

Alfa Laval LKB UltraPure

Butterfly valves

Introduction

The Alfa Laval LKB UltraPure Butterfly Valve is a hygienic in-line valve for routing low and medium-viscosity liquids in stainless steel pipe systems. The LKB UltraPure is available with a standard handle with spring-locking action for straightforward manual operation or with a pneumatic actuator for pneumatic operation.

Application

This in-line butterfly valve is designed for on-off duties in high-purity applications across the personal care, biotechnology and pharmaceutical industries.

Benefits

- Versatile, highly modular design
- Competitively priced alternative to diaphragm valves in certain applications
- Full transparency and traceability of the entire supply chain due to the Alfa Laval Q-doc documentation package
- Easy to configure in either a manual version or a pneumatic version

Standard design

The LKB UltraPure Butterfly Valve consists of two valve body halves, valve disc, and bushings for the disc stem and seal ring, assembled by means of screws and nuts. The valve can also be fitted with the Alfa Laval ThinkTop® V50 and V70 for sensing and control of the valve.

Working principle

The Alfa Laval LKB UltraPure Butterfly Valve is either controlled remotely by means of a pneumatic actuator or manually by means of a handle.

For pneumatic operation, an actuator converts axial piston motion into a 90° rotation of the shaft. The actuator torque increases as the valve disc comes into contact with the seal ring of the butterfly valve to secure proper closing of the valve seat. The actuator comes in three standard versions: normally closed (NC); normally open (NO); and, air/air activated (A/A). Two actuator sizes, Ø85 mm and Ø133 mm, cover all valve sizes and are available in two versions, LKLA and LKLA-T (T for mounting of indication or control unit on the actuator).

For manual operation, the handle mechanically locks the valve in open or closed position. Handles are available in two positions, four positions, regulating 90° position, and multi-position. The valve can be supplied either with welding connections or clamp connections and can be mounted with indication units for feedback on the valve position (open or closed).



TECHNICAL DATA

| Valve | |
|------------------------|--------------------------------------------------------|
| Max. product pressure: | 1000 kPa (10 bar) |
| Min. product pressure: | Full vacuum |
| Temperature range: | -10°C to + 140°C (EPDM) |
| | However max. 95°C when operating the valve (All seals) |

| Actuator | |
|------------------------------------|-----------------|
| Max. air pressure: | 600 kPa (6 bar) |
| Min. air pressure, NC and NO: | 400 kPa (4 bar) |
| Temperature range: | -25°C to +90°C |
| Air consumption (litres free air): | |
| - \varnothing 85 mm: | 0.24 x p (bar) |
| - \varnothing 133 mm: | 0.95 x p (bar) |
| Weight: | |
| - \varnothing 85 mm: | 3 kg. |
| - \varnothing 133 mm: | 12 kg |

| ATEX | |
|----------------|-----------|
| Classification | II 2 G D* |

*This equipment is outside the scope of the directive 2014/34/EU and must not carry a separate CE marking according to the directive as the equipment has no own ignition source



PHYSICAL DATA

| Materials | |
|---------------------------|--------------------------------|
| Product wetted steel part | 1.4404 (316L) acc. to EN 10088 |
| Other steel parts | 1.4301 (304) acc. to EN 10088 |
| Bushings for valve disc | PVDF |

| Elastomers | |
|----------------------|-----------------------------------|
| Product wetted seals | EPDM acc. to FDA and USP Class VI |

| Connections | |
|-------------|----------------------------------------------------------------------------------------|
| Weld ends** | Matching tubes and fittings: ISO 2037 / DIN / ASME BPE Acc. to ISO, DIN or ASME BPE |
| Clamp ends | Matching tubes and fittings: ISO 2037 / DIN / ASME BPE Acc. to ISO, DIN or ASME BPE |

** Weld ends on ASME BPE valves are according to ASME BPE 2009 316L Table DT-3 with low sulfur and suitable for orbital welding

| Actuator | |
|-----------------------|---------------------------------------------------|
| Actuator body: | 1.4307 (304L) |
| Piston: | Light alloy |
| | Air/air version (for \varnothing 85 mm: Bronze) |
| Seals: | NBR |
| Housing for switches: | PPO |

Surface specification (Product wetted steel parts)

| ISO 2037 / DIN: | |
|-----------------------|----------------------------|
| Internal: | 0.5 μ m |
| ASME BPE designation: | SF1 |
| External: | Semi-bright |
| ASME BPE*: | |
| Internal: | 0.5 μ m |
| ASME BPE designation: | SF1 |
| External: | Semi-bright |
| ASME BPE*: | |
| Internal: | 0.4 μ m electro polish |
| ASME BPE designation: | SF4 |
| External: | Semi-bright |

* According to ASME BPE 2009 table SF-3

Options

- A. Product wetted seals: FPM (acc. to FDA and USP Class VI), Q and PFA
- B. ThinkTop® for control and indication.*
- C. Indication unit with micro switches.*
- D. Indication unit with inductive proximity switches.*
- E. Indication unit with Hall proximity switches.*
- F. Explosion proof indication unit with inductive proximity switches.*
- G. Bracket for actuator.
- H. Handle with two or four positions.
- I. Handle for electrical position indication.
- J. Handle with infinite intermediate positions.
- K. Multipositioning handle**.
- L. Lockable Multiposition Handle. Padlock can be mounted as shown in fig. 3.

Note! Padlock is not delivered.

- M. Special cap for 90° turned handle position.

- N. Service tool for actuator.

- O. Service tool for fitting 25-38 mm (DN25 - DN40) valve discs.

* For further information see Product Catalogue chapter "Control & Indication".

** A padlock can be mounted on the Lockable Multiposition Handle as shown in the opposite figure.

Note! Padlock is not delivered.

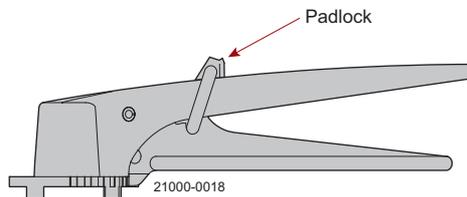


Fig. 1. Lockable Multiposition Handle with padlock.

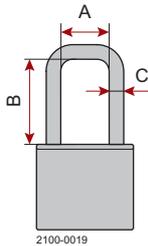


Fig.2. Dimensions - padlock.

- A. Min. 20 mm
- B. Min. 35 mm
- C. $\varnothing 6$ mm

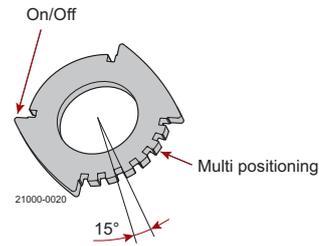


Fig. 3 Positioning cap.

Note! For Ultra Pure ASME BPE clamp valve (size 1" - 2½")

Installation and removal of some clamp rings is easiest by removal of the lockable multi position handle first.

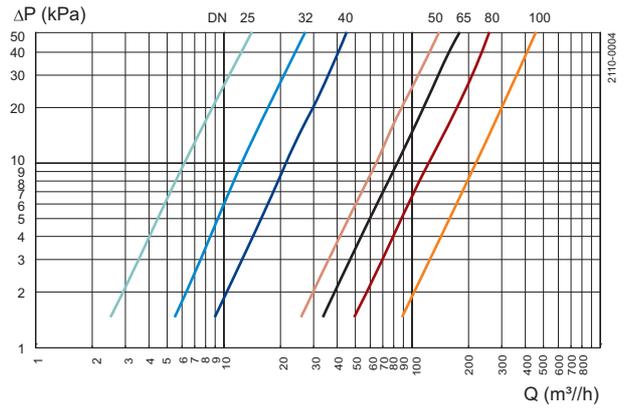
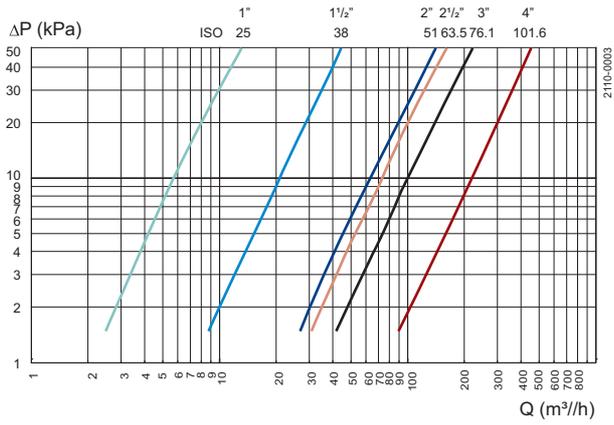
Documentation

All valves are delivered with Alfa Laval Q-doc.

Note!

For further details, see also ESE01699.

Capacity/Pressure drop diagrams



NOTE!

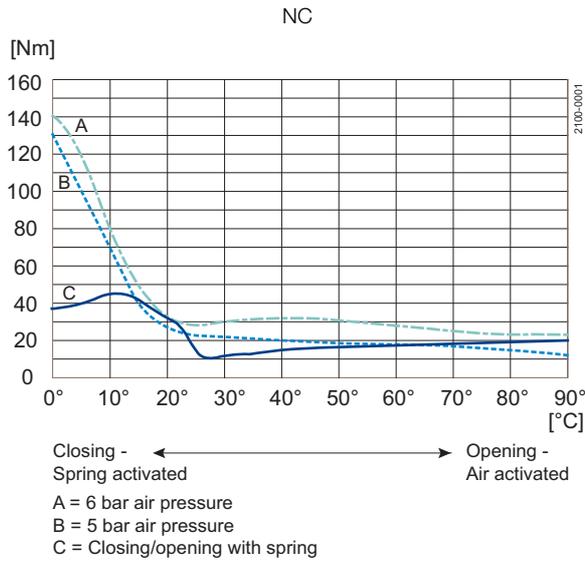
For the diagrams the following applies:

Medium: Water (20°C).

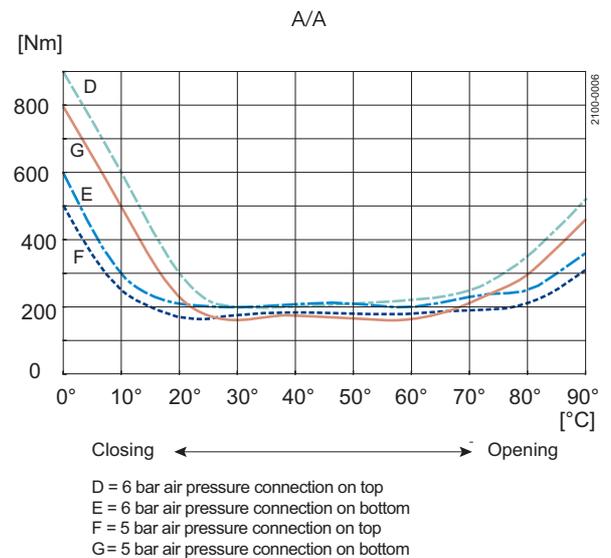
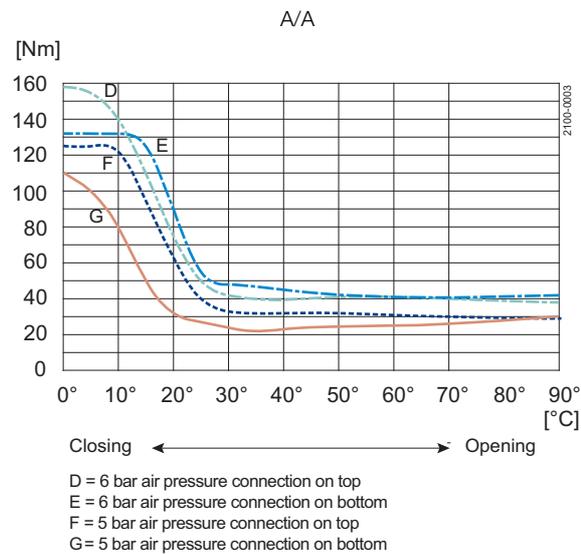
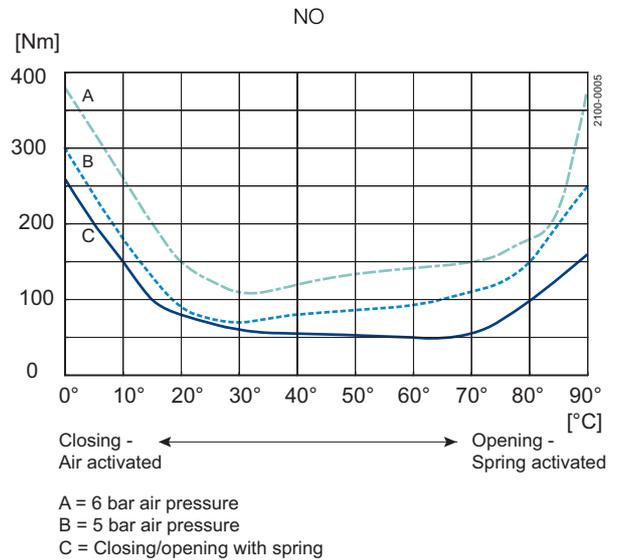
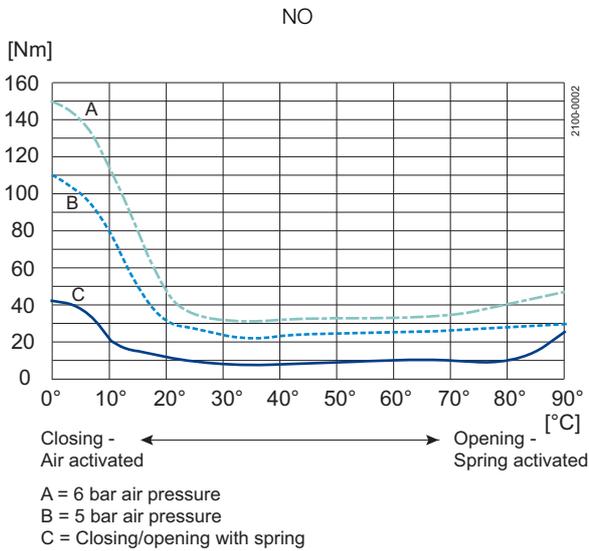
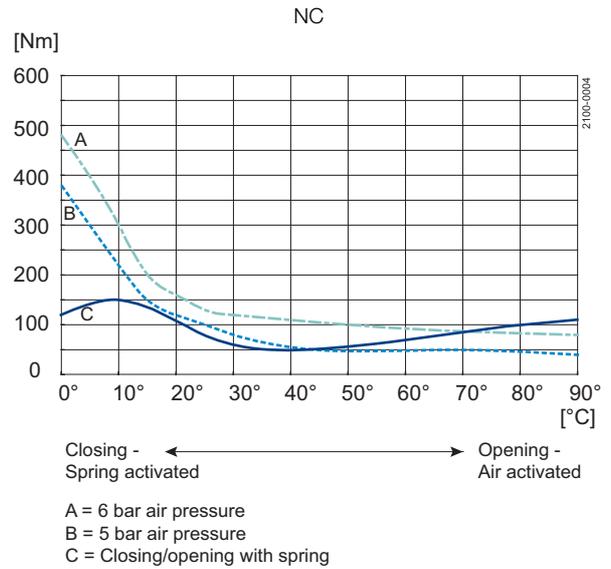
Measurement: In accordance with VDI 2173.

Torque diagrams - Actuator

LKLA $\varnothing 85$ mm:



LKLA $\varnothing 133$ mm:



Torque values (for rotating the valve disc in a dry seal ring)

| Size | Max. Nm |
|----------|---------|
| 25 mm | 15 |
| 38 mm | 15 |
| 51 mm | 20 |
| 63.5 mm | 25 |
| 76 mm | 30 |
| 101.6 mm | 35 |

Dimensions (mm)

Fig. 1. Dimensions - valve.

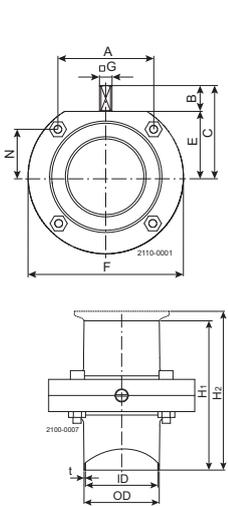
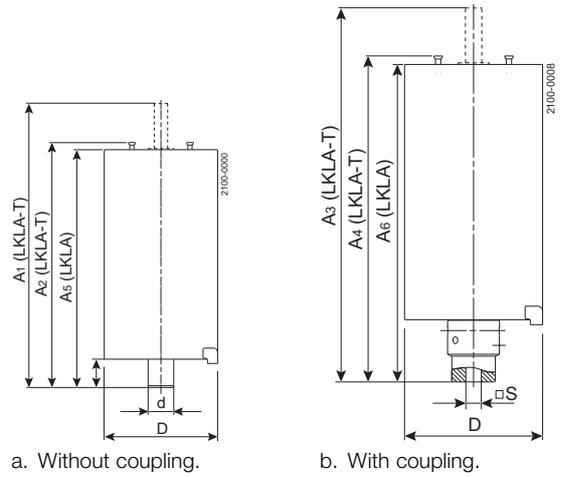


Fig. 2. Dimensions - actuator.



a. Without coupling.

b. With coupling.

Dimensions (mm)

LKB UltraPure

| Size | ISO 2037 | | | | | | DIN | | | | | | |
|-------------|----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| | 25 | 38 | 51 | 63.5 | 76.1 | 101.6 | DN |
| | mm | mm | mm | mm | mm | mm | 25 | 32 | 40 | 50 | 65 | 80 | 100 |
| A | 42.00 | 42.00 | 61.00 | 61.00 | 79.50 | 106.00 | 42.00 | 42.00 | 42.00 | 61.00 | 61.00 | 79.00 | 106.00 |
| B | 15.50 | 16.70 | 16.60 | 17.50 | 16.60 | 16.00 | 14.70 | 15.90 | 16.70 | 16.60 | 17.50 | 16.00 | 160.00 |
| C | 49.00 | 49.00 | 58.50 | 69.50 | 73.50 | 93.00 | 48.00 | 49.00 | 54.00 | 63.00 | 75.00 | 79.00 | 93.00 |
| OD | 25.00 | 38.00 | 51.00 | 63.50 | 76.10 | 101.60 | 29.00 | 35.00 | 41.00 | 53.00 | 70.00 | 85.00 | 104.00 |
| ID | 22.60 | 35.60 | 48.60 | 60.30 | 72.90 | 97.60 | 26.00 | 32.00 | 38.00 | 50.00 | 66.00 | 81.00 | 100.00 |
| t | 1.20 | 1.20 | 1.20 | 1.60 | 1.60 | 2.00 | 1.50 | 1.50 | 1.50 | 1.50 | 2.00 | 2.00 | 2.00 |
| E | 32.50 | 32.50 | 42.00 | 52.00 | 57.00 | 77.00 | 33.30 | 33.30 | 37.70 | 46.60 | 57.30 | 63.00 | 77.00 |
| F | 78.00 | 78.00 | 99.00 | 117.00 | 132.00 | 169.00 | 79.00 | 79.00 | 86.50 | 105.70 | 125.00 | 143.00 | 169.00 |
| □ S | 8 | 8 | 8 | 8 | 10 | 12 | 8 | 8 | 8 | 8 | 10 | 10 | 12 |
| H1 | 127.00 | 127.00 | 132.00 | 134.00 | 162.00 | 180.00 | 127.00 | 127.00 | 127.00 | 132.00 | 142.00 | 164.00 | 180.00 |
| H2 | 104.20 | 104.20 | 109.20 | 111.20 | 176.40 | 194.40 | 90.00 | 90.00 | 90.00 | 95.00 | 118.00 | 120.00 | 136.00 |
| J | 82.00 | 82.00 | 92.00 | 102.00 | 107.00 | 127.00 | 74.00 | 74.00 | 78.00 | 88.00 | 98.00 | 104.00 | 118.00 |
| K | 120.00 | 120.00 | 120.00 | 120.00 | 162.00 | 162.00 | 120.00 | 120.00 | 120.00 | 120.00 | 162.00 | 162.00 | 162.00 |
| N | 26.50 | 26.50 | 30.50 | 40.50 | 43.50 | 53.00 | 27.30 | 27.30 | 31.70 | 35.10 | 45.80 | 49.50 | 53.00 |
| Weight (kg) | 1.2 | 1.0 | 1.5 | 2.1 | 3.0 | 4.7 | 1.2 | 1.1 | 1.3 | 1.8 | 3.1 | 3.5 | 5.1 |

| Size | ASME | | | | | |
|----------------|--------|--------|--------|--------|--------|--------|
| | mm | mm | mm | mm | mm | mm |
| A | 42.00 | 42.00 | 61.00 | 61.0 | 79.50 | 105.90 |
| B | 15.50 | 16.70 | 16.60 | 17.50 | 16.61 | 16.00 |
| C | 49.00 | 49.00 | 58.50 | 69.50 | 73.66 | 93.00 |
| OD | 25.40 | 38.10 | 50.80 | 63.50 | 76.2 | 101.60 |
| ID | 22.10 | 34.80 | 47.50 | 60.20 | 72.90 | 97.00 |
| t | 1.65 | 1.65 | 1.65 | 1.65 | 1.65 | 2.10 |
| E | 32.50 | 32.50 | 42.00 | 52.00 | 56.99 | 77.00 |
| F | 78.00 | 78.00 | 98.80 | 117.00 | 132.00 | 169.00 |
| □ S | 8.00 | 8.00 | 8.00 | 8.00 | 10.00 | 12.00 |
| H ₁ | 127.00 | 127.00 | 132.00 | 134.00 | 162.00 | 180.00 |
| H ₂ | 72.40 | 72.40 | 77.40 | 79.40 | 87.37 | 111.80 |
| J | 82.00 | 82.00 | 92.00 | 102.00 | 107.01 | 127 |
| K | 120.00 | 120.00 | 120.00 | 120.00 | 162.00 | 162.00 |
| N | 26.50 | 26.50 | 30.50 | 10.50 | 43.50 | 53.00 |
| Weight (kg) | 1.20 | 1.00 | 1.50 | 2.10 | 3.00 | 4.70 |

NOTE! Weights are for valves with welding ends and handles.

Dimensions (mm) - Actuator

LKLA and LKLA-T:

| Valve size | 25-63.5 mm DN25-50 | 76.1 mm DN65-80 | 101.6 mm DN100 | 101.6 mm DN100 |
|----------------|-----------------------|--------------------|-------------------|-------------------|
| A ₁ | 244 | 242 | 242 | 363 |
| A ₂ | 193 | 191 | 191 | 316 |
| A ₃ | 244 | 244 | 244 | 337 |
| A ₄ | 173 | 173 | 173 | 290 |
| A ₅ | 185 | 183 | 183 | 308 |
| A ₆ | 165 | 165 | 165 | 282 |
| D | 85 | 85 | 85 | 133 |
| d | 17 | 17 | 17 | 30 |
| l | 16.5 | 16.5 | 16.5 | 34 |
| □ s | 8 | 10 | 12 | 12 |
| Function | NC, NO, A/A | NC, NO, A/A | NC, NO, A/A | NC, NO, A/A |

900593

Connections

Compressed air

R¹/₈" (BSP), internal thread.



Manual or Automatic - it's your Choice

Alfa Laval LKB Automatic or Manual Butterfly Valve

Concept

LKB is a sanitary automatically or manually operated butterfly valve for use in stainless steel pipe systems.

Working principle

LKB is either remote-controlled by means of an actuator or manually operated by means of a handle.

The actuator is made in three standard versions, normally closed (NC), normally open (NO) and air/air activated (A/A).

The actuator is designed so that an axial movement of a piston is transformed into a 90° rotation of a shaft. The torque of the actuator is increased when the valve disc contacts the seal ring of the butterfly valve.

The handle for manual operation mechanically locks the valve in its open or closed position. The handles for the valve sizes DN125 and DN150, which are designed for locking in two intermediate positions, enable adjusting of the valve, so that the flow rate can be regulated.



TECHNICAL DATA

Valve

Max. product pressure: 1000 kPa (10 bar)
Min. product pressure: Full vacuum
Temperature range: 10°C to +95°C
max. temperature if valve operates

Actuator

Max. air pressure: 700 kPa (7 bar)
Min. air pressure, NC and NO: 400 kPa (4 bar)
Temperature range: -25°C to +90°C
Air consumption (litres free air) - ø85
mm: 0.24 x p (bar)
Air consumption (litres free air) - ø133
mm: 0.95 x p (bar)
Weight: - ø85 mm: 3 kg.
- ø 133 mm: 12 kg.



PHYSICAL DATA

Valve bodies

Product wetted steel parts: 1.4307 (304L) or 1.4404 (316L)
Disc: 1.4301 (304) or 1.4404 (316L)
Other steel parts: 1.4301 (304)
Rubber grades: Q, EPDM, FPM, HNBR or PFA
Bushes for valve disc: PVDF
Finish: Semi-bright

Actuator

Actuator body: 1.4307 (304L).
Piston: Light alloy (for ø85 mm:
Bronze) Air/air version
Seals: NBR

Alfa Laval reserves the right to change specifications without prior notification. ALFA LAVAL is a trademark registered and owned by Alfa Laval

Standard design

LKB is available in three versions, LKB for ISO tubes, LKB-2 for DIN tubes and LKB-F for flange connection.

The valve consists of two valve body halves, valve disc, bushes for the disc stem and seal ring. LKB-F also consists of two flanges and two flange seal rings. The valve is assembled by means of screws and nuts.

Two actuator sizes, $\varnothing 85$ mm and $\varnothing 133$ mm, cover all valve sizes. The actuator is available in two versions, LKLA and LKLA-T.

The actuator is fitted onto the valve by means of a bracket and screws. (The actuator can also be fitted onto ball valves by means of special brackets).

The handle for manual operation is fitted onto the valve by means of a cap/block system and a screw.

The valve has welding ends as standard, but LKB and LKB-2 can also be supplied with fittings.

Options

- A. Male parts or clamp liners in accordance with required standard.
- B. ThinkTop® for control and indication.*
- C. Indication unit with micro switches.*
- D. Indication unit with inductive proximity switches.*
- E. Indication unit with Hall proximity switches.*
- F. Explosion proof indication unit with inductive proximity switches.*
- G. Bracket for actuator. (Also for ball valves).
- H. Handle with two or four positions (standard on DN125 and DN150).
- I. Handle for electrical position indication.
- J. Handle with infinite intermediate positions (not for DN125 and DN150).
- K. Multipositioning handle**.
- L. Lockable Multiposition Handle. Padlock can be mounted as shown in fig. 3.

Note! Padlock is not delivered.

- M. Special cap for 90° turned handle position.
- N. Service tool for actuator.
- O. Service tool for fitting 25-38 mm (DN25 - DN40) valve discs.

* For further information see Product Catalogue chapter "Control & Indication".

** A padlock can be mounted on the Lockable Multiposition Handle as shown in the opposite figure.

Note! Padlock is not delivered.

Note!

For further details, see also ESE02446.

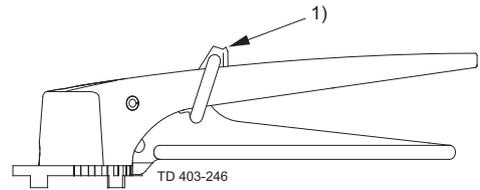


Fig. 1. Lockable Multiposition Handle with padlock.

1. Padlock

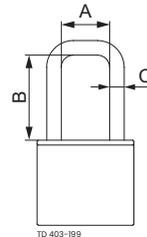


Fig. 2. Dimensions - padlock.

- A. Min. 20 mm
- B. Min. 35 mm
- C. $\varnothing 6$ mm

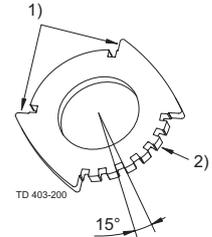
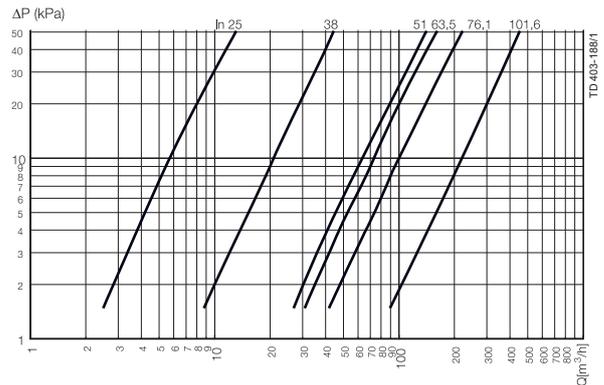


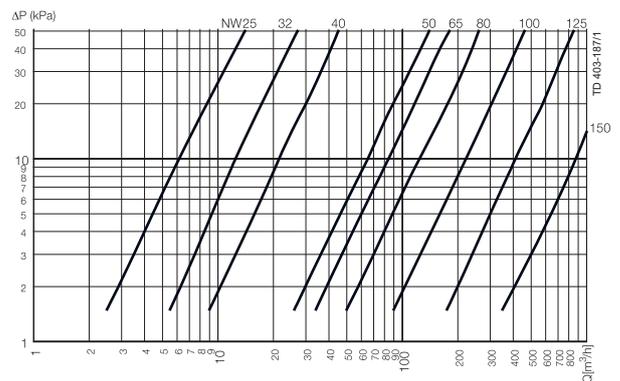
Fig. 3. Positioning cap.

- 1. On/Off
- 2. Multi positioning

Capacity/Pressure drop diagrams



LKB and LKB-F fully open



LKB-2 and LKB-F fully open

NOTE!

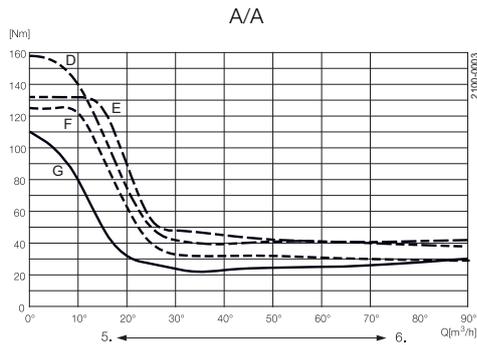
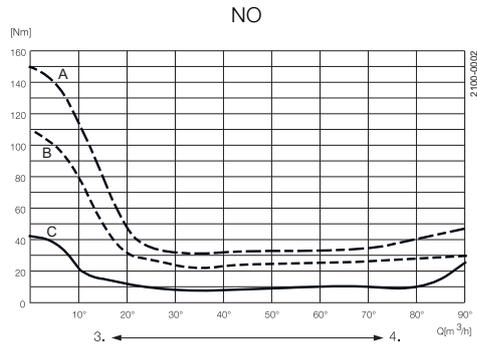
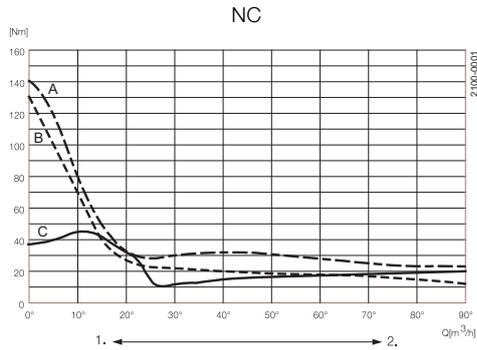
For the diagrams the following applies:

Medium: Water (20°C)(68°F).

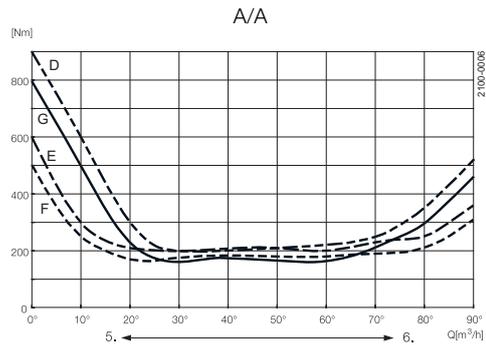
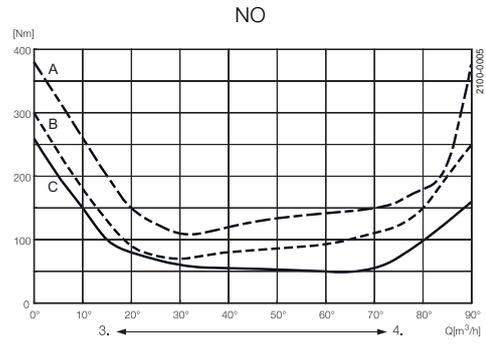
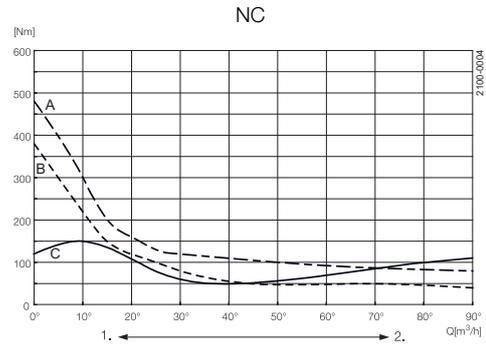
Measurement: In accordance with VDI 2173.

Torque diagrams - Actuator

LKLA ø85 mm:



LKLA ø133 mm:



A = 6 bar air pressure
B = 5 bar air pressure
C = Closing/opening with spring

D = 6 bar air pressure connection on top
E = 6 bar air pressure connection on bottom
F = 5 bar air pressure connection on top
G = 5 bar air pressure connection on bottom

Angular motion of actuator:

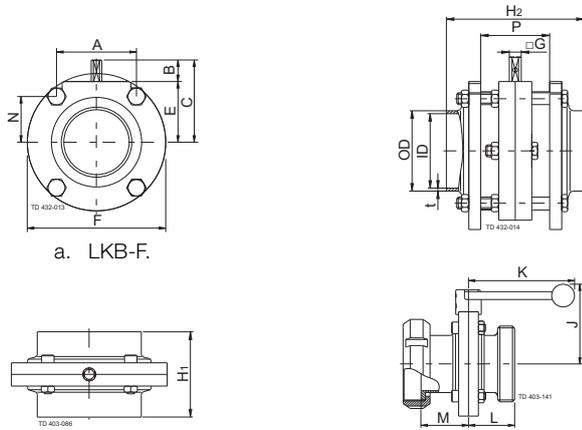
1. Closing - Spring activated
2. Opening - Air activated
3. Closing - Air activated
4. Opening - Spring activated
5. Closing
6. Opening

Torque values (for rotating the valve disc in a dry seal ring)

| Size | Max. Nm |
|---------------|---------|
| 25mm/DN25 | 15 |
| DN32 | 15 |
| 38mm/DN40 | 15 |
| 51mm/DN50 | 20 |
| 63.5mm/DN65 | 25 |
| 76mm/DN80 | 30 |
| 101.6mm/DN100 | 35 |
| DN125 | 50 |
| DN150 | 120 |

Valve Dimensions (mm)

Fig. 1. Dimensions - valve.



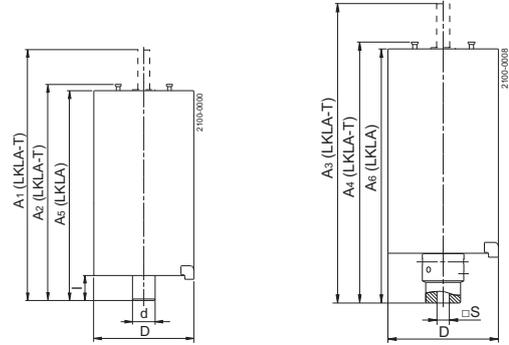
a. LKB-F.

b. LKB with welding ends.

Note! LKB sizes DN 125 and 150 are with six screws.

c. LKB with male part/nut and liner.

Fig. 2. Dimensions - actuator



a. Without coupling.

b. With coupling.

a1 = d

b1 = S

Dimensions (mm) - Valve

LKB, LKB-2, LKB-F:

| Size | 25 | 38 | 51 | 63.5 | 76.1 | 101.6 | DN |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | mm | mm | mm | mm | mm | mm | 25 | 32 | 40 | 50 | 65 | 80 | 100 | 125 | 150 |
| A | 42.0 | 42.0 | 61.0 | 61.0 | 79.5 | 106.0 | 42.0 | 42.0 | 42.0 | 61.0 | 61.0 | 79.0 | 106.0 | 106.0 | 98.0 |
| B | 15.5 | 16.7 | 16.6 | 17.5 | 16.6 | 16.0 | 14.7 | 15.9 | 16.7 | 16.6 | 17.5 | 16.0 | 16.0 | 18.0 | 18.0 |
| C | 49.0 | 49.0 | 58.5 | 69.5 | 73.5 | 93.0 | 48.0 | 49.0 | 54.0 | 63.0 | 75.0 | 79.0 | 93.0 | 115.0 | 122.0 |
| OD | 25.6 | 38.6 | 51.6 | 64.1 | 76.6 | 102.2 | 30.0 | 36.0 | 42.0 | 54.0 | 70.0 | 85.0 | 104.0 | 129.0 | 154.0 |
| ID | 22.5 | 35.5 | 48.5 | 60.5 | 72.0 | 97.6 | 26.0 | 32.0 | 38.0 | 50.0 | 66.0 | 81.0 | 100.0 | 125.0 | 150.0 |
| t | 1.55 | 1.55 | 1.55 | 1.8 | 2.3 | 2.3 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| E | 32.5 | 32.5 | 42.0 | 52.0 | 57.0 | 77.0 | 33.3 | 33.3 | 37.7 | 46.6 | 57.3 | 63.0 | 77.0 | 96.7 | 104.0 |
| F | 78.0 | 78.0 | 99.0 | 117.0 | 132.0 | 169.0 | 79.0 | 79.0 | 86.5 | 105.7 | 125.0 | 143.0 | 169.0 | 199.0 | 216.0 |
| G | 8.0 | 8.0 | 8.0 | 8.0 | 10.0 | 12.0 | 8.0 | 8.0 | 8.0 | 8.0 | 10.0 | 10.0 | 12.0 | 14.0 | 15.0 |
| H ₁ | 47.0 | 47.0 | 52.0 | 54.0 | 62.0 | 80.0 | 47.0 | 47.0 | 47.0 | 52.0 | 62.0 | 64.0 | 80.0 | 110.0 | 80.0 |
| H ₂ | 83.0 | 83.0 | 92.0 | 92.0 | 114.0 | 132.0 | 83.0 | 83.0 | 83.0 | 92.0 | 114.0 | 116.0 | 132.0 | 136.0 | 152.0 |
| J | 82.0 | 82.0 | 92.0 | 102.0 | 107.0 | 127.0 | 74.0 | 74.0 | 78.0 | 88.0 | 98.0 | 104.0 | 118.0 | 150.0 | 161.0 |
| K | 120.0 | 120.0 | 120.0 | 120.0 | 162.0 | 162.0 | 120.0 | 120.0 | 120.0 | 120.0 | 162.0 | 162.0 | 162.0 | 223.0 | 338.0 |
| L IDF/ISO | 45.0 | 45.0 | 47.5 | 48.5 | 52.5 | 61.5 | - | - | - | - | - | - | - | - | - |
| M IDF/ISO | 55.5 | 55.5 | 58.0 | 59.0 | 63.0 | 81.5 | - | - | - | - | - | - | - | - | - |
| L DS | 42.0 | 43.5 | 46.0 | 51.0 | 55.0 | 64.0 | - | - | - | - | - | - | - | - | - |
| M DS | 54.5 | 54.5 | 57.0 | 59.0 | 63.0 | 72.0 | - | - | - | - | - | - | - | - | - |
| L SMS | 38.5 | 43.5 | 46.0 | 51.0 | 55.0 | 75.0 | - | - | - | - | - | - | - | - | - |
| M SMS | 51.0 | 52.5 | 55.0 | 56.0 | 61.0 | 72.0 | - | - | - | - | - | - | - | - | - |
| L BS | 45.7 | 45.7 | 48.2 | 49.2 | 53.2 | 67.0 | - | - | - | - | - | - | - | - | - |
| M BS | 50.5 | 50.5 | 53.0 | 54.0 | 58.0 | 71.8 | - | - | - | - | - | - | - | - | - |
| L DIN | 45.5 | 45.5 | 48.0 | 52.0 | 61.0 | 70.0 | 40.0 | 40.0 | 37.0 | 37.0 | 43.0 | 48.0 | 51.0 | 55.0 | 115.0 |
| M DIN | 61.5 | 61.5 | 66.0 | 67.0 | 71.0 | 83.0 | 45.5 | 48.5 | 49.5 | 54.0 | 63.0 | 69.0 | 84.0 | 89.0 | 77.0 |
| L Clamp | 45.0 | 45.0 | 47.5 | 48.5 | 52.5 | 61.5 | - | - | - | - | - | - | - | - | - |
| N | 26.5 | 26.5 | 30.5 | 40.5 | 43.5 | 53.0 | 27.3 | 27.3 | 31.7 | 35.1 | 45.8 | 49.5 | 53.0 | 72.7 | 85.0 |
| P | 42.0 | 42.0 | 46.0 | 46.0 | 58.0 | 58.0 | 42.0 | 42.0 | 42.0 | 46.0 | 58.0 | 58.0 | 58.0 | 62.0 | 78.0 |
| Weight LKB-F (kg) | 1.6 | 1.3 | 2.1 | 2.9 | 5.0 | 7.9 | 1.6 | 1.6 | 1.7 | 2.6 | 4.7 | 5.8 | 7.9 | 11.7 | 12.3 |
| Weight LKB/ LKB-2 (kg) | 1.2 | 1.0 | 1.5 | 2.1 | 3.0 | 4.7 | 1.2 | 1.1 | 1.3 | 1.8 | 3.0 | 3.5 | 5.1 | 7.5 | 9.0 |

NOTE! Weights are for valves with welding ends and handles.

Dimensions (mm) - Actuator

LKLA and LKLA-T:

| Valve size | 25-63.5 DN25-50 | 76.1 DN65-80 | 101.6 DN100 | 101.6 DN100 | DN125 | DN125 | DN150 | DN150 |
|----------------|--------------------|-----------------|----------------|----------------|-------|-----------|-------|-----------|
| A ₁ | 244 | 242 | 242 | 363 | 246 | 363 | 246 | 363 |
| A ₂ | 193 | 191 | 191 | 316 | 195 | 316 | 195 | 316 |
| A ₃ | 244 | 244 | 244 | 337 | 244 | 337 | 244 | 337 |
| A ₄ | 173 | 173 | 173 | 290 | 173 | 290 | 173 | 290 |
| D | 85 | 85 | 85 | 133 | 85 | 133 | 85 | 133 |
| d | 17 | 17 | 17 | 30 | 20 | 30 | 20 | 30 |
| l | 16.5 | 16.5 | 16.5 | 34 | 16.5 | 34 | 16.5 | 34 |
| S | 8 | 10 | 12 | 12 | 14 | 14 | 15 | 15 |
| Function | NC,NO,A/A | NC,NO,A/A | NC,NO,A/A | NC,NO,A/A | A/A | NC,NO,A/A | A/A | NC,NO,A/A |

Connections

Compressed air

R1/8" (BSP), internal thread.

