

## butterfly valve DN40 to 500 series BUW6, BULG/C



|                       |                                                                                                                                                                                                                                                                                                 |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| design                | wafer respectively lug type butterfly valve with two-piece shaft, floating disc, power transmission by gear tooth system, shaft is protected against blow out by circlip                                                                                                                        |
| connection            | flange according to EN1092                                                                                                                                                                                                                                                                      |
| form of flange        | wafer type DN40...DN500: PN10/PN16/ANSI150<br>lug type DN40...DN150: PN10/PN16, DN200...DN500: PN10                                                                                                                                                                                             |
| length                | according to EN558-1 line 20 (DIN3202-K1)                                                                                                                                                                                                                                                       |
| materials             | body ductile iron epoxy coated, disc zinc plated steel (DN50...100), ductile iron zinc plated (DN125...500) respectively stainless steel AISI 316, shaft stainless steel AISI 430 (not wetted)<br>hand lever aluminum<br>gear box DN40...DN400: aluminum, DN450 and DN500: cast iron EN-GJL-250 |
| liner                 | demountable, see table "liner materials"                                                                                                                                                                                                                                                        |
| stem sealing          | through the body liner to avoid the contact to the body. in addition an o-ring below the top flange protect the shaft from outside dust and emission of the media.                                                                                                                              |
| Sealing at the flange | without additional sealings (body liner as direct seal)                                                                                                                                                                                                                                         |
| type of fixing        | installed into rigid pipework between two flanges according to EN1092 form 01, 11, 32, 34                                                                                                                                                                                                       |
| mounting position     | any                                                                                                                                                                                                                                                                                             |
| application           | group 1 and 2 liquids and gases acc. to 97/23/EC and which do not affect the used materials.                                                                                                                                                                                                    |
| flow direction        | any                                                                                                                                                                                                                                                                                             |
| medium temperature    | see table "liner material"                                                                                                                                                                                                                                                                      |
| operating pressure    | BUW6: 0-16bar<br>BULG/C: DN40...DN150: 0-16bar, DN200...DN500: 0-10bar, installation without counter flange see table "pressure stability"<br>also suitable for vacuum                                                                                                                          |
| actuation             | DN50...DN150 hand lever aluminum, 10 positions, by rotating the mounting adapter 2 positions<br>DN200...DN300 hand lever aluminum, 10 positions<br>gear box aluminum respectively cast iron EN-GJL-250, continuously                                                                            |
| special versions      | body steel, stainless steel, aluminum or aluminium-bronze, disc aluminium-bronze, hastelloy or monel, ATEX, DVGW-certification                                                                                                                                                                  |

## order code

|                                      |                                           | BU  | W | 6 | -050 | -D | S | C | S | -L | -A |
|--------------------------------------|-------------------------------------------|-----|---|---|------|----|---|---|---|----|----|
| butterfly valve<br>flanged type      | lug                                       | L   |   |   |      |    |   |   |   |    |    |
|                                      | wafer                                     | W   |   |   |      |    |   |   |   |    |    |
| operating pressure / flange mounting | 16bar...PN10/16/A150                      | 6   |   |   |      |    |   |   |   |    |    |
|                                      | 10bar...PN10                              | C   |   |   |      |    |   |   |   |    |    |
|                                      | 16bar...PN10/16                           | G   |   |   |      |    |   |   |   |    |    |
| nominal diameter                     | 40mm                                      | 040 |   |   |      |    |   |   |   |    |    |
|                                      | 50mm                                      | 050 |   |   |      |    |   |   |   |    |    |
|                                      | 65mm                                      | 065 |   |   |      |    |   |   |   |    |    |
|                                      | 80mm                                      | 080 |   |   |      |    |   |   |   |    |    |
|                                      | 100mm                                     | 100 |   |   |      |    |   |   |   |    |    |
|                                      | 125mm                                     | 125 |   |   |      |    |   |   |   |    |    |
|                                      | 150mm                                     | 150 |   |   |      |    |   |   |   |    |    |
|                                      | 200mm                                     | 200 |   |   |      |    |   |   |   |    |    |
|                                      | 250mm                                     | 250 |   |   |      |    |   |   |   |    |    |
|                                      | 300mm                                     | 300 |   |   |      |    |   |   |   |    |    |
|                                      | 350mm                                     | 350 |   |   |      |    |   |   |   |    |    |
|                                      | 400mm                                     | 400 |   |   |      |    |   |   |   |    |    |
|                                      | 450mm                                     | 450 |   |   |      |    |   |   |   |    |    |
|                                      | 500mm                                     | 500 |   |   |      |    |   |   |   |    |    |
| body                                 | aluminum                                  | A   |   |   |      |    |   |   |   |    |    |
|                                      | aluminium-bronze                          | B   |   |   |      |    |   |   |   |    |    |
|                                      | steel                                     | C   |   |   |      |    |   |   |   |    |    |
|                                      | ductile iron                              | D   |   |   |      |    |   |   |   |    |    |
|                                      | stainless steel                           | S   |   |   |      |    |   |   |   |    |    |
| disc                                 | aluminium-bronze                          | N   |   |   |      |    |   |   |   |    |    |
|                                      | ductile iron zinc plated                  | P   |   |   |      |    |   |   |   |    |    |
|                                      | stainless steel AISI 316                  | S   |   |   |      |    |   |   |   |    |    |
|                                      | steel zinc plated                         | U   |   |   |      |    |   |   |   |    |    |
| liner                                | EPDM                                      | E   |   |   |      |    |   |   |   |    |    |
|                                      | hypalone                                  | H   |   |   |      |    |   |   |   |    |    |
|                                      | NBR                                       | N   |   |   |      |    |   |   |   |    |    |
|                                      | silicone                                  | S   |   |   |      |    |   |   |   |    |    |
|                                      | FKM                                       | V   |   |   |      |    |   |   |   |    |    |
|                                      | EPDM food safe                            | W   |   |   |      |    |   |   |   |    |    |
|                                      | EPDM HT                                   | X   |   |   |      |    |   |   |   |    |    |
| shaft                                | stainless steel AISI 430 (blank position) |     |   |   |      |    |   |   |   |    |    |
|                                      | stainless steel AISI 316                  | S   |   |   |      |    |   |   |   |    |    |
| actuation                            | bare shaft                                | B   |   |   |      |    |   |   |   |    |    |
|                                      | gear box                                  | G   |   |   |      |    |   |   |   |    |    |
|                                      | hand lever aluminum 10 positions          | L   |   |   |      |    |   |   |   |    |    |
|                                      | hand lever aluminum adjustable            | R   |   |   |      |    |   |   |   |    |    |
| special versions                     | ATEX                                      | A   |   |   |      |    |   |   |   |    |    |
|                                      | free of oil and grease                    | G   |   |   |      |    |   |   |   |    |    |
|                                      | silicone-free                             | S   |   |   |      |    |   |   |   |    |    |

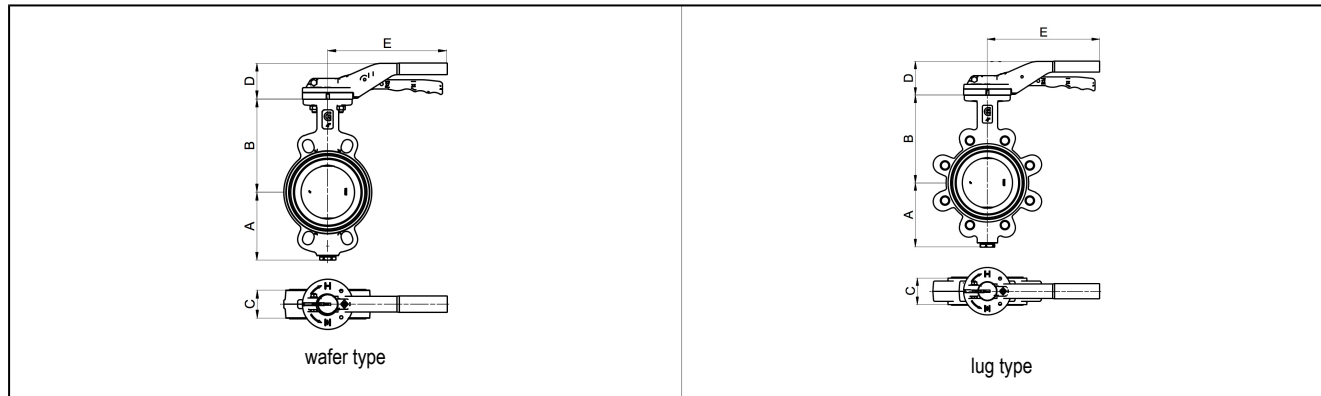
## liner material

| material                                                 | medium temperature | examples of use                                         |
|----------------------------------------------------------|--------------------|---------------------------------------------------------|
| EPDM                                                     | -35...+130°C       | hot water, cold water, neutral gases and liquids        |
| EPDM food safe                                           | -30...+130°C       | foods                                                   |
| EPDM HT                                                  | -30...+135°C       | steam, hot water, cold water, neutral gases and liquids |
| FKM                                                      | -20...+200°C       | petrol, diesel, oils                                    |
| NBR                                                      | -25...+100°C       | cold water, air, neutral gases and liquids              |
| neoprene, silicone and hypalone are available on request |                    |                                                         |

## pressure stability

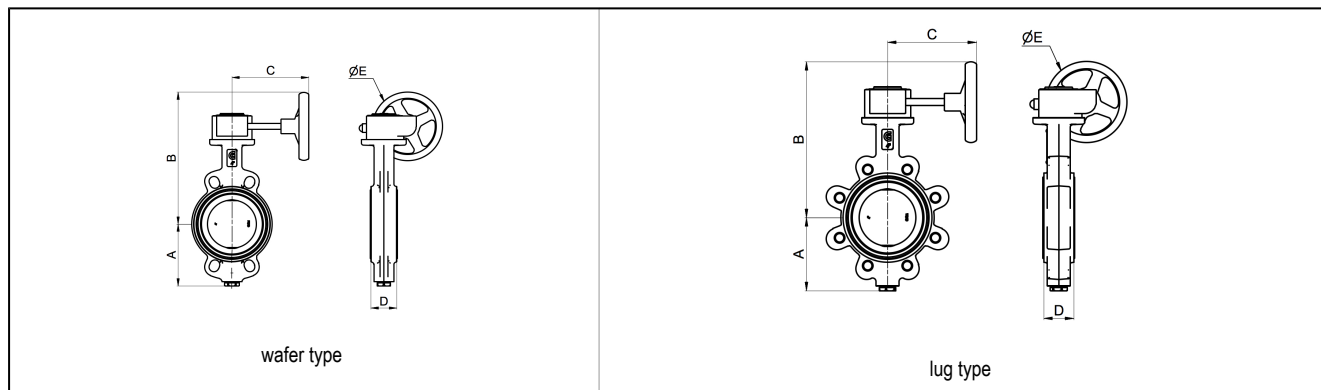
| type       | jammed between two flanges       | end armature without counter flange |
|------------|----------------------------------|-------------------------------------|
| wafer type | 16bar                            | -                                   |
| lug type   | DN50...150: 16bar, >DN150: 10bar | 6bar                                |

## dimensions with hand lever



| nominal diameter<br>DN [mm] | A   | B   | C  | D  | E   | stem square diagonal<br>[mm] | flange<br>ISO 5211 | weight<br>[app. kg] |      |
|-----------------------------|-----|-----|----|----|-----|------------------------------|--------------------|---------------------|------|
|                             |     |     |    |    |     |                              |                    | wafer               | lug  |
| 40                          | 75  | 130 | 33 | 67 | 220 | 11                           | F07                | 2,8                 | 3,6  |
| 50                          | 81  | 138 | 43 | 67 | 220 | 11                           | F07                | 3,4                 | 4,3  |
| 65                          | 98  | 144 | 46 | 67 | 220 | 11                           | F07                | 4,3                 | 5,9  |
| 80                          | 110 | 158 | 46 | 67 | 220 | 11                           | F07                | 4,6                 | 6,7  |
| 100                         | 128 | 173 | 52 | 67 | 220 | 11                           | F07                | 6,6                 | 8,7  |
| 125                         | 140 | 186 | 56 | 67 | 275 | 14                           | F07                | 7,9                 | 10,4 |
| 150                         | 155 | 202 | 56 | 67 | 275 | 14                           | F07                | 9,8                 | 12,2 |
| 200                         | 190 | 240 | 60 | 76 | 340 | 17                           | F10                | 15                  | 28   |
| 250                         | 220 | 270 | 68 | 76 | 340 | 22                           | F10                | 23                  | 35   |
| 300                         | 247 | 300 | 78 | 76 | 340 | 22                           | F10                | 33                  | 50   |

## dimensions with gear box



| nominal diameter<br>DN [mm] | A   | B   | C   | D   | E   | stem type       | stem size<br>[mm] | flange<br>ISO 5211 | weight<br>[app. kg] |      |
|-----------------------------|-----|-----|-----|-----|-----|-----------------|-------------------|--------------------|---------------------|------|
|                             |     |     |     |     |     |                 |                   |                    | wafer               | lug  |
| 40                          | 75  | 227 | 160 | 33  | 140 | square diagonal | 11                | F07                | 3,8                 | 4,6  |
| 50                          | 81  | 235 | 160 | 43  | 140 | square diagonal | 11                | F07                | 4,4                 | 5,3  |
| 65                          | 98  | 241 | 160 | 46  | 140 | square diagonal | 11                | F07                | 5,3                 | 6,9  |
| 80                          | 110 | 255 | 160 | 46  | 140 | square diagonal | 11                | F07                | 5,6                 | 7,7  |
| 100                         | 128 | 270 | 160 | 52  | 140 | square diagonal | 11                | F07                | 7,6                 | 9,7  |
| 125                         | 140 | 283 | 160 | 56  | 140 | square diagonal | 14                | F07                | 8,8                 | 11,3 |
| 150                         | 155 | 299 | 160 | 56  | 140 | square diagonal | 14                | F07                | 10,7                | 13,1 |
| 200                         | 190 | 398 | 215 | 60  | 250 | square diagonal | 17                | F10                | 17                  | 30   |
| 250                         | 220 | 428 | 215 | 68  | 250 | square diagonal | 22                | F10                | 25                  | 37   |
| 300                         | 247 | 458 | 215 | 78  | 250 | square diagonal | 22                | F10                | 35                  | 52   |
| 350                         | 280 | 581 | 325 | 78  | 400 | key             | 35                | F12                | 52                  | 72   |
| 400                         | 305 | 606 | 325 | 102 | 400 | key             | 40                | F12                | 86                  | 100  |
| 450                         | 343 | 761 | 395 | 114 | 600 | key             | 45                | F14                | 135                 | 195  |
| 500                         | 366 | 783 | 395 | 127 | 600 | key             | 45                | F16                | 165                 | 205  |

**kv value [m<sup>3</sup>/h]**

| nominal diameter<br>DN [mm] | Opening angle of the butterfly valve |     |      |      |      |      |       |       |       |
|-----------------------------|--------------------------------------|-----|------|------|------|------|-------|-------|-------|
|                             | 10°                                  | 20° | 30°  | 40°  | 50°  | 60°  | 70°   | 80°   | 90°   |
| 40/50                       | -                                    | 0,9 | 6,1  | 15   | 29   | 53   | 92    | 115   | 116   |
| 65                          | -                                    | 2,5 | 11   | 27   | 51   | 90   | 161   | 240   | 257   |
| 80                          | -                                    | 5,2 | 21   | 49   | 91   | 156  | 283   | 457   | 508   |
| 100                         | -                                    | 9,5 | 39   | 88   | 159  | 269  | 487   | 815   | 925   |
| 125                         | -                                    | 15  | 69   | 148  | 262  | 434  | 768   | 1303  | 1492  |
| 150                         | -                                    | 23  | 112  | 228  | 394  | 641  | 1097  | 1861  | 2168  |
| 200                         | -                                    | 110 | 211  | 405  | 679  | 1085 | 1788  | 3043  | 3838  |
| 250                         | 21                                   | 156 | 310  | 591  | 988  | 1591 | 2715  | 4768  | 5010  |
| 300                         | 49                                   | 280 | 381  | 742  | 1252 | 2059 | 3744  | 6831  | 9233  |
| 350                         | 123                                  | 315 | 661  | 1184 | 2008 | 3225 | 5195  | 9301  | 10792 |
| 400                         | 161                                  | 412 | 863  | 1547 | 2620 | 4202 | 6775  | 12142 | 14082 |
| 450                         | 199                                  | 511 | 1069 | 1916 | 3248 | 5218 | 8412  | 15048 | 17840 |
| 500                         | 246                                  | 630 | 1320 | 2366 | 4010 | 6442 | 10377 | 18578 | 22024 |

illustrations are non-binding

all designs, configurations, measurements and materials are subject to change without prior notice