

Electrically actuated 2-way PVC ball valves VE2V M1



- PVC-U, PP-H, PVDF valves from ND 10 to ND 100
- Electric actuator with position pointer and manual operating for emergency

APPLICATIONS

These valves are suitable for applications with aggressive liquids.

DESCRIPTION

Electrically actuated 2-way ball valves are useful to stop the flow of fluids and to isolate part of a piping system. In open position they do not induce pressure drop. The seat of the PTFE ball gives to the valve a long service life. The closing time for the angle of 90° is about 10 seconds. These valves have a manual emergency control with visual position indicator. Power supply must be switched off before manual operating.

TECHNICAL FEATURES

2-way ball valves:

Body	PVC-U, PP-H or PVDF
Sealing	Seals EPDM or FPM (PVDF body -> FPM seals only)
Ball	Material identical to valve body
Ball seat	PTFE
Fittings	Female unions fittings (smooth ends), PVC, PPH or PVDF
Accessory	Mounting bracket for fixing / raising (Available for valves ND 10 to ND 50)

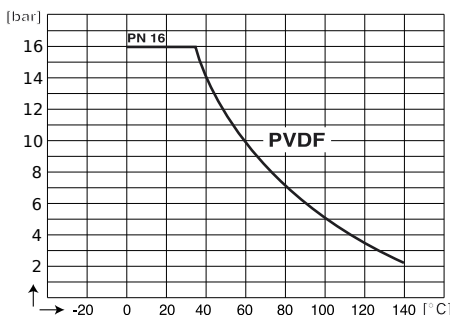
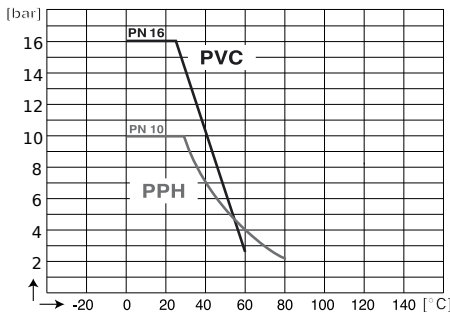
Electric actuator:

Operation	90°
Emergency operation	Manual operating
Duty rating	30 %
Protection	IP 65
Electrical connections	1 cable gland ISO M20 DIN 43650 plug; 3-wire + earth
Power	15 W (ND 10...ND 50); 45 W (ND 65...ND 100)
Multi-voltage power supplies	100 ... 240 V AC 50/60 Hz; 100 ... 350 V DC or 24 V AC 50/60 Hz; 24 V DC

OPTIONS

Back to 0° in case of power failure
Electronic positioning system 4-20 mA
Or 0-20 mA, or 0-10 V

EC Conformity : The instrument meets the legal requirements of the current European Directives.



Pressure vs. Temperature

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CODE NUMBERS AND REFERENCES

PVC-U valve body — PN 16					
		24 V AC / 24 V DC		100-240 V AC / 100-350 V DC	
ND	d	EPDM seals	FPM seals	EPDM seals	FPM seals
10	16	914 001 M	914 011 M	914 021 M	914 031 M
15	20	914 002 M	914 012 M	914 022 M	914 032 M
20	25	914 003 M	914 013 M	914 023 M	914 033 M
25	32	914 004 M	914 014 M	914 024 M	914 034 M
32	40	914 005 M	914 015 M	914 025 M	914 035 M
40	50	914 006 M	914 016 M	914 026 M	914 036 M
50	63	914 007 M	914 017 M	914 027 M	914 037 M
65	75	914 008 M	914 018 M	914 028 M	914 038 M
80	90	914 009 M	914 019 M	914 029 M	914 039 M
100	110	914 010 M	914 020 M	914 030 M	914 040 M

		Valve body PP-H — PN 10				PVDF valve body - PN 16	
		24 V AC / 24 V DC		100-240 V AC / 100-350 V DC		24 V AC / 24 V DC	100-240 V AC / 100-350 V DC
ND	d	EPDM seals	FPM seals	EPDM seals	FPM seals	FPM seals	FPM seals
10	16	914 301 M	914 311 M	914 321 M	914 331 M	914 601 M	914 611 M
15	20	914 302 M	914 312 M	914 322 M	914 332 M	914 602 M	914 612 M
20	25	914 303 M	914 313 M	914 323 M	914 333 M	914 603 M	914 613 M
25	32	914 304 M	914 314 M	914 324 M	914 334 M	914 604 M	914 614 M
32	40	914 305 M	914 315 M	914 325 M	914 335 M	914 605 M	914 615 M
40	50	914 306 M	914 316 M	914 326 M	914 336 M	914 606 M	914 616 M
50	63	914 307 M	914 317 M	914 327 M	914 337 M	914 607 M	914 617 M
65	75	914 308 M	914 318 M	914 328 M	914 338 M	914 608 M	914 618 M
80	90	914 309 M	914 319 M	914 329 M	914 339 M	914 609 M	914 619 M
100	110	914 310 M	914 320 M	914 330 M	914 340 M	914 610 M	914 620 M

Mounting accessories

Code	Description
141776	Mounting accessory; double function, for valves M1: ND 10, 15 and 20
141777	Mounting accessory; double function, for valves M1: ND 25, 32, 40 and ND 50

Detailed information on mounting accessories is described on the data-sheet 934-04.

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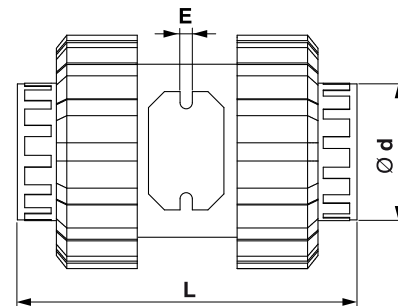
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DIMENSIONS [mm]

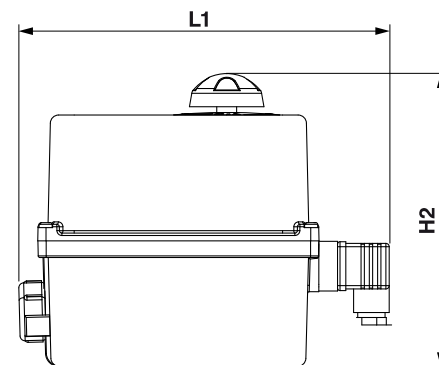
PVC valve body — PN 16

ND	d	H	L	E	H1	L1	H2
10	16	33	83	5,5	113	190	148
15	20				125.5		
20	25	40	98.5				
25	32	43	106	6,5	131		
32	40	51	121.5		148		
40	50	56	149		159		
50	63	64	175	8,3	173.5		
65	75	85	211		221.5		
80	90	100	265.5	10,3	259.5	206	180
100	110		284				



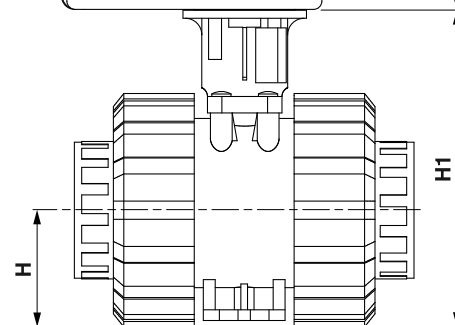
Valve body PP-H — PN 10

ND	d	H	L	E	H1	L1	H2
10	16	33	98.5	5,5	114	190	148
15	20				126.5		
20	25	40	113				
25	32	43,5	123	6,5	133		
32	40	51	141		148		
40	50	56,5	164		161		
50	63	64,5	194,5	8,3	176		
65	75	85	231		223,5		
80	90	100	283,5	10,3	268	206	180
100	110		291,5				



PVDF valve body - PN 16

ND	d	H	L	E	H1	L1	H2
10	16	33	98.5	5,5	114	190	148
15	20				126.5		
20	25	40	113				
25	32	43,5	123	6,5	133		
32	40	51	141		148		
40	50	56,5	164		161		
50	63	64,5	194,5	8,3	176		
65	75	85	228,5		223,5		
80	90	100	282	10,3	268	206	180
100	110		251				



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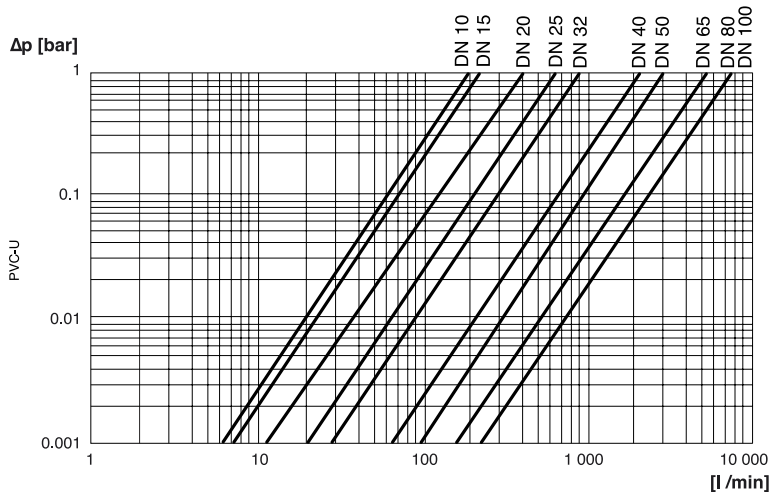
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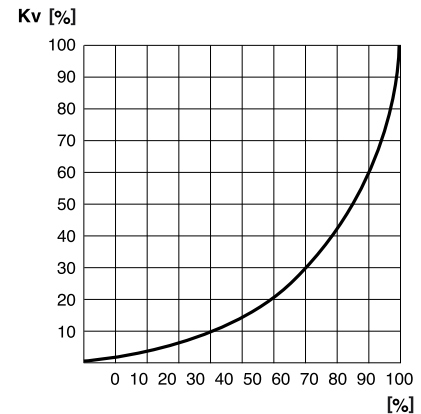
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PHYSICAL CHARACTERISTICS — PVC-U



Pressure drop vs. Flow rate (water at 20 °C)

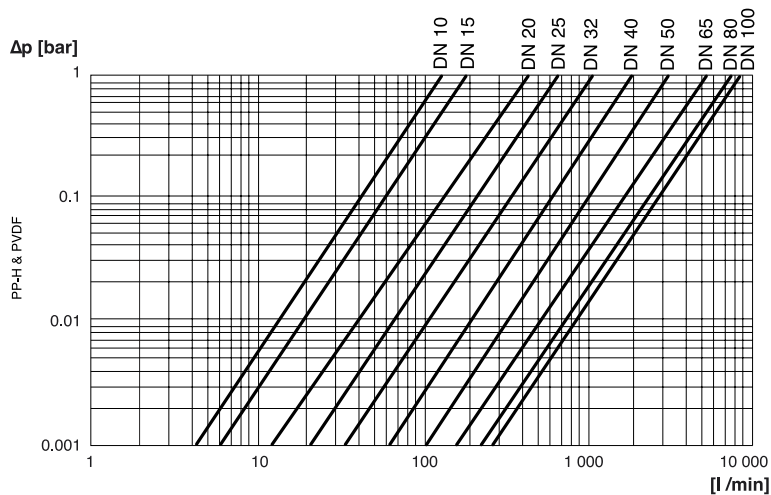


Kv vs. Opening angle [%]

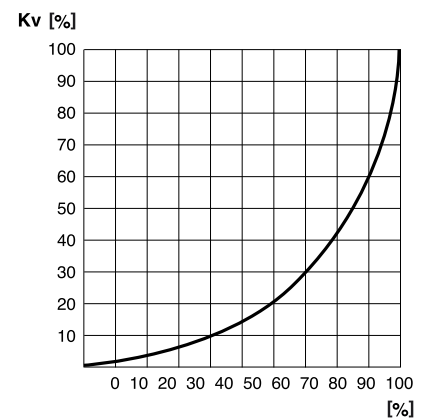
Flow coefficient Kv (at 20 ° C):

PVC-U: PN 16	ND 10	ND 15	ND 20	ND 25	ND 32	ND 40	ND 50	ND 65	ND 80	ND 100
	d 16	d 20	d 25	d 32	d 40	d 50	d 63	d 75	d 90	d 110
Pressure drop at 1 bar [l/min]	198	225	400	630	900	2120	3000	5150	7600	
Pressure drop at 0.001 bar [l/min]	6.2	7.1	12.6	19.9	28.4	67	94.8	162.8	240.3	

PHYSICAL CHARACTERISTICS — PP-H & PVDF



Pressure drop vs. Flow rate (water at 20 °C)



Kv vs. Opening angle [%]

Flow coefficient Kv (at 20 ° C)

PP-H : PN 10	ND 10	ND 15	ND 20	ND 25	ND 32	ND 40	ND 50	ND 65	ND 80	ND 100
PVDF : PN 16	d 16	d 20	d 25	d 32	d 40	d 50	d 63	d 75	d 90	d 110
Pressure drop at 1 bar [l / min]	130	190	440	650	1080	1980	3240	5200	7500	8850
Pressure drop at 0.001 bar [l / min]	4.1	6.0	13.9	20.6	34.2	62.6	102.5	164.4	237.1	279.8

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