

2 way ball valve M1 with electric actuator



General:

- Valve body: PVC-U
- Seal material: EPDM / FPM
- Ball seating joint: PTFE
- Dimensions: DN10 – DN80
d16 – d110
d3/8" – d4"

Connector types:

- Solvent socket: DIN / ASTM
- Solvent spigot: DIN
- Threaded socket: BSP / NPT
- PE fusion socket: DIN
- PE fusion spigot: DIN
- Backing flange: DIN
- Fixed flange: DIN / ANSI / JIS

Operating pressure:

PVC-U DN10 – DN80 d110	PN16
PVC-U DN10 – DN80 d110 backing flange	PN10

Technical features:

Ball Valve

- Silicone free
- Buttress thread
- Double axial gasket
- Floating ball
- Double sided blocked ball
- Adjustable ball seating joint
- Integrated bottom mounting stand
- Radial installation or removal
- Maintenance free

Actuator (*)

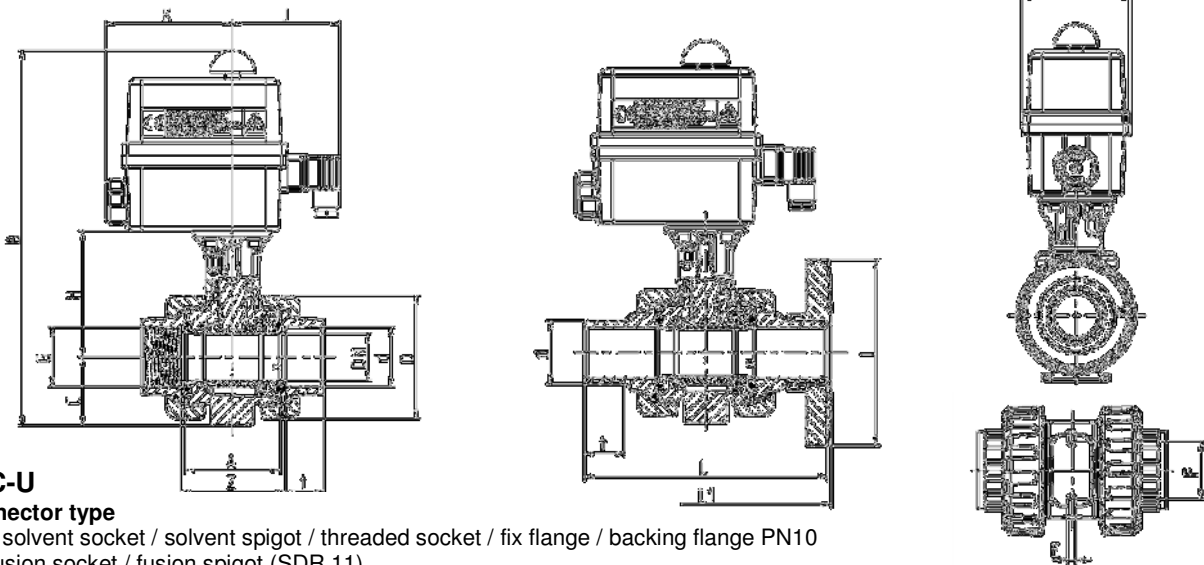
- Adjustable limit switch
- Mechanical travel stops
- Secured manual override
- Protection IP65
- Torque limiter
- Position feedback

* Technical details see page 5

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Dimensions:



PVC-U

Connector type

PVC solvent socket / solvent spigot / threaded socket / fix flange / backing flange PN10

PE fusion socket / fusion spigot (SDR 11)

DN	10	15	20	25	32	40	50	65	80	80
d	16	20	25	32	40	50	63	75	90	110
ISO flange	F04	F04	F04	F04	F05	F05	F05	F07	F07	F07
G TSO ¹	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
A	45	45	53,5	54	62	78	87	111,5	135,5	135,5
B	265	265	277,5	283	300	311	325,5	398	436,5	436,5
C	33	33	40	43	51	56	64	85	100	100
D	55,5	55,5	62	70	84	101	115	149	182	182
E	5,5	5,5	5,5	6,5	6,5	6,5	6,5	8,3	10,3	10,3
F	34	34	36	38	40	45	50	65	80	80
H	80	80	85,5	88	97	103	109,5	136,5	159,5	159,5
I	-	97	105	125	140	150	165	185	200	-
J	90	90	90	90	90	90	90	98	98	98
K	107	107	107	107	107	107	107	107	107	107
t SSO ²	16	16,5	19,5	23	26,5	31,5	38,5	44,5	56,5	61
t SSP ³	17	16,5	19,5	23	26,5	31,5	38,5	44,5	54	-
t FSP ⁴ PE	13	14	15,5	18,5	15	29	31	32	30	-
t FSO ⁵ PE	14,5	16	17	19	21,5	25	29,5	34,5	38	42
Z SSO ²	51	50	59,5	60	68,5	86	98	122	152,5	162
Z TSO ¹	48	50	60	60	68	87	98	122	156	-
Z FSO ⁵ PE	52,5	50	62	64,5	75	97	110,5	139,5	181,5	185,5
L SSP ³	98	123,5	143,5	153,5	173,5	193,5	223,5	259,5	297	-
L FSP ⁴ PE	95	106,5	126,5	131	120	162,5	175	227	265,5	-
L1 FF ⁶	-	130	150	160	180	200	230	266	307,5	-
M	92	92	92	92	92	92	92	128	128	128
PN	16	16	16	16	16	16	16	16	16	16

¹ TSO = threaded socket
² SSO = solvent socket

³ SSP = solvent spigot
⁴ FSP = fusion spigot

⁵ FSO = fusion socket
⁶ FF = fix flange

- = currently not realised

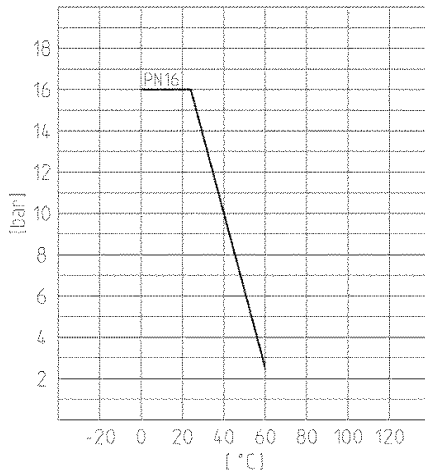
Dimensionen in mm

2 way ball valve M1 with electric actuator

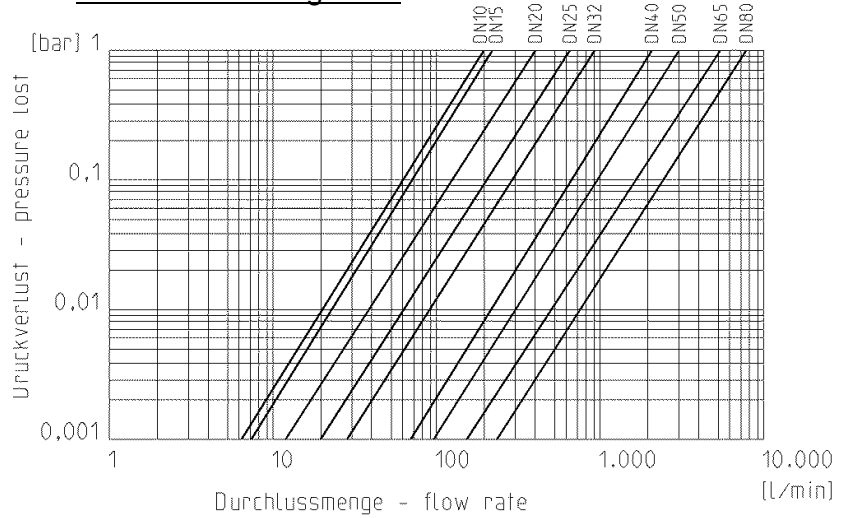


Diagrams:

Pressure - temperature



Pressure loss diagram

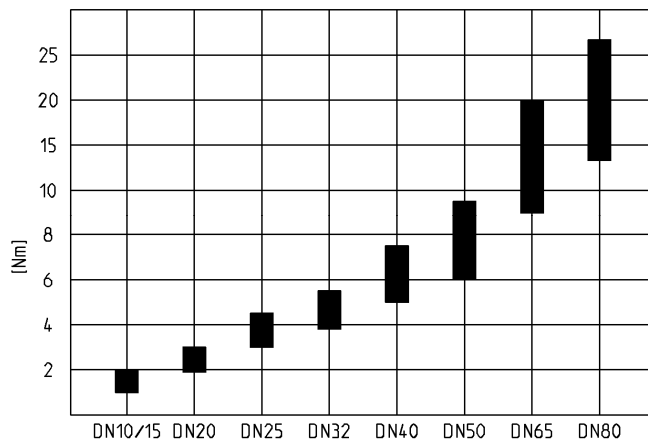


Cv value table

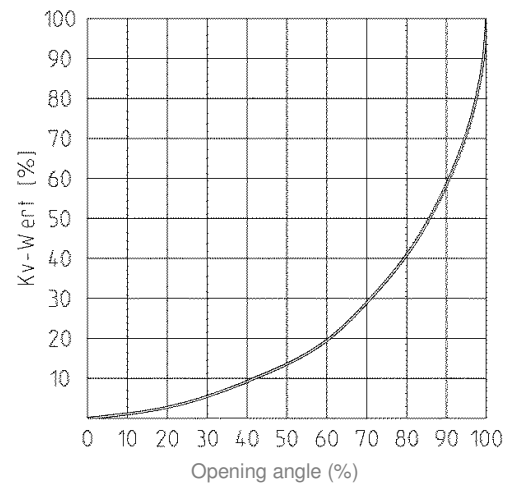
Pressure loss	DN10 d16	DN15 d20	DN20 d25	DN25 d32	DN32 d40	DN40 d50	DN50 d63	DN65 d75	DN80 d90	DN80 d110
0,001 bar	6,2	7,1	12,6	19,9	28,4	67	94,8	162,8	240,3	240,3
1 bar	198	225	400	630	900	2120	3000	5150	7600	7600

Angaben in l/min (PN16 Rohr)

Torque



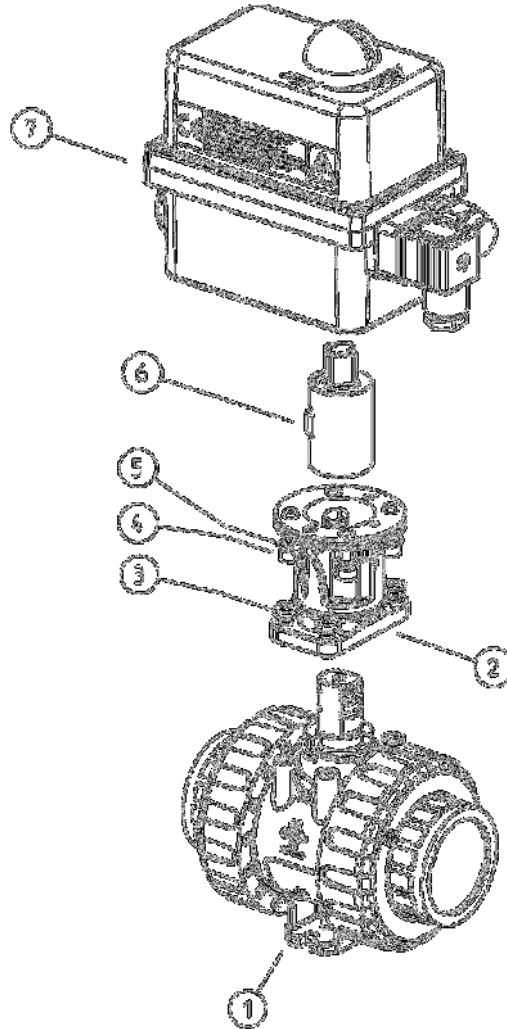
Flow characteristics



2 way ball valve M1 with electric actuator

Exploded drawing:

- 01. ball valve
- 02. bracket (material: PA-GF)
- 03. screw
- 04. hexagon socket screw
- 05. toothed washer
- 06. coupling – actuator (material: PA-GF)
- 07. actuator

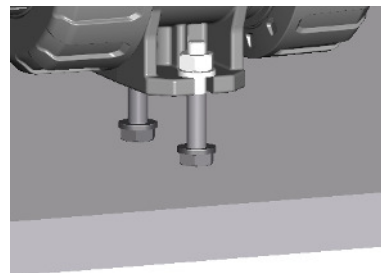


Bottom mounting stand – mounting possibilities:

- Assembly rail



- Plate



- Masonry / Concrete
 - Hanger screw and dowel required



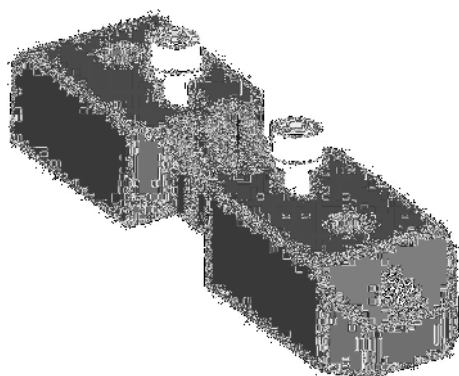
2 way ball valve M1
with electric actuator

Technical data electric actuator:

Electric actuator		
Type	ER20	ER60
torque	20Nm	60Nm
Voltage	90 - 240V 50/60Hz (90 – 350V DC) 24V 50/60Hz (24V DC)	
Operating time	13s	15s
Power	15W	45W
ISO flange	F03-F04-F05	F05-F07
Star drive nut	14	22
Limit switch	2 limit switch preadjusted	
	2 indicator	
Mechanical stop	90°	
Duration duty	30%	
Rotation angle	90°	
Protection	IP65	
Ambient temperature	Operating: -10°C bis +55°C	
Weight	1 kg	2,1 kg

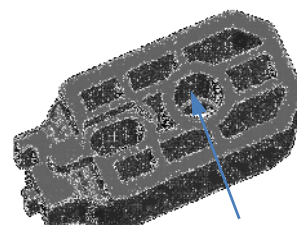
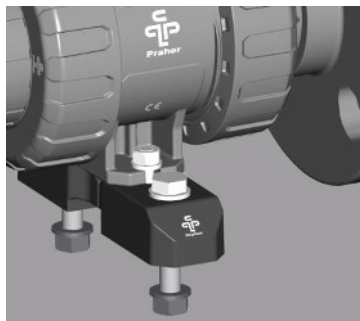
Accessories

Clamping / spacing element:



Technical features:

- Using for fixing as:
 - Clamping element
 - floors, walls, ceilings
 - plate
 - Spacing element
(screws additionally necessary)
 - for flange connection
- Bore for threaded bush

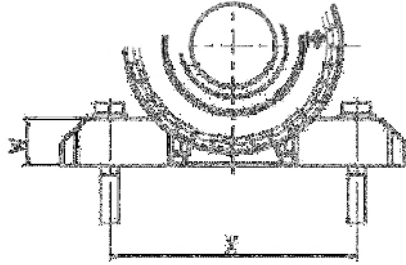


Bore for threaded bush

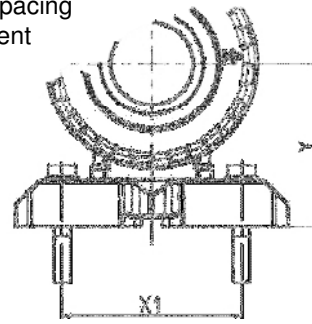
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Dimensions:

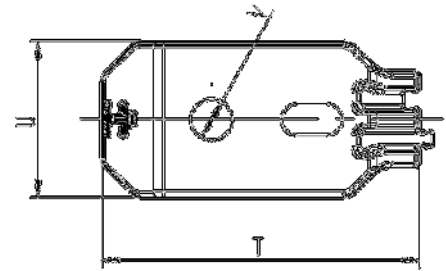
Use as clamping
element



Use as spacing
element



DN	10	15	20	25	32	40	50
d	16	20	25	32	40	50	63
T	54	54	54	65	65	65	65
U	25	25	25	32	32	32	32
V	6,5	6,5	6,5	8,5	8,5	8,5	8,5
W	16	16	16	22	22	22	22
X	90	90	94	107	109	114	119
X1	70	70	70	85	85	85	85
Y	49	49	56	65	73	78	86



Dimensions in mm