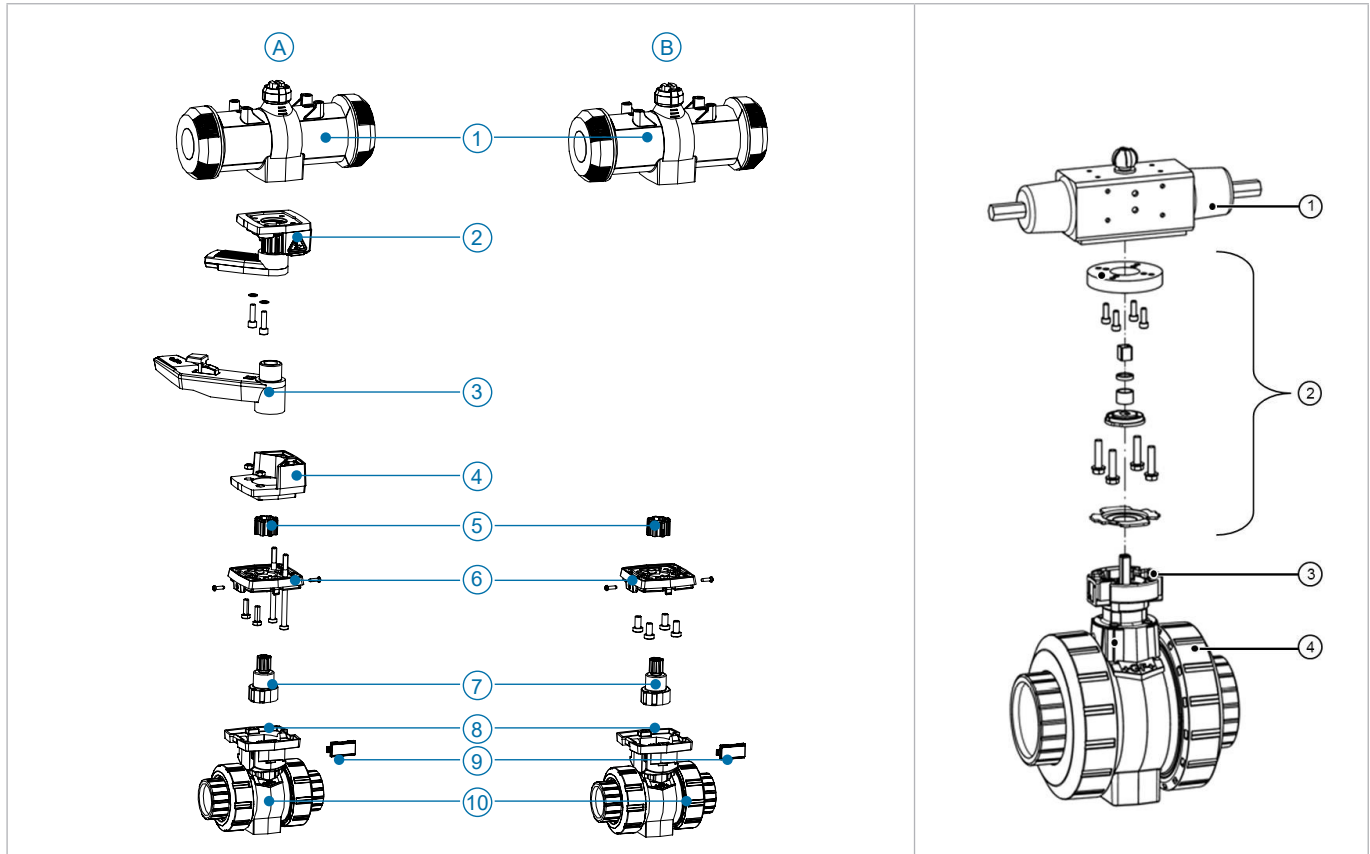
Benefits/features

- Electrical feedback when manually actuating valve
- Long service life with more than 25,000 cycles
- Pressure connector based on NAMUR standard
- Optional with emergency manual override
- Compact design
- For FC/FO stroke limitation possible

Flow media

Neutral and aggressive media with a small amount of particles/solids. The chemical resistance is dependent on the selected valve material ([see online tool ChemRes PLUS](#)).

Technical data



A Type 230 – 235 with manual override
B Type 230 – 235 without manual override

⑨ Labelling clip
⑩ Ball Valve Type 546 Pro

- ①** Actuator types PA11 and PA21
- ②** Coupling lever with intermediate piece on top
- ③** Control lever
- ④** Intermediate piece below
- ⑤** Adapter
- ⑥** Adapter plate
- ⑦** Coupling piece
- ⑧** Interface housing

- ①** Actuator types PA 30, 35, 40 and 45
- ②** Coupling with screws
- ③** Multifunctional module
- ④** Ball Valve Types 546 Pro DN65 – DN100

Specification		
Dimensions	PA11	DN10 – DN25
	PA21	DN32 – DN50
	PA30	DN65
	PA40	DN80 – DN100
Base type	546 Pro	
Materials	PVC-U, PVC-C, ABS, PP-H, PVDF	
Gasket materials	O-ring	EPDM, FKM
	Ball	PTFE, PVDF
Pressure rating	PN10	
Connections	Socket, spigot, flanges, threaded socket	
Standards	ISO, BS, ASTM, JIS	

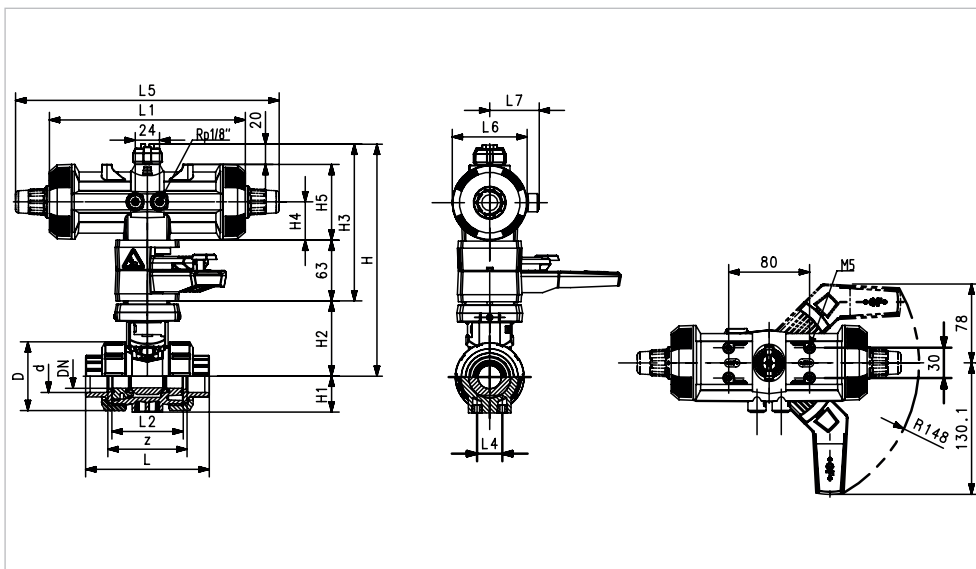
i The following technical data can be found in the Planning Fundamentals under Ball Valve Type 546 Pro, hand-operated:

- Pressure-temperature diagram
- Pressure loss
- Flow characteristics
- Kv values
- Reference values for fastening screws

Dimensions

Type 230 – 235 (DN10 – DN50) with manual override, solvent cement socket

Ball Valve Type 546 Pro, with solvent cement sockets, metric with pneumatic actuators PA11 and PA21 with stroke limiter and emergency manual override



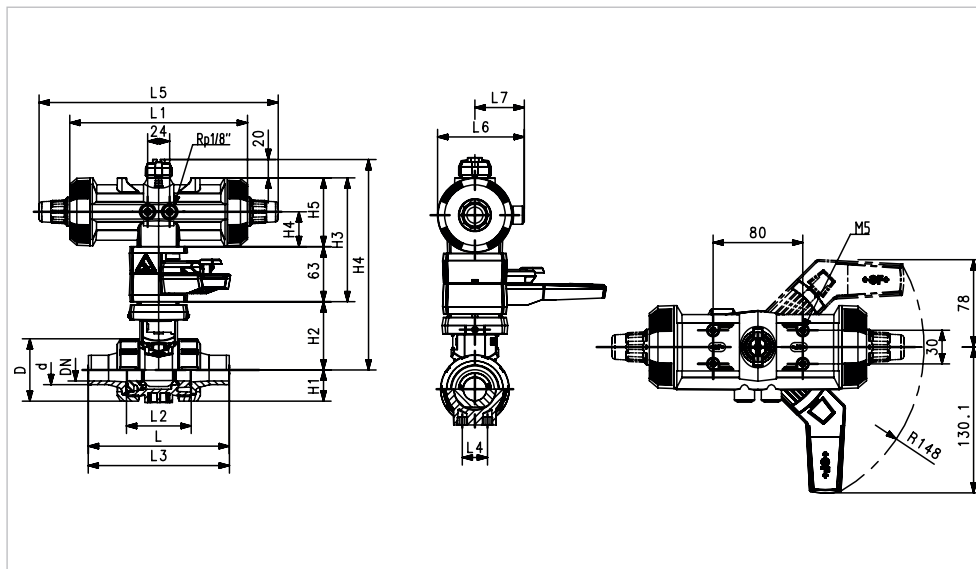
d (mm)	DN (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)
16	10	50	229.5	26.5	61.5	168	40	97
20	15	50	229.5	26.5	61.5	168	40	97
25	20	58	238.5	30	70.5	168	40	97
32	25	68	238.5	35.5	70.5	168	40	97
40	32	84	270.6	44	83.6	187	51	115
50	40	97	270.6	50.5	83.6	187	51	115
63	50	124	293	64	106	187	51	115

d (mm)	L ¹⁾ (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
16	92	194	56	25	261	76	48	64
20	95	194	56	25	261	76	48	64
25	110	194	65	25	261	76	48	72
32	123	194	71	25	261	76	48	79
40	146	224	85	45	305	95	59	94
50	157	224	89	45	305	95	59	94
63	183	224	101	45	305	95	59	107

¹⁾ L applies to PVC-U, PVC-C and ABS; for PP and PVDF see "Manual valve"

Type 230 – 235 (DN10 – DN50) with manual override, spigots/flanges

Ball Valve Type 546 Pro, with solvent cement spigot, metric with pneumatic actuators PA11 and PA21 with stroke limiter and emergency manual override



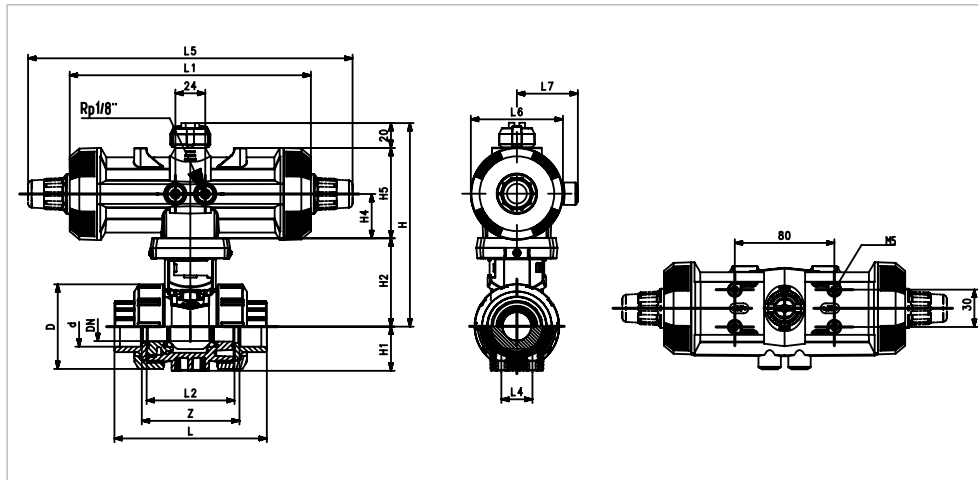
d (mm)	DN (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H3 (mm)	H4 (mm)	H5 (mm)
16	10	50	229.5	26.5	61.5	168	40	97
20	15	50	229.5	26.5	61.5	168	40	97
25	20	58	238.5	30	70.5	168	40	97
32	25	68	238.5	35.5	70.5	168	40	97
40	32	84	270.6	44	83.6	187	51	115
50	40	97	270.6	50.5	83.6	187	51	115
63	50	124	293	64	106	187	51	115

d (mm)	L ¹⁾ (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
16	114	194	56	-	25	261	76	48
20	124	194	56	130	25	261	76	48
25	144	194	65	150	25	261	76	48
32	154	194	71	160	25	261	76	48
40	174	224	85	180	45	305	95	59
50	194	224	89	200	45	305	95	59
63	224	224	101	230	45	305	95	59

¹⁾ L applies to PVC-U, PVC-C and ABS; for PP and PVDF see manual valve

Type 230 – 235 (DN10 – DN50) without manual override, solvent cement socket

Ball Valve Type 546 Pro, with solvent cement sockets, metric with pneumatic actuators PA11 and PA21 with stroke limiter



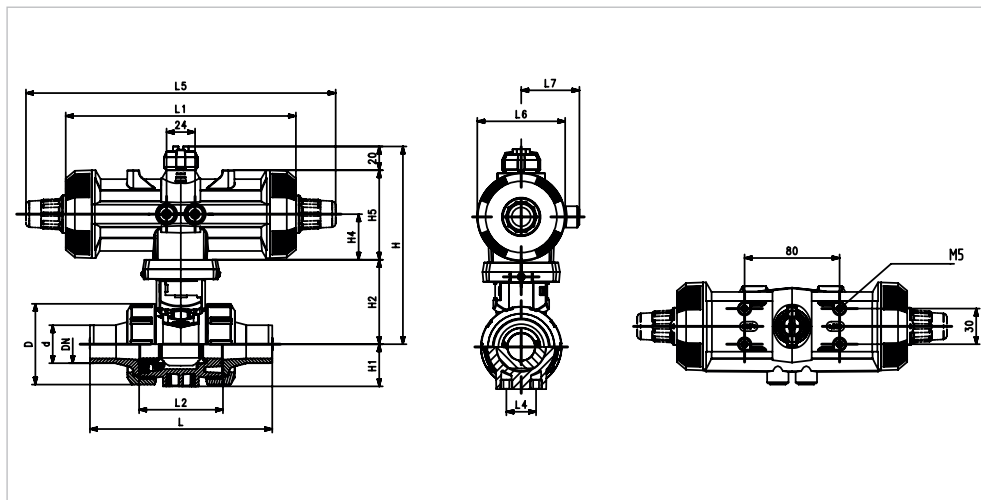
d (mm)	DN (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)
16	10	50	166.5	26.5	61.5	40	97
20	15	50	166.5	26.5	61.5	40	97
25	20	58	175.5	30	70.5	40	97
32	25	68	175.5	35.5	70.5	40	97
40	32	84	209.6	44	83.6	51	115
50	40	97	209.6	50.5	83.6	51	115
63	50	124	232	64	106	51	115

d (mm)	L ¹⁾ (mm)	L1 (mm)	L2 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)	z (mm)
16	92	194	56	25	261	76	48	64
20	95	194	56	25	261	76	48	64
25	110	194	65	25	261	76	48	72
32	123	194	71	25	261	76	48	79
40	146	224	85	45	305	95	59	94
50	157	224	83	45	305	95	59	95
63	183	224	101	45	305	95	59	107

¹⁾ L applies to PVC-U, PVC-C and ABS; for PP and PVDF see manual valve

Type 230 – 235 (DN10 – DN50) without manual override, spigots/flanges

Ball Valve Type 546 Pro, with solvent cement spigot, metric with pneumatic actuators PA11 and PA21 with stroke limiter



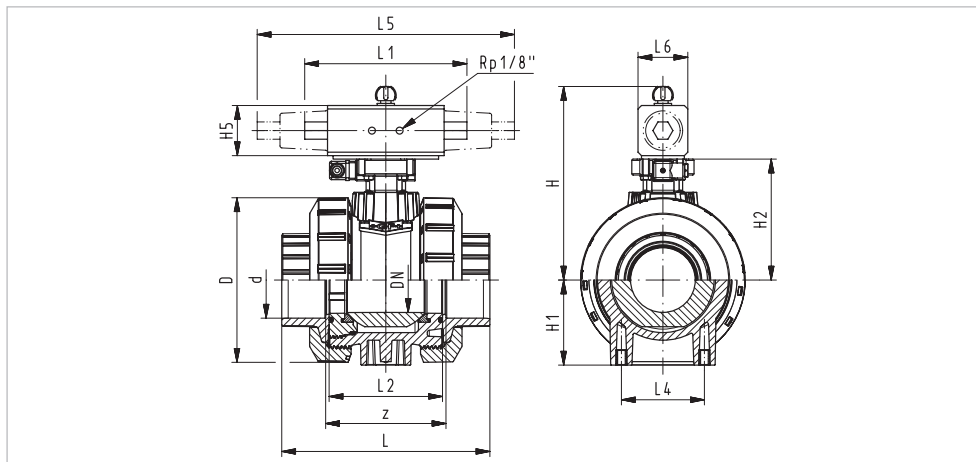
d (mm)	DN (mm)	D (mm)	H (mm)	H1 (mm)	H2 (mm)	H4 (mm)	H5 (mm)
16	10	50	166.5	26.5	61.5	40	97
20	15	50	166.5	26.5	61.5	40	97
25	20	58	175.5	30	70.5	40	97
32	25	68	175.5	35.5	70.5	40	97
40	32	84	209.6	44	83.6	51	115
50	40	97	209.6	50.5	83.6	51	115
63	50	124	232	64	106	51	115

d (mm)	L ¹⁾ (mm)	L1 (mm)	L2 (mm)	L3 (mm)	L4 (mm)	L5 (mm)	L6 (mm)	L7 (mm)
16	114	194	56	-	25	261	76	48
20	124	194	56	130	25	261	76	48
25	144	194	65	150	25	261	76	48
32	154	194	71	160	25	261	76	48
40	174	224	85	180	45	305	95	59
50	194	224	89	200	45	305	95	59
63	224	224	101	230	45	305	95	59

¹⁾ L applies to PVC-U, PVC-C and ABS; for PP and PVDF see manual valve

Type 230 – 235 (DN65 – DN100) without manual override, solvent cement socket

Ball Valve Type 546 Pro, with solvent cement sockets, metric with pneumatic actuators PA35, PA40 and PA45 with stroke limiter



d (mm)	DN (mm)	D (mm)	H1 (mm)	H2 (mm)	z (mm)	L ¹⁾ (mm)	L2 (mm)	L4 (mm)
75	65	166	85	156	144	233	136	70
90	80	200	105	168	151	254	141	70
110	100	238	123	175	174	301	164	120

¹⁾ L applies to PVC-U, PVC-C and ABS; for PP and PVDF see manual valve

Single Acting FC/FO

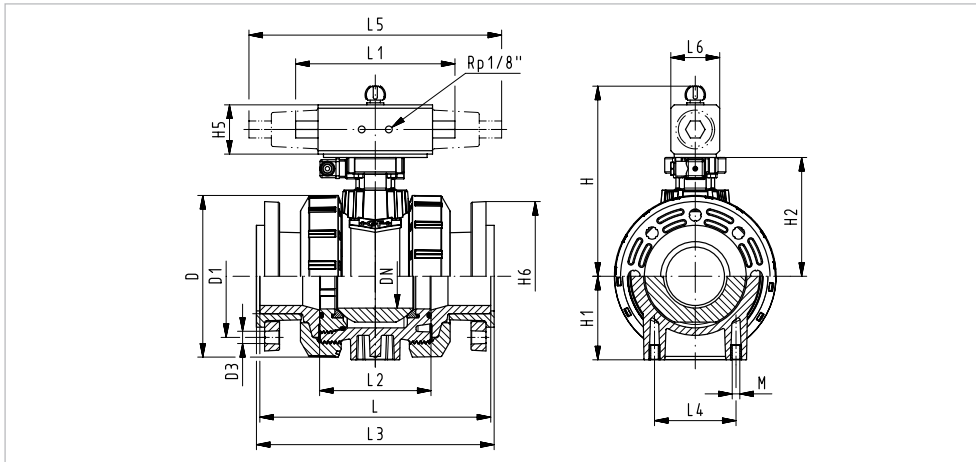
d (mm)	DN (mm)	Actuator Type	H (mm)	H5 (mm)	L5 (FC/FO) (mm)	L6 (mm)
75	65	PA35	279.1	83.3	325.2	83.3
90	80	PA40	294.8	87	359.5	87
110	100	PA40	289.8	87	359.5	87

Double Acting DA

d (mm)	DN (mm)	Antr. Typ	H (mm)	H5 (mm)	L1 (DA) (mm)	L6 (mm)
75	65	PA35	256.3	64.5	196.1	64.5
90	80	PA40	277.2	70.4	205.6	70.4
110	100	PA45	292.1	83.3	242	83.3

Dimensions for Types 230 – 235 (DN65 – DN100) without manual override, spigots/flanges

Ball Valve Type 546 Pro, with solvent cement spigot, metric with pneumatic actuators PA35, PA40 and PA45 with stroke limiter



d (mm)	DN (mm)	D (mm)	H1 (mm)	H2 (mm)	H6 (mm)	L ¹⁾ (mm)	L2 (mm)	L3 (mm)	L4 (mm)
75	65	166	85	156	93	233	136	290	70
90	80	200	105	168	100	254	141	310	70
110	100	238	123	175	110	301	166	350	120

¹⁾ L applies to PVC-U, PVC-C and ABS; for PP and PVDF see manual valve

Single Acting FC/F0

d (mm)	DN (mm)	Actuator Type	H (mm)	H5 (mm)	L5 (FC/F0) (mm)	L6 (mm)
75	65	PA35	279.1	83.3	325.2	83.3
90	80	PA40	294.8	87	359.5	87
110	100	PA40	289.8	87	359.5	87

Double Acting DA

d (mm)	DN (mm)	Antr. Typ	H (mm)	H5 (mm)	L1 (DA) (mm)	L6 (mm)
75	65	PA35	256.3	64.5	196.1	64.5
90	80	PA40	277.2	70.4	205.6	70.4
110	100	PA45	292.1	83.3	242	83.3

Accessories

- Emergency manual override -10 – +50 °C
- Limit switch box for electrical position feedback
- 3/2-way pilot solenoid valve MNL532
- Pilot valve cluster PV2000
- Digital positioner DRS500
- AS interface



For further information on accessories, refer to the online product catalog at www.gfps.com

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