

## 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 (\*)

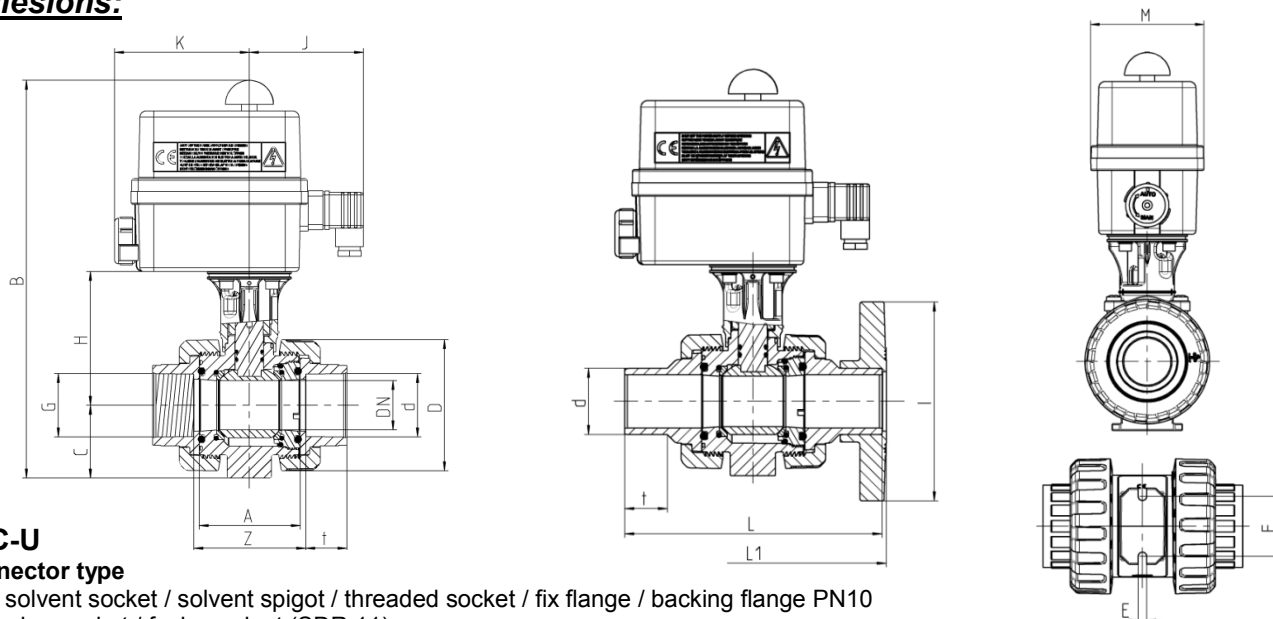
- Adjustable limit switch
- Mechanical travel stops
- Secured manual override
- Protection IP65
- Torque limiter
- Position feedback

\* Technical details see page 5

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## 2 way ball valve M1 with electric actuator

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

Dimensionen in mm

<sup>1</sup> TSO = threaded socket  
<sup>2</sup> SSO = solvent socket

<sup>3</sup> SSP = solvent spigot  
<sup>4</sup> FSP = fusion spigot

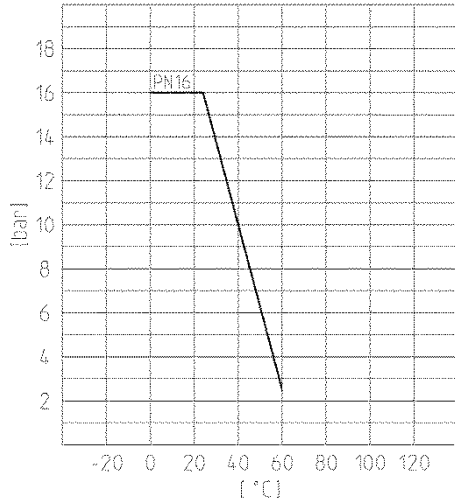
<sup>5</sup> FSO = fusion socket  
<sup>6</sup> FF = fix flange

- = currently not realised

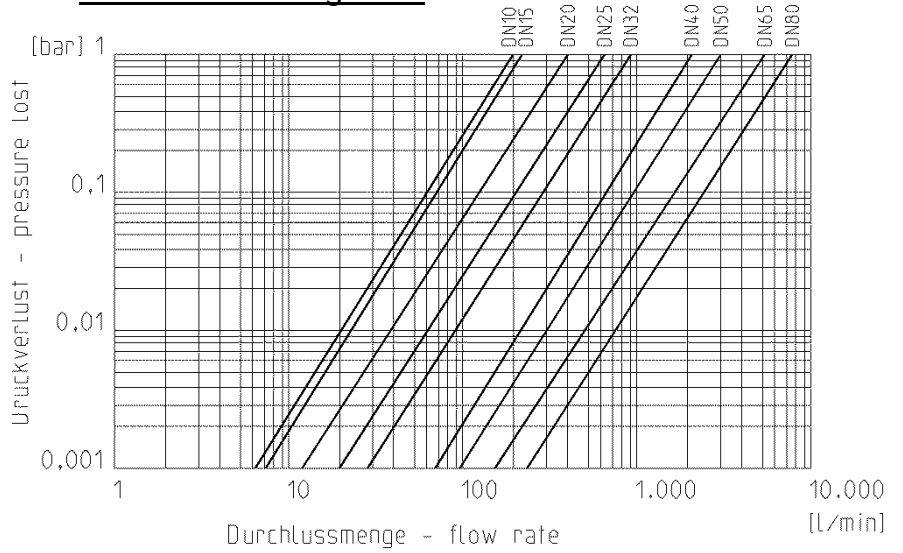
## 2 way ball valve M1 with electric actuator

### Diagrams:

#### Pressure -temperature



#### Pressure loss diagramm

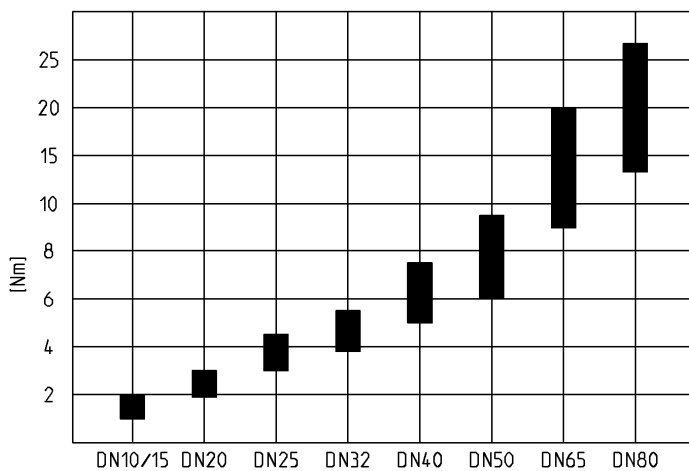


#### Cv value table

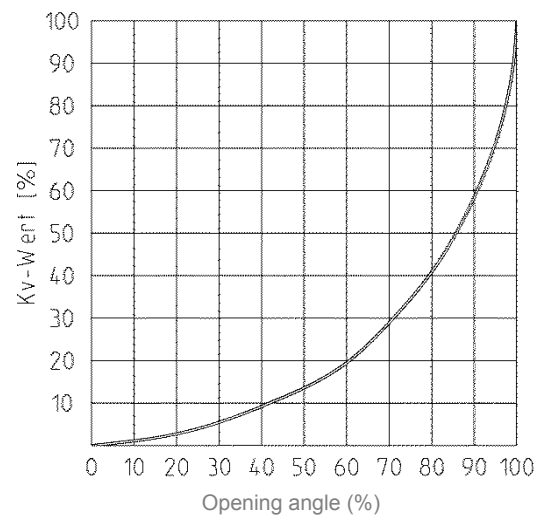
Pressure loss	DN10 d16	DN15 d20	DN20 d25	DN25 d32	DN32 d40	DN40 d50	DN50 d63	DN65 d75	DN80 d90	DN80 d110
<b>0,001 bar</b>	6,2	7,1	12,6	19,9	28,4	67	94,8	162,8	240,3	240,3
<b>1 bar</b>	198	225	400	630	900	2120	3000	5150	7600	7600

Angaben in l/min (PN16 Rohr)

#### Torque



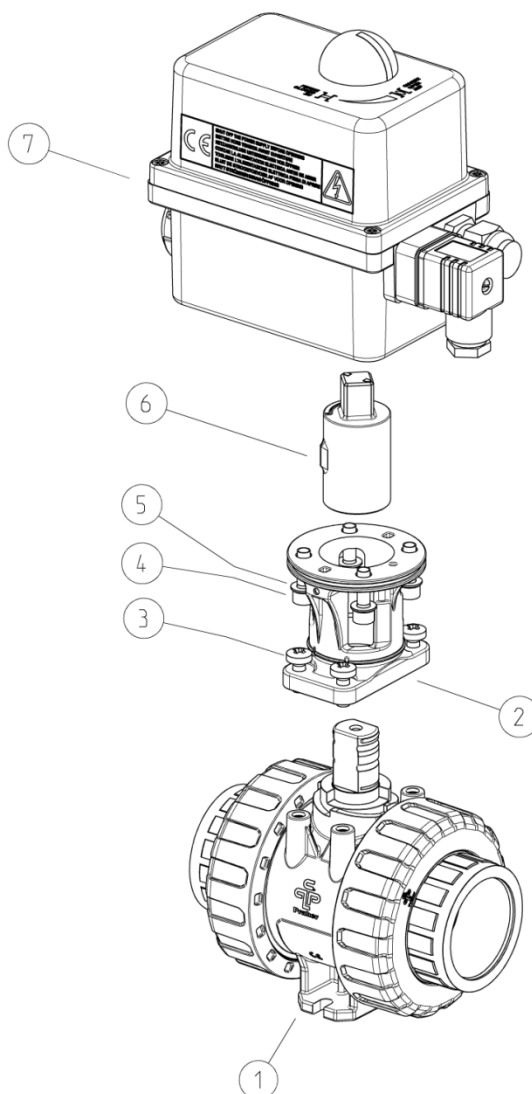
#### Flow characteristics



## 2 way ball valve M1 with electric actuator

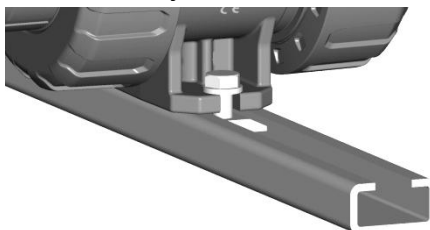
### Exploded drawing:

- 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

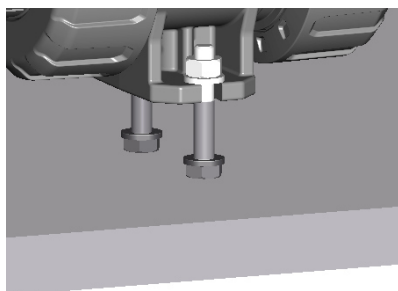


### Bottom mounting stand – mounting possibilities:

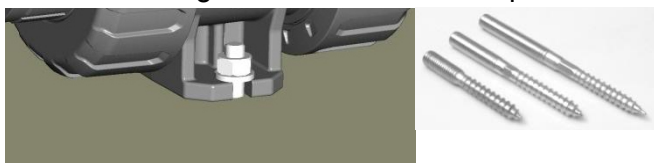
- Assembly rail



- Plate



- Masonry / Concrete
  - Hanger screw and dowel required



**2 way ball valve M1**  
with electric actuator

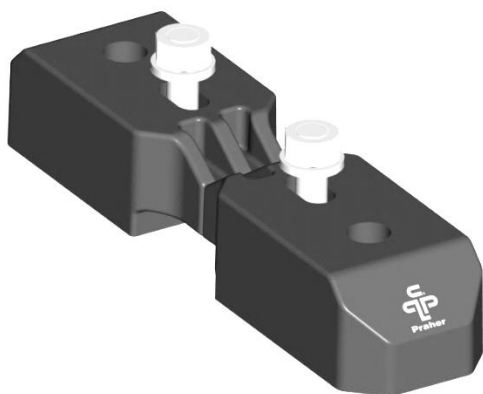


**Technical data electric actuator:**

Electric actuator		
Type	ER20	ER60
torque	20Nm	60Nm
Voltage	<b>90 - 240V 50/60Hz</b> (90 – 350V DC) <b>24V 50/60Hz</b> (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

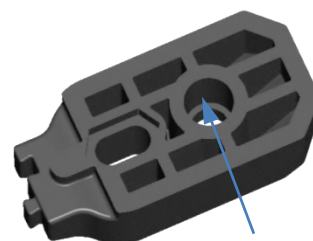
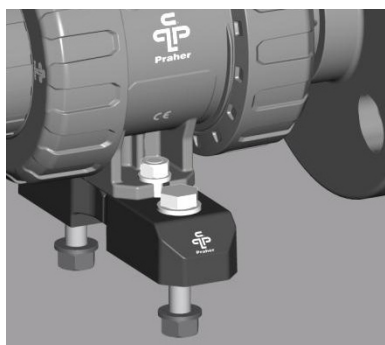
**Accessories**

**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

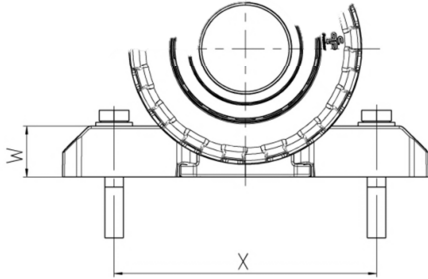


Bore for threaded bush

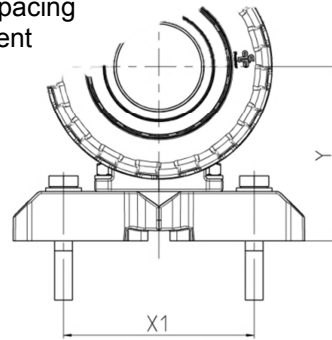
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### Dimensions:

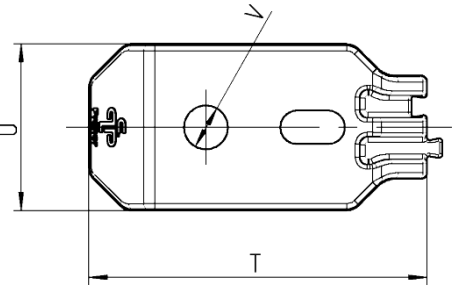
Use as clamping  
element



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