

## 3-WAY BALL VALVE WITH MOUNTING FLANGE FOR AUTOMATION

**Description:**

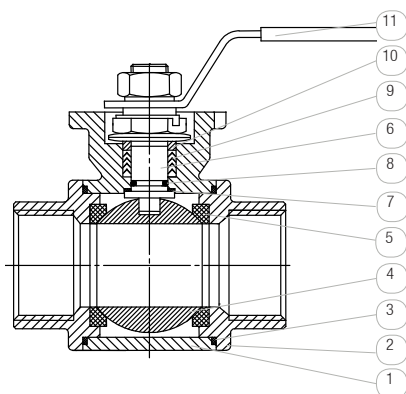
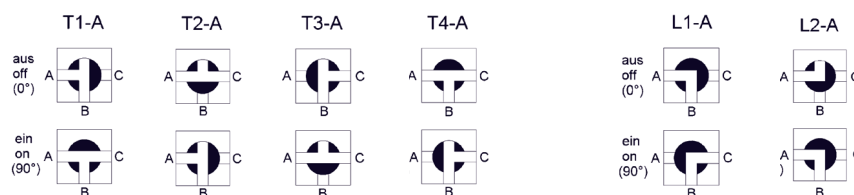
- 4-pieces body construction
- reduced passageway
- 4 seat sealing
- T-bore or L-bore
- female thread acc. to EN 10226
- blow out safe, spindle mounted from inside
- top flange acc. to ISO 5211
- any installation position

**Range of application:**

- 3-way ball valve for industrial applications
- with mounting flange acc. to DIN ISO 5211 for direct mounting
- working pressure PN63  
(see pressure-temperature-diagram)
- temperature range: -10°C up to +180°C  
(see pressure temperature diagram)

**Comments:**

**L-bore/T-bore:** Different switch positions are possible, please specify with your order. The ball position is marked on the spindle! T=T-bore, L=L-bore, A=automation



| pos. | part                | standard material |   | optional material |
|------|---------------------|-------------------|---|-------------------|
| 1    | body                | 1.4408            | 0 | -                 |
| 2    | connector           | 1.4408            |   | -                 |
| 3    | body sealing        | PTFE              |   | -                 |
| 4    | ball                | 1.4401            | 0 | -                 |
| 5    | seat sealing        | PTFE              | T | -                 |
| 6    | spindle             | 1.4401            |   | -                 |
| 7    | thrust ring         | PTFE              |   | -                 |
| 8    | o-ring              | FKM               |   | -                 |
| 9    | packing for spindle | PTFE              | T | -                 |
| 10   | gland               | 1.4301            |   |                   |
| 11   | hand lever          | 1.4301 + plastics |   |                   |

**options:**

- SV: spindle extension
- EB: relief well
- OF: free of oil and grease

**For electric actuated valves only:**

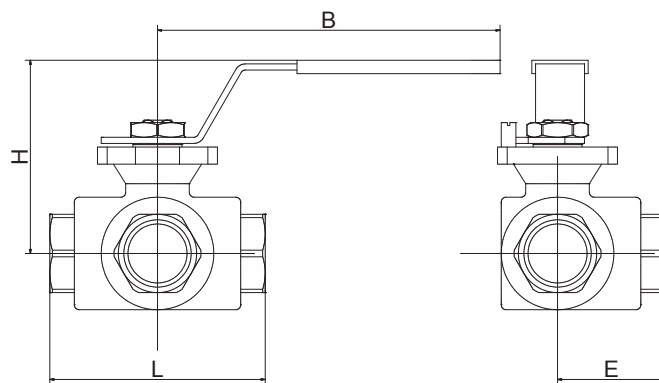
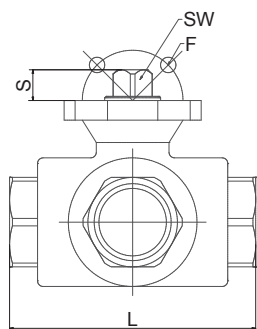
- AP: accumulator security pack
- PT: potentiometer
- PO: positioning system

**For pneumatic actuated valves only:**

- SD: sound absorber
- AD: exhaust air regulator
- PV: pilot valve For details see data sheet "GMV3197", "GMV3163" (3/2 way) and "MVA01" (5/2 way). Other types on request.
- PS: positioning indicator For details see data sheet "MCM2" (mechanical), "MCN2" (inductive, with ATEX 94/9/EC) and "MCS2" (inductive). Other types on request.

An overview of the complete material code you can find at the beginning of each product section of the product catalogue.

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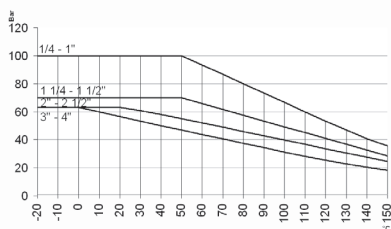


| match code   | size<br>[inch] | nominal<br>pres-<br>sure | nominal<br>size<br>[mm] | L<br>[mm] | H<br>[mm] | E<br>[mm] | B<br>[mm] | F<br>[mm] | SW*<br>[mm] | S<br>[mm] | CV**<br>[m³/h] | breakaway<br>torque***<br>[Nm] | weight<br>[kg] |
|--------------|----------------|--------------------------|-------------------------|-----------|-----------|-----------|-----------|-----------|-------------|-----------|----------------|--------------------------------|----------------|
| EKx85-040TOT | 1/2            | PN63                     | 12                      | 72        | 62        | 36        | 130       | F03/04    | 9           | 10.7      | 4.75           | 13                             | 4              |
| EKx85-050TOT | 3/4            | PN63                     | 15                      | 83        | 64        | 41.5      | 130       | F03/04    | 9           | 12.5      | 5.11           | 18                             | 5.6            |
| EKx85-060TOT | 1              | PN63                     | 20                      | 99        | 82        | 49.5      | 165       | F04/05    | 11          | 14.1      | 11.8           | 22                             | 7.5            |
| EKx85-070TOT | 1 1/4          | PN63                     | 25                      | 112       | 89        | 56        | 165       | F04/05    | 11          | 13.5      | 19.6           | 35                             | 10.7           |
| EKx85-080TOT | 1 1/2          | PN63                     | 32                      | 125       | 98        | 62.5      | 205       | F05/07    | 14          | 17.2      | 33.2           | 42                             | 13.6           |
| EKx85-090TOT | 2              | PN63                     | 38                      | 149       | 108       | 74.5      | 205       | F05/07    | 14          | 16.9      | 53.7           | 68                             | 19.5           |

\* Spindle as square (standard).

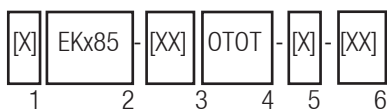
\*\*CV value: The nominal flow rate CVs acc. to VDI/VDE 2173 shows the water quantity in cubic meter per hour with the valve fully opened,  $\Delta p=1$  and the water temperature between 5°C and 30°C. The CV-value is for a 90° deflection.

\*\*\*Breakaway torque: all data is determined with water at max  $\Delta p$  and normal ambient temperature. Multiplier for frictional media is 1.3. If your configuration has special sealing material or your application has critical media consultation is obligatory.



### Pressure temperature diagram

The pressure temperature diagram shows the max. permissible working pressure in relation of the media temperature. For the type the nominal pressure should not exceeded. For the actuated units the actuator limits the permissible pressure range to the operating pressure as indicated above, as long as this is lower than the pressure range of the ball valve. If your application has strong temperature variations, you may need additional options like a relief well, to meet the figures. Please tell us your temperature variations with your order.



### Order information:

#### 1: automation:

- no specification: manually operated
- D: pneumatic double acting
- S: pneumatic single acting
- E: electric actuated

#### 2: type:

- EK85 (L-bore)
- EKD85 (T-bore)

#### 3: connection size: 04-09 (see table)

#### 4: materials:

- 1. digit: body material (stainless steel)
- 2. digit: sealing for spindle (PTFE)
- 3. digit: ball material (stainless steel)
- 4. digit: seat sealing (PTFE)

#### 5: actuator:

- no specification: steel hand lever
- automated: see column "actuator"

#### 6: options (see "options")

Please ask for field specifications that are not listed in this data sheet.

Before installation please consider the installation and maintenance manual, especially the safety indications!

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## DEKC85 / DEKD85 / SEKC85 / SEKD85

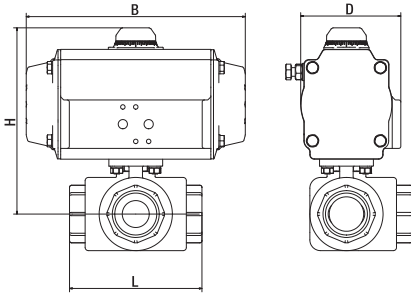
High quality pneumatic actuator made of alloy with air connection according to NAMUR and positioning indicator. The actuator works with the rack/bevel method. For further details see the technical data sheet "DR/SC".

Types double acting (the actuator opens and closes with compressed air) and single acting (the actuator opens with compressed air and closes with spring pressure).

The actuators are configured for use with fluid, gas and antifriction medium. **For critical media it is strictly recommended to inform us!**

## Description:

- working pressure: 0 - 16 bar
- medium temperature: -20°C up to +100°C (at max. ambient temperature 40°C)
- pilot pressure: 6 - 8 bar



**Attention!** To avoid corrosion inside the spring chamber for single acting actuators caused by aggressive ambient air we recommend pilot valves with integrated air recirculation.

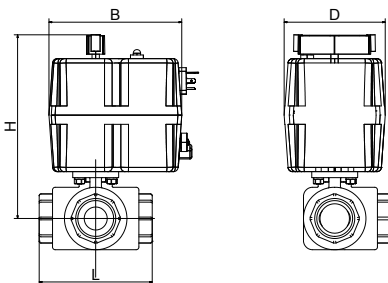
| match code     | double acting: DEKx85 |        |        |        |             | single acting: SEKx85 |        |        |        |             |
|----------------|-----------------------|--------|--------|--------|-------------|-----------------------|--------|--------|--------|-------------|
|                | actuator              | H [mm] | B [mm] | D [mm] | weight [kg] | actuator              | H [mm] | B [mm] | D [mm] | weight [kg] |
| xEKx85-040T0T- | DR015                 | 127.5  | 136    | 72     | 5           | SC030-I               | 143.5  | 153.5  | 84.5   | 5.7         |
| xEKx85-050T0T- | DR030                 | 147    | 153.5  | 84.5   | 7.2         | SC030-K               | 147    | 153.5  | 84.5   | 7.3         |
| xEKx85-060T0T- | DR030                 | 154    | 153.5  | 84.5   | 9.1         | SC060-G               | 171    | 203.5  | 93     | 10.6        |
| xEKx85-070T0T- | DR060                 | 177    | 203.5  | 93     | 13.4        | SC060-K               | 177    | 203.5  | 93     | 13.8        |
| xEKx85-080T0T- | DR060                 | 185    | 203.5  | 93     | 16.3        | SC100-G               | 198    | 241    | 106    | 17.9        |
| xEKx85-090T0T- | DR100                 | 209    | 241    | 106    | 23.2        | SC150-I               | 221    | 259    | 118    | 25.6        |

## EEKC85 / EEKD85:

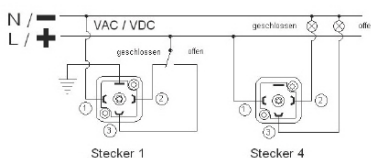
High-quality electric actuator in compact design with a body made of high-strength plastics. It has a high-performance motor and a gear drive made of metal. A central control room heater and an electronic torque limiter are equipped as standard. For further details see the technical data sheet "J".

## Description:

- working pressure: 0 - 16 bar
- medium temperature: -20°C up to +70°C (at max. ambient temperature of 40°C)



AC/DC Beschaltung  
(3 Draht):



| match code     | actuator | H [mm] | B [mm] | D [mm] | weight [kg] |
|----------------|----------|--------|--------|--------|-------------|
| EEKx85-040T0T- | J320     | 187.5  | 177    | 110    | 5.4         |
| EEKx85-050T0T- | J320     | 191    | 177    | 110    | 7           |
| EEKx85-060T0T- | J335     | 220    | 177    | 110    | 9.2         |
| EEKx85-070T0T- | J355     | 251    | 177    | 110    | 13          |
| EEKx85-080T0T- | J355     | 259    | 177    | 110    | 15.9        |
| EEKx85-090T0T- | J385     | 270    | 177    | 110    | 22.3        |

## connection voltage type:

- 19: 24V AC/DC up to 240V AC/ DC
- other voltages on request