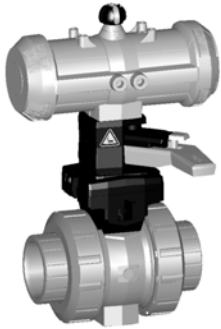


# Ball valves pneumatic

## Ball valve type 231 PP-H FC (Fail safe to close) With manual override With fusion sockets metric



DN10/15 - 50

### Model:

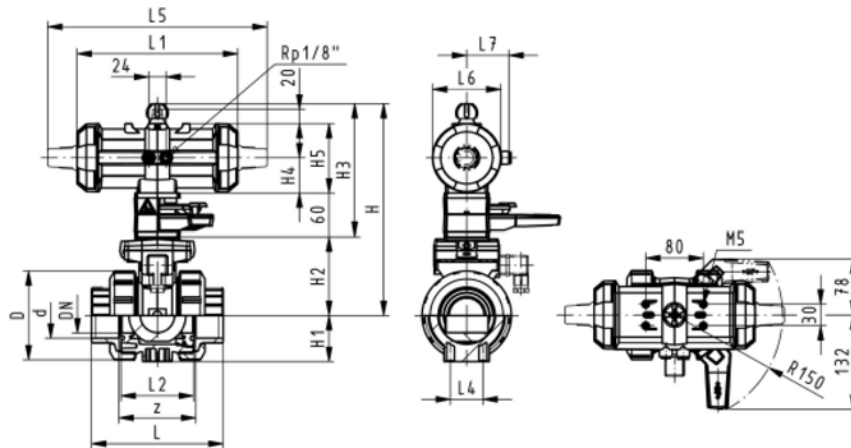
- Built on with pneumatic actuator PA11/21
- Control time  $90^\circ <$ ) 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

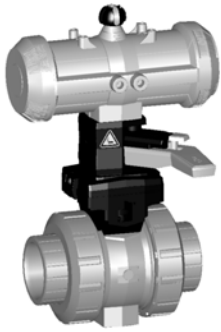
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 002	199 231 012	1.500
20	15	10	185	199 231 003	199 231 013	1.500
25	20	10	350	199 231 004	199 231 014	1.600
32	25	10	700	199 231 005	199 231 015	1.700
40	32	10	1000	199 231 006	199 231 016	2.800
50	40	10	1600	199 231 007	199 231 017	3.100
63	50	10	3100	199 231 008	199 231 018	4.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	230	27	62	168	40	97	93	194	56	25	261	76	48	67
20	50	230	27	62	168	40	97	95	194	56	25	261	76	48	66
25	58	239	30	71	168	40	97	108	194	65	25	261	76	48	77
32	68	239	36	71	168	40	97	118	194	71	25	261	76	48	83
40	84	271	44	84	187	51	115	137	224	85	45	305	95	59	99
50	97	271	51	84	187	51	115	147	224	89	45	305	95	59	105
63	124	293	64	106	187	51	115	168	224	101	45	305	95	59	117





DN10/15 - 50

## Ball valve type 231 PP-H FO (Fail safe to open) With manual override With fusion sockets metric

### Model:

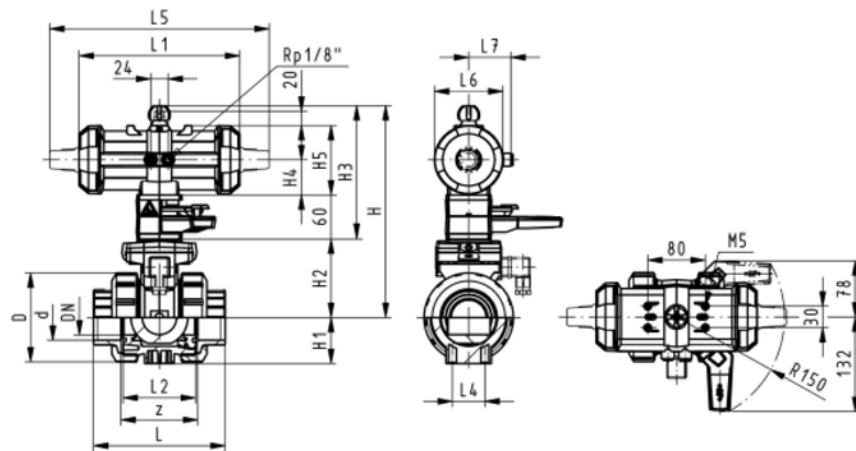
- Built on with pneumatic actuator PA11/21
- Control time 90°<) 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

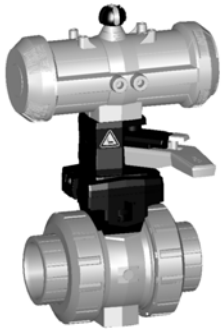
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 042	199 231 052	1.500
20	15	10	185	199 231 043	199 231 053	1.500
25	20	10	350	199 231 044	199 231 054	1.600
32	25	10	700	199 231 045	199 231 055	1.700
40	32	10	1000	199 231 046	199 231 056	2.800
50	40	10	1600	199 231 047	199 231 057	3.100
63	50	10	3100	199 231 048	199 231 058	4.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	230	27	62	168	40	97	93	194	56	25	261	76	48	67
20	50	230	27	62	168	40	97	95	194	56	25	261	76	48	66
25	58	239	30	71	168	40	97	108	194	65	25	261	76	48	77
32	68	239	36	71	168	40	97	118	194	71	25	261	76	48	83
40	84	271	44	84	187	51	115	137	224	85	45	305	95	59	99
50	97	271	51	84	187	51	115	147	224	89	45	305	95	59	105
63	124	293	64	106	187	51	115	168	224	101	45	305	95	59	117





DN10/15 - 50

## Ball valve type 231 PP-H DA (Double acting) With manual override With fusion sockets metric

### Model:

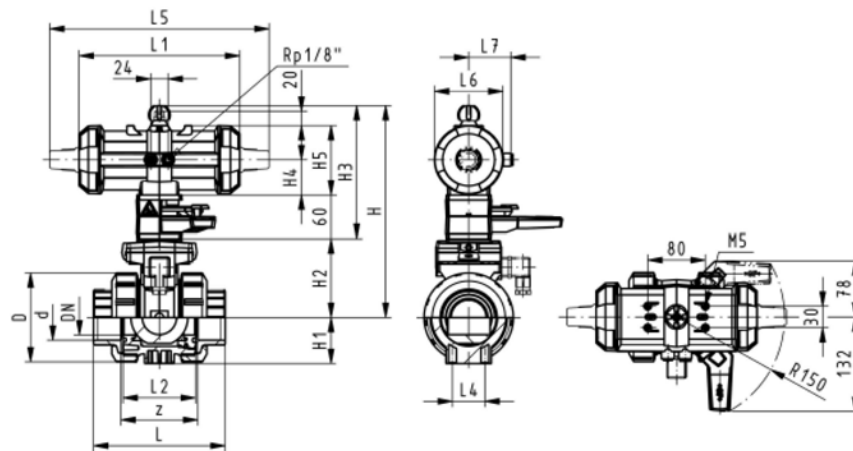
- Built on with pneumatic actuator PA11/21
- Control time  $90^\circ <$  1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

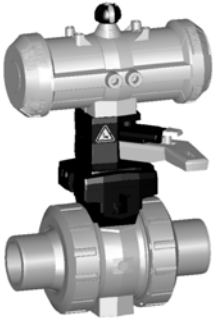
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 082	199 231 092	1.500
20	15	10	185	199 231 083	199 231 093	1.500
25	20	10	350	199 231 084	199 231 094	1.600
32	25	10	700	199 231 085	199 231 095	1.700
40	32	10	1000	199 231 086	199 231 096	2.800
50	40	10	1600	199 231 087	199 231 097	3.100
63	50	10	3100	199 231 088	199 231 098	4.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	230	27	62	168	40	97	93	194	56	25	261	76	48	67
20	50	230	27	62	168	40	97	95	194	56	25	261	76	48	66
25	58	239	30	71	168	40	97	108	194	65	25	261	76	48	77
32	68	239	36	71	168	40	97	118	194	71	25	261	76	48	83
40	84	271	44	84	187	51	115	137	224	85	45	305	95	59	99
50	97	271	51	84	187	51	115	147	224	89	45	305	95	59	105
63	124	293	64	106	187	51	115	168	224	101	45	305	95	59	117





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## Ball valve type 231 PP-H FC (Fail safe to close) With manual override With fusion spigots metric

### Model:

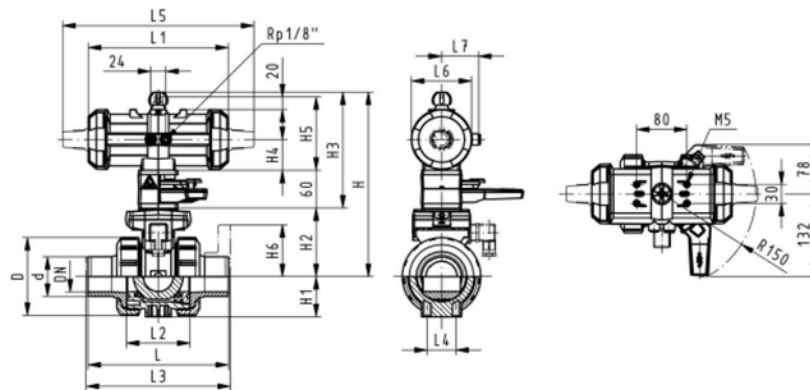
- Built on with pneumatic actuator PA11/21
- Control time 90°<) 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

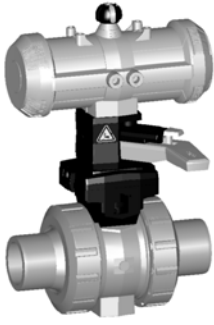
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 022	199 231 032	1.500
20	15	10	185	199 231 023	199 231 033	1.500
25	20	10	350	199 231 024	199 231 034	1.600
32	25	10	700	199 231 025	199 231 035	1.700
40	32	10	1000	199 231 026	199 231 036	2.800
50	40	10	1600	199 231 027	199 231 037	3.100
63	50	10	3100	199 231 028	199 231 038	4.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	230	27	62	168	40	97	110	194	56		25	261	76	48
20	50	230	27	62	168	40	97	120	194	56	130	25	261	76	48
25	58	239	30	71	168	40	97	139	194	65	150	25	261	76	48
32	68	239	36	71	168	40	97	150	194	71	160	25	261	76	48
40	84	271	44	84	187	51	115	170	224	85	180	45	305	95	59
50	97	271	51	84	187	51	115	190	224	89	200	45	305	95	59
63	124	293	64	106	187	51	115	220	224	101	230	45	305	95	59





DN10/15 - 50

## Ball valve type 231 PP-H FO (Fail safe to open) With manual override With fusion spigots metric

### Model:

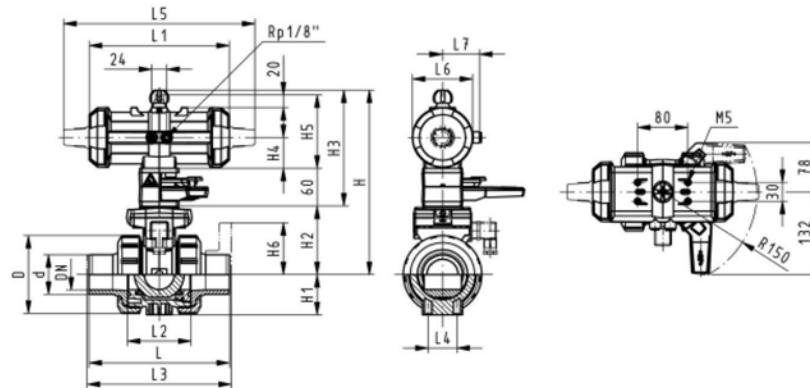
- Built on with pneumatic actuator PA11/21
- Control time  $90^\circ <$  1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

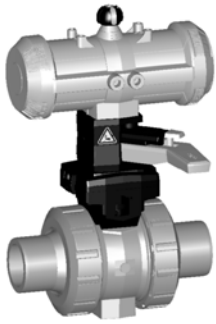
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 062	199 231 072	1.500
20	15	10	185	199 231 063	199 231 073	1.500
25	20	10	350	199 231 064	199 231 074	1.600
32	25	10	700	199 231 065	199 231 075	1.700
40	32	10	1000	199 231 066	199 231 076	2.800
50	40	10	1600	199 231 067	199 231 077	3.100
63	50	10	3100	199 231 068	199 231 078	4.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	230	27	62	168	40	97	110	194	56	130	25	261	76	48
20	50	230	27	62	168	40	97	120	194	56	130	25	261	76	48
25	58	239	30	71	168	40	97	139	194	65	150	25	261	76	48
32	68	239	36	71	168	40	97	150	194	71	160	25	261	76	48
40	84	271	44	84	187	51	115	170	224	85	180	45	305	95	59
50	97	271	51	84	187	51	115	190	224	89	200	45	305	95	59
63	124	293	64	106	187	51	115	220	224	101	230	45	305	95	59





DN10/15 - 50

## Ball valve type 231 PP-H DA (Double acting) With manual override With fusion spigots metric

### Model:

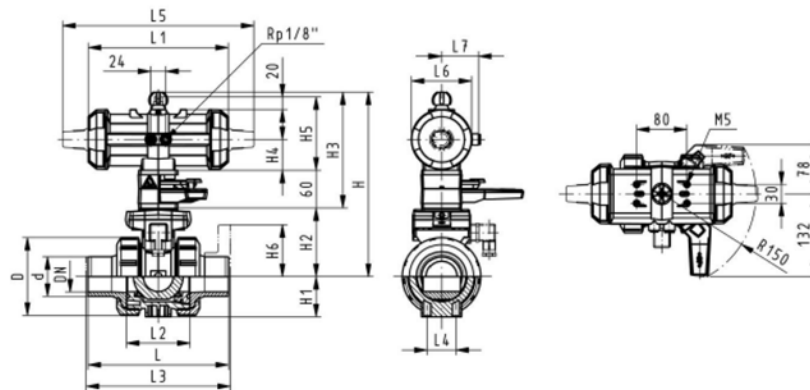
- Built on with pneumatic actuator PA11/21
- Control time 90°<) 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts

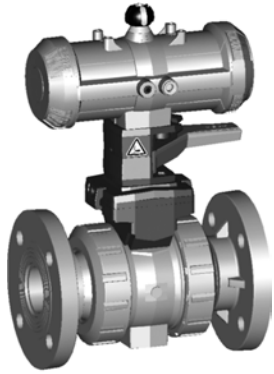
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 102	199 231 112	1.500
20	15	10	185	199 231 103	199 231 113	1.500
25	20	10	350	199 231 104	199 231 114	1.600
32	25	10	700	199 231 105	199 231 115	1.700
40	32	10	1000	199 231 106	199 231 116	2.800
50	40	10	1600	199 231 107	199 231 117	3.100
63	50	10	3100	199 231 108	199 231 118	4.000

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	230	27	62	168	40	97	110	194	56		25	261	76	48
20	50	230	27	62	168	40	97	120	194	56	130	25	261	76	48
25	58	239	30	71	168	40	97	139	194	65	150	25	261	76	48
32	68	239	36	71	168	40	97	150	194	71	160	25	261	76	48
40	84	271	44	84	187	51	115	170	224	85	180	45	305	95	59
50	97	271	51	84	187	51	115	190	224	89	200	45	305	95	59
63	124	293	64	106	187	51	115	220	224	101	230	45	305	95	59





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## Ball valve type 231 PP-H FC (Fail safe to close) With manual override With fixed flanges PP-H serrated metric

### Model:

- Built on with pneumatic actuator PA11/21
- Control time  $90^\circ <$  1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558-1
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

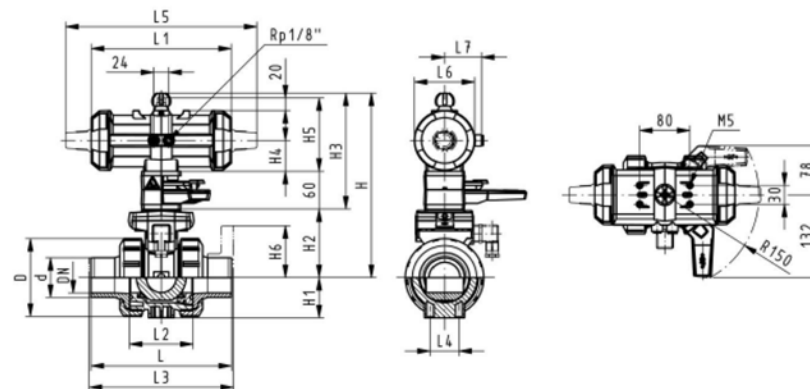
### Option:

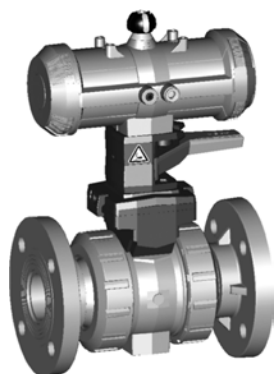
- Individual configuration of the valve (see form)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	1/2	10	185	<b>199 231 243</b>	<b>199 231 253</b>	1.700
25	20	3/4	10	350	<b>199 231 244</b>	<b>199 231 254</b>	1.900
32	25	1	10	700	<b>199 231 245</b>	<b>199 231 255</b>	2.100
40	32	1 1/4	10	1000	<b>199 231 246</b>	<b>199 231 256</b>	3.400
50	40	1 1/2	10	1600	<b>199 231 247</b>	<b>199 231 257</b>	3.900
63	50	2	10	3100	<b>199 231 248</b>	<b>199 231 258</b>	4.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	230	27	62	168	40	97	48	120	194	56	130	25	261	76
25	58	239	30	71	168	40	97	53	139	194	65	150	25	261	76
32	68	239	36	71	168	40	97	58	150	194	71	160	25	261	76
40	84	271	44	84	187	51	115	70	170	224	85	180	45	305	95
50	97	271	51	84	187	51	115	75	190	224	89	200	45	305	95
63	124	293	64	106	187	51	115	83	220	224	101	230	45	305	95

d [mm]	L7 [mm]
20	48
25	48
32	48
40	59
50	59
63	59





DN10/15 - 50

## Ball valve type 231 PP-H FO (Fail safe to open) With manual override With fixed flanges PP-H serrated metric

### Model:

- Built on with pneumatic actuator PA11/21
- Control time 90°<) 1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558-1
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

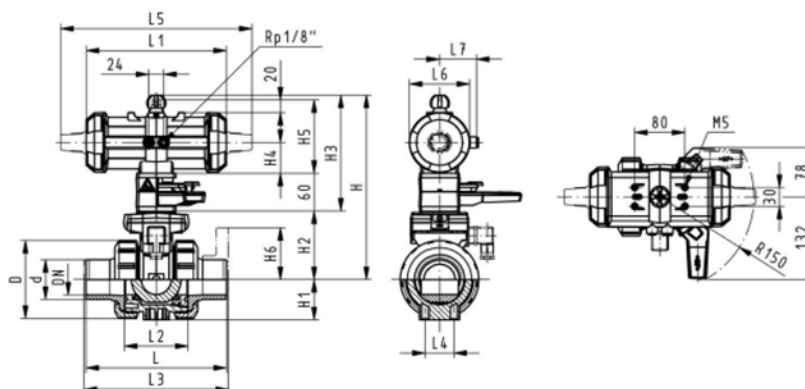
### Option:

- Individual configuration of the valve (see form)

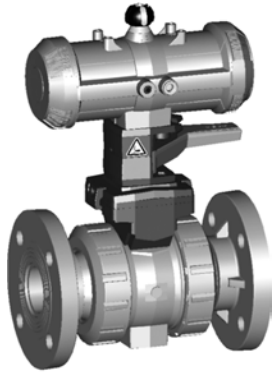
d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	1/2	10	185	<b>199 231 263</b>	<b>199 231 273</b>	1.700
25	20	3/4	10	350	<b>199 231 264</b>	<b>199 231 274</b>	1.900
32	25	1	10	700	<b>199 231 265</b>	<b>199 231 275</b>	2.100
40	32	1 1/4	10	1000	<b>199 231 266</b>	<b>199 231 276</b>	3.400
50	40	1 1/2	10	1600	<b>199 231 267</b>	<b>199 231 277</b>	3.900
63	50	2	10	3100	<b>199 231 268</b>	<b>199 231 278</b>	4.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	58	230	27	62	168	40	97	48	120	194	56	130	25	261	76
25	58	239	30	71	168	40	97	53	139	194	65	150	25	261	76
32	68	239	36	71	168	40	97	58	150	194	71	160	25	261	76
40	84	271	44	84	187	51	115	70	170	224	85	180	45	305	95
50	97	271	51	84	187	51	115	75	190	224	89	200	45	305	95
63	124	293	64	106	187	51	115	83	220	224	101	230	45	305	95

d [mm]	L7 [mm]
20	48
25	48
32	48
40	59
50	59
63	59







DN10/15 - 50

## Ball valve type 231 PP-H DA (Double acting) With manual override With fixed flanges PP-H serrated metric

### Model:

- Built on with pneumatic actuator PA11/21
- Control time  $90^\circ <$  1-2 s
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Overall length according to EN 558-1
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

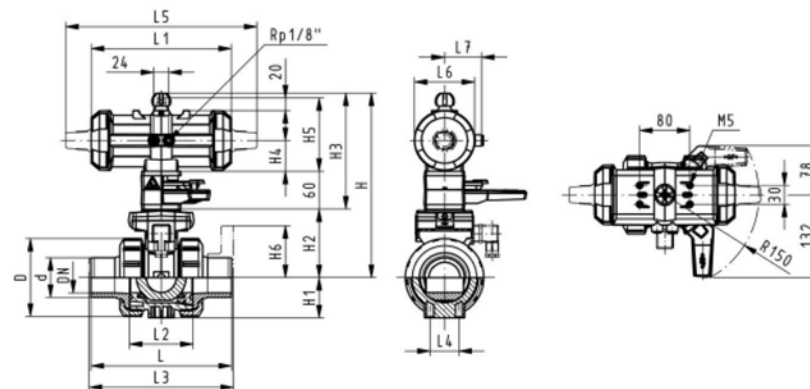
### Option:

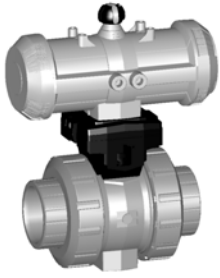
- Individual configuration of the valve (see form)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	1/2	10	185	199 231 283	199 231 293	1.700
25	20	3/4	10	350	199 231 284	199 231 294	1.900
32	25	1	10	700	199 231 285	199 231 295	2.100
40	32	1 1/4	10	1000	199 231 286	199 231 296	3.400
50	40	1 1/2	10	1600	199 231 287	199 231 297	3.900
63	50	2	10	3100	199 231 288	199 231 298	4.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H3 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
20	50	230	27	62	168	40	97	48	120	194	56	130	25	261	76
25	58	239	30	71	168	40	97	53	139	194	65	150	25	261	76
32	68	239	36	71	168	40	97	58	150	194	71	160	25	261	76
40	84	271	44	84	187	51	115	70	170	224	85	180	45	305	95
50	97	271	51	84	187	51	115	75	190	224	89	200	45	305	95
63	124	293	64	106	187	51	115	83	220	224	101	230	45	305	95

d [mm]	L7 [mm]
20	48
25	48
32	48
40	59
50	59
63	59





DN10/15 - 50

## Ball valve type 231 PP-H FC (Fail safe to close) Without manual override With fusion sockets metric

### Model:

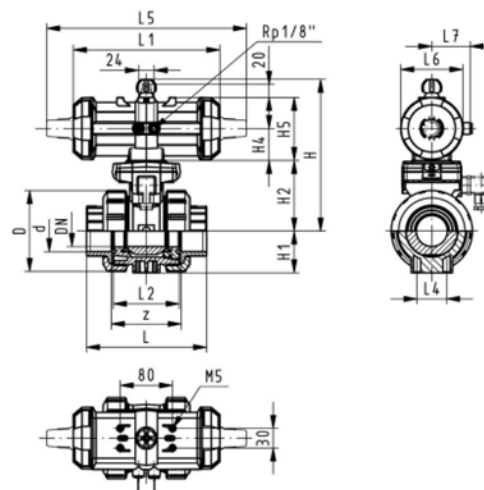
- Assignment of actuators PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s

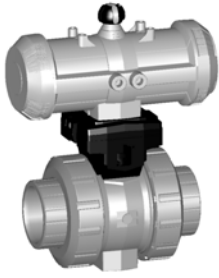
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 122	199 231 132	1.200
20	15	10	185	199 231 123	199 231 133	1.200
25	20	10	350	199 231 124	199 231 134	1.300
32	25	10	700	199 231 125	199 231 135	1.400
40	32	10	1000	199 231 126	199 231 136	2.500
50	40	10	1600	199 231 127	199 231 137	2.800
63	50	10	3100	199 231 128	199 231 138	3.700
75	65	10	5000	199 231 129	199 231 139	4.000
90	80	10	7000	199 231 130	199 231 140	4.700
110	100	10	11000	199 231 131	199 231 141	6.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	167	27	62	40	97	93	194	56	25	261	76	48	67
20	50	167	27	62	40	97	95	194	56	25	261	76	48	66
25	58	176	30	71	40	97	108	194	65	25	261	76	48	77
32	68	176	36	71	40	97	118	194	71	25	261	76	48	83
40	84	210	44	84	51	115	137	224	85	45	305	95	59	99
50	97	210	51	84	51	115	147	224	89	45	305	95	59	105
63	124	232	64	106	51	115	168	224	101	45	305	95	59	117
75	166	262	85	156		70	233	218	136	70	276	65		167
90	200	281	105	168		78	254	259	141	70	341	72		180
110	238	292	123	175		86	301	287	164	120	369	80		215





DN10/15 - 50




## Ball valve type 231 PP-H FO (Fail safe to open) Without manual override With fusion sockets metric




### Model:

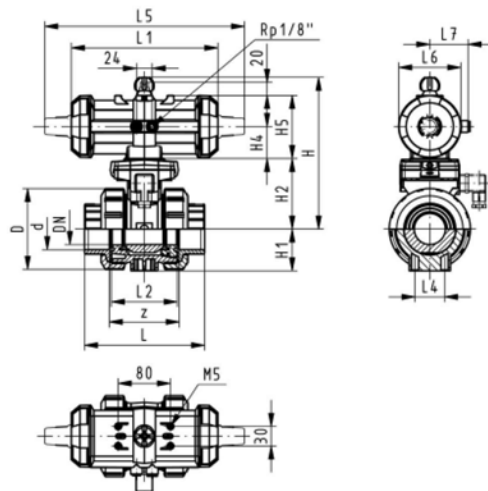
- Assignment of actuators PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s

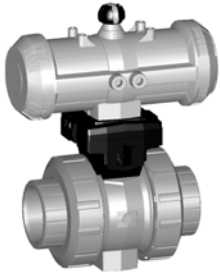
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	<b>199 231 162</b>	<b>199 231 172</b>	1.200
20	15	10	185	<b>199 231 163</b>	<b>199 231 173</b>	1.200
25	20	10	350	<b>199 231 164</b>	<b>199 231 174</b>	1.300
32	25	10	700	<b>199 231 165</b>	<b>199 231 175</b>	1.400
40	32	10	1000	<b>199 231 166</b>	<b>199 231 176</b>	2.500
50	40	10	1600	<b>199 231 167</b>	<b>199 231 177</b>	2.800
63	50	10	3100	<b>199 231 168</b>	<b>199 231 178</b>	3.700
 75	65	10	5000	<b>199 231 169</b>	<b>199 231 179</b>	4.000
 90	80	10	7000	<b>199 231 170</b>	<b>199 231 180</b>	4.700
 110	100	10	11000	<b>199 231 171</b>	<b>199 231 181</b>	6.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	167	27	62	40	97	93	194	56	25	261	76	48	66
20	50	167	27	62	40	97	95	194	56	25	261	76	48	67
25	58	176	30	71	40	97	108	194	65	25	261	76	48	77
32	68	176	36	71	40	97	118	194	71	25	261	76	48	83
40	84	210	44	84	51	115	137	224	85	45	305	95	59	99
50	97	210	51	84	51	115	147	224	89	45	305	95	59	105
63	124	232	64	106	51	115	168	224	101	45	305	95	59	117
 75	166	262	85	156		70	233	218	136	70	276	65		167
 90	200	281	105	168		78	254	259	141	70	341	72		180
 110	238	292	123	175		86	301	287	164	120	369	80		215





DN10/15 - 50

## Ball valve type 231 PP-H DA (Double acting) Without manual override With fusion sockets metric

### Model:

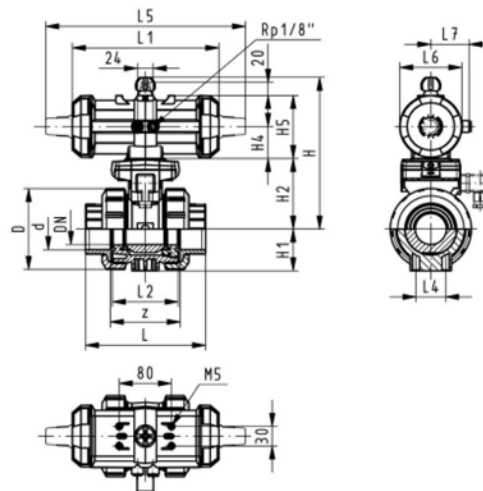
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s

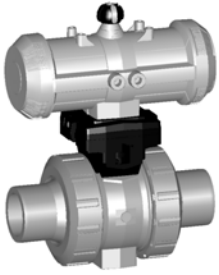
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	<b>199 231 202</b>	<b>199 231 212</b>	1.200
20	15	10	185	<b>199 231 203</b>	<b>199 231 213</b>	1.200
25	20	10	350	<b>199 231 204</b>	<b>199 231 214</b>	1.300
32	25	10	700	<b>199 231 205</b>	<b>199 231 215</b>	1.400
40	32	10	1000	<b>199 231 206</b>	<b>199 231 216</b>	2.500
50	40	10	1600	<b>199 231 207</b>	<b>199 231 217</b>	2.800
63	50	10	3100	<b>199 231 208</b>	<b>199 231 218</b>	3.700
75	65	10	5000	<b>199 231 209</b>	<b>199 231 219</b>	2.800
90	80	10	7000	<b>199 231 210</b>	<b>199 231 220</b>	4.000
110	100	10	11000	<b>199 231 211</b>	<b>199 231 221</b>	5.100

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]	z [mm]
16	50	167	27	62	40	97	93	194	56	25	261	76	48	66
20	50	167	27	62	40	97	95	194	56	25	261	76	48	67
25	58	176	30	71	40	97	108	194	65	25	261	76	48	77
32	68	176	36	71	40	97	118	194	71	25	261	76	48	83
40	84	210	44	84	51	115	137	224	85	45	305	95	59	99
50	97	210	51	84	51	115	147	224	89	45	305	95	59	105
63	124	232	64	106	51	115	168	224	101	45	305	95	59	117
75	166	257	85	156		66	233	144	136	70	190	60		167
90	200	274	105	168		70	254	152	141	70	198	65		180
110	238	273	123	175		78	301	169	164	120	235	72		215





DN10/15 - 50




## Ball valve type 231 PP-H FC (Fail safe to close) Without manual override With socket fusion spigots metric




### Model:

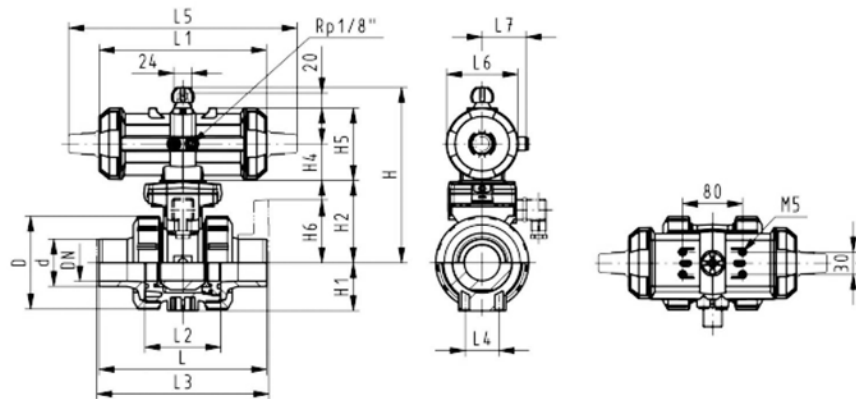
- Assignment of actuators PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s

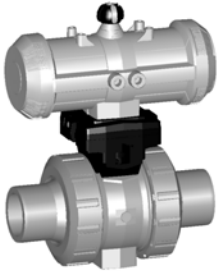
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	<b>199 231 142</b>	<b>199 231 152</b>	1.200
20	15	10	185	<b>199 231 143</b>	<b>199 231 153</b>	1.200
25	20	10	350	<b>199 231 144</b>	<b>199 231 154</b>	1.300
32	25	10	700	<b>199 231 145</b>	<b>199 231 155</b>	1.400
40	32	10	1000	<b>199 231 146</b>	<b>199 231 156</b>	2.500
50	40	10	1600	<b>199 231 147</b>	<b>199 231 157</b>	2.800
63	50	10	3100	<b>199 231 148</b>	<b>199 231 158</b>	3.700
 75	65	10	5000	<b>199 231 149</b>	<b>199 231 159</b>	4.000
 90	80	10	7000	<b>199 231 150</b>	<b>199 231 160</b>	4.800
 110	100	10	11000	<b>199 231 151</b>	<b>199 231 161</b>	6.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	167	27	62	40	97	110	194	56	130	25	261	76	48
20	50	167	27	62	40	97	120	194	56	130	25	261	76	48
25	58	176	30	71	40	97	139	194	65	150	25	261	76	48
32	68	176	36	71	40	97	150	194	71	160	25	261	76	48
40	84	210	44	84	51	115	170	224	85	180	45	305	95	59
50	97	210	51	84	51	115	190	224	89	200	45	305	95	59
63	124	232	64	106	51	115	220	224	101	230	45	305	95	59
 75	166	262	85	156		70	280	218	136	290	70	276	65	
 90	200	281	105	168		78	296	259	141	310	70	341	72	
 110	238	292	123	175		86	336	287	164	350	120	369	80	





DN10/15 - 50

## Ball valve type 231 PP-H FO (Fail safe to open) Without manual override With socket fusion spigots metric

### Model:

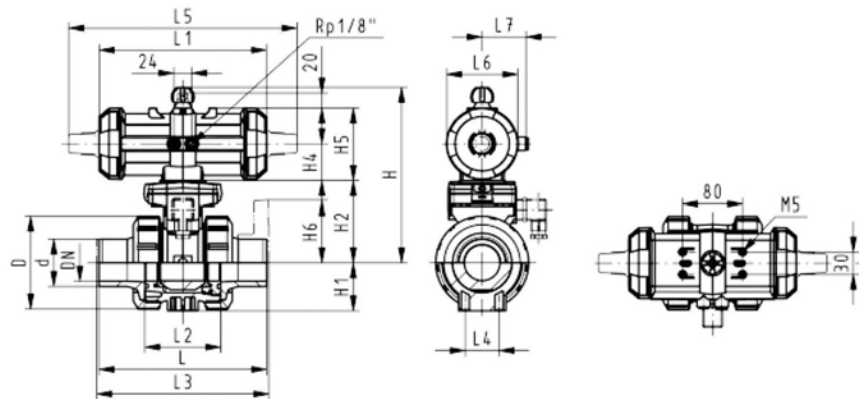
- Assignment of actuators PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ < 1-2$  s

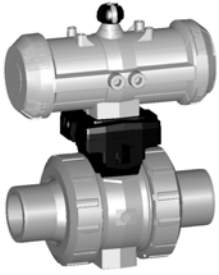
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	<b>199 231 182</b>	<b>199 231 192</b>	1.200
20	15	10	185	<b>199 231 183</b>	<b>199 231 193</b>	1.200
25	20	10	350	<b>199 231 184</b>	<b>199 231 194</b>	1.300
32	25	10	700	<b>199 231 185</b>	<b>199 231 195</b>	1.400
40	32	10	1000	<b>199 231 186</b>	<b>199 231 196</b>	2.500
50	40	10	1600	<b>199 231 187</b>	<b>199 231 197</b>	2.800
63	50	10	3100	<b>199 231 188</b>	<b>199 231 198</b>	3.700
75	65	10	5000	<b>199 231 189</b>	<b>199 231 199</b>	4.000
90	80	10	7000	<b>199 231 190</b>	<b>199 231 200</b>	4.800
110	100	10	11000	<b>199 231 191</b>	<b>199 231 201</b>	6.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	167	27	62	40	97	110	194	56	130	25	261	76	48
20	50	167	27	62	40	97	120	194	56	130	25	261	76	48
25	58	176	30	71	40	97	139	194	65	150	25	261	76	48
32	68	176	36	71	40	97	150	194	71	160	25	261	76	48
40	84	210	44	84	51	115	170	224	85	180	45	305	95	59
50	97	210	51	84	51	115	190	224	89	200	45	305	95	59
63	124	232	64	106	51	115	220	224	101	230	45	305	95	59
75	166	262	85	156		70	280	218	136	290	70	276	65	
90	200	281	105	168		78	296	259	141	310	70	341	72	
110	238	292	123	175		86	336	287	164	350	120	369	80	





DN10/15 - 50

## Ball valve type 231 PP-H DA (Double acting) Without manual override With socket fusion spigots metric

### Model:

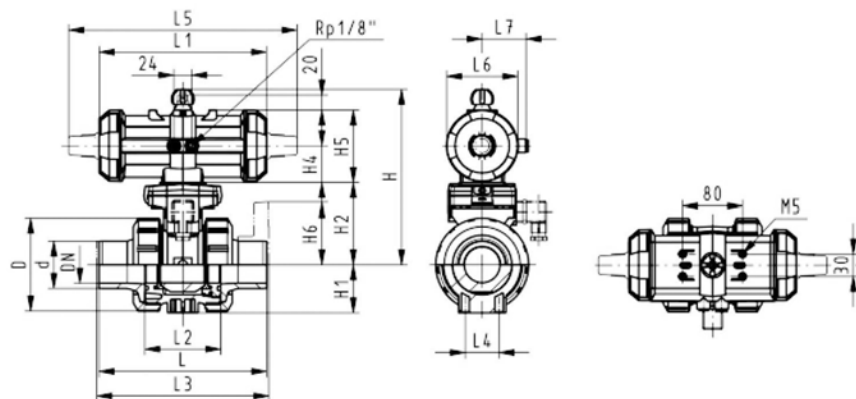
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s

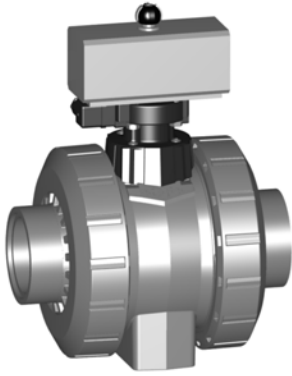
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
16	10	10	70	199 231 222	199 231 232	1.200
20	15	10	185	199 231 223	199 231 233	1.200
25	20	10	350	199 231 224	199 231 234	1.300
32	25	10	700	199 231 225	199 231 235	1.400
40	32	10	1000	199 231 226	199 231 236	2.500
50	40	10	1600	199 231 227	199 231 237	2.800
63	50	10	3100	199 231 228	199 231 238	3.700
75	65	10	5000	199 231 229	199 231 239	2.900
90	80	10	7000	199 231 230	199 231 240	4.100
110	100	10	11000	199 231 231	199 231 241	5.200

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
16	50	167	27	62	40	97	110	194	56	130	25	261	76	48
20	50	167	27	62	40	97	120	194	56	130	25	261	76	48
25	58	176	30	71	40	97	139	194	65	150	25	261	76	48
32	68	176	36	71	40	97	150	194	71	160	25	261	76	48
40	84	210	44	84	51	115	170	224	85	180	45	305	95	59
50	97	210	51	84	51	115	190	224	89	200	45	305	95	59
63	124	232	64	106	51	115	220	224	101	230	45	305	95	59
75	166	257	85	156		66	280	144	136	290	70	190	60	
90	200	274	105	168		70	296	152	141	310	70	198	65	
110	238	273	123	175		78	336	169	164	350	120	235	72	





## Ball valve type 231 PP-H FC (Fail safe to close) Without manual override With butt fusion spigots SDR11 metric

### Model:

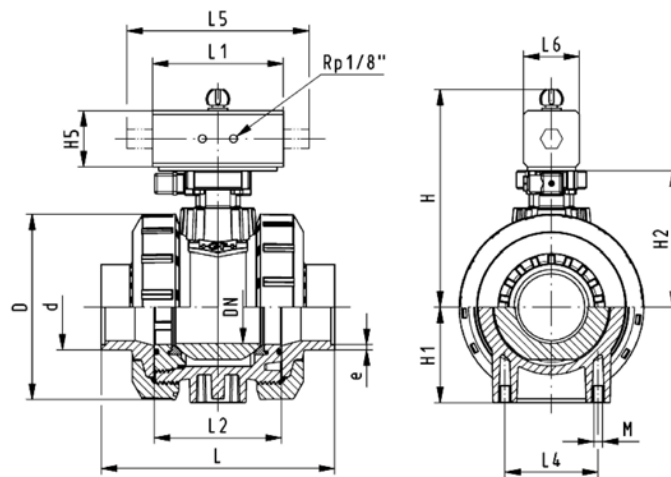
- Assignment of actuators PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ < 1-2$  s

### Option:

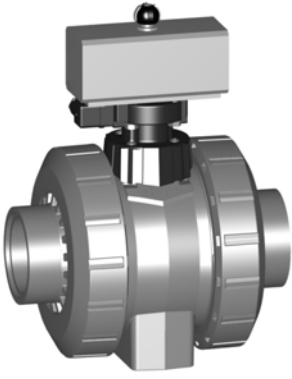
- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	<b>199 231 839</b>	<b>199 231 849</b>	4.000
90	80	10	7000	<b>199 231 840</b>	<b>199 231 850</b>	4.800
110	100	10	11000	<b>199 231 841</b>	<b>199 231 851</b>	6.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	e [mm]
75	166	262	85	156	70	266	218	136	290	70	276	65	8.2
90	200	281	105	168	78	264	259	141	310	70	341	72	9.9
110	238	292	123	175	86	301	287	164	350	120	369	80	12.0







## Ball valve type 231 PP-H FO (Fail safe to open) Without manual override With butt fusion spigots SDR11 metric

### Model:

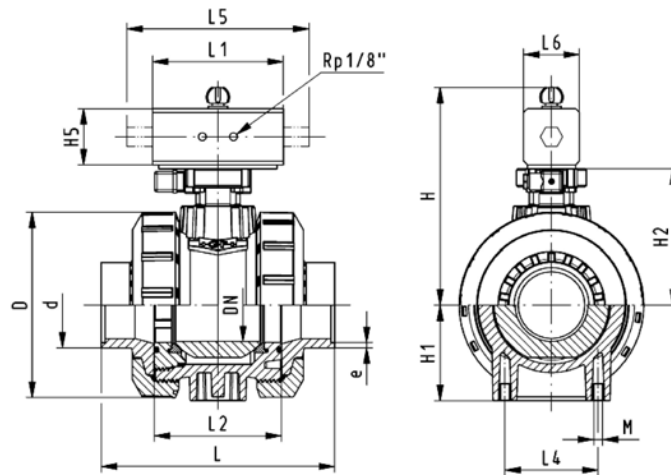
- Assignment of actuators PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s

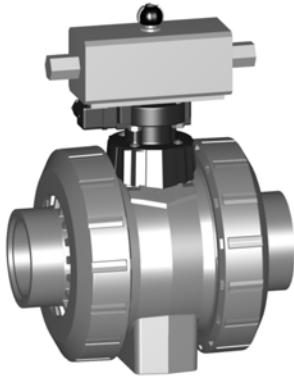
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	<b>199 231 859</b>	<b>199 231 869</b>	4.000
90	80	10	7000	<b>199 231 860</b>	<b>199 231 870</b>	4.800
110	100	10	11000	<b>199 231 861</b>	<b>199 231 871</b>	6.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	e [mm]
75	166	262	85	156	70	266	218	136	290	70	276	65	8.2
90	200	281	105	168	78	264	259	141	310	70	341	72	9.9
110	238	292	123	175	86	301	287	164	350	120	369	80	12.0





## Ball valve type 231 PP-H DA (Double acting) Without manual override With butt fusion spigots SDR11 metric

### Model:

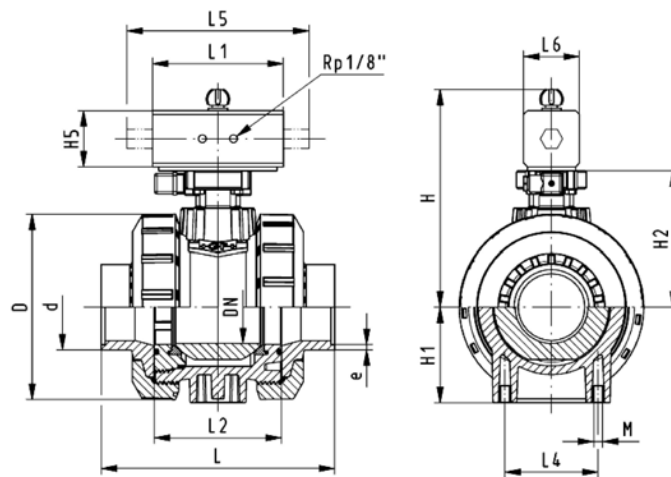
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s

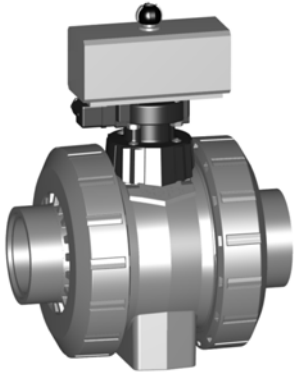
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	<b>199 231 879</b>	<b>199 231 889</b>	2.900
90	80	10	7000	<b>199 231 880</b>	<b>199 231 890</b>	4.100
110	100	10	11000	<b>199 231 881</b>	<b>199 231 891</b>	5.200

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	e [mm]
75	166	257	85	156	66	266	144	136	290	70	190	60	8.2
90	200	274	105	168	70	264	152	141	310	70	198	65	9.9
110	238	273	123	175	78	301	169	164	350	120	235	72	12.0





## Ball valve type 231 PP-H FC (Fail safe to close) Without manual override With butt fusion spigots SDR17.6 metric

### Model:

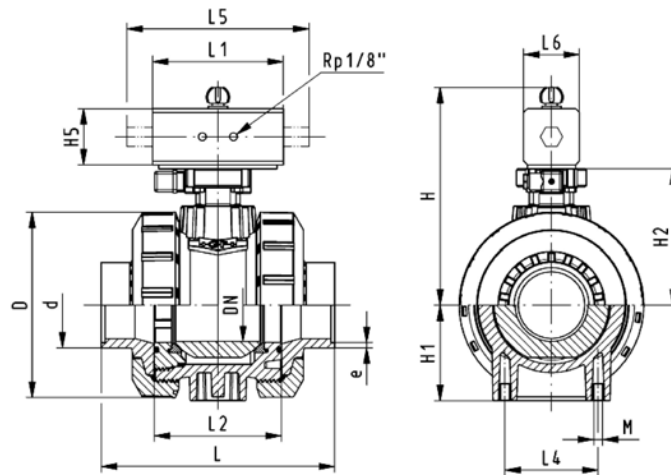
- Assignment of actuators PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s

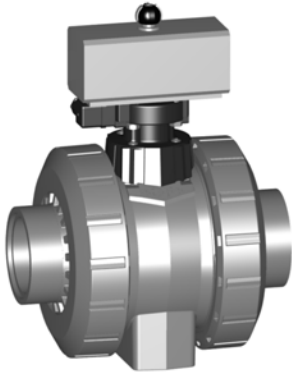
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	<b>199 231 939</b>	<b>199 231 949</b>	4.000
90	80	10	7000	<b>199 231 940</b>	<b>199 231 950</b>	4.800
110	100	10	11000	<b>199 231 941</b>	<b>199 231 951</b>	6.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	e [mm]
75	166	262	85	156	70	266	218	136	290	70	276	65	4.6
90	200	281	105	168	78	264	259	141	310	70	341	72	5.5
110	238	292	123	175	86	301	287	164	350	120	369	80	6.7





## Ball valve type 231 PP-H FO (Fail safe to open) Without manual override With butt fusion spigots SDR17.6 metric

### Model:

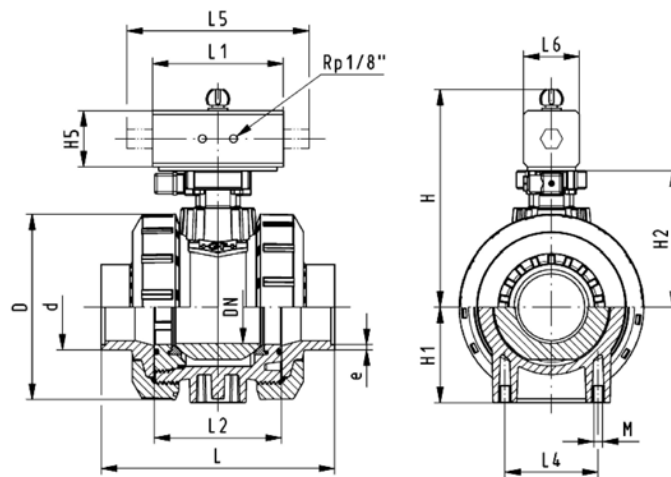
- Assignment of actuators PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s

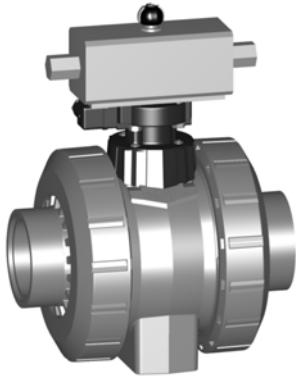
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	<b>199 231 959</b>	<b>199 231 969</b>	4.000
90	80	10	7000	<b>199 231 960</b>	<b>199 231 970</b>	4.800
110	100	10	11000	<b>199 231 961</b>	<b>199 231 971</b>	6.900

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	e [mm]
75	166	262	85	156	70	266	218	136	290	70	276	65	4.6
90	200	281	105	168	78	264	259	141	310	70	341	72	5.5
110	238	292	123	175	86	301	287	164	350	120	369	80	6.7





## Ball valve type 231 PP-H DA (Double acting) Without manual override With butt fusion spigots SDR17.6 metric

### Model:

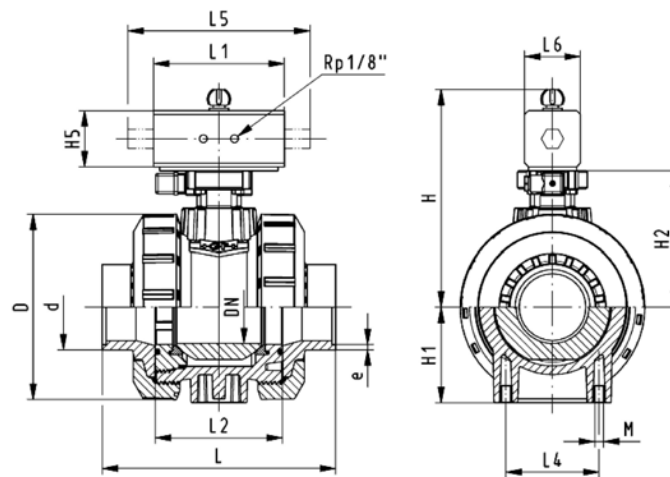
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s

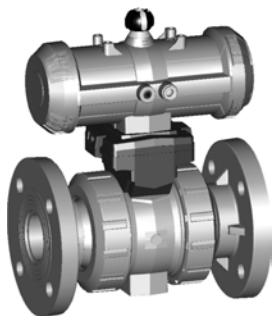
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	10	5000	<b>199 231 979</b>	<b>199 231 989</b>	2.900
90	80	10	7000	<b>199 231 980</b>	<b>199 231 990</b>	4.100
110	100	10	11000	<b>199 231 981</b>	<b>199 231 991</b>	5.200

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	e [mm]
75	166	257	85	156	66	266	144	136	290	70	190	60	4.6
90	200	274	105	168	70	264	152	141	310	70	198	65	5.5
110	238	273	123	175	78	301	169	164	350	120	235	72	6.7





DN10/15 - 50

## Ball valve type 231 PP-H FC (Fail safe to close) Without manual override With fixed flanges PP-H serrated metric

### Model:

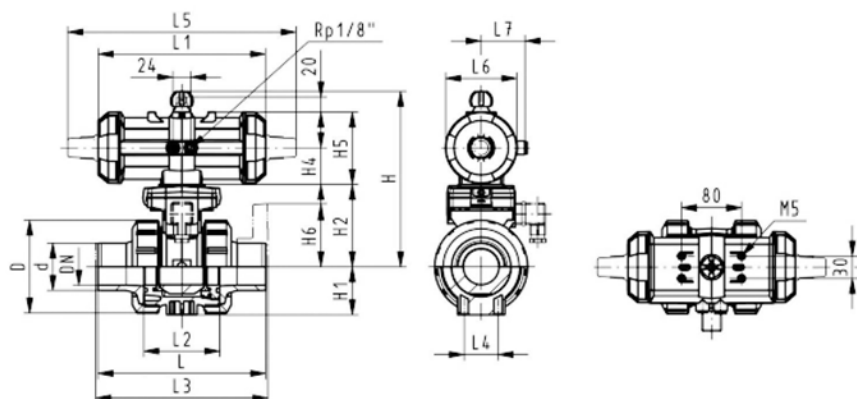
- Assignment of actuators PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time 90° < 1-2 s
- Overall length according to EN 558-1
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	1/2	10	185	<b>199 231 423</b>	<b>199 231 433</b>	1.400
25	20	3/4	10	350	<b>199 231 424</b>	<b>199 231 434</b>	1.600
32	25	1	10	700	<b>199 231 425</b>	<b>199 231 435</b>	1.800
40	32	1 1/4	10	1000	<b>199 231 426</b>	<b>199 231 436</b>	3.100
50	40	1 1/2	10	1600	<b>199 231 427</b>	<b>199 231 437</b>	3.600
63	50	2	10	3100	<b>199 231 428</b>	<b>199 231 438</b>	4.700

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	167	27	62	40	97	48	120	194	56	130	25	261	76	48
25	58	176	30	71	40	97	53	140	194	65	150	25	261	76	48
32	68	176	36	71	40	97	58	150	194	71	160	25	261	76	48
40	84	210	44	84	51	115	70	170	224	85	180	45	305	95	59
50	97	210	51	84	51	115	75	190	224	89	200	45	305	95	59
63	124	232	64	106	51	115	83	220	224	101	230	45	305	95	59





DN10/15 - 50

## Ball valve type 231 PP-H FO (Fail safe to open) Without manual override With fixed flanges PP-H serrated metric

### Model:

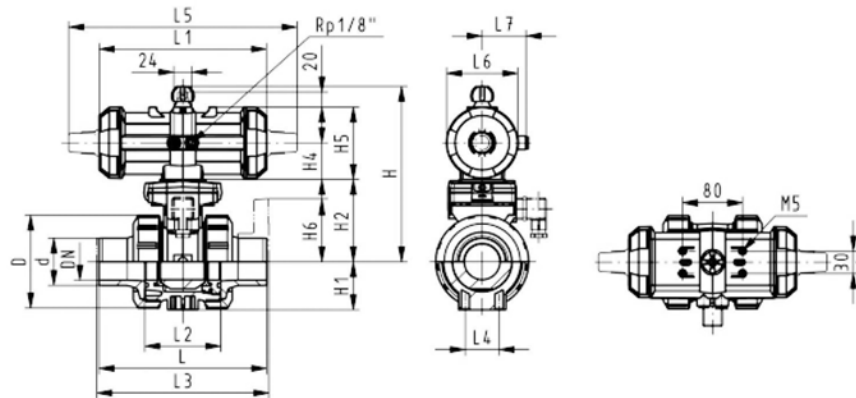
- Assignment of actuators PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$ ) 1-2 s
- Overall length according to EN 558-1
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

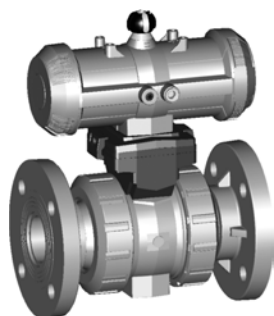
### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	1/2	10	185	<b>199 231 443</b>	<b>199 231 453</b>	1.400
25	20	3/4	10	350	<b>199 231 444</b>	<b>199 231 454</b>	1.600
32	25	1	10	700	<b>199 231 445</b>	<b>199 231 455</b>	1.800
40	32	1 1/4	10	1000	<b>199 231 446</b>	<b>199 231 456</b>	3.100
50	40	1 1/2	10	1600	<b>199 231 447</b>	<b>199 231 457</b>	3.600
63	50	2	10	3100	<b>199 231 448</b>	<b>199 231 458</b>	4.700

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	167	27	62	40	97	48	120	194	56	130	25	261	76	48
25	58	176	30	71	40	97	53	140	194	65	150	25	261	76	48
32	68	176	36	71	40	97	58	150	194	71	160	25	261	76	48
40	84	210	44	84	51	115	70	170	224	85	180	45	305	95	59
50	97	210	51	84	51	115	75	190	224	89	200	45	305	95	59
63	124	232	64	106	51	115	83	220	224	101	230	45	305	95	59





DN10/15 - 50

## Ball valve type 231 PP-H DA (Double acting) Without manual override With fixed flanges PP-H serrated metric

### Model:

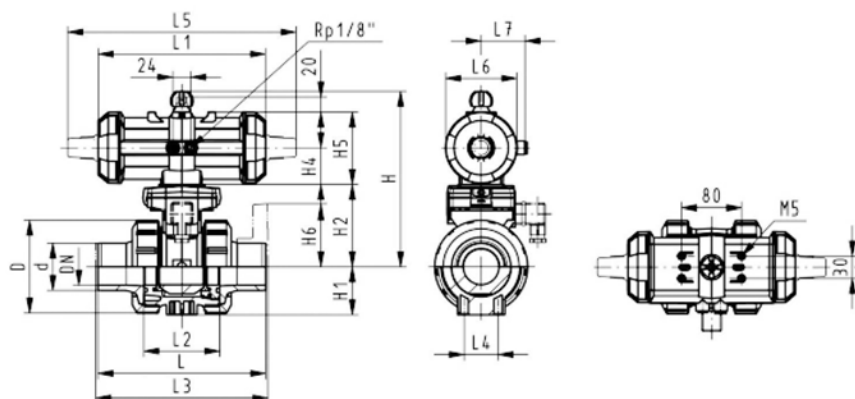
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Overall length according to EN 558-1
- Connecting dimensions: ISO 7005 / EN 1092 / DIN 2501 PN10 / BS4504

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
20	15	1/2	10	185	<b>199 231 463</b>	<b>199 231 473</b>	1.400
25	20	3/4	10	350	<b>199 231 464</b>	<b>199 231 474</b>	1.600
32	25	1	10	700	<b>199 231 465</b>	<b>199 231 475</b>	1.800
40	32	1 1/4	10	1000	<b>199 231 466</b>	<b>199 231 476</b>	3.100
50	40	1 1/2	10	1600	<b>199 231 467</b>	<b>199 231 477</b>	3.600
63	50	2	10	3100	<b>199 231 468</b>	<b>199 231 478</b>	4.700

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H4 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	L7 [mm]
20	50	167	27	62	40	97	48	120	194	56	130	25	261	76	48
25	58	176	30	71	40	97	53	140	194	65	150	25	261	76	48
32	68	176	36	71	40	97	58	150	194	71	160	25	261	76	48
40	84	210	44	84	51	115	70	170	224	85	180	45	305	95	59
50	97	210	51	84	51	115	75	190	224	89	200	45	305	95	59
63	124	232	64	106	51	115	83	220	224	101	230	45	305	95	59







## Ball valve type 231 PP-H FC (Fail safe to close) Without manual override With backing flanges PP-st metric

### Model:

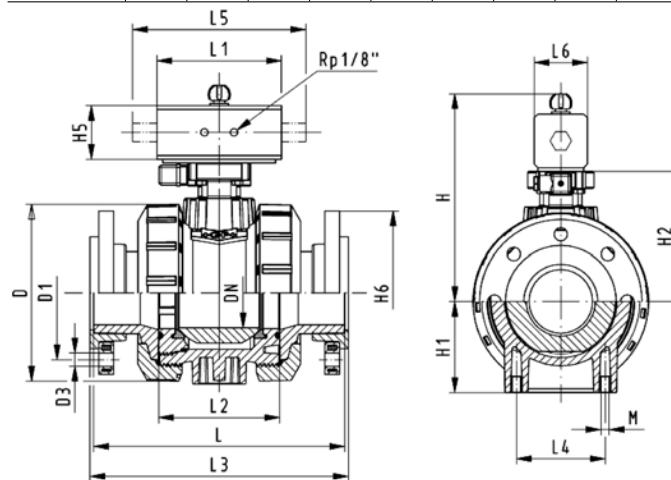
- Assignment of actuators PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$ ) 1-2 s
- Overall length according to EN 558-1
- Connecting dimensions: ISO 7005, EN 1092, BS 4504, DIN 2501; bolt circle PN 10

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	
75	65	2 1/2	10	5000	<b>199 231 329</b>	<b>199 231 339</b>	8.300	
90	80	3	10	7000	<b>199 231 330</b>	<b>199 231 340</b>	10.000	
110	100	4	10	11000	<b>199 231 331</b>	<b>199 231 341</b>	14.100	

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	
75	166	262	85	156	70	93	280	218	136	290	70	276	65	
90	200	281	105	168	78	100	296	259	141	310	70	341	72	
110	238	292	123	175	86	110	336	287	164	350	120	369	80	





## Ball valve type 231 PP-H FO (Fail safe to open) Without manual override With backing flanges PP-st metric

### Model:

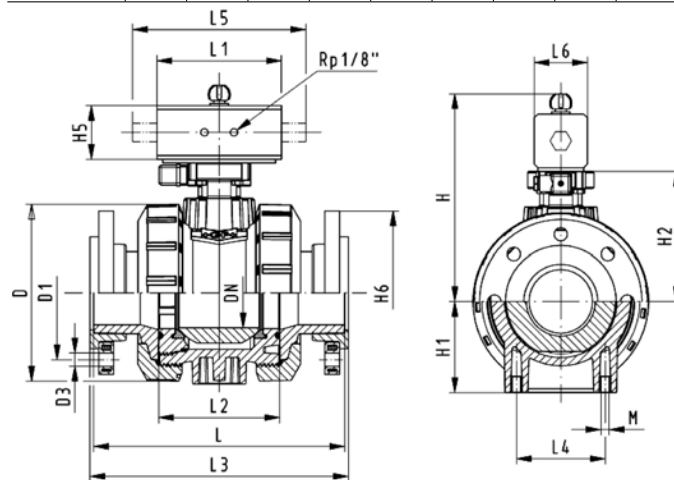
- Assignment of actuators PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Overall length according to EN 558-1
- Connecting dimensions: ISO 7005, EN 1092, BS 4504, DIN 2501; bolt circle PN 10

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	2 1/2	10	5000	<b>199 231 349</b>	<b>199 231 359</b>	8.300
90	80	3	10	7000	<b>199 231 350</b>	<b>199 231 360</b>	10.000
110	100	4	10	11000	<b>199 231 351</b>	<b>199 231 361</b>	14.100

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
75	166	262	85	156	70	93	280	218	136	290	70	276	65
90	200	281	105	168	78	100	296	259	141	310	70	341	72
110	238	292	123	175	86	110	336	287	164	350	120	369	80





## Ball valve type 231 PP-H DA (Double acting) Without manual override With backing flanges PP-st metric

### Model:

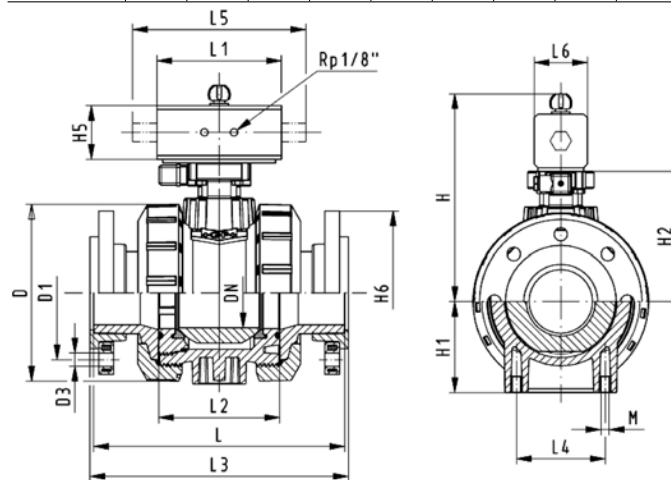
- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$ ) 1-2 s
- Overall length according to EN 558-1
- Connecting dimensions: ISO 7005, EN 1092, BS 4504, DIN 2501; bolt circle PN 10

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	
75	65	2 1/2	10	5000	<b>199 231 369</b>	<b>199 231 379</b>	7.100	
90	80	3	10	7000	<b>199 231 370</b>	<b>199 231 380</b>	9.300	
110	100	4	10	11000	<b>199 231 371</b>	<b>199 231 381</b>	12.300	

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	
75	166	257	85	156	66	93	280	144	136	290	70	190	60	
90	200	274	105	168	70	100	296	152	141	310	70	198	65	
110	238	273	123	175	78	110	336	169	164	350	120	235	72	





## Ball valve type 231 PP-H FC (Fail safe to close) Without manual override With backing flanges PP-st ASTM

### Model:

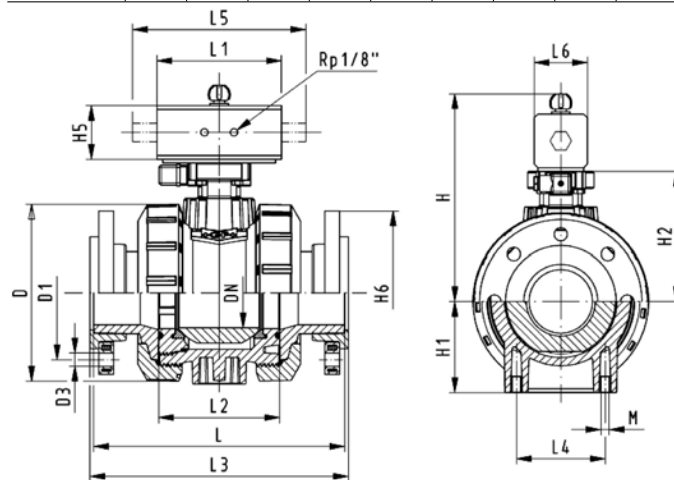
- Assignment of actuators PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Overall length according to EN 558-1
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	2 1/2	10	5000	<b>199 231 729</b>	<b>199 231 739</b>	8.300
90	80	3	10	7000	<b>199 231 730</b>	<b>199 231 740</b>	10.000
110	100	4	10	11000	<b>199 231 731</b>	<b>199 231 741</b>	14.100

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
75	166	262	85	156	70	93	280	218	136	290	70	276	65
90	200	281	105	168	78	100	296	259	141	310	70	341	72
110	238	292	123	175	86	115	336	287	164	350	120	369	80





## Ball valve type 231 PP-H FO (Fail safe to open) Without manual override With backing flanges PP-st ASTM

### Model:

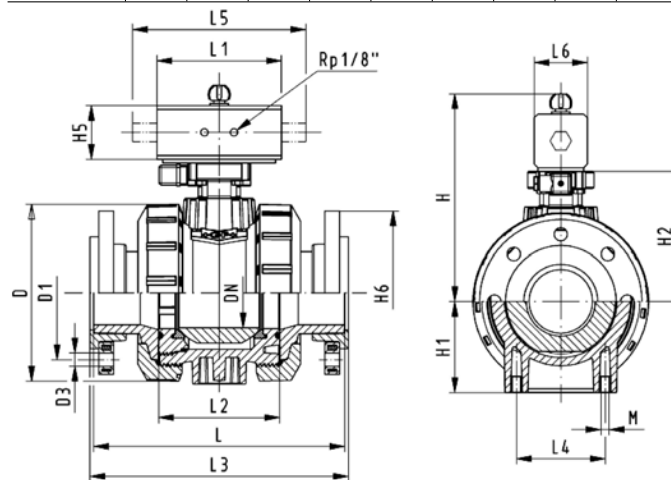
- Assignment of actuators PA11 (DN10/15-25), PA21 (DN32-50), PA30 (DN65), PA35 (DN80), PA40 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$ ) 1-2 s
- Overall length according to EN 558-1
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg	
75	65	2 1/2	10	5000	<b>199 231 749</b>	<b>199 231 759</b>	8.300	
90	80	3	10	7000	<b>199 231 750</b>	<b>199 231 760</b>	10.000	
110	100	4	10	11000	<b>199 231 751</b>	<b>199 231 761</b>	14.100	

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]	
75	166	262	85	156	70	93	280	218	136	290	70	276	65	
90	200	281	105	168	78	100	296	259	141	310	70	341	72	
110	238	292	123	175	86	115	336	287	164	350	120	369	80	





## Ball valve type 231 PP-H DA (Double acting) Without manual override With backing flanges PP-st ASTM

### Model:

- Assignment of actuators: PA11 (DN10/15-25), PA21 (DN32-50), PA35 (DN65), PA40 (DN80), PA45 (DN100)
- Image and drawing DN65-100 please see **New product ball valve DN65-100**
- For easy installation and removal
- Integrated stainless steel mounting inserts
- Control time  $90^\circ <$  1-2 s
- Overall length according to EN 558-1
- Connecting dimension ANSI/ASME B 16.5 / ASTM D 4024

### Option:

- Individual configuration of the valve (see form)

d [mm]	DN [mm]	Inch	PN	kv-value ( $\Delta p=1$ bar) [l/min]	EPDM Code	FPM Code	kg
75	65	2 1/2	10	5000	<b>199 231 769</b>	<b>199 231 779</b>	7.100
90	80	3	10	7000	<b>199 231 770</b>	<b>199 231 780</b>	9.300
110	100	4	10	11000	<b>199 231 771</b>	<b>199 231 781</b>	12.300

d [mm]	D [mm]	H [mm]	H1 [mm]	H2 [mm]	H5 [mm]	H6 [mm]	L [mm]	L1 [mm]	L2 [mm]	L3 [mm]	L4 [mm]	L5 [mm]	L6 [mm]
75	166	257	85	156	66	93	280	144	136	290	70	190	60
90	200	274	105	168	70	100	296	152	141	310	70	198	65
110	238	273	123	175	78	115	336	169	164	350	120	235	72

