

# Check Valves

## Type 05414 - Check Valve



### Cryogenic-Check Valves, PN50 (DN150=PN40)

Stainless steel body and cap  
with spring, opening pressure ca. 0.1 bar  
"cleaned and degreased for oxygen service"

#### Part No. 05414.X.000\*

\* Butt weld connection for stainless steel pipes acc. to ISO 1127 or ASTM A312

#### Part No. 05414.X.0004

Socket weld connection for stainless steel pipes acc. to ISO 1127 or ASTM A312

Available options - on request only:

- Welded stainless steel stubs acc. to ISO 1127 or ASTM A312 - length FF + 200mm
- Further pipe wall thicknesses



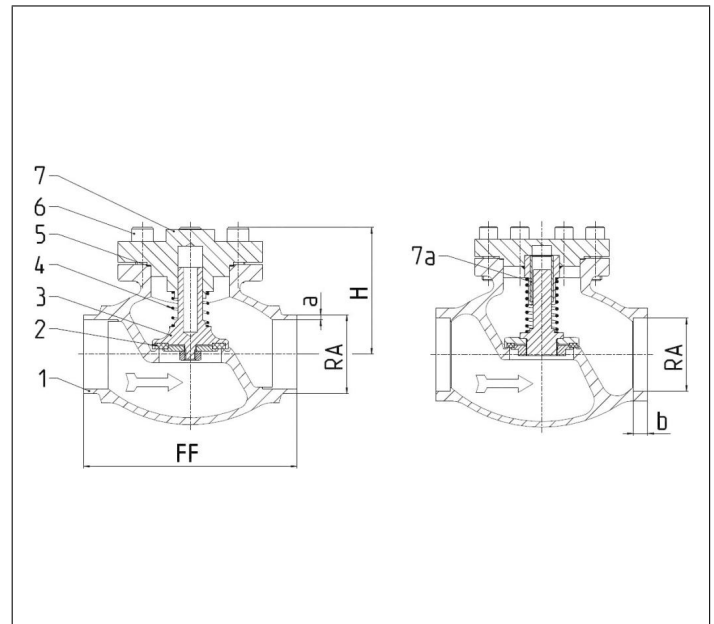
### Applications:

Approved for air gases, vapours and cryogenic liquefied gases incl. LNG.

Working temperature: -196°C / -321°F (77K) up to +120°C / +248°F (393K)

| Materials               | DIN EN                     | ASTM              |
|-------------------------|----------------------------|-------------------|
| 1 Body                  | 1.4308                     | A 351 CF8         |
| 2 Valve seal up to DN50 | PTFE / Carbon filled (25%) |                   |
| 2a Valve seal from DN65 | PTFE                       |                   |
| 3 Disc                  | 1.4301                     | A 276 Grade 304   |
| 4 Spring                | 1.4571                     | A 313 Grade 316Ti |
| 5 Bonnet gasket         | PTFE                       |                   |
| 6 Bolts                 | 1.4301/A2                  | A 194 B8          |
| 7 Cap                   | 1.4301                     | A 276 Grade 304   |
| 7a Bush from DN65       | PTFE                       |                   |

Standard marking acc. to Pressure Equipment Directive 2014/68/EU (PED).



| Type 05414 - Standard design  | Technical data    |                               |       |       |       |       |      |       |       |       |       |       |       |       |
|-------------------------------|-------------------|-------------------------------|-------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| Nominal size                  | DN                | 10                            | 15    | 15    | 20    | 25    | 32   | 40    | 40    | 50    | 65    | 80    | 100   | 150   |
| Dimension code                | .X.               | 1012                          | 1517  | 1521  | 2026  | 2533  | 3238 | 4042  | 4048  | 5060  | 657x  | 8088  | 0114  | 0168  |
| Face-to-face dimension        | FF                | 70                            | 85    | 85    | 100   | 115   | 115  | 130   | 130   | 155   | 205   | 245   | 280   | 400   |
| Height                        | H                 | 71                            | 71    | 71    | 72    | 75    | 87   | 95    | 95    | 95    | 125   | 150   | 185   | 215   |
| Outside pipe-Ø ISO 1127       | RA                | 12.0                          | 17.2  | 21.3  | 26.9  | 33.7  | 38.0 | 42.4  | 48.3  | 60.3  | 76.1  | 88.9  | 114.3 | 168.3 |
| Wall thickness pipe ISO 1127  | a                 | 1.0                           | 1.6   | 2.0   | 2.0   | 2.0   | 2.0  | 2.0   | 2.0   | 2.0   | 2.6   | 3.2   | 6.0   | 7.1   |
| Outside pipe-Ø ASTM A312      | RA                | 13.72                         | 17.15 | 21.34 | 26.67 | 33.40 | -    | 42.16 | 48.26 | 60.33 | 73.03 | 88.90 | 114.3 | 168.3 |
| Wall thickness pipe ASTM A312 | a                 | dimensions acc. to S10 or S40 |       |       |       |       |      |       |       |       |       |       |       |       |
| Socket depth                  | b                 | 6                             | 10    | 10    | 13    | 13    | -    | 13    | 13    | 16    | 16    | 16    | 20    | 20    |
| Weight                        | ca. kg            | 0.7                           | 0.95  | 1.0   | 1.3   | 1.6   | 2.4  | 3.9   | 3.9   | 5.7   | 9.6   | 14.6  | 20.0  | 51.0  |
| Kvs-Value                     | m <sup>3</sup> /h | 1.6                           | 3.8   | 4.3   | 6.7   | 11.5  | 14.0 | 20.6  | 22.6  | 37.1  | 71.1  | 104.0 | 170.0 | 350.0 |
| Cv-Value                      | gal/min           | 1.9                           | 4.4   | 5.0   | 7.8   | 13.4  | 16.2 | 23.9  | 26.3  | 43.2  | 82.7  | 120.9 | 195.2 | 401.8 |

Dimensions in mm. Compliance of tightness requirements acc. to EN 1626 for DN150 up to 20 bar differential pressure. In the range of >20-40 bar, 350-700ml (1 bar, 20°C [68°F]) are reached.