

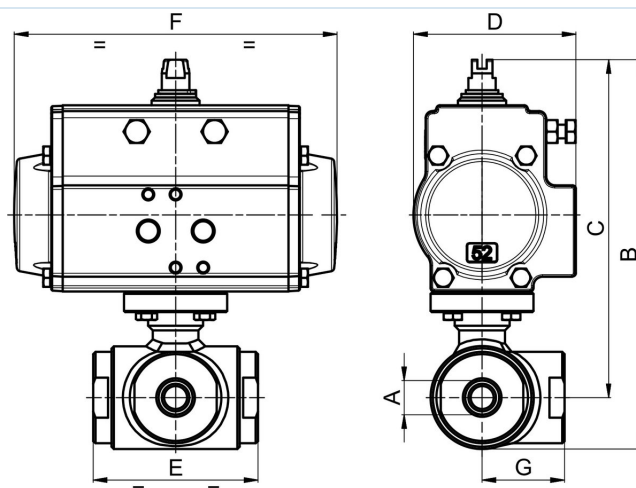
## Three-way ball valves made of stainless steel with pneumatic rotary actuator Series BA541 (T-port hole) and BA542 (L-bore)



|                               |                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Design type                   | Actuator: Piston actuator with 2 opposing pistons, elastic sealing, actuator in all details in accordance with ISO 5211 or according to NAMUR recommendations, End positions adjustable on both sides +/-5°<br>Ball valve: full bore passage, Triple-shell sealing ball, not non-overlapping                                                                                                    |
| Function                      | available in double-acting or single-acting Version                                                                                                                                                                                                                                                                                                                                             |
| Connection                    | G1/4"...G4" according to ISO228/1                                                                                                                                                                                                                                                                                                                                                               |
| Materials<br>Standard version | Actuator: Hard anodized aluminium, Pinion, nickel-plated steel, Piston guide POM, Seals NBR<br>Ball valve: Housing Stainless steel AISI316L polished, Ball Stainless steel AISI316L, Seals MPTFE/FKM                                                                                                                                                                                            |
| Application range             | Fluids and gases of group 1 and 2 according to PED 2014/68/EU that do not attack the materials used                                                                                                                                                                                                                                                                                             |
| Medium temperature            | -20...+170°C                                                                                                                                                                                                                                                                                                                                                                                    |
| Ambient temperature           | -20...+85°C                                                                                                                                                                                                                                                                                                                                                                                     |
| Operating pressure            | 0bar up to Operating pressure according to table and pressure-temperature diagram                                                                                                                                                                                                                                                                                                               |
| Control medium                | filtered and lubricated or non-lubricated compressed air                                                                                                                                                                                                                                                                                                                                        |
| Control pressure              | 5,5...8bar, Adaptation to lower pilot pressures available on request                                                                                                                                                                                                                                                                                                                            |
| Mounting type                 | Installation in rigid piping system                                                                                                                                                                                                                                                                                                                                                             |
| Mounting position             | any                                                                                                                                                                                                                                                                                                                                                                                             |
| Special version               | Pinion in stainless steel, ATEX EX II 2D Ex h IIIC T135°C Dp, Ambient temperatures -40...+85°C or rather -20...150°C                                                                                                                                                                                                                                                                            |
| Accessories                   | assembled manual, pneumatic or electric control valve<br>electrical end position feedback, Positioner in I/P or P/P Version<br>Adjustment of the switching speed                                                                                                                                                                                                                                |
| Ordering note                 | Please also specify control pressure, operating medium, operating pressure and operating temperature when ordering..<br>When ordering, the switching mode must be specified (see "switching diagram").                                                                                                                                                                                          |
| Application note              | The pressure and temperature specifications are maximum values for normal conditions, for lubricating or non-degreasing media. Degreasing media in particular reduce the specified values and increase the required torque. For these special cases, we recommend prior consultation. When selecting the valve, the lowest control pressure occurring in the system must be taken as the basis. |



## Dimensions



### Ball valves with double-acting rotary actuator

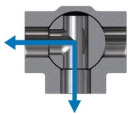
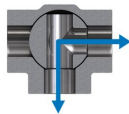
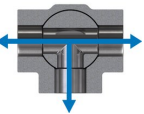
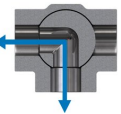
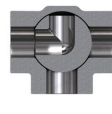
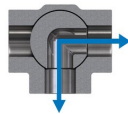
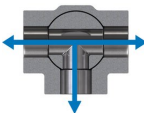
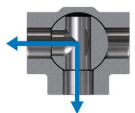
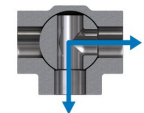
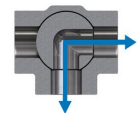
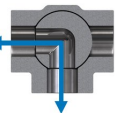
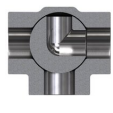
| Connection A | Nominal size DN[mm] | max. operating pressure [bar] | B   | C   | D   | E   | F   | G   | Actuator type | Weight [approx. kg] | Type BA541 T-port hole | Type BA542 L-bore |
|--------------|---------------------|-------------------------------|-----|-----|-----|-----|-----|-----|---------------|---------------------|------------------------|-------------------|
| G1/4"        | 12                  | 100                           | 171 | 148 | 71  | 72  | 141 | 36  | PAD052        | 2,1                 | BA541-14-D0            | BA542-14-D0       |
| G3/8"        | 12                  | 100                           | 171 | 148 | 71  | 72  | 141 | 36  | PAD052        | 2,1                 | BA541-38-D0            | BA542-38-D0       |
| G1/2"        | 15                  | 100                           | 177 | 151 | 71  | 82  | 141 | 41  | PAD052        | 2,3                 | BA541-12-D0            | BA542-12-D0       |
| G3/4"        | 20                  | 100                           | 200 | 170 | 81  | 92  | 164 | 46  | PAD063        | 3,7                 | BA541-34-D0            | BA542-34-D0       |
| G1"          | 25                  | 64                            | 209 | 174 | 81  | 102 | 164 | 51  | PAD063        | 4,3                 | BA541-10-D0            | BA542-10-D0       |
| G1 1/4"      | 32                  | 64                            | 255 | 213 | 95  | 118 | 210 | 59  | PAD075        | 9,5                 | BA541-114-D0           | BA542-114-D0      |
| G1 1/2"      | 40                  | 64                            | 270 | 220 | 95  | 134 | 210 | 67  | PAD075        | 9,8                 | BA541-112-D0           | BA542-112-D0      |
| G2"          | 50                  | 40                            | 278 | 223 | 95  | 144 | 210 | 72  | PAD075        | 11,1                | BA541-20-D0            | BA542-20-D0       |
| G2 1/2"      | 65                  | 40                            | 308 | 247 | 106 | 160 | 241 | 80  | PAD085        | 14,8                | BA541-212-D0           | BA542-212-D0      |
| G3"          | 80                  | 40                            | 354 | 274 | 123 | 200 | 275 | 100 | PAD100        | 25,7                | BA541-30-D0            | BA542-30-D0       |
| G4"          | 100                 | 16                            | 418 | 323 | 137 | 240 | 275 | 120 | PAD115        | 41,4                | BA541-40-D0            | BA542-40-D0       |

### Ball valves with single-acting rotary actuator

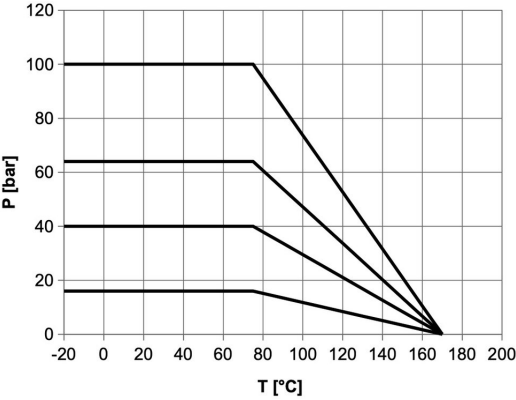
| Connection A | Nominal size DN[mm] | max. Operating pressure [bar] | B   | C     | D   | E   | F   | G   | Actuator type | Weight [approx. kg] | Type BA541 T-port hole | Type BA542 L-bore |
|--------------|---------------------|-------------------------------|-----|-------|-----|-----|-----|-----|---------------|---------------------|------------------------|-------------------|
| G1/4"        | 12                  | 100                           | 260 | 237,5 | 95  | 72  | 210 | 36  | PAS075        | 4,7                 | BA541-14-S0            | BA542-14-S0       |
| G3/8"        | 12                  | 100                           | 260 | 237,5 | 95  | 72  | 210 | 36  | PAS075        | 4,7                 | BA541-38-S0            | BA542-38-S0       |
| G1/2"        | 15                  | 100                           | 266 | 240   | 95  | 82  | 210 | 41  | PAS075        | 4,9                 | BA541-12-S0            | BA542-12-S0       |
| G3/4"        | 20                  | 100                           | 232 | 201,5 | 106 | 92  | 241 | 46  | PAS085        | 6,8                 | BA541-34-S0            | BA542-34-S0       |
| G1"          | 25                  | 64                            | 314 | 279   | 123 | 102 | 275 | 51  | PAS100        | 10,0                | BA541-10-S0            | BA542-10-S0       |
| G1 1/4"      | 32                  | 64                            | 282 | 239,5 | 123 | 118 | 275 | 59  | PAS100        | 13,7                | BA541-114-S0           | BA542-114-S0      |
| G1 1/2"      | 40                  | 64                            | 332 | 281,5 | 137 | 134 | 333 | 67  | PAS115        | 18,5                | BA541-112-S0           | BA542-112-S0      |
| G2"          | 50                  | 40                            | 339 | 284   | 137 | 144 | 333 | 72  | PAS115        | 19,7                | BA541-20-S0            | BA542-20-S0       |
| G2 1/2"      | 65                  | 40                            | 367 | 306   | 148 | 160 | 372 | 80  | PAS125        | 24,3                | BA541-212-S0           | BA542-212-S0      |
| G3"          | 80                  | 40                            | 447 | 367   | 186 | 200 | 500 | 100 | PAS160        | 50,3                | BA541-30-S0            | BA542-30-S0       |
| G4"          | 100                 | 16                            | 477 | 382   | 186 | 240 | 500 | 120 | PAS160        | 62,6                | BA541-40-S0            | BA542-40-S0       |



Circuit diagram

| BA541                                                                             |                                                                                   |                                                                                   |                                                                                   | BA542                                                                              |                                                                                     |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Switching type 01                                                                 | Switching type 02                                                                 | Switching type 03                                                                 | Switching type 04                                                                 | Switching type 05                                                                  | Switching type 06                                                                   | Switching type 07                                                                   |
| Position1 (Rest position for single-acting actuator)                              |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|  |  |  |  |  |  |  |
| Position 2 (Operating position for single-acting actuator)                        |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|  |  |  |  |  |  |  |

Pressure-temperature diagram



Illustrations non-binding  
Design, dimensional and material changes reserved

Armatures / Ball valves - automatically operated / Ball valves - pneumatically operated / Ball valve with pneumatic actuator Series BA541, BA542