NFC19 COMPACT 3-WAY BALL VALVE WITH FLANGES, WITH MOUNTING FLANGE FOR AUTOMATION (ECO).

Type: NFC19

Errors and changes excepted. Revision: 07/2020-006

Strong Basis. Individual Solutions.

SYSTEM VALVES

Description:
- compact design
- reduced passageway
- ball with L-bore
- flange acc. to EN1092-1 - PN16
- top flange acc. to EN ISO 5211
- antistatic device starting from DN40
- blow out safe, spindle mounted from inside
- stainless steel hand lever
- any installation position

Range of application:
- material optimized 3-way ball valve with flanges for industrial applications
- space-saving installation by compact construction
- top flange for direct actuator mounting
- pneumatic and electric automatable
- working pressure PN16
- temperature range: -20°C up to +180°C (see pressure temperature diagram)

Comments

Optionally we can supply the stainless steel design starting from DN32 made of solid material. All types are also available with flanges acc. to ANSI150 and ANSI300.

From DN15 to DN32 the ball valves are available with an antistatic device.

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

pos. | part | standard VA | standard ST | optional material
--- | --- | --- | --- | ---
1 | primary sealing | PTFE | PTFE | T
2 | secondary sealing | NBR | NBR | A 105
3 | body screw connection | 1.4401 / 1.4408 | T | PTFE
4 | seat sealing | PTFE | T | PTFE
5 | friction ring | PTB | PTB | T
6 | sealing for spindle | PTB | PTB | T
9 | hand lever | 1.4301 | St 37 coated | 50CrV4
12 | disc spring | 1.4310 | 1.4305
13 | thrust ring | 1.4305 | 1.4305
14 | o-ring | FKM | FKM |
15 | spindle | 1.4401 | 1.4301 | 0
16 | ball | 1.4401 | 1.4301 | O
17 | body | 1.4401 | 1.4301 | A 105
18 | flange | 1.4541 | 1.0037 | J

*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

options:
- SV: spindle extension
- SP: gland extension
- EB: relief well
- OF: free of oil and grease
- SF: free of silicone
- ZG: certificate 3.1
- FW: free spindle

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.

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.

pos. part standard VA standard ST optional material
1 primary sealing PTFE PTFE T
2 secondary sealing NBR NBR A 105
3 body screw connection 1.4401 / 1.4408 T PTFE
4 seat sealing PTFE T PTFE
5 friction ring PTFE PTFE T
6 sealing for spindle PTFE PTFE T
9 hand lever 1.4301 St 37 coated
12 disc spring 1.4310 50CrV4
13 thrust ring 1.4305 1.4305
14 o-ring FKM FKM
15 spindle 1.4401 1.4301
16 ball 1.4401 1.4301
17 body 1.4401 1.4301
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Type:

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SYSTEM VALVES

NFC19-52-1xTOT
DN15 PN16 10 35 on request 65 140 n/a 4.8 2.2

NFC19-53-1xTOT
DN20 PN16 15 38 on request 70 140 n/a 8.5 3

NFC19-54-1xTOT
DN25 PN16 20 43 on request 82 180 n/a 11.3 4

NFC19-55-1xTOT
DN32 PN16 25 54 105 85 180 n/a 19 6

NFC19-56-1xTOT
DN40 PN16 32 66 105 102 230 n/a 28 8.5

NFC19-57-1xTOT
DN50 PN16 40 83 on request 110 230 n/a 39 8.8

NFC19-58-1xTOT
DN65 PN16 50 103 on request 137.5 333 n/a 59 20.5

NFC19-59-1xTOT
DN80 PN16 65 122 on request 150 333 n/a 84.5 27

NFC19-60-1xTOT
DN100 PN16 78 153 on request 165 370 n/a 168 41

*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, Δp=1 and the water temperature between 5°C and 30°C.

**Breakaway torque: all data is determined with water at max Δp and normal ambient temperature. Multiplicator 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 refers to the ball valve of this type. 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: NFC19

3: connection size:
- 52 60 (DIN, see table)
- 82-90 (ANSI, on request)

4: materials:
- 1. digit: body material
  - O = stainless steel
  - J = steel
- 2. digit: sealing for spindle
  - T = PTFE
- 3. digit: ball material
  - O = stainless steel
- 4. digit: seat sealing
  - T = PTFE
  - G = PTFE fibre-glass reinforced
  - U = PTFE graphite / carbon

5: actuator:
- no specification: steel hand lever
- automated: see column “actuator”

6: options (see "options")
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.

**DNFC19 / SNFC19**

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 +120°C *(at max. ambient temperature 40°C)*
- pilot pressure: 6 - 8 bar
- deviating medium temperature: -20°C up to +100°C *(at max. ambient temperature 40°C)*

<table>
<thead>
<tr>
<th>match code</th>
<th>actuator</th>
<th>H [mm]</th>
<th>B [mm]</th>
<th>D [mm]</th>
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**ENFC19**

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 +100°C *(at max. ambient temperature 40°C)*
- deviation medium temperature: -20°C up to +100°C *(at max. ambient temperature 40°C)*

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connection voltage type:

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