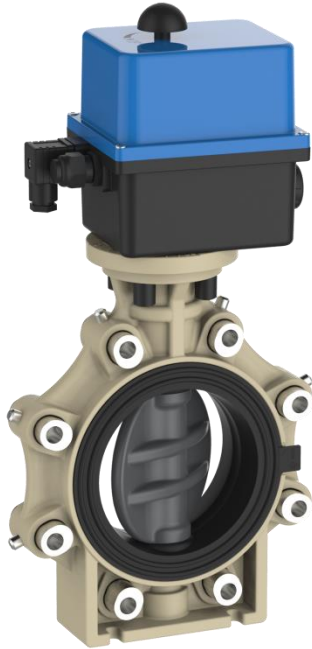


Butterfly Valve K4 Lug-Type

Electric Actuators ER35, ER60, ER100, VS150, VS300



Actuator ER for ASK DN65 –



Actuator VS for ASK DN150 – DN200



General:

- Sealing materials: EPDM, FPM
- Body material: PP-GF
- Disc materials: PVC-U, PP-H, PVDF
- Dimensions: DN65 – DN200
d75 – d225
2 ½“ – 8“
- Flange connections: DIN 2501 PN10
ANSI B 16,5 Class 150
- Additional dimension: DN65/d63 PVC-U
DIN 2501 PN10
- Insert material: INOX A4
- Pin material: INOX A2

Operation pressure:

PVC-U, PP-H, PVDF

Used as intermediate butterfly valve: PN10

Actuator materials:

- ER – Plastic enclosure
- VS – Plastic-aluminium-enclosure

Characteristics:

- only sleeve gasket and disc in touch with medium
 - double sealed shaft
 - integrated bracket for fix point mounting
 - direct mounting of the actuator without additional adapter or screws
 - mechanical limit stops
 - emergency manual override
 - protection class ER IP65 or VS IP67
 - position indication
 - torque and force limiters
 - If used as End-of-line valve a blind flange has to be mounted on the free connection side.
 - Pressure has to be reduced if a flange is disassembled on one side
 - DN65 to DN125 → max. 6bar
 - DN150 to DN200 → max. 4bar
- Only temporary usage

This document does not constitute a guarantee, it is for initial information purpose only. The product range is continually upgraded, the designs and types therefore only reflect the state of the art at the time of printing. Subject to technical modifications!

Butterfly Valve K4 Lug-Type

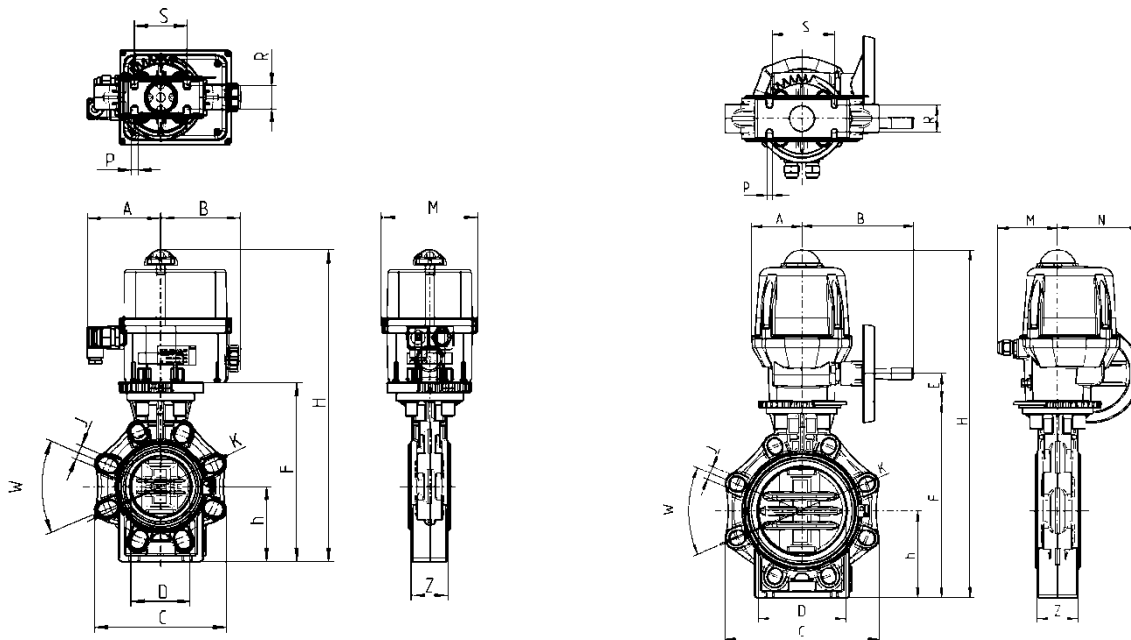
Electric Actuators ER35, ER60, ER100, VS150, VS300



Dimensions:

Actuator ER35 / ER60 / ER100

Actuator VS150 / VS300



	ER35	ER60	ER60	ER100	VS150	VS300
DN	65	80	100	125	150	200
d	75	90	110	140	160	225
G	2 1/2"	3"	4"	5"	6"	8"
D	65	80	100	125	150	200
C	133	176	206	234,5	261	314
W	90°	45°	45°	45°	45°	45°
J	19	19	19	23	23	23
K	127-145	146-160	175-190,5	209,5-216	234,5-241,3	290-298,45
K-DIN	145	160	180	210	240	295
K-ANSI	139,7	152,4	190,5	215,9	241,3	298,45
H	409	416	446	480,5	591	653
h	100	100	115	130	147,5	175
A	98	98	98	98	85	85
B	107	107	107	107	190	190
M	128	128	128	128	94	94
N	-	-	-	-	140	140
Z	46	49	56	67	70	71
S	55	70	85	100	110	145
R	25	30	35	45	45	40
P	7	9	9	9	9	9
F	232	239	269	303,5	333	395
E	-	-	-	-	48	48

Dimensions in mm

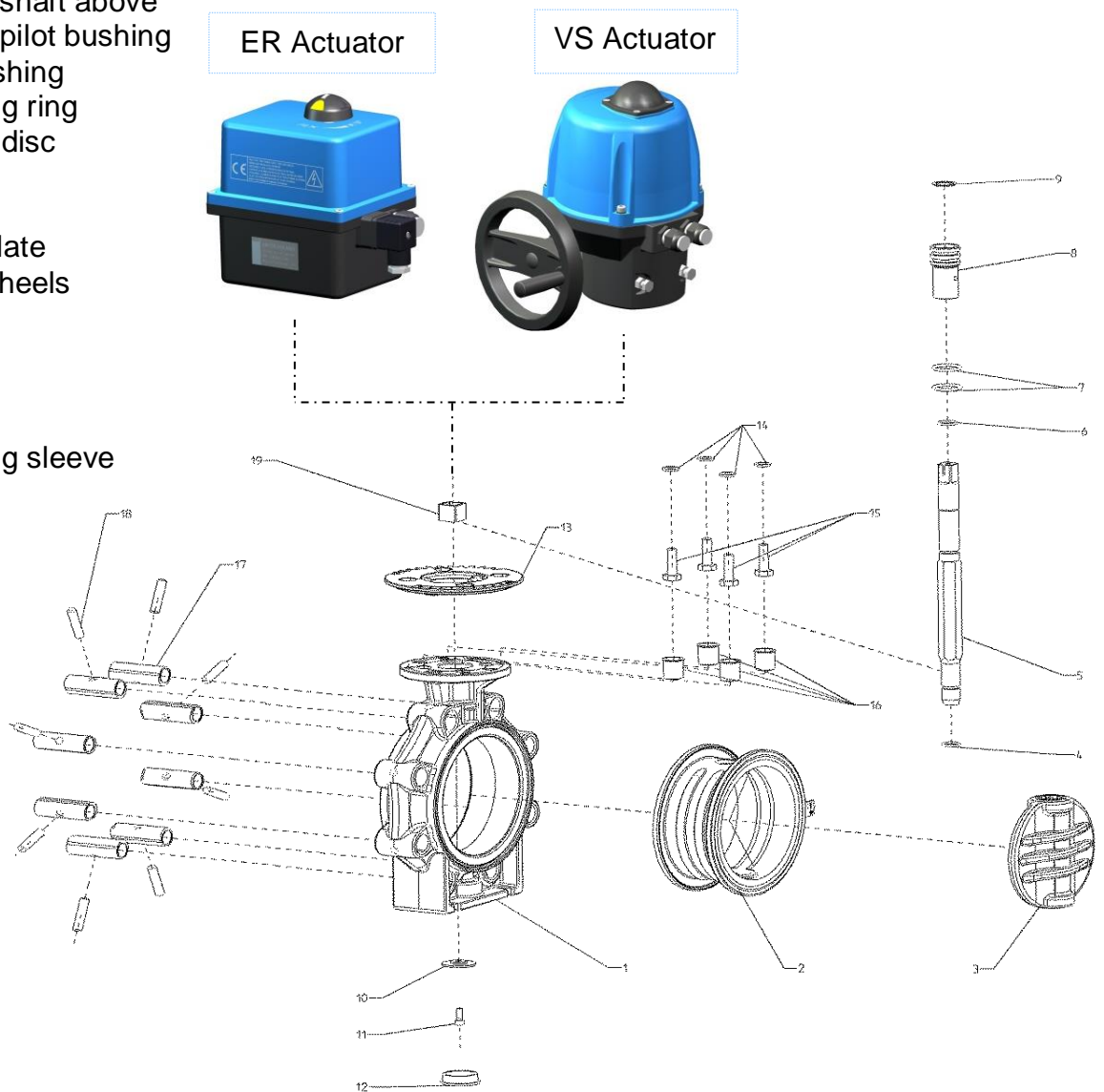
Butterfly Valve K4 Lug-Type

Electric Actuators ER35, ER60, ER100, VS150, VS300



Explosion drawing:

- 01. Body
- 02. Sleeve
- 03. Flap
- 04. Sealing shaft below
- 05. Shaft
- 06. Sealing shaft above
- 07. Sealing pilot bushing
- 08. Pilot bushing
- 09. Retaining ring
- 10. Holding disc
- 11. Screw
- 12. Cap
- 13. Cover plate
- 14. Tooth wheels
- 15. Screws
- 16. Caps
- 17. Inserts
- 18. Pins
- 19. Reducing sleeve



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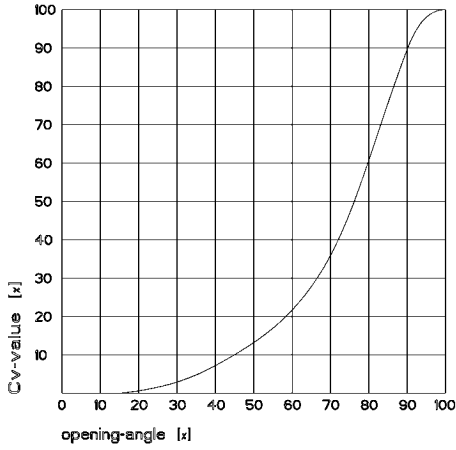
Butterfly Valve K4 Lug-Type

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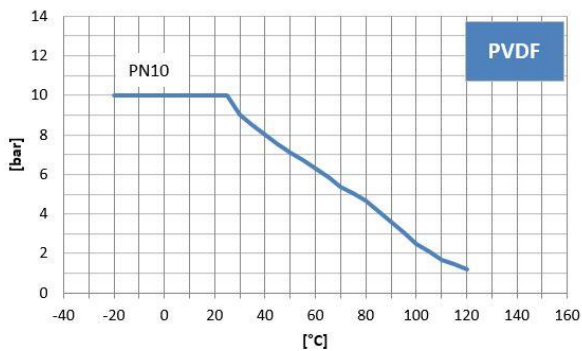
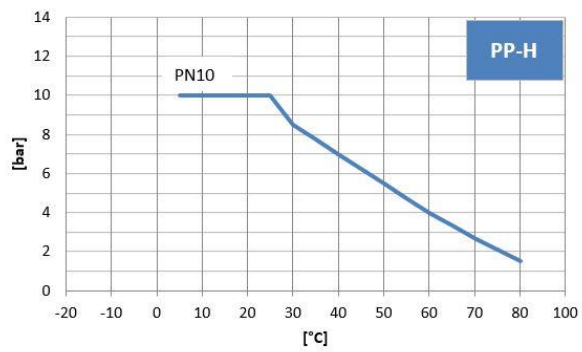
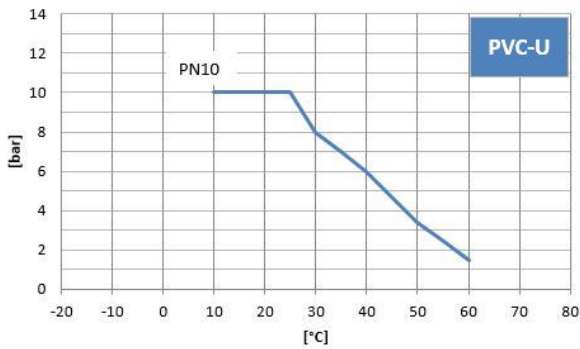


Diagrams:

Flow - characteristic



Pressure – Temperature – Diagrams

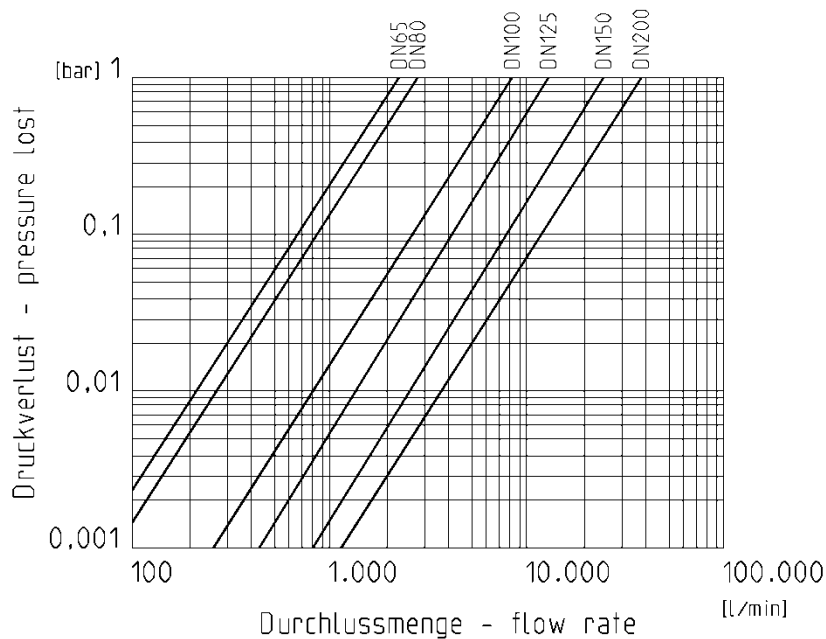


Butterfly Valve K4 Lug-Type

Electric Actuators ER35, ER60, ER100, VS150, VS300



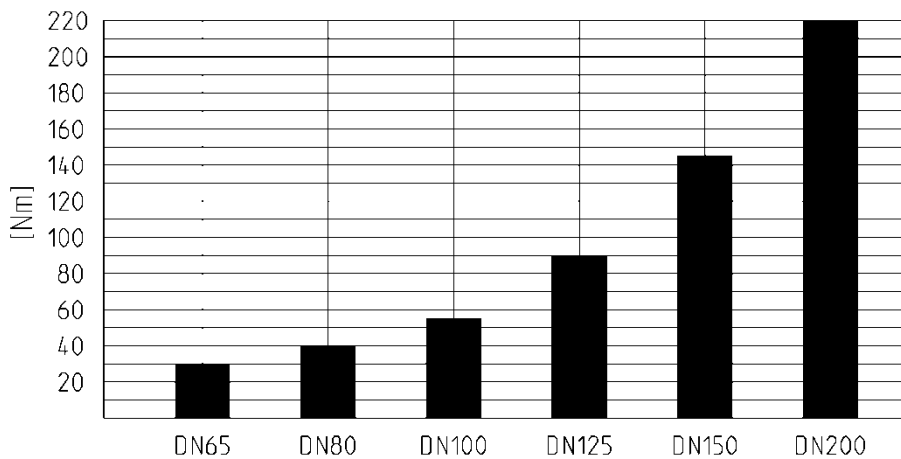
Pressure – loss - diagram



Cv value table

Pressure loss	DN65	DN80	DN100	DN125	DN150	DN200
0,001 bar	73 l/min	88 l/min	260 l/min	433 l/min	805 l/min	1200 l/min
1 bar	2300 l/min	2800 l/min	8200 l/min	13700 l/min	25500 l/min	38000 l/min

Torque



Tightening torque of screws for flange connection

DN	65	80	100	125	150	200
Nm	15	18	20	30	40	55

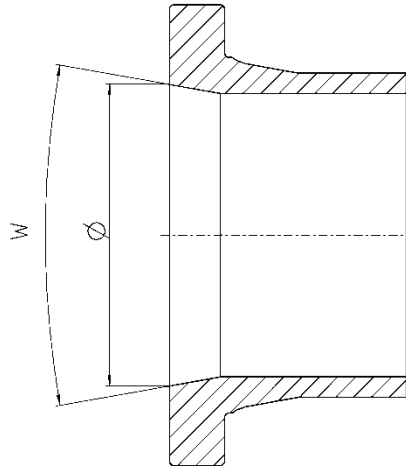
Butterfly Valve K4 Lug-Type

Electric Actuators ER35, ER60, ER100, VS150, VS300



Installation in piping:

For a correct and complete opening of the flap, it is necessary that the used sockets and stub flanges have at least an inner diameter according to the table.



DN	d	Ø (mm)	w (°)
DN50*	d63*	60	40
DN65	d75	60	40
DN80	d90	77	40
DN100	d110	96,5	40
DN125	d140	121,5	40
DN150	d160	146,5	40
DN200	d225	203	40

* Suitable only for **DIN** DN50 d63 sockets and stub flanges.

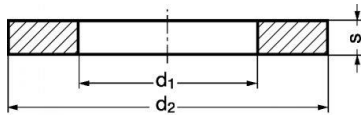
Butterfly Valve K4 Lug-Type

Electric Actuators ER35, ER60, ER100, VS150, VS300



General installation instructions

- Use suitable washers in accordance with DIN125A.



DN	65	80	100	125	150	200
Gewinde	M16	M16	M16	M16	M20	M20
d1	17	17	17	17	21	21
d2	30	30	30	30	37	37
s	3	3	3	3	3	3

Dimensions in mm

- Adapt screw length to flange or stub flange.
- Check torque of screws on the opposite side, when one-side is removed (see torque of screws at flange connections).

Technical Data Actuator

Electric Actuator ER

2 preset limit switches
 2 position feedbacks
 Mechanical stop at 90°
 180° or 270° without mechanical stop
 Duty cycle 30%
 Protection class IP65
 Ambient temperature -10°C bis 50°C
 ISO connection F05-F07
 Octagon 22 mm
 Weight 2,1 kg

Electric Actuator VS

integrated anti-condensation heater
 2 preset limit switches
 2 position feedbacks
 Mechanical stop at 90°
 180° or 270° without mechanical stop
 Duty cycle 50%
 Protection class IP67
 Ambient temperature -20°C bis 70°C
 ISO connection F07-F10
 Octagon 22 mm
 Weight 5,6 kg

Type	ER35	ER60	ER100	VS150	VS300
Torque	35Nm	60Nm	100Nm	150Nm	300Nm
Tensions	24V AC/DC, 90-240V AC			24V AC/DC, 100-240V AC	
Operating time	10s	15s	24s	30s	50s
Power	15W	45W	45W	45W	85W