**2-WAY COMPACT FLANGED BALL VALVE, MANUALLY OPERATED AND AUTOMATED**

**Type:**
KFA16

**Description:**
- compact construction
- full passageway
- flanges acc. to EN1092-1 / PN40 and PN16
- top flange acc. to EN ISO 5211
- antistatic device
- blow out safe, spindle mounted from inside
- sealing for spindle with a triple chevron packing
- double body sealing
- three-piece chambered seat rings
- stainless steel hand lever
- any installation position

**Range of application:**
- high-quality flanged ball valve for highest demands
- the ball does not jut out of the body - the valve is removable even in closed condition
- space-saving installation by compact construction
- top flange for direct mounting
- pneumatic and electric automatable
- working pressure PN40 - PN10 (see pressure-temperature diagram)
- temperature range: -10°C up to +200°C (see pressure-temperature diagram)

**Comments**

The steel ball valve is made of solid material and up to DN40 with screw-in flanges, from DN50 to DN200 with pre-screwed flanges. The stainless steel type up to DN40 is made of solid material with screw-in flanges, DN50 up to DN125 is made of cast iron with screw-in flanges and DN150 up to DN200 is made of cast iron with pre-screwed flanges. The stainless steel type from DN50 up to DN100 is optionally available made of solid material.

The ball valve also has an approval acc. to TA-Luft. Flanges acc. to ANSI or with feather key and groove are available. Likewise, the design as floor drain valve.

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**Vektorgrafik KH Typ FA/B 1/2 (Schnitt) inkl. der Positionsangaben**

**Typ FA1**
- Vollmaterial, Einschraubflansche (Heizmantel)
  - Stahl: DN10 bis DN40
  - Edelstahl: DN10 bis DN40

**Typ FA2**
- Vollmaterial, Vorschraubflansche
  - Stahl: DN50 bis DN250
  - Edelstahl: DN50 bis DN100

**Typ FB1**
- Gussmaterial, Einschraubflansche (ab DN50)
  - Stahl: -
  - Edelstahl: DN125 (DN50 bis DN100 möglich)

**Typ FB2**
- Gussmaterial, Vorschraubflansche
  - Stahl: -
  - Edelstahl: DN150 bis DN200

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**pos.** | **part** | **standard VA** | **standard ST** | **optional material**
---|---|---|---|---
1 | body | 1.4401 | O | J
   |      | 1.4408 (starting from DN50) | O | 1.4301 / 1.4308
2 | body screw connection | 1.4401 | O | 1.0402 pretreated
3 | primary sealing | PTFE | T | PTFE
4 | secondary sealing | FKM | T | PTFE
5 | ball | 1.4401 | O | 1.4301
6 | seat sealing | PTFE | T | PTFE
7 | spindle | 1.4401 | 1.4401 |
8 | antistatic device | 1.4401 | 1.4401 |
9 | friction ring | PTFE | PTFE |
10 | pressure sleeve | PTFE / graphite | 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 |
14 |  |  |  |  |
15 |  |  |  |  |

*other media temperature resistance with different seat sealing:
- PTFE-fibre glass reinforced: -10°C up to +220°C
- PTFE with metal core: -10°C up to +220°C

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Errors and changes excepted. Revision: 07/2020-005

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2-WAY COMPACT FLANGED BALL VALVE, MANUALLY OPERATED AND AUTOMATED

Type: KFA16

options:
- OF: free of oil and grease
- ZG: certificate 3.1
- SV: spindle extension
- SP: gland extension
- HZ: heating jacket
- FS: fire-safe design
- TD: minimal clearance volume by means of half shells
- TS: minimal clearance volume
- AE: external parts made of stainless steel
- EB: relief well
- HG: hand gear
- FW: free spindle
- EX: ATEX-certificate
- LD: lock device

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.

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.

Pressure temperature diagram

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

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.
**2-WAY COMPACT FLANGED BALL VALVE, MANUALLY OPERATED AND AUTOMATED**

**Type:** KFA16

Errors and changes excepted. Revision: 07/2020-005

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SYSTEM VALVES

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<th>H [mm]</th>
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*CV value: The nominal flow rate CVs acc. to VDV/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 were determined with 16 bar water at 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.*

### Order information:

1. **automation:**
   - no specification: manually operated
   - D: pneumatic double acting
   - S: pneumatic single acting
   - E: electric actuated

2. type: KFA16

3. **connection size:**
   - 51-63 (DIN, see table)
   - 81-93 (ANSI, on request)

4. **materials:**
   - 1. digit: body material
     - J = steel
     - O = stainless steel
   - 2. digit: sealing for spindle
     - R = PTFE graphite / carbon

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!
DKFA16 / SKFA16

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)

### DKFA16

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**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.
EKFA16

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
- deviating medium temperature -20°C up to +100°C (at max. ambient temperature of 40°C)

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connection voltage type:

- 19: 24V AC/DC up to 240V AC/DC
- other voltages on request
Ball valves with heating jacket maintain a constant medium temperature inside the valve and therefore allow a defined medium viscosity.

The valve is made of solid steel or stainless steel and is provided with a one-piece shell that is filled with heating medium through two connections. For the ball valve all options of the type KFA16 are suitable (see data sheet). On request the ball valve can be automated electrically or pneumatically.

The following properties apply for the heating jacket:
- heating medium: uncritically fluids
- working pressure for heating jacket: max. 25 bar
- heating medium temperature: max. 60°C

Optionally other heating jacket connections are possible as well as higher heating medium pressure and designs for hot steam.

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