

Ball valve actuator units



Ball valve actuator units

Key features and product range overview

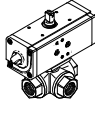
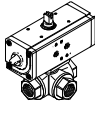


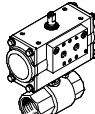
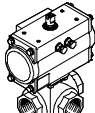
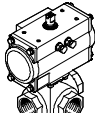
| General | Flexible | Design | Characteristics |
|---|---|---|---|
| <ul style="list-style-type: none"> - - Connecting thread Rp1/4 ... Rp4 - - Flow rate 5.9 ... 1414 m³/h | <ul style="list-style-type: none"> • Electric or pneumatic actuation • Flange hole pattern to ISO 5211 • Connection pattern to NAMUR VDI/VDE 3845 • Corrosion- and acid-resistant designs • Versions with ATEX certification | <ul style="list-style-type: none"> • 2-way ball valve actuator units made from stainless steel or brass with pipe thread or with weld-on ends • 2-way ball valve actuator units made from stainless steel in compact design • 3-way ball valve actuator units made from stainless steel or brass | <ul style="list-style-type: none"> • Combination of a pneumatic quarter turn actuator and a ball valve • Flow is fully opened or closed in both directions • Sensor boxes or limit switches can be mounted directly on the actuator unit for sensing the end positions |

| Design | Type | Quarter turn actuator | Process valve connection | Nominal width DN | Flange hole pattern to ISO 5211 | Nominal pressure of process valve PN | → Page/Internet | |
|-----------------|---|-----------------------|-------------------------------------|-----------------------------------|---------------------------------|--------------------------------------|-----------------|----|
| Stainless steel | 2-way ball valve actuator units with pipe thread to EN 10226-1 | | | | | | | |
| | | VZBA...-GG | DAPS double-acting or single-acting | Rp1/4 | 8 | F0304 | 63 | 8 |
| | | | | Rp3/8 | 10 | F0304 | | |
| | | | | Rp1/2 | 15 | F0304 | | |
| | | | | Rp3/4 | 20 | F0304 | | |
| | | | | Rp1 | 25 | F0405 | | |
| | | | | Rp1 1/4 | 32 | F0405 | | |
| | | | | Rp1 1/2 | 40 | F0507 | | |
| | | | | Rp2 | 50 | F0507 | | |
| | | | | Rp2 1/2 | 65 | F0710 | | |
| | | | | Rp3 | 80 | F0710 | | |
| | Rp4 | 100 | F10 | | | | | |
| | 2-way ball valve actuator units with weld-on ends to EN 12627 | | | | | | | |
| | | VZBA...-WW | DAPS double-acting or single-acting | Weld-on end | 8 | F0304 | 63 | 8 |
| | | | | | 10 | F0304 | | |
| | | | | | 15 | F0304 | | |
| | | | | | 20 | F0304 | | |
| | | | | | 25 | F0405 | | |
| | | | | | 32 | F0405 | | |
| | | | | | 40 | F0507 | | |
| | | | | | 50 | F0507 | | |
| | | | | | 65 | F0710 | | |
| | | | | | 80 | F0710 | | |
| | 100 | F10 | | | | | | |
| | 2-way ball valve actuator units in compact design with flange to DIN EN 1092-1 | | | | | | | |
| | | VZBC...-FF | DAPS double-acting or single-acting | Ring housing with threaded flange | 15 | F0304 | 40 | 16 |
| | | | | | 20 | F0304 | | |
| | | | | | 25 | F0405 | | |
| | | | | | 32 | F0405 | | |
| | | | | | 40 | F0507 | | |
| 50 | | | | | F0507 | | | |
| 65 | | | | | F07 | 16 | | |
| 80 | | | | | F07 | | | |
| 100 | | | | | F0710 | | | |

Ball valve actuator units

Key features and product range overview

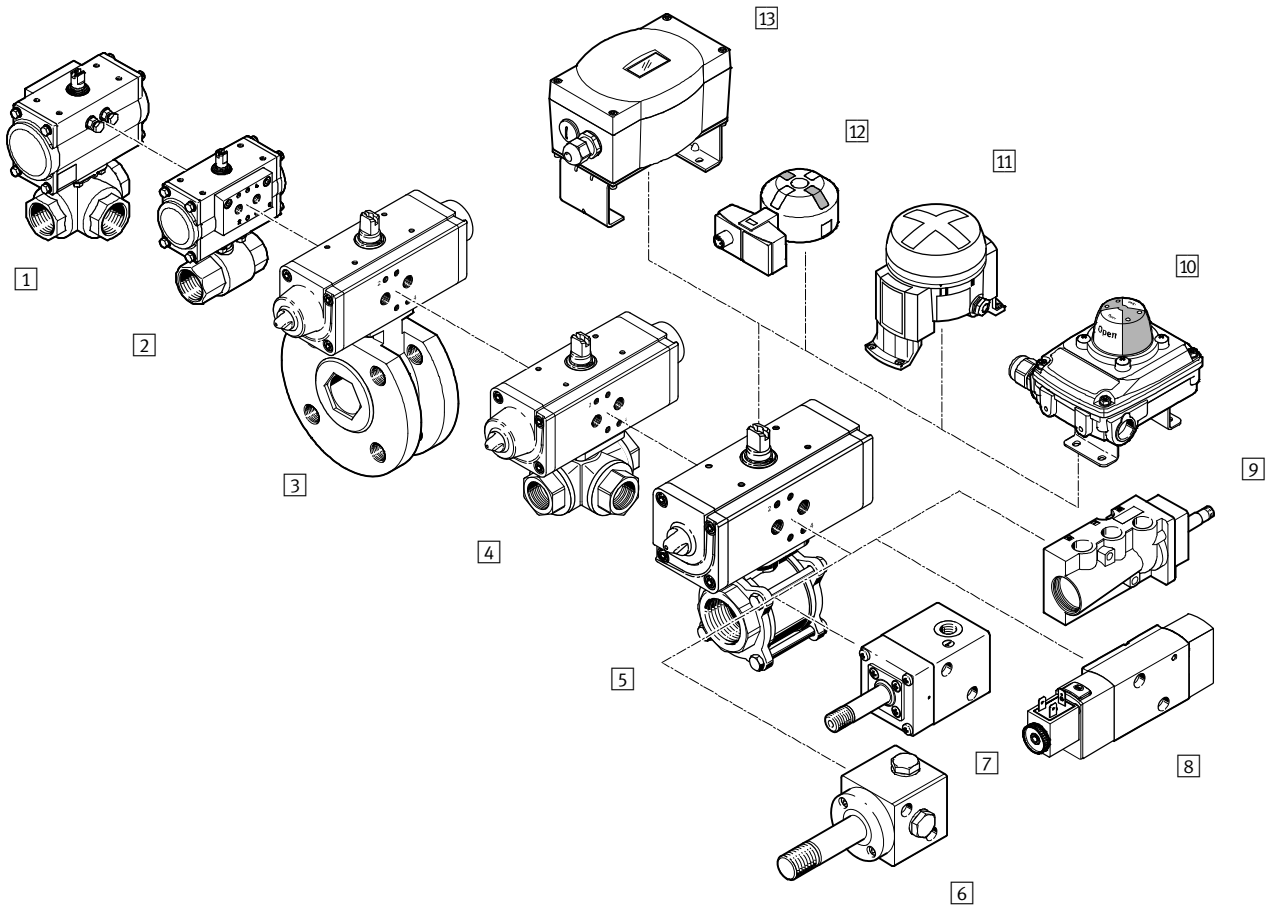
| Design | | Type | Quarter turn actuator | Process valve connection | Nominal width DN | Flange hole pattern to ISO 5211 | Nominal pressure of process valve PN | → Page/Internet |
|-----------------|---|------|-------------------------------------|--------------------------|------------------|---------------------------------|--------------------------------------|-----------------|
| Stainless steel | 3-way ball valve actuator units with L-shaped bore and pipe thread to EN 10226-1 | | | | | | | |
| |  | VZBA | DAPS double-acting or single-acting | Rp1/4 | 8 | F0304 | 63 | 22 |
| | | | | Rp3/8 | 10 | F0304 | | |
| | | | | Rp1/2 | 15 | F0304 | | |
| | | | | Rp3/4 | 20 | F0405 | | |
| | | | | Rp1 | 25 | F0405 | | |
| | | | | Rp1 1/4 | 32 | F0405 | | |
| | | | | Rp1 1/2 | 40 | F0405 | | |
| | Rp2 | 50 | F05 | | | | | |
| | 3-way ball valve actuator units with T-shaped bore and pipe thread to EN 10226-1 | | | | | | | |
| |  | VZBA | DAPS double-acting or single-acting | Rp1/4 | 8 | F0304 | 63 | 22 |
| | | | | Rp3/8 | 10 | F0304 | | |
| | | | | Rp1/2 | 15 | F0304 | | |
| | | | | Rp3/4 | 20 | F0405 | | |
| Rp1 | | | | 25 | F0405 | | | |
| Rp1 1/4 | | | | 32 | F0405 | | | |
| Rp1 1/2 | | | | 40 | F0405 | | | |
| Rp2 | 50 | F05 | | | | | | |

| Design | | Type | Quarter turn actuator | Process valve connection | Nominal width DN | Flange hole pattern to ISO 5211 | Nominal pressure of process valve PN | → Page/Internet |
|---|---|-------------------------------------|-------------------------------------|--------------------------|------------------|---------------------------------|--------------------------------------|-----------------|
| Brass | 2-way ball valve actuator units with pipe thread to EN 10226-1 | | | | | | | |
| |  | VZBM | DFPD double-acting or single-acting | Rp1/4 | 8 | F03 | 40 | 28 |
| | | | | Rp3/8 | 10 | F03 | | |
| | | | | Rp1/2 | 15 | F03 | | |
| | | | | Rp3/4 | 20 | F03 | | |
| | | | | Rp1 | 25 | F03 | | |
| | | | | Rp1 1/4 | 32 | F03 | | |
| | | | | Rp1 1/2 | 40 | F0305 | | |
| | Rp2 | 50 | F0305 | | | | | |
| | 3-way ball valve actuator units with L-shaped bore and pipe thread to EN 10226-1 | | | | | | | |
| |  | VZBM | DFPD double-acting or single-acting | Rp1/4 | 8 | F03 | 40 | 34 |
| | | | | Rp3/8 | 10 | F03 | | |
| | | | | Rp1/2 | 15 | F03 | | |
| | | | | Rp3/4 | 20 | F03 | | |
| | | | | Rp1 | 25 | F0304 | | |
| | | | | Rp1 1/4 | 32 | F0405 | | |
| | | | | Rp1 1/2 | 40 | F0405 | | |
| | Rp2 | 50 | F05 | | | | | |
| 3-way ball valve actuator units with T-shaped bore and pipe thread to EN 10226-1 | | | | | | | | |
|  | VZBM | DFPD double-acting or single-acting | Rp1/4 | 8 | F03 | 40 | 34 | |
| | | | Rp3/8 | 10 | F03 | | | |
| | | | Rp1/2 | 15 | F03 | | | |
| | | | Rp3/4 | 20 | F03 | | | |
| | | | Rp1 | 25 | F0304 | | | |
| | | | Rp1 1/4 | 32 | F0405 | | | |
| | | | Rp1 1/2 | 40 | F0405 | | | |
| Rp2 | 50 | F05 | | | | | | |

Ball valve actuator units

Peripherals overview

FESTO



Ball valve actuator units

Peripherals overview

| Mounting components and accessories | | | |
|-------------------------------------|----------------------------------|--|------|
| | Brief description | → Page/Internet | |
| 1 | Ball valve actuator unit VZBM | Combination of double-acting or single-acting quarter turn actuator DFPD and 3-way ball valve, brass | 34 |
| 2 | Ball valve actuator unit VZBM | Combination of double-acting or single-acting quarter turn actuator DFPD and 2-way ball valve, brass | 28 |
| 3 | Ball valve actuator unit VZBC | Combination of double-acting or single-acting quarter turn actuator DAPS and 2-way ball valve, stainless steel, compact design | 16 |
| 4 | Ball valve actuator unit VZBA | Combination of double-acting or single-acting quarter turn actuator DAPS and 3-way ball valve, stainless steel | 22 |
| 5 | Ball valve actuator unit VZBA | Combination of double-acting or single-acting quarter turn actuator DAPS and 2-way ball valve, stainless steel | 8 |
| 6 | Solenoid valves VOFD | Solenoid valve with solenoid coil, connection pattern to NAMUR | vofd |
| 7 | Solenoid valves VOFC | Solenoid valve with solenoid coil, connection pattern to NAMUR | vofc |
| 8 | Solenoid valves VSNC | For single-acting and double-acting quarter turn actuators with a connection pattern to VDI/VDE 3845 | vsnc |
| 9 | Solenoid valve NVF3 | For F solenoid coil and explosion-proof F solenoid coil | nvf3 |
| 10 | Sensor boxes SRBC | For electrical position feedback and monitoring the position of process valves actuated using quarter turn actuators | srbc |
| 11 | Limit switch attachments DAPZ | Round design, variant AR Electrical, inductive or inductive and explosion-proof sensing | dapz |
| 12 | Sensor boxes SRBG | For electrical position feedback and monitoring the position of process valves actuated using quarter turn actuators | srbg |
| 13 | Positioner CMSX | For controlling the position of quarter turn actuators in process automation systems | cmsx |

VZBA, 2-way, stainless steel

Type codes

VZBA - 1/4 - G G - 63 - T - 22 - F0304 -

| Type | |
|------|------------|
| VZBA | Ball valve |

| Nominal width DN | |
|------------------|-------|
| 1/4" | DN8 |
| 3/8" | DN10 |
| 1/2" | DN15 |
| 3/4" | DN20 |
| 1" | DN25 |
| 1 1/4" | DN32 |
| 1 1/2" | DN40 |
| 2" | DN50 |
| 2 1/2" | DN65 |
| 3" | DN80 |
| 4" | DN100 |

| Connection type 1 | |
|-------------------|-------------------------------|
| G | Pipe thread to DIN EN 10226-1 |
| W | Weld-on end |

| Connection type 2 | |
|-------------------|-------------------------------|
| G | Pipe thread to DIN EN 10226-1 |
| W | Weld-on end |

| Nominal pressure of process valve PN | |
|--------------------------------------|--------|
| 63 | 63 bar |

| Design | |
|--------|------------|
| T | Three-part |

| Valve function | |
|----------------|---------|
| 22 | 2/2-way |

| Flanged connection to ISO 5211 | |
|--------------------------------|--|
| F0304 | 2 bolt circles with \varnothing 36 mm and \varnothing 42 mm |
| F0405 | 2 bolt circles with \varnothing 42 mm and \varnothing 50 mm |
| F0507 | 2 bolt circles with \varnothing 50 mm and \varnothing 70 mm |
| F07 | 1 bolt circle with \varnothing 70 mm |
| F0710 | 2 bolt circles with \varnothing 70 mm and \varnothing 102 mm |
| F10 | 1 bolt circle with \varnothing 102 mm |

VZBA, 2-way, stainless steel

Type codes

V4 V4 T - PS 15 - R - 90 - 4 - C

Housing material

| | |
|----|---|
| V4 | Stainless steel 1.4401/1.4404 (AISI 316L)/1.4408 |
|----|---|

Shut-off element material

| | |
|----|---|
| V4 | Stainless steel 1.4401/1.4404 (AISI 316L)/1.4408 |
|----|---|

Sealing material

| | |
|---|-----------------|
| T | PTFE reinforced |
|---|-----------------|

Actuator

| | |
|----|---------------------|
| PP | DAPS, double-acting |
| PS | DAPS, single-acting |

Torque

| | |
|-----|--------|
| 15 | 15 Nm |
| 30 | 30 Nm |
| 53 | 53 Nm |
| 60 | 60 Nm |
| 90 | 90 Nm |
| 106 | 106 Nm |
| 120 | 120 Nm |
| 180 | 180 Nm |
| 240 | 240 Nm |

Swivel direction

| | |
|---|-------|
| R | Right |
|---|-------|

Nominal swivel angle

| | |
|----|-----|
| 90 | 90° |
|----|-----|

Spring configuration

| | |
|---|--|
| - | Not applicable for double-acting |
| 1 | Spring force for connection pressure 2.8 bar |
| 2 | Spring force for connection pressure 3.5 bar |
| 3 | Spring force for connection pressure 4.2 bar |
| 4 | Spring force for connection pressure 5.6 bar |

End-position adjustment

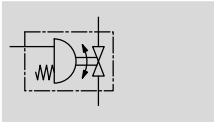
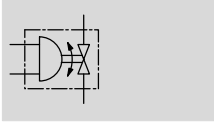
| | |
|---|--------|
| C | Closed |
|---|--------|




VZBA, 2-way, stainless steel

FESTO

Technical data

Function



-  Swivel angle
0 ... 90°
-  Flow rate
7 ... 1414 m³/h
-  Connecting thread
Rp1/4 ... Rp4



| General technical data | | | | | | | | | | | | |
|--------------------------------------|---|----|----|------|------|------|-----|-----|-----|-----|-----|------|
| Nominal width DN | 8 | 10 | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | |
| Quarter turn actuator | | | | | | | | | | | | |
| Type of mounting | In-line installation | | | | | | | | | | | |
| Mounting position | Any | | | | | | | | | | | |
| Swivel angle | [°] | 90 | | | | | | | | | | |
| Closing direction | Closes to the right | | | | | | | | | | | |
| Ball valve | | | | | | | | | | | | |
| Design | 2-way ball valve, quarter turn actuator | | | | | | | | | | | |
| Type of actuation | Pneumatic | | | | | | | | | | | |
| Switching position indication | Slot direction = flow direction | | | | | | | | | | | |
| Nominal pressure of process valve PN | 63 | | | | | | | | | | | |
| Flow rate Kv | [m ³ /h] | 7 | 10 | 19.4 | 45.6 | 71.5 | 105 | 170 | 275 | 507 | 905 | 1414 |

| Operating and environmental conditions | |
|--|--|
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Operating pressure | [bar] 6 ... 8.4 |
| Ambient temperature | [°C] -10 ... +80 |
| Temperature of medium ¹⁾ | [°C] -10 ... +200 |
| Medium | Compressed air to ISO 8573-1:2010 [-:~] |
| | Inert gases |
| | Neutral fluids |
| | Water – no water vapour |
| Note on the operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) |
| Corrosion resistance class CRC ²⁾ | 3 |

1) As a function of operating pressure

2) Corrosion resistance class CRC 3 according to Festo standard 940070

High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional surface requirements which are in direct contact with a normal industrial environment.

VZBA, 2-way, stainless steel

Technical data

| ATEX | |
|--------------------------------------|--------------------|
| ATEX category for gas | II 2G |
| ATEX category for dust | II 2D |
| Max. surface temperature of assembly | TX |
| Explosion group of assembly | II C |
| Explosion-proof temperature rating | -10°C ≤ Ta ≤ +60°C |

| Materials | Information on materials | Material number |
|-------------------|--|-----------------|
| Housing | High-alloy stainless steel | 1.4408 |
| Ball | | |
| Shaft | High-alloy stainless steel | 1.4401 |
| Seals | PTFE reinforced | |
| | PTFE | |
| Note on materials | RoHS-compliant | |
| | Contains paint-wetting impairment substances | |

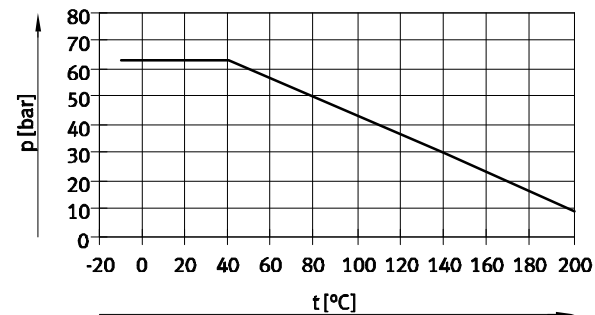
| Weight – Double-acting | | | |
|------------------------|--------------------------|------------|--------------|
| Nominal width DN | Process valve connection | Weight [g] | |
| 8 | Rp1/4 | 1450 | Weld-on ends |
| 10 | Rp3/8 | 1450 | |
| 15 | Rp1/2 | 1450 | |
| 20 | Rp3/4 | 1900 | |
| 25 | Rp1 | 2300 | |
| 32 | Rp1 1/4 | 3800 | |

| Nominal width DN | Process valve connection | Weight [g] | |
|------------------|--------------------------|------------|--------------|
| 40 | Rp1 1/2 | 4800 | Weld-on ends |
| 50 | Rp2 | 6600 | |
| 65 | Rp2 1/2 | 11,700 | |
| 80 | Rp3 | 18,200 | |
| 100 | Rp4 | 27,700 | |
| | | | |

| Weight – Single-acting | | | |
|------------------------|--------------------------|------------|--------------|
| Nominal width DN | Process valve connection | Weight [g] | |
| 8 | Rp1/4 | 2000 | Weld-on ends |
| 10 | Rp3/8 | 2000 | |
| 15 | Rp1/2 | 2000 | |
| 20 | Rp3/4 | 3100 | |
| 25 | Rp1 | 3500 | |
| 32 | Rp1 1/4 | 5150 | |

| Nominal width DN | Process valve connection | Weight [g] | |
|------------------|--------------------------|------------|--------------|
| 40 | Rp1 1/2 | 6100 | Weld-on ends |
| 50 | Rp2 | 10,000 | |
| 65 | Rp2 1/2 | 16,300 | |
| 80 | Rp3 | 22,900 | |
| 100 | Rp4 | 33,500 | |
| | | | |

Permissible operating pressure p as a function of temperature of medium t



VZBA, 2-way, stainless steel

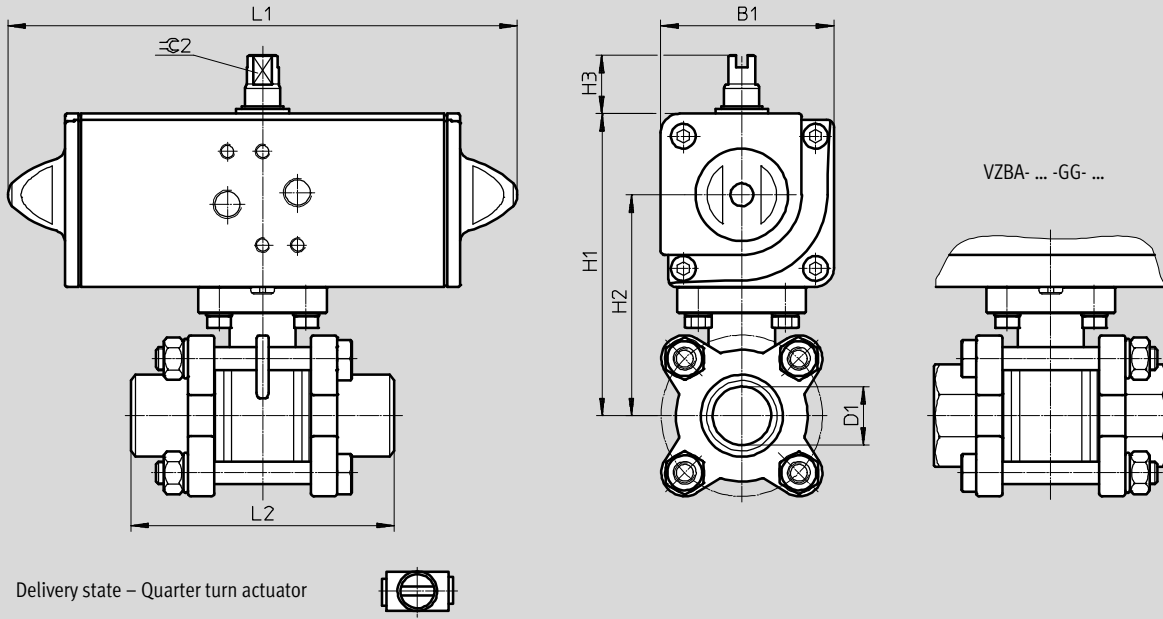
Technical data

FESTO

Dimensions

Download CAD data → www.festo.com

DAPS – Double-acting



| Type | B1 | D1 Ø | H1 | H2 | H3 | L1 | L2 | ⊙ 2 |
|---|-------|---------|-------|-------|----|-------|-----|-----|
| VZBA-1/4"-WW-63-T-22-F0304-V4V4T-PP15-R-90-C | 52.2 | 10 | 92.2 | 68 | 20 | 159 | 70 | 8 |
| VZBA-3/8"-WW-63-T-22-F0304-V4V4T-PP15-R-90-C | 52.2 | 12 | 92.2 | 68 | 20 | 159 | 70 | 8 |
| VZBA-1/2"-WW-63-T-22-F0304-V4V4T-PP15-R-90-C | 52.2 | 16 | 92.2 | 68 | 20 | 159 | 75 | 8 |
| VZBA-3/4"-WW-63-T-22-F0304-V4V4T-PP30-R-90-C | 59.2 | 20 | 103.2 | 75.5 | 20 | 174 | 90 | 9 |
| VZBA-1"-WW-63-T-22-F0405-V4V4T-PP30-R-90-C | 59.2 | 25 | 111.2 | 83.5 | 20 | 174 | 100 | 9 |
| VZBA-1 1/4"-WW-63-T-22-F0405-V4V4T-PP60-R-90-C | 70.4 | 32 | 128.4 | 95.7 | 20 | 198 | 110 | 10 |
| VZBA-1 1/2"-WW-63-T-22-F0507-V4V4T-PP60-R-90-C | 70.4 | 38 | 138.4 | 105.7 | 20 | 198 | 125 | 10 |
| VZBA-2"-WW-63-T-22-F0507-V4V4T-PP60-R-90-C | 70.4 | 50 | 147.7 | 114.7 | 20 | 198 | 150 | 10 |
| VZBA-2 1/2"-WW-63-T-22-F0710-V4V4T-PP106-R-90-C | 83.3 | 65 | 181.3 | 142.8 | 20 | 237.1 | 190 | 12 |
| VZBA-3"-WW-63-T-22-F0710-V4V4T-PP180-R-90-C | 107.5 | 80 | 217.5 | 166.5 | 30 | 289.9 | 220 | 15 |
| VZBA-4"-WW-63-T-22-F10-V4V4T-PP240-R-90-C | 111.1 | 100 | 249.1 | 198.1 | 30 | 313.6 | 270 | 15 |

| Type | B1 | D1 Ø | H1 | H2 | H3 | L1 | L2 | ⊙ 2 |
|---|-------|---------|-------|-------|----|-------|-----|-----|
| VZBA-1/4"-GG-63-T-22-F0304-V4V4T-PP15-R-90-C | 52.2 | 10 | 99.2 | 68 | 20 | 159 | 65 | 8 |
| VZBA-3/8"-GG-63-T-22-F0304-V4V4T-PP15-R-90-C | 52.2 | 12 | 99.2 | 68 | 20 | 159 | 65 | 8 |
| VZBA-1/2"-GG-63-T-22-F0304-V4V4T-PP15-R-90-C | 52.2 | 16 | 99.2 | 68 | 20 | 159 | 75 | 8 |
| VZBA-3/4"-GG-63-T-22-F0304-V4V4T-PP30-R-90-C | 59.2 | 20 | 103.2 | 75.5 | 20 | 174 | 80 | 9 |
| VZBA-1"-GG-63-T-22-F0405-V4V4T-PP30-R-90-C | 59.2 | 25 | 111.2 | 83.5 | 20 | 174 | 90 | 9 |
| VZBA-1 1/4"-GG-63-T-22-F0405-V4V4T-PP60-R-90-C | 70.4 | 32 | 128.4 | 95.7 | 20 | 198 | 110 | 10 |
| VZBA-1 1/2"-GG-63-T-22-F0507-V4V4T-PP60-R-90-C | 70.4 | 38 | 138.4 | 105.7 | 20 | 198 | 120 | 10 |
| VZBA-2"-GG-63-T-22-F0507-V4V4T-PP60-R-90-C | 70.4 | 50 | 147.7 | 114.7 | 20 | 198 | 140 | 10 |
| VZBA-2 1/2"-GG-63-T-22-F0710-V4V4T-PP106-R-90-C | 83.3 | 65 | 181.3 | 142.8 | 20 | 237.1 | 185 | 12 |
| VZBA-3"-GG-63-T-22-F0710-V4V4T-PP180-R-90-C | 107.5 | 80 | 217.5 | 166.5 | 30 | 289.9 | 205 | 15 |
| VZBA-4"-GG-63-T-22-F10-V4V4T-PP240-R-90-C | 111.1 | 100 | 249.1 | 198.1 | 30 | 313.6 | 240 | 15 |

VZBA, 2-way, stainless steel

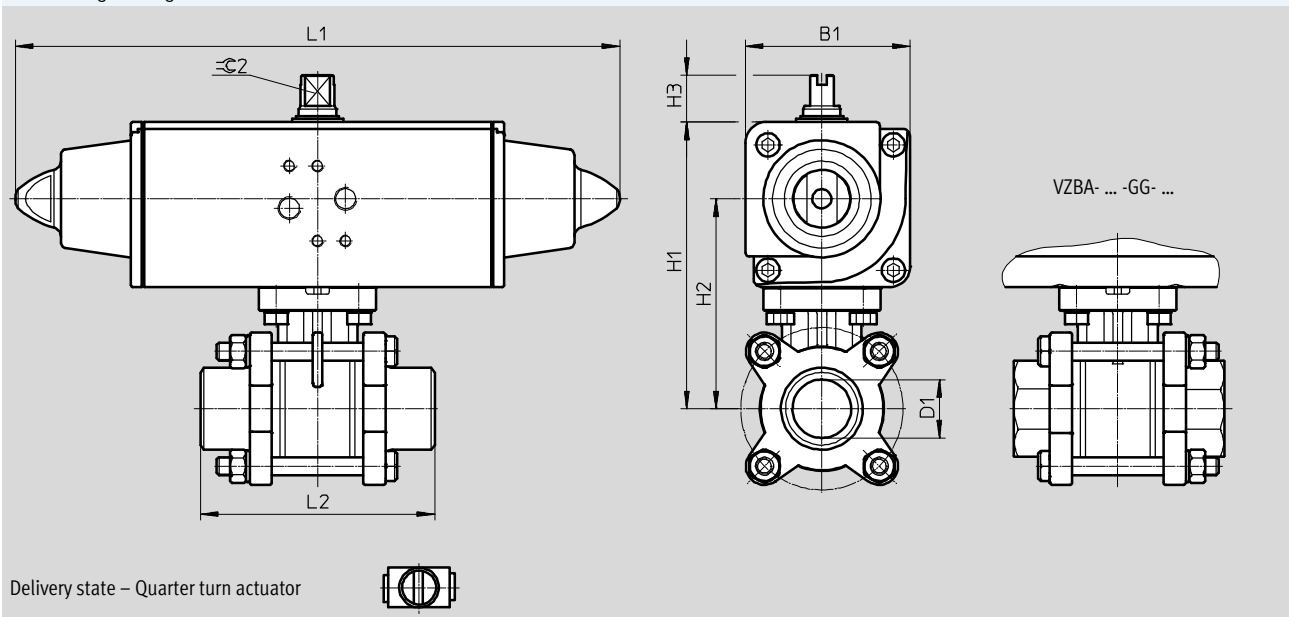
Technical data

FESTO

Dimensions

Download CAD data → www.festo.com

DAPS – Single-acting

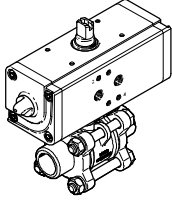
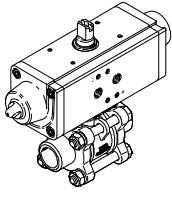


| Type | B1 | D1 Ø | H1 | H2 | H3 | L1 | L2 | ≈C 2 |
|---|-------|---------|-------|-------|----|-------|-----|------|
| VZBA-1/4"-WW-63-T-22-F0304-V4V4T-PS15-R-90-4-C | 59.2 | 10 | 99.2 | 71.5 | 20 | 233.3 | 70 | 9 |
| VZBA-3/8"-WW-63-T-22-F0304-V4V4T-PS15-R-90-4-C | 59.2 | 12 | 99.2 | 71.5 | 20 | 233.3 | 70 | 9 |
| VZBA-1/2"-WW-63-T-22-F0304-V4V4T-PS15-R-90-4-C | 59.2 | 16 | 99.2 | 71.5 | 20 | 233.3 | 75 | 9 |
| VZBA-3/4"-WW-63-T-22-F0304-V4V4T-PS30-R-90-4-C | 70.4 | 20 | 114.4 | 81.7 | 20 | 259 | 90 | 10 |
| VZBA-1"-WW-63-T-22-F0405-V4V4T-PS30-R-90-4-C | 70.4 | 25 | 122.4 | 89.7 | 20 | 259 | 100 | 10 |
| VZBA-1 1/4"-WW-63-T-22-F0405-V4V4T-PS53-R-90-4-C | 83.3 | 32 | 141.3 | 102.8 | 20 | 304.3 | 110 | 12 |
| VZBA-1 1/2"-WW-63-T-22-F0507-V4V4T-PS53-R-90-4-C | 83.3 | 38 | 151.3 | 112.8 | 20 | 304.3 | 125 | 12 |
| VZBA-2"-WW-63-T-22-F0507-V4V4T-PS90-R-90-4-C | 107.5 | 50 | 184.5 | 133.5 | 30 | 393.7 | 150 | 15 |
| VZBA-2 1/2"-WW-63-T-22-F0710-V4V4T-PS120-R-90-4-C | 111.1 | 65 | 209.1 | 158.1 | 30 | 409.6 | 190 | 15 |
| VZBA-3"-WW-63-T-22-F0710-V4V4T-PS180-R-90-4-C | 118 | 80 | 228 | 172 | 30 | 474 | 220 | 19 |
| VZBA-4"-WW-63-T-22-F10-V4V4T-PS240-R-90-4-C | 134.9 | 100 | 272.9 | 210.9 | 30 | 520.5 | 270 | 19 |

| Type | B1 | D1 Ø | H1 | H2 | H3 | L1 | L2 | ≈C 2 |
|---|-------|---------|-------|-------|----|-------|-----|------|
| VZBA-1/4"-GG-63-T-22-F0304-V4V4T-PS15-R-90-4-C | 59.2 | 10 | 99.2 | 71.5 | 20 | 233.3 | 65 | 9 |
| VZBA-3/8"-GG-63-T-22-F0304-V4V4T-PS15-R-90-4-C | 59.2 | 12 | 99.2 | 71.5 | 20 | 233.3 | 65 | 9 |
| VZBA-1/2"-GG-63-T-22-F0304-V4V4T-PS15-R-90-4-C | 59.2 | 16 | 99.2 | 71.5 | 20 | 233.3 | 75 | 9 |
| VZBA-3/4"-GG-63-T-22-F0304-V4V4T-PS30-R-90-4-C | 70.4 | 20 | 114.4 | 81.7 | 20 | 259 | 80 | 10 |
| VZBA-1"-GG-63-T-22-F0405-V4V4T-PS30-R-90-4-C | 70.4 | 25 | 122.4 | 89.7 | 20 | 259 | 90 | 10 |
| VZBA-1 1/4"-GG-63-T-22-F0405-V4V4T-PS53-R-90-4-C | 83.3 | 32 | 141.3 | 102.8 | 20 | 304.3 | 110 | 12 |
| VZBA-1 1/2"-GG-63-T-22-F0507-V4V4T-PS53-R-90-4-C | 83.3 | 38 | 151.3 | 112.8 | 20 | 304.3 | 120 | 12 |
| VZBA-2"-GG-63-T-22-F0507-V4V4T-PS90-R-90-4-C | 107.5 | 50 | 184.5 | 133.5 | 30 | 393.7 | 140 | 15 |
| VZBA-2 1/2"-GG-63-T-22-F0710-V4V4T-PS120-R-90-4-C | 111.1 | 65 | 209.1 | 158.1 | 30 | 409.6 | 185 | 15 |
| VZBA-3"-GG-63-T-22-F0710-V4V4T-PS180-R-90-4-C | 118 | 80 | 228 | 172 | 30 | 474 | 205 | 19 |
| VZBA-4"-GG-63-T-22-F10-V4V4T-PS240-R-90-4-C | 134.9 | 100 | 272.9 | 210.9 | 30 | 520.5 | 240 | 19 |

VZBA, 2-way, stainless steel

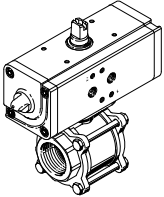
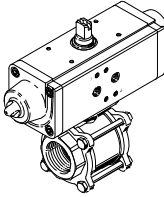
Technical data

| Ordering data | | | | |
|--|-------------------|------------------|----------|---|
| DAPS – Double-acting | Connection | Nominal width DN | Part No. | Type |
|  | With weld-on ends | 8 | 1810730 | VZBA-1/4"-WW-63-T-22-F0304-V4V4T-PP15-R-90-C |
| | | 10 | 1810731 | VZBA-3/8"-WW-63-T-22-F0304-V4V4T-PP15-R-90-C |
| | | 15 | 1810732 | VZBA-1/2"-WW-63-T-22-F0304-V4V4T-PP15-R-90-C |
| | | 20 | 1810733 | VZBA-3/4"-WW-63-T-22-F0304-V4V4T-PP30-R-90-C |
| | | 25 | 1810734 | VZBA-1"-WW-63-T-22-F0405-V4V4T-PP30-R-90-C |
| | | 32 | 1810735 | VZBA-1 1/4"-WW-63-T-22-F0405-V4V4T-PP60-R-90-C |
| | | 40 | 1810736 | VZBA-1 1/2"-WW-63-T-22-F0507-V4V4T-PP60-R-90-C |
| | | 50 | 1810737 | VZBA-2"-WW-63-T-22-F0507-V4V4T-PP60-R-90-C |
| | | 65 | 1810738 | VZBA-2 1/2"-WW-63-T-22-F0710-V4V4T-PP106-R-90-C |
| | | 80 | 1810739 | VZBA-3"-WW-63-T-22-F0710-V4V4T-PP180-R-90-C |
| | | 100 | 1810740 | VZBA-4"-WW-63-T-22-F10-V4V4T-PP240-R-90-C |
| DAPS – Single-acting | | | | |
|  | With weld-on ends | 8 | 1774103 | VZBA-1/4"-WW-63-T-22-F0304-V4V4T-PS15-R-90-4-C |
| | | 10 | 1774104 | VZBA-3/8"-WW-63-T-22-F0304-V4V4T-PS15-R-90-4-C |
| | | 15 | 1774105 | VZBA-1/2"-WW-63-T-22-F0304-V4V4T-PS15-R-90-4-C |
| | | 20 | 1774106 | VZBA-3/4"-WW-63-T-22-F0304-V4V4T-PS30-R-90-4-C |
| | | 25 | 1774107 | VZBA-1"-WW-63-T-22-F0405-V4V4T-PS30-R-90-4-C |
| | | 32 | 1774108 | VZBA-1 1/4"-WW-63-T-22-F0405-V4V4T-PS60-R-90-4-C |
| | | 40 | 1774109 | VZBA-1 1/2"-WW-63-T-22-F0507-V4V4T-PS60-R-90-4-C |
| | | 50 | 1774110 | VZBA-2"-WW-63-T-22-F0507-V4V4T-PS60-R-90-4-C |
| | | 65 | 1774111 | VZBA-2 1/2"-WW-63-T-22-F0710-V4V4T-PS106-R-90-4-C |
| | | 80 | 1774112 | VZBA-3"-WW-63-T-22-F0710-V4V4T-PS180-R-90-4-C |
| | | 100 | 1774113 | VZBA-4"-WW-63-T-22-F10-V4V4T-PS240-R-90-4-C |

VZBA, 2-way, stainless steel

Technical data

FESTO

| Ordering data | | | |
|---|-------------------|----------|---|
| DAPS – Double-acting | Connecting thread | Part No. | Type |
|  | Rp1/4 | 1809651 | VZBA-1/4"-GG-63-T-22-F0304-V4V4T-PP15-R-90-C |
| | Rp3/8 | 1809652 | VZBA-3/8"-GG-63-T-22-F0304-V4V4T-PP15-R-90-C |
| | Rp1/2 | 1809653 | VZBA-1/2"-GG-63-T-22-F0304-V4V4T-PP15-R-90-C |
| | Rp3/4 | 1809654 | VZBA-3/4"-GG-63-T-22-F0304-V4V4T-PP30-R-90-C |
| | Rp1 | 1809655 | VZBA-1"-GG-63-T-22-F0405-V4V4T-PP30-R-90-C |
| | Rp1 1/4 | 1809656 | VZBA-1 1/4"-GG-63-T-22-F0405-V4V4T-PP60-R-90-C |
| | Rp1 1/2 | 1809657 | VZBA-1 1/2"-GG-63-T-22-F0507-V4V4T-PP60-R-90-C |
| | Rp2 | 1809658 | VZBA-2"-GG-63-T-22-F0507-V4V4T-PP60-R-90-C |
| | Rp2 1/2 | 1809659 | VZBA-2 1/2"-GG-63-T-22-F0710-V4V4T-PP106-R-90-C |
| | Rp3 | 1809660 | VZBA-3"-GG-63-T-22-F0710-V4V4T-PP180-R-90-C |
| | Rp4 | 1809661 | VZBA-4"-GG-63-T-22-F10-V4V4T-PP240-R-90-C |
| DAPS – Single-acting | | | |
|  | Rp1/4 | 1758069 | VZBA-1/4"-GG-63-T-22-F0304-V4V4T-PS15-R-90-4-C |
| | Rp3/8 | 1758070 | VZBA-3/8"-GG-63-T-22-F0304-V4V4T-PS15-R-90-4-C |
| | Rp1/2 | 1758071 | VZBA-1/2"-GG-63-T-22-F0304-V4V4T-PS15-R-90-4-C |
| | Rp3/4 | 1758072 | VZBA-3/4"-GG-63-T-22-F0304-V4V4T-PS30-R-90-4-C |
| | Rp1 | 1758073 | VZBA-1"-GG-63-T-22-F0405-V4V4T-PS30-R-90-4-C |
| | Rp1 1/4 | 1758074 | VZBA-1 1/4"-GG-63-T-22-F0405-V4V4T-PS53-R-90-4-C |
| | Rp1 1/2 | 1758075 | VZBA-1 1/2"-GG-63-T-22-F0507-V4V4T-PS53-R-90-4-C |
| | Rp2 | 1758076 | VZBA-2"-GG-63-T-22-F0507-V4V4T-PS90-R-90-4-C |
| | Rp2 1/2 | 1758077 | VZBA-2 1/2"-GG-63-T-22-F0710-V4V4T-PS120-R-90-4-C |
| | Rp3 | 1758078 | VZBA-3"-GG-63-T-22-F0710-V4V4T-PS180-R-90-4-C |
| | Rp4 | 1758079 | VZBA-4"-GG-63-T-22-F10-V4V4T-PS240-R-90-4-C |

VZBC, 2-way, compact design, stainless steel

Type codes

VZBC - 15 - F F - 40 - 22 - F0304 - V4 V4 T -

Type

| | |
|------|------------|
| VZBC | Ball valve |
|------|------------|

Nominal width DN

| | |
|-----|-------|
| 15 | DN15 |
| 20 | DN20 |
| 25 | DN25 |
| 32 | DN32 |
| 40 | DN40 |
| 50 | DN50 |
| 65 | DN65 |
| 80 | DN80 |
| 100 | DN100 |

Connection type 1

| | |
|---|-------------------------|
| F | Flange to DIN EN 1092-1 |
|---|-------------------------|

Connection type 2

| | |
|---|-------------------------|
| F | Flange to DIN EN 1092-1 |
|---|-------------------------|

Nominal pressure of process valve PN

| | |
|----|--------|
| 40 | 40 bar |
| 16 | 16 bar |

Valve function

| | |
|----|---------|
| 22 | 2/2-way |
|----|---------|

Flanged connection to ISO 5211

| | |
|-------|--|
| F0304 | 2 bolt circles with \varnothing 36 mm and \varnothing 42 mm |
| F0405 | 2 bolt circles with \varnothing 42 mm and \varnothing 50 mm |
| F0507 | 2 bolt circles with \varnothing 50 mm and \varnothing 70 mm |
| F07 | 1 bolt circle with \varnothing 70 mm |
| F0710 | 2 bolt circles with \varnothing 70 mm and \varnothing 102 mm |

Housing material

| | |
|----|---|
| V4 | Stainless steel 1.4401/1.4404 (AISI 316L)/1.4408 |
|----|---|

Shut-off element material

| | |
|----|---|
| V4 | Stainless steel 1.4401/1.4404 (AISI 316L)/1.4408 |
|----|---|

Sealing material

| | |
|---|-----------------|
| T | PTFE reinforced |
|---|-----------------|

VZBC, 2-way, compact design, stainless steel

Type codes

PS 15 - R - 90 - 4 - C

Actuator

| | |
|----|---------------------|
| PP | DAPS, double-acting |
| PS | DAPS, single-acting |

Torque

| | |
|-----|--------|
| 15 | 15 Nm |
| 30 | 30 Nm |
| 53 | 53 Nm |
| 60 | 60 Nm |
| 90 | 90 Nm |
| 106 | 106 Nm |
| 120 | 120 Nm |
| 180 | 180 Nm |
| 240 | 240 Nm |

Swivel direction

| | |
|---|-------|
| R | Right |
|---|-------|

Nominal swivel angle

| | |
|----|-----|
| 90 | 90° |
|----|-----|

Spring configuration

| | |
|---|--|
| - | Not applicable for double-acting |
| 1 | Spring force for connection pressure 2.8 bar |
| 2 | Spring force for connection pressure 3.5 bar |
| 3 | Spring force for connection pressure 4.2 bar |
| 4 | Spring force for connection pressure 5.6 bar |

End-position adjustment

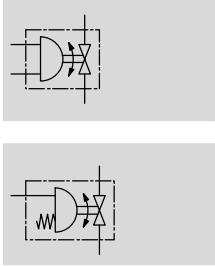
| | |
|---|--------|
| C | Closed |
|---|--------|




VZBC, 2-way, compact design, stainless steel

FESTO

Technical data

Function



-  Swivel angle
0 ... 90°
-  Flow rate
19.4 ... 1414 m³/h
-  Connecting thread
Rp1/2 ... Rp4



| General technical data | | | | | | | | | | |
|--------------------------------------|---------------------------------|------|------|-----|-----|-----|-----|-----|------|--|
| Nominal width DN | 15 | 20 | 25 | 32 | 40 | 50 | 65 | 80 | 100 | |
| Quarter turn actuator | | | | | | | | | | |
| Type of mounting | In-line installation | | | | | | | | | |
| Mounting position | Any | | | | | | | | | |
| Swivel angle [°] | 90 | | | | | | | | | |
| Closing direction | Closes to the right | | | | | | | | | |
| Ball valve | | | | | | | | | | |
| Design | 2-way ball valve | | | | | | | | | |
| Type of actuation | Pneumatic | | | | | | | | | |
| Switching position indication | Slot direction = flow direction | | | | | | | | | |
| Type of mounting | In-line installation | | | | | | | | | |
| Nominal pressure of process valve PN | 40 | | | | | | 16 | | | |
| Flow rate Kv [m ³ /h] | 19.4 | 45.6 | 71.5 | 105 | 170 | 275 | 507 | 905 | 1414 | |

| Operating and environmental conditions | |
|--|--|
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Operating pressure [bar] | 6 ... 8.4 |
| Ambient temperature [°C] | -10 ... +80 |
| Temperature of medium ¹⁾ [°C] | -10 ... +200 |
| Medium | Compressed air to ISO 8573-1:2010 [:::] |
| | Inert gases |
| | Neutral fluids |
| | Water – no water vapour |
| Note on the operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) |
| Corrosion resistance class CRC ²⁾ | 3 |

1) As a function of operating pressure

2) Corrosion resistance class CRC 3 to Festo standard FN 940070

High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional requirements for the surface and which are in direct contact with a normal industrial environment.

VZBC, 2-way, compact design, stainless steel

Technical data

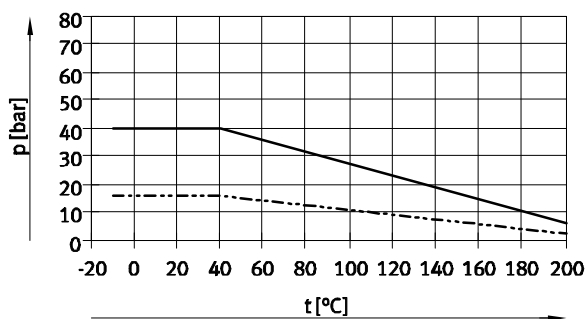
| ATEX | |
|--------------------------------------|----------------------|
| ATEX category for gas | II 2G |
| ATEX category for dust | II 2D |
| Max. surface temperature of assembly | TX |
| Explosion group of assembly | IIC |
| Explosion ambient temperature | -10 °C ≤ Ta ≤ +60 °C |

| Materials | | Material number |
|-------------------|--|-----------------|
| Housing | High-alloy stainless steel | 1.4408 |
| Ball | | |
| Shaft | High-alloy stainless steel | 1.4401 |
| Seals | PTFE reinforced | |
| | PTFE | |
| Note on materials | RoHS-compliant | |
| | Contains paint-wetting impairment substances | |

| Weight – Double-acting | | | Weight – Double-acting | | |
|------------------------|-----------------------------------|------------|------------------------|-----------------------------------|------------|
| Nominal width DN | Process valve connection | Weight [g] | Nominal width DN | Process valve connection | Weight [g] |
| 15 | Ring housing with threaded flange | 2300 | 50 | Ring housing with threaded flange | 8600 |
| 20 | | 3200 | 65 | | 14,300 |
| 25 | | 3700 | 80 | | 18,700 |
| 32 | | 5700 | 100 | | 26,000 |
| 40 | | 6400 | | | |

| Weight – Single-acting | | | Weight – Single-acting | | |
|------------------------|-----------------------------------|------------|------------------------|-----------------------------------|------------|
| Nominal width DN | Process valve connection | Weight [g] | Nominal width DN | Process valve connection | Weight [g] |
| 15 | Ring housing with threaded flange | 2850 | 50 | Ring housing with threaded flange | 11,800 |
| 20 | | 4350 | 65 | | 18,900 |
| 25 | | 4850 | 80 | | 23,300 |
| 32 | | 7000 | 100 | | 31,900 |
| 40 | | 7700 | | | |

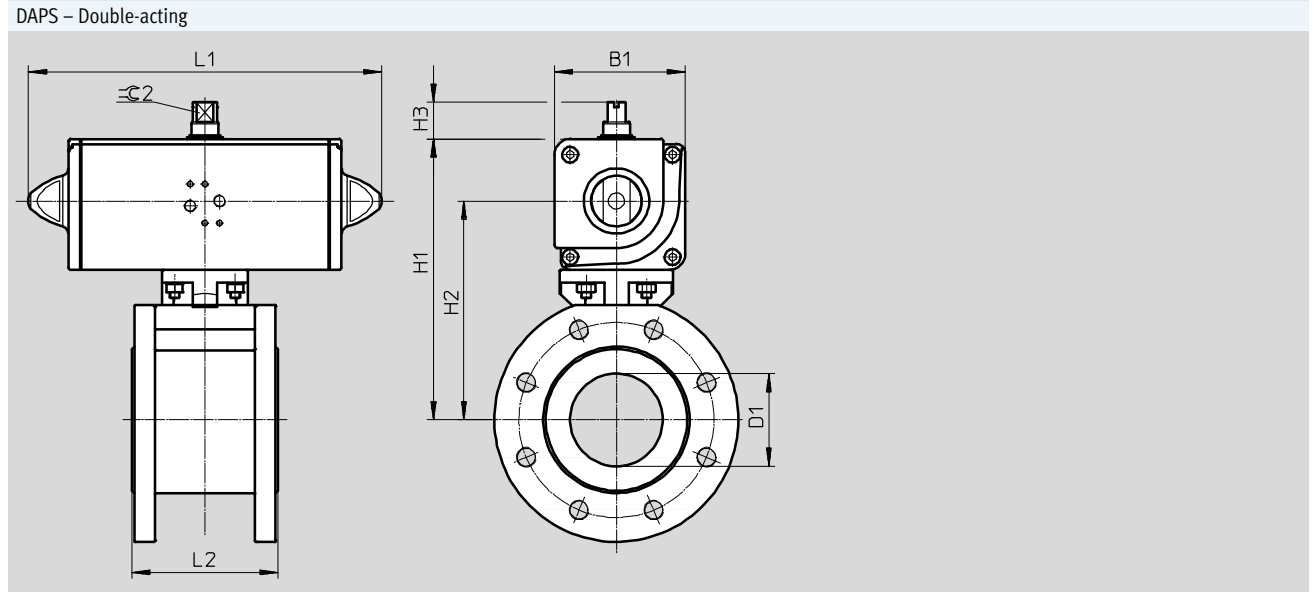
Permissible operating pressure p as a function of the temperature of the medium t



VZBC, 2-way, compact design, stainless steel

Technical data

Dimensions Download CAD data → www.festo.com



| Type | B1 | D1 Ø | H1 | H2 | H3 | L1 | L2 | ⊖ 2 |
|--|-------|---------|-------|-------|----|-------|------|-----|
| VZBC-15-FF-40-22-F0304-V4V4T-PP15-R-90-C | 52.2 | 15 | 112.2 | 88 | 20 | 159 | 40 | 8 |
| VZBC-20-FF-40-22-F0304-V4V4T-PP30-R-90-C | 59.2 | 20 | 123.5 | 95.8 | 20 | 174 | 44 | 9 |
| VZBC-25-FF-40-22-F0405-V4V4T-PP30-R-90-C | 59.2 | 25 | 123.8 | 96.1 | 20 | 174 | 53 | 9 |
| VZBC-32-FF-40-22-F0405-V4V4T-PP60-R-90-C | 70.4 | 32 | 139.4 | 106.7 | 20 | 198 | 58.4 | 10 |
| VZBC-40-FF-40-22-F0507-V4V4T-PP60-R-90-C | 70.4 | 38 | 146.7 | 114 | 20 | 198 | 62 | 10 |
| VZBC-50-FF-40-22-F0507-V4V4T-PP106-R-90-C | 83.3 | 50 | 168.8 | 130.3 | 20 | 237.1 | 78 | 12 |
| VZBC-65-FF-16-22-F07-V4V4T-PP180-R-90-C | 107.5 | 64 | 212.5 | 161.5 | 30 | 289.9 | 100 | 15 |
| VZBC-80-FF-16-22-F07-V4V4T-PP180-R-90-C | 107.5 | 76 | 229.5 | 178.5 | 30 | 289.9 | 120 | 15 |
| VZBC-100-FF-16-22-F0710-V4V4T-PP240-R-90-C | 111.1 | 96 | 243.1 | 192.1 | 30 | 313.6 | 152 | 15 |

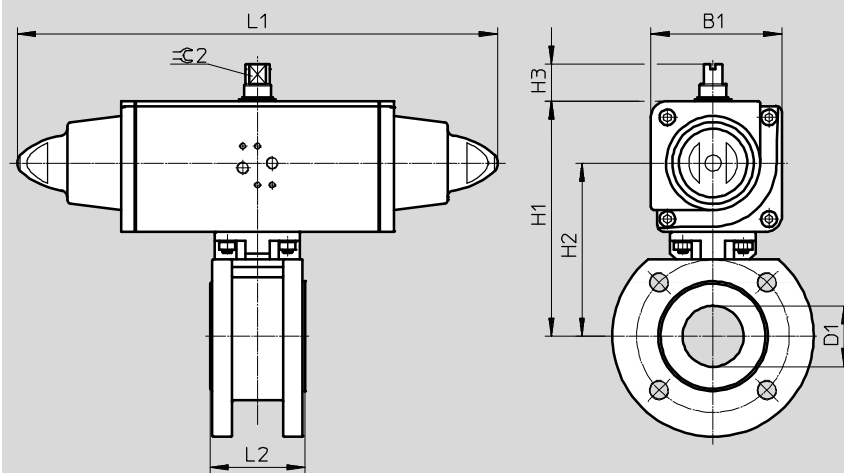
VZBC, 2-way, compact design, stainless steel

Technical data

Dimensions

Download CAD data → www.festo.com

DAPS – Single-acting



| Type | B1 | D1 Ø | H1 | H2 | H3 | L1 | L2 | ⊖ 2 |
|--|-------|---------|-------|-------|----|-------|------|-----|
| VZBC-15-FF-40-22-F0304-V4V4T-PS15-R-90-4-C | 59.2 | 15 | 119.2 | 91.5 | 20 | 233.3 | 40 | 9 |
| VZBC-20-FF-40-22-F0304-V4V4T-PS30-R-90-4-C | 70.4 | 20 | 134.7 | 102 | 20 | 259 | 44 | 10 |
| VZBC-25-FF-40-22-F0405-V4V4T-PS30-R-90-4-C | 70.4 | 25 | 135 | 102.3 | 20 | 259 | 53 | 10 |
| VZBC-32-FF-40-22-F0405-V4V4T-PS53-R-90-4-C | 83.3 | 32 | 152.3 | 113.8 | 20 | 304.3 | 58.4 | 12 |
| VZBC-40-FF-40-22-F0507-V4V4T-PS53-R-90-4-C | 83.3 | 38 | 159.6 | 121.1 | 20 | 304.3 | 62 | 12 |
| VZBC-50-FF-40-22-F0507-V4V4T-PS90-R-90-4-C | 107.5 | 50 | 193 | 142 | 30 | 393.7 | 78 | 15 |
| VZBC-65-FF-16-22-F07-V4V4T-PS180-R-90-4-C | 118 | 64 | 223 | 167 | 30 | 474 | 100 | 19 |
| VZBC-80-FF-16-22-F07-V4V4T-PS180-R-90-4-C | 118 | 76 | 241 | 185 | 30 | 474 | 120 | 19 |
| VZBC-100-FF-16-22-F0710-V4V4T-PS240-R-90-4-C | 134.9 | 96 | 266.9 | 204.9 | 30 | 520.5 | 152 | 19 |

Ordering data

| DAPS – Double-acting | Connection | Nominal width DN | Part No. | Type | | |
|----------------------|-----------------------------------|------------------|----------|--|---------|--|
| | Ring housing with threaded flange | 15 | 1913365 | VZBC-15-FF-40-22-F0304-V4V4T-PP15-R-90-C | | |
| | | 20 | 1913367 | VZBC-20-FF-40-22-F0304-V4V4T-PP30-R-90-C | | |
| | | 25 | 1913368 | VZBC-25-FF-40-22-F0405-V4V4T-PP30-R-90-C | | |
| | | 32 | 1913369 | VZBC-32-FF-40-22-F0405-V4V4T-PP60-R-90-C | | |
| | | 40 | 1913370 | VZBC-40-FF-40-22-F0507-V4V4T-PP60-R-90-C | | |
| | | 50 | 1913371 | VZBC-50-FF-40-22-F0507-V4V4T-PP106-R-90-C | | |
| | | 65 | 1913372 | VZBC-65-FF-16-22-F07-V4V4T-PP180-R-90-C | | |
| | | 80 | 1913373 | VZBC-80-FF-16-22-F07-V4V4T-PP180-R-90-C | | |
| | | 100 | 1913374 | VZBC-100-FF-16-22-F0710-V4V4T-PP240-R-90-C | | |
| DAPS – Single-acting | | | | | | |
| | Ring housing with threaded flange | 15 | 1915401 | VZBC-15-FF-40-22-F0304-V4V4T-PS15-R-90-4-C | | |
| | | 20 | 1915402 | VZBC-20-FF-40-22-F0304-V4V4T-PS30-R-90-4-C | | |
| | | 25 | 1915403 | VZBC-25-FF-40-22-F0405-V4V4T-PS30-R-90-4-C | | |
| | | 32 | 1915404 | VZBC-32-FF-40-22-F0405-V4V4T-PS53-R-90-4-C | | |
| | | 40 | 1915406 | VZBC-40-FF-40-22-F0507-V4V4T-PS53-R-90-4-C | | |
| | | 50 | 1915407 | VZBC-50-FF-40-22-F0507-V4V4T-PS90-R-90-4-C | | |
| | | 65 | 1915408 | VZBC-65-FF-16-22-F07-V4V4T-PS180-R-90-4-C | | |
| | | 80 | 1915409 | VZBC-80-FF-16-22-F07-V4V4T-PS180-R-90-4-C | | |
| | | | | 100 | 1915410 | VZBC-100-FF-16-22-F0710-V4V4T-PS240-R-90-4-C |

VZBA, 3-way, stainless steel

Type codes

VZBA - 2 - G G G - 63 - 32L - F0507 -

Type

| | |
|------|------------|
| VZBA | Ball valve |
|------|------------|

Nominal width DN

| | |
|--------|------|
| 1/4" | DN8 |
| 3/8" | DN10 |
| 1/2" | DN15 |
| 3/4" | DN20 |
| 1" | DN25 |
| 1 1/4" | DN32 |
| 1 1/2" | DN40 |
| 2" | DN50 |

Connection type 1

| | |
|---|-------------------------------|
| G | Pipe thread to DIN EN 10226-1 |
|---|-------------------------------|

Connection type 2

| | |
|---|-------------------------------|
| G | Pipe thread to DIN EN 10226-1 |
|---|-------------------------------|

Connection type 3

| | |
|---|-------------------------------|
| G | Pipe thread to DIN EN 10226-1 |
|---|-------------------------------|

Nominal pressure of process valve PN

| | |
|----|--------|
| 63 | 63 bar |
|----|--------|

Valve function

| | |
|-----|------------------------|
| 32T | 3/2-way, T-shaped bore |
| 32L | 3/2-way, L-shaped bore |

Flanged connection to ISO 5211

| | |
|-------|---|
| F0304 | 2 bolt circles with \varnothing 36 mm and \varnothing 42 mm |
| F0405 | 2 bolt circles with \varnothing 42 mm and \varnothing 50 mm |
| F0507 | 2 bolt circles with \varnothing 50 mm and \varnothing 70 mm |

VZBA, 3-way, stainless steel

Type codes

V4 V4 T - PS 80 - 90 - 5 - C

Housing material

| | |
|----|---|
| V4 | Stainless steel 1.4401/1.4404 (AISI 316L)/1.4408 |
|----|---|

Shut-off element material

| | |
|----|---|
| V4 | Stainless steel 1.4401/1.4404 (AISI 316L)/1.4408 |
|----|---|

Sealing material

| | |
|---|-----------------|
| T | PTFE reinforced |
|---|-----------------|

Actuator

| | |
|----|---------------------|
| PP | DAPS, double-acting |
| PS | DAPS, single-acting |

Torque

| | |
|-----|--------|
| 30 | 30 Nm |
| 53 | 53 Nm |
| 60 | 60 Nm |
| 90 | 90 Nm |
| 106 | 106 Nm |

Nominal swivel angle

| | |
|----|-----|
| 90 | 90° |
|----|-----|

Spring configuration

| | |
|---|--|
| - | Not applicable for double-acting |
| 3 | Spring force for connection pressure 3 bar |
| 4 | Spring force for connection pressure 4 bar |
| 5 | Spring force for connection pressure 5 bar |

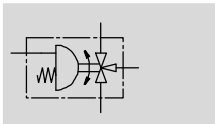
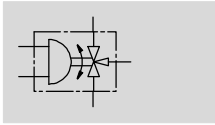
End-position adjustment




| | |
|---|--------|
| C | Closed |
|---|--------|

VZBA, 3-way, stainless steel

Technical data

Function



-  Swivel angle
0 ... 90°
-  Flow rate
4.5 ... 100 m³/h
-  Connecting thread
Rp1/4 ... Rp4



| General technical data | | | | | | | | |
|--------------------------------------|--|-----------|----|----|----|----|----|----|
| Nominal width DN | 8 | 10 | 15 | 20 | 25 | 32 | 40 | 50 |
| Quarter turn actuator | | | | | | | | |
| Type of mounting | In-line installation | | | | | | | |
| Mounting position | Any | | | | | | | |
| Swivel angle | [°] | 90 | | | | | | |
| Closing direction | Closes to the right | | | | | | | |
| Ball valve | | | | | | | | |
| Design | 3-way ball valve with L-shaped bore, T-shaped bore | | | | | | | |
| Type of actuation | Pneumatic | | | | | | | |
| Switching position indication | Slot direction = flow direction | | | | | | | |
| Type of mounting | In-line installation | | | | | | | |
| Nominal pressure of process valve PN | 63 | | | | | | | |
| Flow rate Kv | [m ³ /h] | → Page 26 | | | | | | |

| Operating and environmental conditions | |
|--|--|
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] |
| Operating pressure [bar] | 6 ... 8.4 |
| Ambient temperature [°C] | -10 ... +80 |
| Temperature of medium ¹⁾ [°C] | -10 ... +200 |
| Medium | Compressed air to ISO 8573-1:2010 [:::] |
| | Inert gases |
| | Neutral fluids |
| | Water – no water vapour |
| Note on the operating/pilot medium | Lubricated operation possible (in which case lubricated operation will always be required) |
| Note on materials | Contains paint-wetting impairment substances, RoHS-compliant |
| Corrosion resistance class CRC ²⁾ | 3 |

1) As a function of operating pressure

2) Corrosion resistance class CRC 3 to Festo standard FN 940070

High corrosion stress. Outdoor exposure under moderate corrosive conditions. External visible parts with primarily functional requirements for the surface and which are in direct contact with a normal industrial environment.

VZBA, 3-way, stainless steel

Technical data

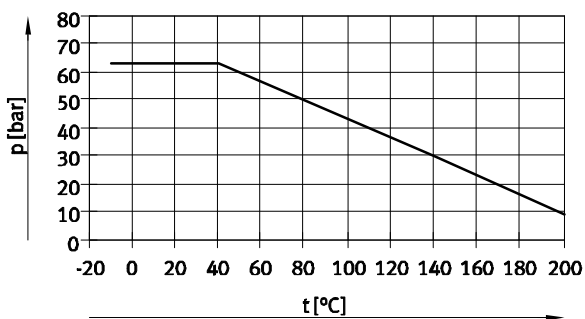
| ATEX | |
|--------------------------------------|----------------------|
| ATEX category for gas | II 2G |
| ATEX category for dust | II 2D |
| Max. surface temperature of assembly | TX |
| Explosion group of assembly | IIC |
| Explosion ambient temperature | -10 °C ≤ Ta ≤ +60 °C |

| Materials | | Material number |
|-------------------|--|-----------------|
| Housing | High-alloy stainless steel | 1.4408 |
| Ball | | |
| Shaft | High-alloy stainless steel | 1.4401 |
| Seals | PTFE reinforced | |
| | PTFE | |
| Note on materials | RoHS-compliant | |
| | Contains paint-wetting impairment substances | |

| Weight – Double-acting | | | | | |
|------------------------|--------------------------|------------|------------------|--------------------------|------------|
| Nominal width DN | Process valve connection | Weight [g] | Nominal width DN | Process valve connection | Weight [g] |
| 8 | Rp1/4 | 1750 | 25 | Rp1 | 2650 |
| 10 | Rp3/8 | 1750 | 32 | Rp1 1/4 | 4750 |
| 15 | Rp1/2 | 1750 | 40 | Rp1 1/2 | 5750 |
| 20 | Rp3/4 | 2050 | 50 | Rp2 | 9800 |

| Weight – Single-acting | | | | | |
|------------------------|--------------------------|------------|------------------|--------------------------|------------|
| Nominal width DN | Process valve connection | Weight [g] | Nominal width DN | Process valve connection | Weight [g] |
| 8 | Rp1/4 | 2950 | 25 | Rp1 | 3850 |
| 10 | Rp3/8 | 2950 | 32 | Rp1 1/4 | 6070 |
| 15 | Rp1/2 | 2950 | 40 | Rp1 1/2 | 10,812 |
| 20 | Rp3/4 | 3250 | 50 | Rp2 | 12,900 |

Permissible operating pressure p as a function of the temperature of the medium t



VZBA, 3-way, stainless steel

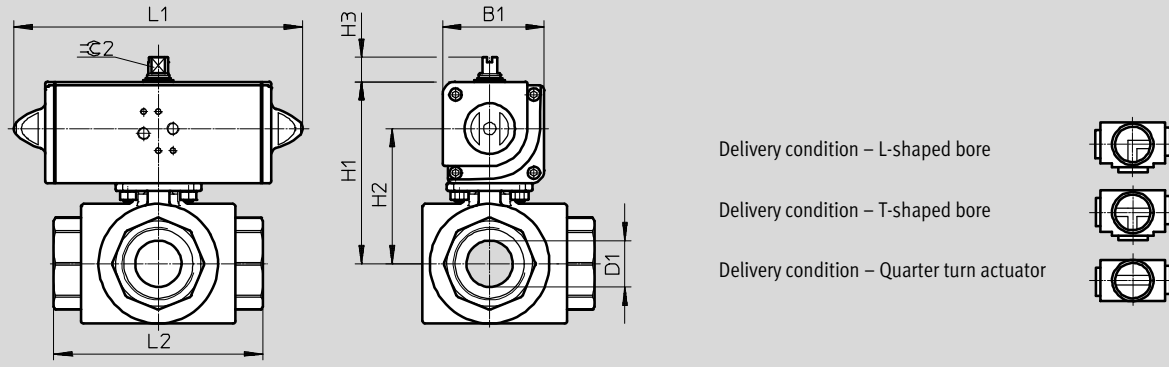
Technical data

FESTO

Dimensions

Download CAD data → www.festo.com

DAPS – Double-acting



| Type | B1 | D1 ∅ | H1 | H2 | H3 | L1 | L2 | ≙ 2 |
|--|------|---------|--------|-------|----|-------|-------|-----|
| VZBA-1/4"-GGG-63-32L-F0304-V4V4T-PP30-R-90-C | 59.2 | 11.6 | 95.1 | 67.4 | 20 | 174 | 80 | 9 |
| VZBA-1/4"-GGG-63-32T-F0304-V4V4T-PP30-R-90-C | | | | | | | | |
| VZBA-3/8"-GGG-63-32L-F0304-V4V4T-PP30-R-90-C | 59.2 | 12.7 | 95.1 | 67.4 | 20 | 174 | 80 | 9 |
| VZBA-3/8"-GGG-63-32T-F0304-V4V4T-PP30-R-90-C | | | | | | | | |
| VZBA-1/2"-GGG-63-32L-F0304-V4V4T-PP30-R-90-C | 59.2 | 12.7 | 95.1 | 67.4 | 20 | 174 | 80 | 9 |
| VZBA-1/2"-GGG-63-32T-F0304-V4V4T-PP30-R-90-C | | | | | | | | |
| VZBA-3/4"-GGG-63-32L-F0405-V4V4T-PP30-R-90-C | 59.2 | 16 | 100.1 | 72.4 | 20 | 174 | 87.5 | 9 |
| VZBA-3/4"-GGG-63-32T-F0405-V4V4T-PP30-R-90-C | | | | | | | | |
| VZBA-1"-GGG-63-32L-F0405-V4V4T-PP30-R-90-C | 59.2 | 20 | 104.35 | 76.65 | 20 | 174 | 100 | 9 |
| VZBA-1"-GGG-63-32T-F0405-V4V4T-PP30-R-90-C | | | | | | | | |
| VZBA-1 1/4"-GGG-63-32L-F0405-V4V4T-PP60-R-90-C | 70.4 | 25.4 | 121.4 | 88.7 | 20 | 198 | 123 | 10 |
| VZBA-1 1/4"-GGG-63-32T-F0405-V4V4T-PP60-R-90-C | | | | | | | | |
| VZBA-1 1/2"-GGG-63-32L-F0405-V4V4T-PP60-R-90-C | 70.4 | 31.8 | 125.9 | 93.2 | 20 | 198 | 142.2 | 10 |
| VZBA-1 1/2"-GGG-63-32T-F0405-V4V4T-PP60-R-90-C | | | | | | | | |
| VZBA-2"-GGG-63-32L-F0507-V4V4T-PP106-R-90-C | 83.3 | 38.1 | 149.3 | 110.8 | 20 | 237.1 | 170.6 | 12 |
| VZBA-2"-GGG-63-32T-F0507-V4V4T-PP106-R-90-C | | | | | | | | |

VZBA, 3-way, stainless steel

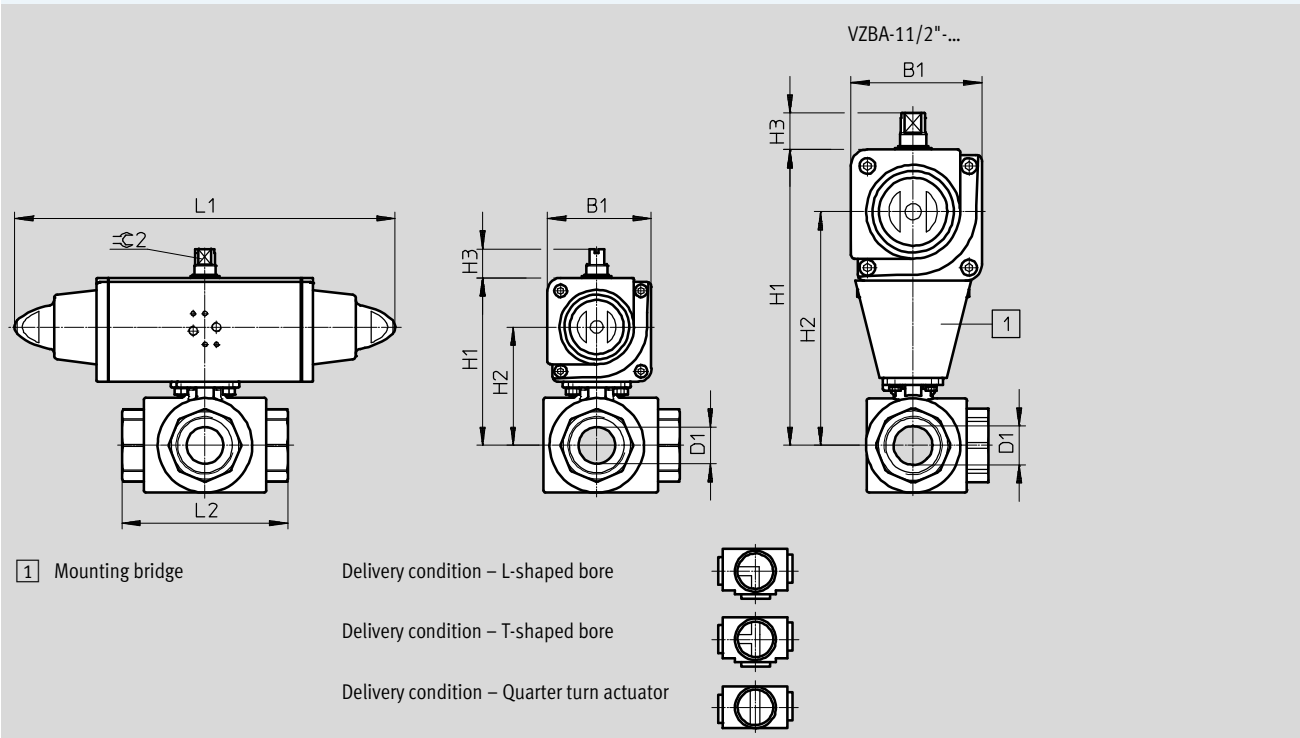
Technical data

FESTO

Dimensions

Download CAD data → www.festo.com

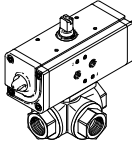
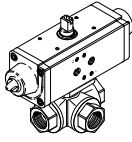
DAPS – Single-acting



| Type | B1 | D1 Ø | H1 | H2 | H3 | L1 | L2 | ⊕ 2 |
|---|-------|---------|--------|-------|----|-------|-------|-----|
| VZBA-1/4"-GGG-63-32L-F0304-V4V4T-PS30-R-90-4-C | 70.4 | 11.6 | 106.3 | 73.6 | 20 | 259 | 80 | 10 |
| VZBA-1/4"-GGG-63-32T-F0304-V4V4T-PS30-R-90-4-C | | | | | | | | |
| VZBA-3/8"-GGG-63-32L-F0304-V4V4T-PS30-R-90-4-C | 70.4 | 12.7 | 106.3 | 73.6 | 20 | 259 | 80 | 10 |
| VZBA-3/8"-GGG-63-32T-F0304-V4V4T-PS30-R-90-4-C | | | | | | | | |
| VZBA-1/2"-GGG-63-32L-F0304-V4V4T-PS30-R-90-4-C | 70.4 | 12.7 | 106.3 | 73.6 | 20 | 259 | 80 | 10 |
| VZBA-1/2"-GGG-63-32T-F0304-V4V4T-PS30-R-90-4-C | | | | | | | | |
| VZBA-3/4"-GGG-63-32L-F0405-V4V4T-PS30-R-90-4-C | 70.4 | 16 | 111.3 | 78.6 | 20 | 259 | 87.5 | 10 |
| VZBA-3/4"-GGG-63-32T-F0405-V4V4T-PS30-R-90-4-C | | | | | | | | |
| VZBA-1"-GGG-63-32L-F0405-V4V4T-PS30-R-90-4-C | 70.4 | 20 | 115.55 | 82.85 | 20 | 259 | 100 | 10 |
| VZBA-1"-GGG-63-32T-F0405-V4V4T-PS30-R-90-4-C | | | | | | | | |
| VZBA-11/4"-GGG-63-32L-F0405-V4V4T-PS53-R-90-4-C | 83.3 | 25.4 | 134.3 | 95.8 | 20 | 304.3 | 123 | 12 |
| VZBA-11/4"-GGG-63-32T-F0405-V4V4T-PS53-R-90-4-C | | | | | | | | |
| VZBA-11/2"-GGG-63-32L-F0405-V4V4T-PS90-R-90-4-C | 107.5 | 31.8 | 243 | 192 | 30 | 393.7 | 142.2 | 15 |
| VZBA-11/2"-GGG-63-32T-F0405-V4V4T-PS90-R-90-4-C | | | | | | | | |
| VZBA-2"-GGG-63-32L-F0507-V4V4T-PS90-R-90-4-C | 107.5 | 38.1 | 173.5 | 122.5 | 30 | 393.7 | 170.6 | 15 |
| VZBA-2"-GGG-63-32T-F0507-V4V4T-PS90-R-90-4-C | | | | | | | | |

VZBA, 3-way, stainless steel

Technical data

| Ordering data | | | | | | | |
|---|---|-------|---------------------------------------|----------------|------------|----------|--|
| DAPS – Double-acting | Connection Process valve | Bore | Flow rate Kv [m ³ /h] Type | | | Part No. | Type |
| | | | L | T right-angled | T straight | | |
|  | Rp1/4 | L | 4.5 | – | – | 1914785 | VZBA-1/4"-GGG-63-32L-F0304-V4V4T-PP30-R-90-C |
| | Rp3/8 | | 4.5 | – | – | 1914786 | VZBA-3/8"-GGG-63-32L-F0304-V4V4T-PP30-R-90-C |
| | Rp1/2 | | 4.7 | – | – | 1914787 | VZBA-1/2"-GGG-63-32L-F0304-V4V4T-PP30-R-90-C |
| | Rp3/4 | | 5.1 | – | – | 1914788 | VZBA-3/4"-GGG-63-32L-F0405-V4V4T-PP30-R-90-C |
| | Rp1 | | 11.8 | – | – | 1914789 | VZBA-1"-GGG-63-32L-F0405-V4V4T-PP30-R-90-C |
| | Rp1 1/4 | | 19.6 | – | – | 1914790 | VZBA-1 1/4"-GGG-63-32L-F0405-V4V4T-PP60-R-90-C |
| | Rp1 1/2 | | 33.2 | – | – | 1914791 | VZBA-1 1/2"-GGG-63-32L-F0405-V4V4T-PP60-R-90-C |
| | Rp2 | | 53.7 | – | – | 1914792 | VZBA-2"-GGG-63-32L-F0507-V4V4T-PP106-R-90-C |
| | Rp1/4 | | T | – | 4.5 | 8 | 1915072 |
| | Rp3/8 | – | | 4.5 | 8 | 1915073 | VZBA-3/8"-GGG-63-32T-F0304-V4V4T-PP30-R-90-C |
| | Rp1/2 | – | | 4.8 | 8.3 | 1915074 | VZBA-1/2"-GGG-63-32T-F0304-V4V4T-PP30-R-90-C |
| | Rp3/4 | – | | 4.8 | 8.3 | 1915075 | VZBA-3/4"-GGG-63-32T-F0405-V4V4T-PP30-R-90-C |
| | Rp1 | – | | 10.9 | 22.4 | 1915076 | VZBA-1"-GGG-63-32T-F0405-V4V4T-PP30-R-90-C |
| | Rp1 1/4 | – | | 18 | 36.5 | 1915077 | VZBA-1 1/4"-GGG-63-32T-F0405-V4V4T-PP60-R-90-C |
| | Rp1 1/2 | – | | 30 | 62 | 1915078 | VZBA-1 1/2"-GGG-63-32T-F0405-V4V4T-PP60-R-90-C |
| | Rp2 | – | | 48.8 | 100 | 1915079 | VZBA-2"-GGG-63-32T-F0507-V4V4T-PP106-R-90-C |
| | DAPS – Single-acting | | | | | | |
| |  | Rp1/4 | L | 4.5 | – | – | 1915543 |
| Rp3/8 | | 4.5 | | – | – | 1915544 | VZBA-3/8"-GGG-63-32L-F0304-V4V4T-PS30-R-90-4-C |
| Rp1/2 | | 4.7 | | – | – | 1915545 | VZBA-1/2"-GGG-63-32L-F0304-V4V4T-PS30-R-90-4-C |
| Rp3/4 | | 5.1 | | – | – | 1915546 | VZBA-3/4"-GGG-63-32L-F0405-V4V4T-PS30-R-90-4-C |
| Rp1 | | 11.8 | | – | – | 1915547 | VZBA-1"-GGG-63-32L-F0405-V4V4T-PS30-R-90-4-C |
| Rp1 1/4 | | 19.6 | | – | – | 1915548 | VZBA-1 1/4"-GGG-63-32L-F0405-V4V4T-PS53-R-90-4-C |
| Rp1 1/2 | | 33.2 | | – | – | 1915549 | VZBA-1 1/2"-GGG-63-32L-F0405-V4V4T-PS90-R-90-4-C |
| Rp2 | | 53.7 | | – | – | 1915550 | VZBA-2"-GGG-63-32L-F0507-V4V4T-PS90-R-90-4-C |
| Rp1/4 | | T | | – | 4.5 | 8 | 1915744 |
| Rp3/8 | | | – | 4.5 | 8 | 1915745 | VZBA-3/8"-GGG-63-32T-F0304-V4V4T-PS30-R-90-4-C |
| Rp1/2 | | | – | 4.8 | 8.3 | 1915746 | VZBA-1/2"-GGG-63-32T-F0304-V4V4T-PS30-R-90-4-C |
| Rp3/4 | | | – | 4.8 | 8.3 | 1915747 | VZBA-3/4"-GGG-63-32T-F0405-V4V4T-PS30-R-90-4-C |
| Rp1 | | | – | 10.9 | 22.4 | 1915748 | VZBA-1"-GGG-63-32T-F0405-V4V4T-PS30-R-90-4-C |
| Rp1 1/4 | | | – | 18 | 36.5 | 1915749 | VZBA-1 1/4"-GGG-63-32T-F0405-V4V4T-PS53-R-90-4-C |
| Rp1 1/2 | | | – | 30 | 62 | 1915750 | VZBA-1 1/2"-GGG-63-32T-F0405-V4V4T-PS90-R-90-4-C |
| Rp2 | | | – | 48.8 | 100 | 1915751 | VZBA-2"-GGG-63-32T-F0507-V4V4T-PS90-R-90-4-C |

VZBM, 2-way, brass

Type codes

VZBM - A - 3/4" - RP - 25 - D - 2 - B2 - PA 10

Type

| | |
|------|------------|
| VZBM | Ball valve |
|------|------------|

Design

| | |
|---|--------------------------|
| A | Ball valve actuator unit |
|---|--------------------------|

Nominal width DN

| | |
|--------|------|
| 1/4" | DN8 |
| 3/8" | DN10 |
| 1/2" | DN15 |
| 3/4" | DN20 |
| 1" | DN25 |
| 1 1/4" | DN32 |
| 1 1/2" | DN40 |
| 2" | DN50 |

Process valve connection type

| | |
|----|-----------|
| RP | Rp thread |
|----|-----------|

Nominal pressure

| | |
|----|--------|
| 25 | 25 bar |
| 40 | 40 bar |

Design

| | |
|---|----------|
| D | Two-part |
|---|----------|

Valve function

| | |
|---|---------|
| 2 | 2/2-way |
|---|---------|

Housing material

| | |
|----|----------------------|
| B2 | Brass, nickel-plated |
|----|----------------------|

Actuator

| | |
|----|---------------------|
| PA | DFPD, double-acting |
| PB | DFPD, single-acting |

Size

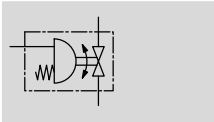
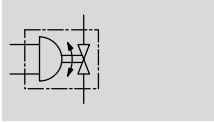
| | |
|----|----|
| 10 | 10 |
| 20 | 20 |
| 40 | 40 |
| 80 | 80 |




VZBM, 2-way, brass

FESTO

Technical data

Function



-  Swivel angle
0 ... 90°
-  Flow rate
5.9 ... 243 m³/h
-  Connecting thread
Rp1/4 ... Rp2



| General technical data | | | | | | | | |
|--------------------------------------|---------------------------------|-----|----|----|----|----|-----|-----|
| Nominal width DN | 8 | 10 | 15 | 20 | 25 | 32 | 40 | 50 |
| Quarter turn actuator | | | | | | | | |
| Type of mounting | In-line installation | | | | | | | |
| Mounting position | Any | | | | | | | |
| Swivel angle [°] | 90 | | | | | | | |
| Closing direction | Closes to the right | | | | | | | |
| Ball valve | | | | | | | | |
| Design | 2-way ball valve | | | | | | | |
| Type of actuation | Pneumatic | | | | | | | |
| Switching position indication | Slot direction = flow direction | | | | | | | |
| Nominal pressure of process valve PN | 40 | | 25 | | | | | |
| Flow rate Kv [m ³ /h] | 5.9 | 9.4 | 15 | 28 | 39 | 84 | 156 | 243 |

| Operating and environmental conditions | | | | | | | | |
|--|--|----|-------------|----|----|----|----|----|
| Nominal width DN | 8 | 10 | 15 | 20 | 25 | 32 | 40 | 50 |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] | | | | | | | |
| Operating pressure [bar] | 5.5 ... 8 | | | | | | | |
| Ambient temperature [°C] | -20 ... +80 | | | | | | | |
| Temperature of medium ¹⁾ [°C] | -20 ... +130 | | -15 ... +90 | | | | | |
| Medium | Compressed air to ISO 8573-1:2010 [:::] | | | | | | | |
| | Inert gases | | | | | | | |
| | Water – no water vapour | | | | | | | |
| | Neutral fluids | | | | | | | |
| Note on the operating/pilot medium | Pressure dew point 10°C below ambient/medium temperature | | | | | | | |
| | Lubricated operation possible (in which case lubricated operation will always be required) | | | | | | | |
| Corrosion resistance class CRC ²⁾ | 1 | | | | | | | |

1) As a function of operating pressure

2) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

VZBM, 2-way, brass

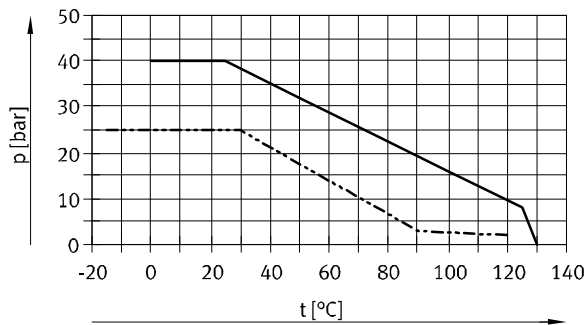
Technical data

| Materials | | Material number |
|--|----------------------|-----------------|
| Housing | Brass, nickel-plated | CW617N |
| Ball | Brass, chrome-plated | CW614N |
| Shaft | Brass | CW614N |
| Seals | | |
| | HNBR | |
| | PTFE | |
| With Rp1/2 ... Rp2 additionally | FPM | |
| Note on materials | | |
| RoHS-compliant | | |
| Contains paint-wetting impairment substances | | |

| Weight – Double-acting | | | | | |
|------------------------|--------------------------|------------|------------------|--------------------------|------------|
| Nominal width DN | Process valve connection | Weight [g] | Nominal width DN | Process valve connection | Weight [g] |
| 8 | Rp1/4 | 1393 | 25 | Rp1 | 1454 |
| 10 | Rp3/8 | 1371 | 32 | Rp1 1/4 | 1711 |
| 15 | Rp1/2 | 1187 | 40 | Rp1 1/2 | 2443 |
| 20 | Rp3/4 | 1287 | 50 | Rp2 | 3694 |

| Weight – Single-acting | | | | | |
|------------------------|--------------------------|------------|------------------|--------------------------|------------|
| Nominal width DN | Process valve connection | Weight [g] | Nominal width DN | Process valve connection | Weight [g] |
| 8 | Rp1/4 | 1839 | 25 | Rp1 | 1900 |
| 10 | Rp3/8 | 1817 | 32 | Rp1 1/4 | 2157 |
| 15 | Rp1/2 | 1363 | 40 | Rp1 1/2 | 3329 |
| 20 | Rp3/4 | 1733 | 50 | Rp2 | 5723 |

Permissible operating pressure p as a function of the temperature of the medium t



— Rp1/4 ... Rp3/8
 - - - - - Rp1/2 ... Rp2

VZBM, 2-way, brass

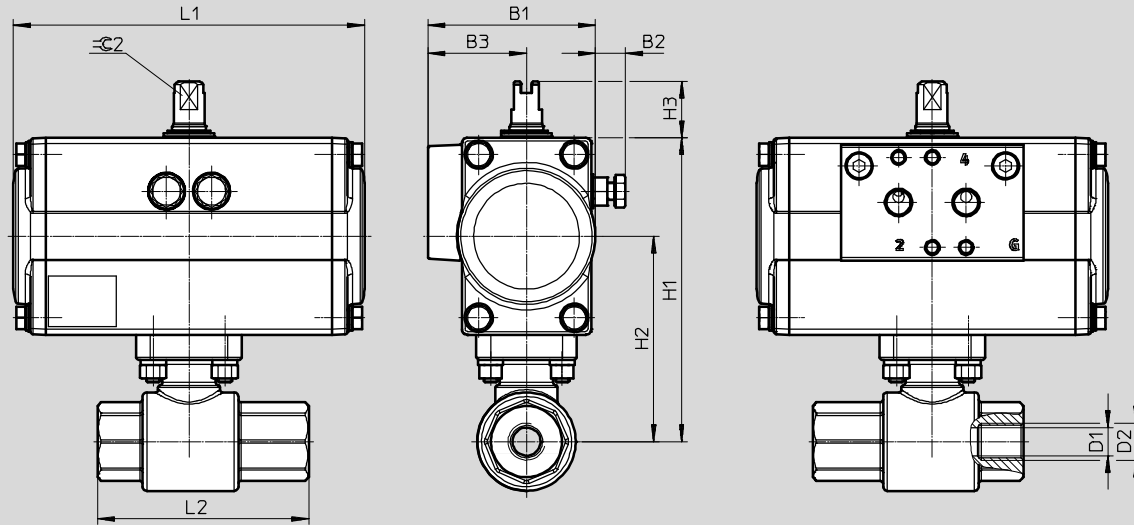
Technical data

FESTO

Dimensions

Download CAD data → www.festo.com

DFPD – Double-acting



Delivery condition – Ball valve



Delivery condition – Quarter turn actuator



| Type | B1 | B2 | B3 | D1 Ø | D2 | H1 | H2 | H3 | L1 | L2 | ≈ 2 h11 |
|-------------------|------|------|------|---------|---------|-----|-----|----|-------|-----|------------|
| VZBM-A-1/4"-... | 59.5 | 10.7 | 35 | 10 | RP1/4 | 108 | 73 | 20 | 124.7 | 75 | 9 |
| VZBM-A-3/8"-... | 59.5 | 10.7 | 35 | 10 | RP3/8 | 108 | 73 | 20 | 124.7 | 75 | 9 |
| VZBM-A-1/2"-... | 59.5 | 10.7 | 35 | 15 | RP1/2 | 102 | 67 | 20 | 124.7 | 61 | 9 |
| VZBM-A-3/4"-... | 59.5 | 10.7 | 35 | 20 | RP3/4 | 106 | 71 | 20 | 124.7 | 70 | 9 |
| VZBM-A-1"-... | 59.5 | 10.7 | 35 | 25 | RP1 | 114 | 79 | 20 | 124.7 | 84 | 9 |
| VZBM-A-1 1/4"-... | 59.5 | 10.7 | 35 | 32 | RP1 1/4 | 119 | 84 | 20 | 124.7 | 97 | 9 |
| VZBM-A-1 1/2"-... | 68.5 | 9.2 | 38.5 | 40 | RP1 1/2 | 134 | 94 | 20 | 133.3 | 108 | 9 |
| VZBM-A-2"-... | 81.5 | 8.2 | 45 | 50 | RP2 | 152 | 108 | 20 | 151.4 | 130 | 12 |

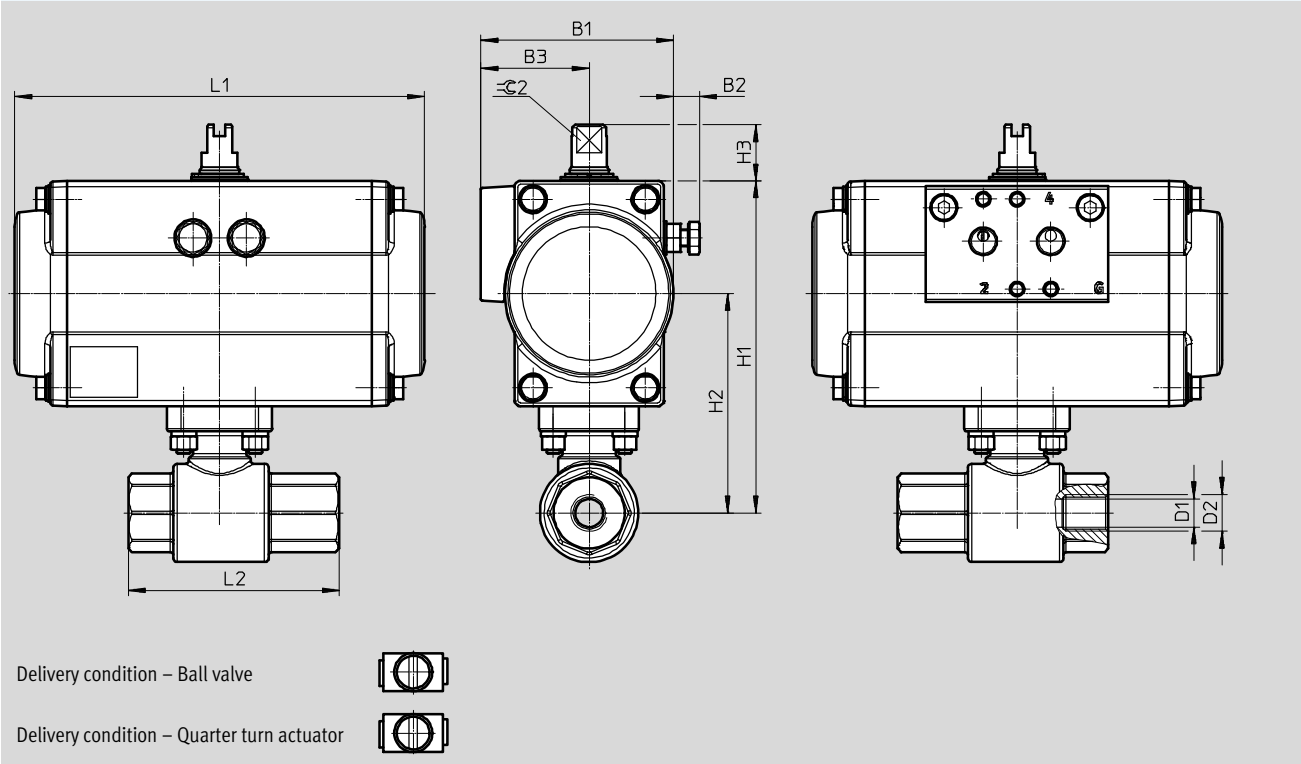
VZBM, 2-way, brass

Technical data

Dimensions

Download CAD data → www.festo.com

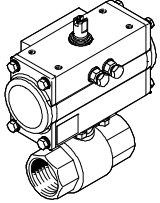
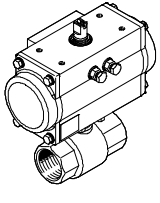
DFPD – Single-acting



| Type | B1 | B2 | B3 | D1 ∅ | D2 | H1 | H2 | H3 | L1 | L2 | h11 |
|-------------------|------|-----|------|---------|---------|-----|-----|----|-------|-----|-----|
| VZBM-A-1/4"-... | 68.5 | 9.2 | 38.5 | 10 | RP1/4 | 118 | 78 | 20 | 145.7 | 75 | 9 |
| VZBM-A-3/8"-... | 68.5 | 9.2 | 38.5 | 10 | RP3/8 | 118 | 78 | 20 | 145.7 | 75 | 9 |
| VZBM-A-1/2"-... | 68.5 | 9.2 | 38.5 | 15 | RP1/2 | 112 | 72 | 20 | 145.7 | 61 | 9 |
| VZBM-A-3/4"-... | 68.5 | 9.2 | 38.5 | 20 | RP3/4 | 116 | 76 | 20 | 145.7 | 70 | 9 |
| VZBM-A-1"-... | 68.5 | 9.2 | 38.5 | 25 | RP1 | 124 | 84 | 20 | 145.7 | 84 | 9 |
| VZBM-A-1 1/4"-... | 68.5 | 9.2 | 38.5 | 32 | RP1 1/4 | 129 | 89 | 20 | 145.7 | 97 | 9 |
| VZBM-A-1 1/2"-... | 81.5 | 8.2 | 45 | 40 | RP1 1/2 | 146 | 100 | 20 | 170.4 | 108 | 9 |
| VZBM-A-2"-... | 99 | 9 | 53 | 50 | RP2 | 172 | 117 | 20 | 223.1 | 130 | 12 |

VZBM, 2-way, brass

Technical data

| Ordering data | | | |
|---|-------------------|----------|---------------------------------|
| DFPD – Double-acting | Connecting thread | Part No. | Type |
|  | Rp1/4 | 8070234 | VZBM-A-1/4"-RP-40-D-2-B2-PA10 |
| | Rp3/8 | 8070235 | VZBM-A-3/8"-RP-40-D-2-B2-PA10 |
| | Rp1/2 | 8070236 | VZBM-A-1/2"-RP-25-D-2-B2-PA10 |
| | Rp3/4 | 8070237 | VZBM-A-3/4"-RP-25-D-2-B2-PA10 |
| | Rp1 | 8070238 | VZBM-A-1"-RP-25-D-2-B2-PA10 |
| | Rp1 1/4 | 8070239 | VZBM-A-1 1/4"-RP-25-D-2-B2-PA10 |
| | Rp1 1/2 | 8070240 | VZBM-A-1 1/2"-RP-25-D-2-B2-PA20 |
| | Rp2 | 8070241 | VZBM-A-2"-RP-25-D-2-B2-PA40 |
| DFPD – Single-acting | | | |
|  | Rp1/4 | 8070242 | VZBM-A-1/4"-RP-40-D-2-B2-PB20 |
| | Rp3/8 | 8070243 | VZBM-A-3/8"-RP-40-D-2-B2-PB20 |
| | Rp1/2 | 8070244 | VZBM-A-1/2"-RP-25-D-2-B2-PB20 |
| | Rp3/4 | 8070245 | VZBM-A-3/4"-RP-25-D-2-B2-PB20 |
| | Rp1 | 8070246 | VZBM-A-1"-RP-25-D-2-B2-PB20 |
| | Rp1 1/4 | 8070247 | VZBM-A-1 1/4"-RP-25-D-2-B2-PB20 |
| | Rp1 1/2 | 8070248 | VZBM-A-1 1/2"-RP-25-D-2-B2-PB40 |
| | Rp2 | 8070249 | VZBM-A-2"-RP-25-D-2-B2-PB80 |

VZBM, 3-way, brass

Type codes

VZBM - A - 3/4" - RP - 25 - F - 3L - B2 - PA 20

Type

| | |
|------|------------|
| VZBM | Ball valve |
|------|------------|

Design

| | |
|---|--------------------------|
| A | Ball valve actuator unit |
|---|--------------------------|

Nominal width DN

| | |
|--------|------|
| 1/4" | DN8 |
| 3/8" | DN10 |
| 1/2" | DN15 |
| 3/4" | DN20 |
| 1" | DN25 |
| 1 1/4" | DN32 |
| 1 1/2" | DN40 |
| 2" | DN50 |

Process valve connection type

| | |
|----|-----------|
| RP | Rp thread |
|----|-----------|

Nominal pressure

| | |
|----|--------|
| 25 | 25 bar |
| 40 | 40 bar |

Design

| | |
|---|-----------|
| F | Four-part |
|---|-----------|

Valve function

| | |
|----|------------------------|
| 3L | 3/2-way, L-shaped bore |
| 3T | 3/2-way, T-shaped bore |

Housing material

| | |
|----|----------------------|
| B2 | Brass, nickel-plated |
|----|----------------------|

Actuator

| | |
|----|---------------------|
| PA | DFFD, double-acting |
| PB | DFFD, single-acting |

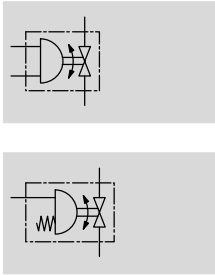
Size




| | |
|-----|-----|
| 10 | 10 |
| 20 | 20 |
| 40 | 40 |
| 80 | 80 |
| 120 | 120 |

VZBM, 3-way, brass

Technical data

Function



-  Swivel angle
0 ... 90°
-  Flow rate
5.9 ... 292 m³/h
-  Connecting thread
Rp1/4 ... Rp2



| General technical data | | | | | | | | | |
|--------------------------------------|---------------------------------|-----|-----|----|----|----|-----|-----|-----|
| Nominal width DN | 8 | 10 | 15 | 20 | 25 | 32 | 40 | 50 | |
| Quarter turn actuator | | | | | | | | | |
| Type of mounting | In-line installation | | | | | | | | |
| Mounting position | Any | | | | | | | | |
| Swivel angle | [°] | 90 | | | | | | | |
| Closing direction | Closes to the right | | | | | | | | |
| Ball valve | | | | | | | | | |
| Design | 3-way ball valve | | | | | | | | |
| Type of actuation | Pneumatic | | | | | | | | |
| Switching position indication | Slot direction = flow direction | | | | | | | | |
| Nominal pressure of process valve PN | 25 | | | | | | | | |
| Flow rate Kv | [m ³ /h] | 5.9 | 9.4 | 17 | 41 | 70 | 121 | 200 | 292 |

| Operating and environmental conditions | | | | | | | | |
|--|--|--------------|----|----|----|----|----|----|
| Nominal width DN | 8 | 10 | 15 | 20 | 25 | 32 | 40 | 50 |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:4:4] | | | | | | | |
| Operating pressure | [bar] | 5.5 ... 8 | | | | | | |
| Ambient temperature | [°C] | -20 ... +80 | | | | | | |
| Temperature of medium ¹⁾ | [°C] | -20 ... +130 | | | | | | |
| Medium | Compressed air to ISO 8573-1:2010 [:::] | | | | | | | |
| | Inert gases | | | | | | | |
| | Water – no water vapour | | | | | | | |
| | Neutral fluids | | | | | | | |
| Note on the operating/pilot medium | Pressure dew point 10°C below ambient/medium temperature | | | | | | | |
| | Lubricated operation possible (in which case lubricated operation will always be required) | | | | | | | |
| Corrosion resistance class CRC ²⁾ | 1 | | | | | | | |

1) As a function of operating pressure

2) Corrosion resistance class CRC 1 to Festo standard FN 940070

Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

VZBM, 3-way, brass

Technical data

FESTO

| Materials | | Material number |
|-------------------|--|-----------------|
| Housing | Brass, nickel-plated | CW617N |
| Ball | Brass, chrome-plated | CW614N |
| Shaft | Brass | CW614N |
| Seals | HNBR | |
| | PTFE | |
| Note on materials | RoHS-compliant | |
| | Contains paint-wetting impairment substances | |

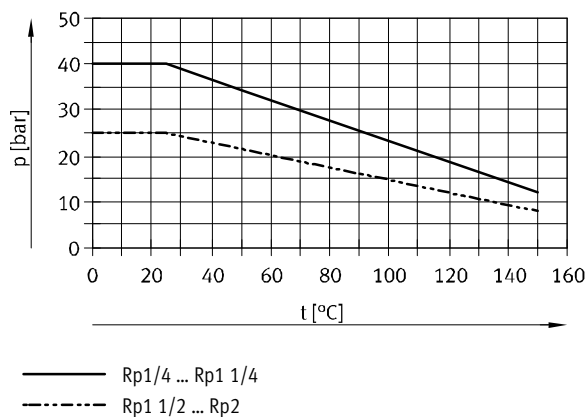
| Weight – Double-acting, type L | | | | | |
|--------------------------------|--------------------------|------------|------------------|--------------------------|------------|
| Nominal width DN | Process valve connection | Weight [g] | Nominal width DN | Process valve connection | Weight [g] |
| 8 | Rp1/4 | 1511 | 25 | Rp1 | 2584 |
| 10 | Rp3/8 | 1481 | 32 | Rp1 1/4 | 4911 |
| 15 | Rp1/2 | 1441 | 40 | Rp1 1/2 | 6597 |
| 20 | Rp3/4 | 2011 | 50 | Rp2 | 7807 |

| Weight – Single-acting, type L | | | | | |
|--------------------------------|--------------------------|------------|------------------|--------------------------|------------|
| Nominal width DN | Process valve connection | Weight [g] | Nominal width DN | Process valve connection | Weight [g] |
| 8 | Rp1/4 | 1957 | 25 | Rp1 | 3461 |
| 10 | Rp3/8 | 1927 | 32 | Rp1 1/4 | 6953 |
| 15 | Rp1/2 | 1887 | 40 | Rp1 1/2 | 8973 |
| 20 | Rp3/4 | 2914 | 50 | Rp2 | 10183 |

| Weight – Double-acting, type T | | | | | |
|--------------------------------|--------------------------|------------|------------------|--------------------------|------------|
| Nominal width DN | Process valve connection | Weight [g] | Nominal width DN | Process valve connection | Weight [g] |
| 8 | Rp1/4 | 1511 | 25 | Rp1 | 2554 |
| 10 | Rp3/8 | 1441 | 32 | Rp1 1/4 | 4841 |
| 15 | Rp1/2 | 1441 | 40 | Rp1 1/2 | 6527 |
| 20 | Rp3/4 | 2001 | 50 | Rp2 | 7657 |

| Weight – Single-acting, type T | | | | | |
|--------------------------------|--------------------------|------------|------------------|--------------------------|------------|
| Nominal width DN | Process valve connection | Weight [g] | Nominal width DN | Process valve connection | Weight [g] |
| 8 | Rp1/4 | 1957 | 25 | Rp1 | 3431 |
| 10 | Rp3/8 | 1887 | 32 | Rp1 1/4 | 6883 |
| 15 | Rp1/2 | 1887 | 40 | Rp1 1/2 | 8903 |
| 20 | Rp3/4 | 2904 | 50 | Rp2 | 10033 |

Permissible operating pressure p as a function of the temperature of the medium t



VZBM, 3-way, brass

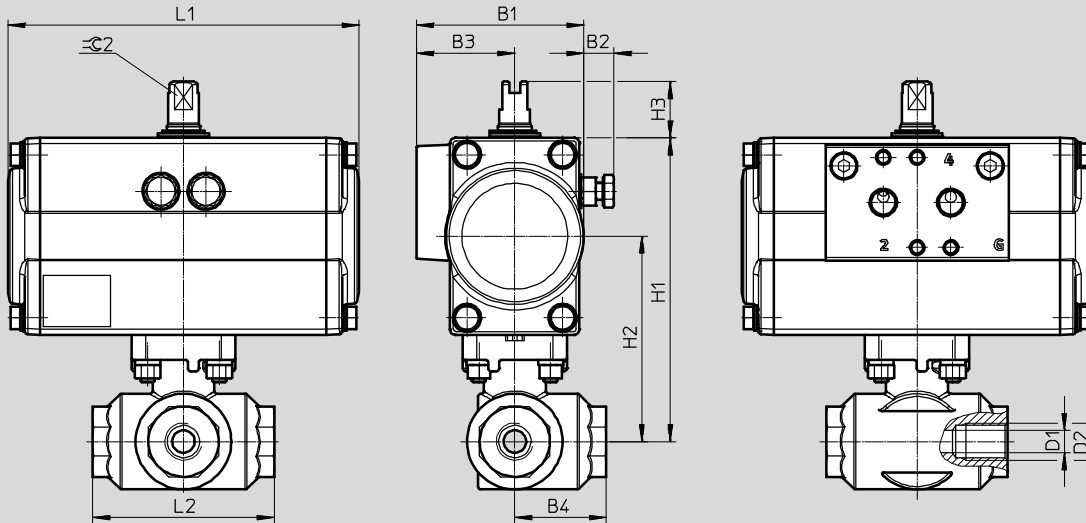
Technical data

FESTO

Dimensions

Download CAD data → www.festo.com

DFPD – Double-acting



Delivery condition – L-shaped bore



Delivery condition – T-shaped bore



Delivery condition – Quarter turn actuator



| Type | B1 | B2 | B3 | B4 | D1 Ø | D2 | H1 | H2 | H3 | L1 | L2 | ∥ 2 h11 |
|------------------|------|------|------|------|---------|---------|-------|-------|----|-------|-------|------------|
| VZBM-A-1/4"-... | 59.5 | 10.7 | 35 | 32.5 | 8 | RP1/4 | 108 | 73 | 20 | 124.7 | 64.5 | 9 |
| VZBM-A-3/8"-... | 59.5 | 10.7 | 35 | 32.5 | 10 | RP3/8 | 108 | 73 | 20 | 124.7 | 64.5 | 9 |
| VZBM-A-1/2"-... | 59.5 | 10.7 | 35 | 32.5 | 14.1 | RP1/2 | 108 | 73 | 20 | 124.7 | 64.5 | 9 |
| VZBM-A-3/4"-... | 68.5 | 9.2 | 38.5 | 38 | 17.6 | RP3/4 | 122 | 82 | 20 | 133.3 | 76 | 9 |
| VZBM-A-1"-... | 68.5 | 9.2 | 38.5 | 48.5 | 25 | RP1 | 126.5 | 86.5 | 20 | 133.3 | 97 | 9 |
| VZBM-A-11/4"-... | 81.5 | 8.2 | 45 | 59 | 32 | RP1 1/4 | 153.3 | 107.3 | 20 | 151.4 | 118 | 12 |
| VZBM-A-11/2"-... | 99 | 9 | 53 | 67.5 | 38 | RP1 1/2 | 155.5 | 118.5 | 20 | 189.3 | 134.5 | 15 |
| VZBM-A-2"-... | 99 | 9 | 53 | 78.5 | 45 | RP2 | 166 | 129 | 20 | 189.3 | 157 | 15 |

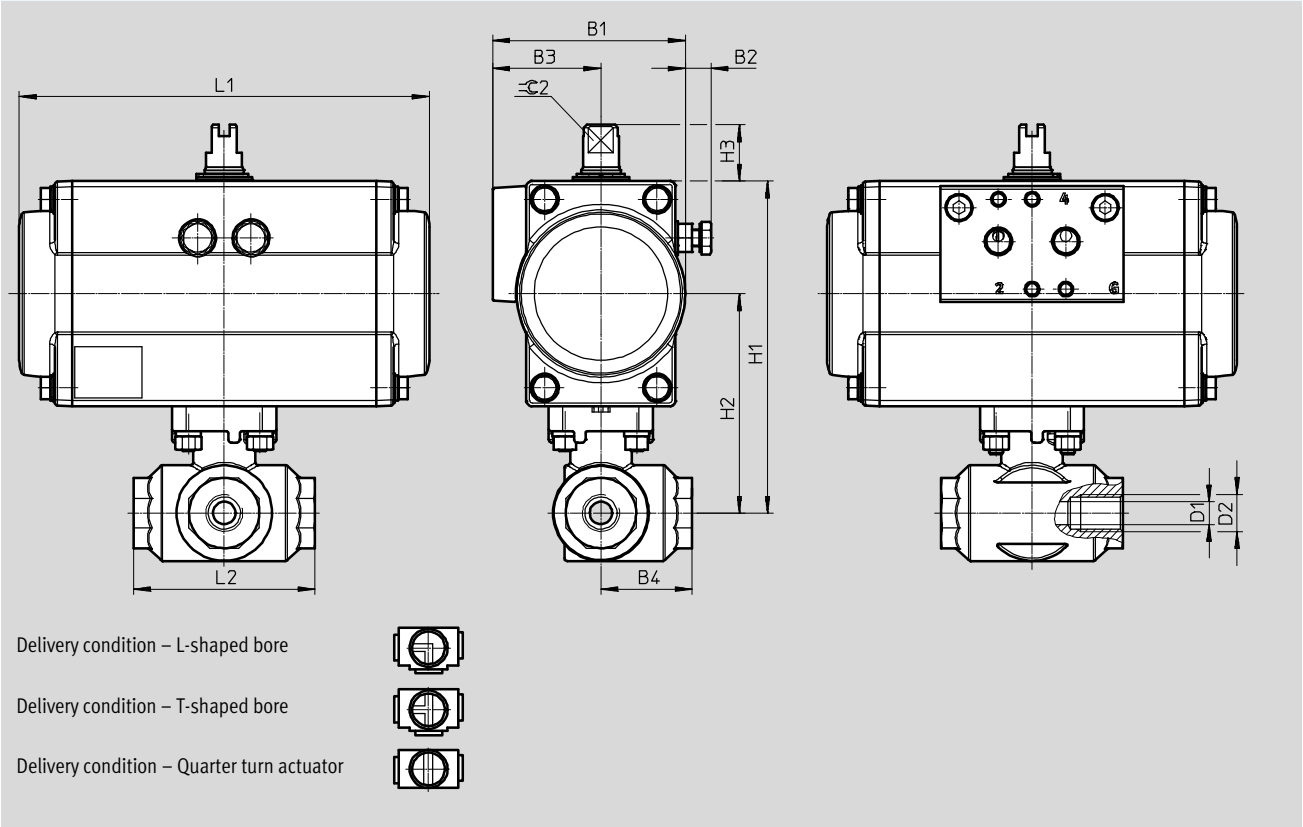
VZBM, 3-way, brass

Technical data

Dimensions

Download CAD data → www.festo.com

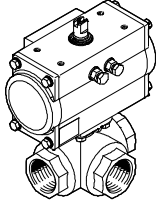
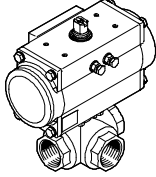
DFPD – Single-acting

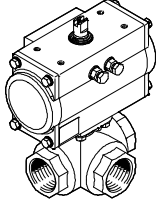
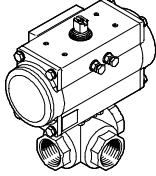


| Type | B1 | B2 | B3 | B4 | D1 Ø | D2 | H1 | H2 | H3 | L1 | L2 | ≅ 2 h11 |
|-------------------|-------|------|------|------|---------|---------|-------|-------|----|-------|-------|------------|
| VZBM-A-1/4"-... | 68.5 | 9.2 | 38.5 | 32.5 | 8 | RP1/4 | 118 | 78 | 20 | 145.7 | 64.5 | 9 |
| VZBM-A-3/8"-... | 68.5 | 9.2 | 38.5 | 32.5 | 10 | RP3/8 | 118 | 78 | 20 | 145.7 | 64.5 | 9 |
| VZBM-A-1/2"-... | 68.5 | 9.2 | 38.5 | 32.5 | 14.1 | RP1/2 | 118 | 78 | 20 | 145.7 | 64.5 | 9 |
| VZBM-A-3/4"-... | 81.5 | 8.2 | 45 | 38 | 17.6 | RP3/4 | 132 | 88 | 20 | 170.4 | 76 | 12 |
| VZBM-A-1"-... | 81.5 | 8.2 | 45 | 48.5 | 25 | RP1 | 138.5 | 92.5 | 20 | 170.4 | 97 | 12 |
| VZBM-A-1 1/4"-... | 99 | 9 | 53 | 59 | 32 | RP1 1/4 | 171.3 | 116.3 | 20 | 223.1 | 118 | 15 |
| VZBM-A-1 1/2"-... | 111.5 | 12.3 | 60.5 | 67.5 | 38 | RP1 1/2 | 186.5 | 124.5 | 20 | 252.3 | 134.5 | 15 |
| VZBM-A-2"-... | 111.5 | 12.3 | 60.5 | 78.5 | 45 | RP2 | 197 | 135.5 | 20 | 252.3 | 157 | 15 |

VZBM, 3-way, brass

Technical data

| Ordering data | | | |
|---|-------------------|----------|-----------------------------------|
| DFPD – Double-acting, type L | Connecting thread | Part No. | Type |
|  | Rp1/4 | 8070250 | VZBM-A-1/4"-RP-25-F-3L-B2-PA10 |
| | Rp3/8 | 8070251 | VZBM-A-3/8"-RP-25-F-3L-B2-PA10 |
| | Rp1/2 | 8070252 | VZBM-A-1/2"-RP-25-F-3L-B2-PA10 |
| | Rp3/4 | 8070253 | VZBM-A-3/4"-RP-25-F-3L-B2-PA20 |
| | Rp1 | 8070254 | VZBM-A-1"-RP-25-F-3L-B2-PA20 |
| | Rp1 1/4 | 8070255 | VZBM-A-1 1/4"-RP-25-F-3L-B2-PA40 |
| | Rp1 1/2 | 8070256 | VZBM-A-1 1/2"-RP-25-F-3L-B2-PA80 |
| | Rp2 | 8070257 | VZBM-A-2"-RP-25-F-3L-B2-PA80 |
| DFPD – Single-acting, type L | | | |
|  | Rp1/4 | 8070266 | VZBM-A-1/4"-RP-25-F-3L-B2-PB20 |
| | Rp3/8 | 8070267 | VZBM-A-3/8"-RP-25-F-3L-B2-PB20 |
| | Rp1/2 | 8070268 | VZBM-A-1/2"-RP-25-F-3L-B2-PB20 |
| | Rp3/4 | 8070269 | VZBM-A-3/4"-RP-25-F-3L-B2-PB40 |
| | Rp1 | 8070270 | VZBM-A-1"-RP-25-F-3L-B2-PB40 |
| | Rp1 1/4 | 8070271 | VZBM-A-1 1/4"-RP-25-F-3L-B2-PB80 |
| | Rp1 1/2 | 8070272 | VZBM-A-1 1/2"-RP-25-F-3L-B2-PB120 |
| | Rp2 | 8070273 | VZBM-A-2"-RP-25-F-3L-B2-PB120 |

| Ordering data | | | |
|---|-------------------|----------|-----------------------------------|
| DFPD – Double-acting, type T | Connecting thread | Part No. | Type |
|  | Rp1/4 | 8070258 | VZBM-A-1/4"-RP-25-F-3T-B2-PA10 |
| | Rp3/8 | 8070259 | VZBM-A-3/8"-RP-25-F-3T-B2-PA10 |
| | Rp1/2 | 8070260 | VZBM-A-1/2"-RP-25-F-3T-B2-PA10 |
| | Rp3/4 | 8070261 | VZBM-A-3/4"-RP-25-F-3T-B2-PA20 |
| | Rp1 | 8070262 | VZBM-A-1"-RP-25-F-3T-B2-PA20 |
| | Rp1 1/4 | 8070263 | VZBM-A-1 1/4"-RP-25-F-3T-B2-PA40 |
| | Rp1 1/2 | 8070264 | VZBM-A-1 1/2"-RP-25-F-3T-B2-PA80 |
| | Rp2 | 8070265 | VZBM-A-2"-RP-25-F-3T-B2-PA80 |
| DFPD – Single-acting, type T | | | |
|  | Rp1/4 | 8070274 | VZBM-A-1/4"-RP-25-F-3T-B2-PB20 |
| | Rp3/8 | 8070275 | VZBM-A-3/8"-RP-25-F-3T-B2-PB20 |
| | Rp1/2 | 8070276 | VZBM-A-1/2"-RP-25-F-3T-B2-PB20 |
| | Rp3/4 | 8070277 | VZBM-A-3/4"-RP-25-F-3T-B2-PB40 |
| | Rp1 | 8070278 | VZBM-A-1"-RP-25-F-3T-B2-PB40 |
| | Rp1 1/4 | 8070279 | VZBM-A-1 1/4"-RP-25-F-3T-B2-PB80 |
| | Rp1 1/2 | 8070280 | VZBM-A-1 1/2"-RP-25-F-3T-B2-PB120 |
| | Rp2 | 8070281 | VZBM-A-2"-RP-25-F-3T-B2-PB120 |