Description:

- compact 3-way ball valve with flanges in steel or stainless steel design
- 4-pieces body construction
- full passageway
- NFC17: T-bore / 4 seat sealings
- NFD17: L-bore / 2 seat sealings
- flanges acc. to EN1092-1 / PN40 or PN16
- blow out safe, spindle mounted from inside
- top flange acc. to ISO 5211
- sealing for spindle with a triple chevron packing
- antistatic device
- double body sealing
- chambered seat sealing from 3-sides
- TA-Luft

Range of application:

- 3-way ball valve for highest requirements.
- less space requirements by compact design
- with mounting flange acc. to DIN ISO 5211 for direct mounting
- working pressure PN16 up to PN40 (see pressure temperature diagram)
- temperature range: -20°C up to +180°C (see pressure temperature diagram)
- any installation position

Comments:

Since the year of production 09/97 all carbon steel ball valves are provided with a modified coating (modified epoxy / poliamid primer to RAL 5012 colour blue with a film thickness of at least 0.030mm). (see technical information in the installation and maintenance manual)

L-bore (NFC17) / T-bore (NFD17): 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 VA | standard ST | optional material
--- | --- | --- | --- | ---
1 | body | 1.4401 | D | 1.0402 pre-treated / 1.0402 pre-treated
2 | body screw connection | 1.4401 | | PTFE / FKM
3 | primary sealing | PTFE | | PTFE
4 | secondary sealing | FKM | | FKM
5 | ball | 1.4401 | D | 1.4301 / 1.4308
6 | seat sealing | PTFE | T | PTFE
7 | spindle | 1.4401 | | PTFE
8 | antistatic device | 1.4401 | | 1.4401 / 1.4401
9 | friction ring | PTFE | | PTFE
10 | chevron packing | PTFE / graphite | R | PTFE / graphite
11 | thrust ring | 1.4404 | | 1.4404
12 | disc spring | 50CrV4 galvanised zinc-plated | | 50CrV4 galvanised zinc-plated
13 | hand lever | St 37 galvanised zinc-plated | | St 37 galvanised zinc-plated

*higher temperature resistance with other seat sealing:

- PTFE fibre-glass reinforced: -10°C up to 195°C medium temperature
- PTFE graphite/carbon: -10°C up to +210°C medium temperature

Up to DN65 the design of the stainless steel ball valves is "angular".

All types are also available with flanges acc. to ANSI150 and ANSI300.
Carbon steel ball valves of the series KFA16 are provided with a modified coating (modified epoxy / poliamid primer RAL 5012 color blue with a film thickness of at least 0.030 mm). For outdoor applications a proper intermediate and finishing coat shall be applied within 90 days.

For details about the order code see “Order information”. An overview of the complete material code you can find at the beginning of each product section of the product catalogue.

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.

For electric actuated valves only:
- AP: accumulator security pack
- PT: potentiometer
- PO: positioning system

For details see data sheet “GMV3197”, “GMV3163” (3/2 way) and “MVA01” (5/2 way). Other types on request.

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For details about the order code see “Order information”. An overview of the complete material code you can find at the beginning of each product section of the product catalogue.
Pressure temperature diagram

The pressure temperature diagram shows the max. permissible working pressure in relation to the media temperature.

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: steel hand lever
- D: pneumatic double acting
- S: pneumatic single acting
- E: electric actuated

2: type (indicate switch position!)
- L-bore: NFC17
- T-bore: NFD17

3: connection size:
- 52-62 (DIN, see table)
- 82-92 (ANSI, on request)
- attached is the flange pressure:
  - PN10: 0
  - PN16: 1
  - PN25: 2
  - PN40: 3

4: materials:
- 1. digit: body material
- 2. digit: sealing for spindle
- 3. digit: ball material
- 4. digit: seat sealing

5: actuator:
- no specification: manually operated
- 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!
NFC17 / SNFC17 / DNFD17 / SNFD17

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
- pilot pressure: 6 - 8 bar
- medium temperature: -20°C up to +120°C (at max. ambient temperature 40°C)

### table 1: L-bore (double acting and single acting)

<table>
<thead>
<tr>
<th>match code</th>
<th>double acting: DNFC17</th>
<th>single acting: SNFC17</th>
</tr>
</thead>
<tbody>
<tr>
<td>xNFC17-52-3xRxT-x</td>
<td>DR010</td>
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<tr>
<td>xNFC17-53-3xRxT-x</td>
<td>DR015</td>
<td>180</td>
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<tr>
<td>xNFC17-54-3xRxT-x</td>
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<td>DR030</td>
<td>206</td>
</tr>
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<td>xNFC17-56-3xRxT-x</td>
<td>DR060</td>
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<tr>
<td>xNFC17-57-3xRxT-x</td>
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<td>280</td>
</tr>
<tr>
<td>xNFC17-59-3xRxT-x</td>
<td>DR100</td>
<td>294</td>
</tr>
<tr>
<td>xNFC17-60-1xRxT-x</td>
<td>DR220</td>
<td>354.5</td>
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<tr>
<td>xNFC17-61-1xRxT-x</td>
<td>DR300</td>
<td>380</td>
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<tr>
<td>xNFC17-62-1xRxT-x</td>
<td>DR600</td>
<td>450</td>
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</tbody>
</table>

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.

### table 2: T-bore (double acting and single acting)

<table>
<thead>
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<th>match code</th>
<th>double acting: DNFD17</th>
<th>single acting: SNFD17</th>
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<td>xNFD17-55-3xRxT-x</td>
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<td>DR900</td>
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</tbody>
</table>
ENFC17 / ENFD17

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" or "CH"

Description:

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

<table>
<thead>
<tr>
<th>match code</th>
<th>actuator</th>
<th>H [mm]</th>
<th>B [mm]</th>
<th>D [mm]</th>
<th>weight [kg]</th>
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<tbody>
<tr>
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<td>240</td>
<td>177</td>
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<tr>
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<td>267</td>
<td>177</td>
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<thead>
<tr>
<th>match code</th>
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<td>226.6</td>
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</tbody>
</table>

Information about the voltage:

- 0: 230V AC - CH actuator
- 19: 24V AC/DC up to 240V AC/DC - J actuator
- other voltages on request