

# Delivery times

## Clean Service

| Clean Service                                                | Delivery time ex works Hohenwestedt |   |           |   |   |   |
|--------------------------------------------------------------|-------------------------------------|---|-----------|---|---|---|
|                                                              | Delivery time [weeks]               |   |           |   |   |   |
|                                                              | 1                                   | 2 | 3         | 4 | 5 | 6 |
| <b>Delivery time for all top runners<sup>1)</sup></b>        | 2 weeks                             |   |           |   |   |   |
| Type 481                                                     |                                     |   |           |   |   |   |
| Type 483                                                     |                                     |   |           |   |   |   |
| Type 484 and Type 5034 vessel connection                     |                                     |   |           |   |   |   |
| Type 485 and Type 5034 pipework connection                   |                                     |   |           |   |   |   |
| Type 488                                                     |                                     |   |           |   |   |   |
| <b>Any combination of other inlet and outlet connections</b> |                                     |   | + 4 weeks |   |   |   |
| Type 481                                                     |                                     |   |           |   |   |   |
| Type 483                                                     |                                     |   |           |   |   |   |
| Type 484 und Type 5034 vessel connection                     |                                     |   |           |   |   |   |
| Type 485 und Type 5034 pipework connection.                  |                                     |   |           |   |   |   |
| Type 488                                                     |                                     |   |           |   |   |   |

<sup>1)</sup> For Top Runners please refer to chapter Clean Service

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Top runners – delivery time 2 weeks

### Type 481

| Clamps |                     | Inlet |        | LESER Surface package |  |                  |                    |                    |
|--------|---------------------|-------|--------|-----------------------|--|------------------|--------------------|--------------------|
|        | d <sub>0</sub> [mm] | Code  | DN/NPS |                       |  | Clean finish B50 | HyClean finish B51 | Sterile finish B52 |
|        | 10                  | SO    | 15     |                       |  | ✓                |                    |                    |
|        |                     | SO    | 25     |                       |  | ✓                |                    |                    |
|        |                     | DO    | 15     |                       |  | ✓                |                    |                    |
|        |                     | DO    | 25     |                       |  | ✓                |                    |                    |
|        |                     | GO    | 25     |                       |  | ✓                |                    |                    |
|        |                     | BO    | 3/4    |                       |  | ✓                | ✓                  | ✓                  |
|        |                     | BO    | 1      |                       |  | ✓                | ✓                  | ✓                  |
|        |                     | CO    | 1      |                       |  | ✓                | ✓                  | ✓                  |

| Clamps |                     | Outlet |  |      | LESER Surface package |                  |                    |                    |
|--------|---------------------|--------|--|------|-----------------------|------------------|--------------------|--------------------|
|        | d <sub>0</sub> [mm] |        |  | Code | DN/NPS                | Clean finish B50 | HyClean finish B51 | Sterile finish B52 |
|        | 10                  |        |  | SO   | 25                    | ✓                | ✓                  | ✓                  |
|        |                     |        |  | DO   | 25                    | ✓                | ✓                  | ✓                  |
|        |                     |        |  | BO   | 1                     | ✓                | ✓                  | ✓                  |
|        |                     |        |  | CO   | 1                     | ✓                | ✓                  | ✓                  |

| Aseptic screwed connection |                     | Outlet |  |      | LESER Surface package         |                  |                    |                    |
|----------------------------|---------------------|--------|--|------|-------------------------------|------------------|--------------------|--------------------|
|                            | d <sub>0</sub> [mm] |        |  | Code | NPS                           | Clean finish B50 | HyClean finish B51 | Sterile finish B52 |
|                            | 10                  |        |  | XG   | G <sup>1</sup> / <sub>2</sub> | ✓                | ✓                  | ✓                  |
|                            |                     |        |  | XG   | G <sup>3</sup> / <sub>4</sub> | ✓                | ✓                  | ✓                  |
|                            |                     |        |  | XG   | G1                            | ✓                |                    |                    |
|                            |                     |        |  | XN   | 1/2 NPT                       | ✓                |                    |                    |
|                            |                     |        |  | XN   | 3/4 NPT                       | ✓                |                    |                    |
|                            |                     |        |  | XN   | 1 NPT                         | ✓                |                    |                    |

For definitions of connection codes please refer to pages "Clamps and threaded connections – Overview".  
For grey highlighted options an extra amount will be charged.

## Clean Service

### Available connections

| Type 481                                     |                                              |                    |           |         |         |       |  |
|----------------------------------------------|----------------------------------------------|--------------------|-----------|---------|---------|-------|--|
| Actual Orifice diameter $d_0$ [mm]           |                                              | 10                 |           |         |         |       |  |
| Actual Orifice area $A_0$ [mm <sup>2</sup> ] |                                              | 78.5               |           |         |         |       |  |
| Clamps                                       |                                              | Option Code inlet  |           |         |         |       |  |
| DN                                           | 15                                           | 25                 |           |         |         |       |  |
| SO                                           | L79I14                                       | L79I16             |           |         |         |       |  |
| DO                                           | I73I14                                       | I73I16             |           |         |         |       |  |
| NPS                                          | $\frac{3}{4}$                                | 1                  |           |         |         |       |  |
| BO                                           | I75I78                                       | I75I79             |           |         |         |       |  |
| CO                                           | -                                            | L96I79             |           |         |         |       |  |
| Aseptic screwed connection                   |                                              | Option Code inlet  |           |         |         |       |  |
| DN                                           | -                                            |                    |           |         |         |       |  |
| XG                                           | -                                            |                    |           |         |         |       |  |
| XN                                           | -                                            |                    |           |         |         |       |  |
| Pipe standard                                | DN                                           | 25                 |           |         |         |       |  |
| DIN 11850 /<br>DIN 11866<br>Range A          | GS                                           | H85H34I16          |           |         |         |       |  |
|                                              | BS                                           | H85H36I16          |           |         |         |       |  |
|                                              | GT                                           | H85H54I16          |           |         |         |       |  |
|                                              | BT                                           | H85H56I16          |           |         |         |       |  |
|                                              | GO                                           | H85L75I16          |           |         |         |       |  |
|                                              | KO                                           | H85L76I16          |           |         |         |       |  |
|                                              | GD <sup>1)</sup>                             | H85H60I16          |           |         |         |       |  |
|                                              | BD <sup>1)</sup>                             | H85H58I16          |           |         |         |       |  |
| Pipe standard                                | DN                                           | 25                 |           |         |         |       |  |
| DIN EN<br>ISO 1127 /<br>DIN 11866<br>Range B | GS                                           | H86H34I16          |           |         |         |       |  |
|                                              | BS                                           | H86H36I16          |           |         |         |       |  |
|                                              | GT                                           | H86H54I16          |           |         |         |       |  |
|                                              | BT                                           | H86H56I16          |           |         |         |       |  |
|                                              | GD <sup>1)</sup>                             | H86H60I16          |           |         |         |       |  |
|                                              | BD <sup>1)</sup>                             | H86H58I16          |           |         |         |       |  |
| Pipe standard                                | NPS                                          | 1                  |           |         |         |       |  |
| ASME BPE /<br>DIN 11866<br>Range C           | GS                                           | H66H34I79          |           |         |         |       |  |
|                                              | BS                                           | H66H36I79          |           |         |         |       |  |
|                                              | GT                                           | H66H54I79          |           |         |         |       |  |
|                                              | BT                                           | H66H56I79          |           |         |         |       |  |
| $d_0$ [mm]                                   | 10                                           |                    |           |         |         |       |  |
| $A_0$ [mm <sup>2</sup> ]                     | 78.5                                         |                    |           |         |         |       |  |
| Clamps                                       |                                              | Option Code outlet |           |         |         |       |  |
| DN                                           | -                                            | 25                 |           |         |         |       |  |
| SO                                           | -                                            | L86A16             |           |         |         |       |  |
| DO                                           | -                                            | I74A16             |           |         |         |       |  |
| NPS                                          | -                                            | 1                  |           |         |         |       |  |
| BO                                           | -                                            | I76A79             |           |         |         |       |  |
| CO                                           | -                                            | L97A79             |           |         |         |       |  |
| Aseptic screwed connection                   |                                              | Option Code outlet |           |         |         |       |  |
| DN                                           | G <sup>1/2</sup>                             | G <sup>3/4</sup>   | G1        | 1/2 NPT | 3/4 NPT | 1 NPT |  |
| XG                                           | V65                                          | V76                | V66       | -       |         |       |  |
| XN                                           | -                                            |                    |           | V70     | V77     | V71   |  |
| Pipe standard                                | DN                                           | 25                 |           |         |         |       |  |
| DIN 11850 /<br>DIN 11866<br>Range A          | GS                                           | A85H35A16          |           |         |         |       |  |
|                                              | BS                                           | A85H37A16          |           |         |         |       |  |
|                                              | GT                                           | A85H55A16          |           |         |         |       |  |
|                                              | BT                                           | A85H57A16          |           |         |         |       |  |
|                                              | GO                                           | A85L81A16          |           |         |         |       |  |
|                                              | KO                                           | A85L82A16          |           |         |         |       |  |
|                                              | GD                                           | A85H61A16          |           |         |         |       |  |
|                                              | BD                                           | A85H59A16          |           |         |         |       |  |
|                                              | Pipe standard                                | DN                 | 25        |         |         |       |  |
|                                              | DIN EN<br>ISO 1127 /<br>DIN 11866<br>Range B | GS                 | A86H35A16 |         |         |       |  |
| BS                                           |                                              | A86H37A16          |           |         |         |       |  |
| GT                                           |                                              | A86H55A16          |           |         |         |       |  |
| BT                                           |                                              | A86H57A16          |           |         |         |       |  |
| GD                                           |                                              | A86H61A16          |           |         |         |       |  |
| BD                                           |                                              | A86H59A16          |           |         |         |       |  |
| Pipe standard                                | NPS                                          | 1                  |           |         |         |       |  |
| ASME BPE /<br>DIN 11866<br>Range C           | GS                                           | A84H35A79          |           |         |         |       |  |
|                                              | BS                                           | A84H37A79          |           |         |         |       |  |
|                                              | GT                                           | A84H55A79          |           |         |         |       |  |
|                                              | BT                                           | A84H57A79          |           |         |         |       |  |

For definitions of connection codes please refer to pages "Clamps and threaded connections – Overview".  
For grey highlighted options an extra amount will be charged.

<sup>1)</sup> NEUMO BioConnect® is registered wordmark of NEUMO GmbH & Co. KG, D – 75438 Knittlingen

## Clean Service

Top runners – delivery time 2 weeks

### Type 483

| Clamps                                        |                     | Inlet |     | Outlet |     | LESER Surface package |                    |                    |
|-----------------------------------------------|---------------------|-------|-----|--------|-----|-----------------------|--------------------|--------------------|
| Pipe standard                                 | d <sub>0</sub> [mm] | Code  |     | Code   |     | Clean finish B53      | HyClean finish B54 | Sterile finish B55 |
|                                               |                     |       | DN  |        | DN  |                       |                    |                    |
| DIN 11850 /<br>DIN 11866 <b>Range A</b>       | 13                  | SO    | 25  | 00     | 25  | ✓                     | ✓                  | ✓                  |
|                                               |                     | SO    | 25  | GS     | 25  | ✓                     |                    |                    |
|                                               |                     | SO    | 25  | SO     | 25  | ✓                     | ✓                  | ✓                  |
| DIN EN ISO 1127 /<br>DIN 11866 <b>Range B</b> |                     | DO    | 25  | DO     | 25  | ✓                     | ✓                  | ✓                  |
|                                               |                     |       | NPS |        | NPS |                       |                    |                    |
| ASME BPE /<br>DIN 11866 <b>Range C</b>        |                     | BO    | 1   | BO     | 1½  | ✓                     | ✓                  | ✓                  |
|                                               | BO                  | 1½    | BO  | 1½     | ✓   | ✓                     | ✓                  |                    |
| ASME BPE and ISO 2037                         | CO                  | 1     | CO  | 1½     |     | ✓                     | ✓                  |                    |
|                                               |                     |       | DN  |        | DN  |                       |                    |                    |
| DIN 11850 /<br>DIN 11866 <b>Range A</b>       | 25                  | SO    | 40  | SO     | 40  | ✓                     | ✓                  | ✓                  |
| DIN EN ISO 1127 /<br>DIN 11866 <b>Range B</b> |                     | DO    | 40  | DO     | 40  | ✓                     | ✓                  | ✓                  |
|                                               |                     |       | NPS |        | NPS |                       |                    |                    |
| ASME BPE /<br>DIN 11866 <b>Range C</b>        |                     | BO    | 1½  | BO     | 2   | ✓                     | ✓                  | ✓                  |
|                                               |                     | BO    | 2   | BO     | 2   | ✓                     | ✓                  | ✓                  |
| ASME BPE and ISO 2037                         |                     | CO    | 1½  | CO     | 2   | ✓                     | ✓                  | ✓                  |
|                                               | CO                  | 2     | CO  | 2      | ✓   | ✓                     | ✓                  |                    |
| Aseptic screwed connection                    |                     | Inlet |     | Outlet |     | LESER Surface package |                    |                    |
| Pipe standard                                 | d <sub>0</sub> [mm] | Code  | DN  | Code   | DN  | Clean finish B53      | HyClean finish B54 | Sterile finish B55 |
| DIN 11850 /<br>DIN 11866<br><b>Range A</b>    | 13                  | BS    | 25  | GS     | 25  | ✓                     | ✓                  | ✓                  |
|                                               |                     | KO    | 25  | GO     | 25  | ✓                     | ✓                  | ✓                  |
|                                               | 25                  | KO    | 40  | GO     | 40  | ✓                     |                    |                    |
| Aseptic flanged connection                    |                     | Inlet |     | Outlet |     | LESER Surface package |                    |                    |
| Pipe standard                                 | d <sub>0</sub> [mm] | Code  | DN  | Code   | DN  | Clean finish B53      | HyClean finish B54 | Sterile finish B55 |
| DIN 11850 /<br>DIN 11866<br><b>Range A</b>    | 13                  | NF    | 25  | NF     | 25  | ✓                     |                    |                    |
|                                               |                     | BF    | 25  | BF     | 25  | ✓                     |                    |                    |
|                                               |                     | AN    | 25  | AN     | 25  | ✓                     |                    |                    |
|                                               | 25                  | NF    | 40  | NF     | 40  | ✓                     |                    |                    |
|                                               |                     | AN    | 40  | AN     | 40  | ✓                     |                    |                    |
|                                               |                     | VH    | 40  | TN     | 40  | ✓                     |                    |                    |

For definitions of connection codes please refer to pages "Clamps and treaded connections – Overview".  
For grey highlighted options an extra amount will be charged.

# Clean Service

## Available connections

| Type 483                                              |                  |           |                               |                               |                               |
|-------------------------------------------------------|------------------|-----------|-------------------------------|-------------------------------|-------------------------------|
| Actual Orifice diameter d <sub>0</sub> [mm]           |                  | 13        |                               | 25                            |                               |
| Actual Orifice area A <sub>0</sub> [mm <sup>2</sup> ] |                  | 133       |                               | 491                           |                               |
| Clamps                                                |                  |           | Option Code inlet             |                               |                               |
| DN                                                    |                  | 25        |                               | 40                            |                               |
| SO                                                    | L79I16           |           | L79I17                        |                               |                               |
| DO                                                    | I73I16           |           | I73I17                        |                               |                               |
| NPS                                                   |                  | 1         | 1 <sup>1</sup> / <sub>2</sub> | 1 <sup>1</sup> / <sub>2</sub> | 2                             |
| BO                                                    | I75I79           | I75I80    | I75I80                        | I75I81                        |                               |
| CO                                                    | L96I79           | L96I80    | L96I80                        | L96I81                        |                               |
| Aseptic screwed connection                            |                  |           | Option Code inlet             |                               |                               |
| Pipe standard                                         |                  | DN        |                               | 25                            |                               |
| DIN 11850 /<br>DIN 11866<br>Range A                   | 00               | -         |                               |                               |                               |
|                                                       | GS               | H85H34I16 |                               | H85H34I17                     |                               |
|                                                       | BS               | H85H36I16 |                               | H85H36I17                     |                               |
|                                                       | GT               | H85H54I16 |                               | H85H54I17                     |                               |
|                                                       | BT               | H85H56I16 |                               | H85H56I17                     |                               |
|                                                       | GO               | H85L75I16 |                               | H85L75I17                     |                               |
|                                                       | KO               | H85L76I16 |                               | H85L76I17                     |                               |
|                                                       | GD <sup>1)</sup> | H85H60I16 |                               | H85H60I17                     |                               |
|                                                       | BD <sup>1)</sup> | H85H58I16 |                               | H85H58I17                     |                               |
| Pipe standard                                         |                  | DN        |                               | 25                            |                               |
| DIN EN<br>ISO 1127 /<br>DIN 11866<br>Range B          | GS               | H86H34I16 |                               | H86H34I17                     |                               |
|                                                       | BS               | H86H36I16 |                               | H86H36I17                     |                               |
|                                                       | GT               | H86H54I16 |                               | H86H54I17                     |                               |
|                                                       | BT               | H86H56I16 |                               | H86H56I17                     |                               |
|                                                       | GD <sup>1)</sup> | H86H60I16 |                               | H86H60I17                     |                               |
|                                                       | BD <sup>1)</sup> | H86H58I16 |                               | H86H58I17                     |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 1                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | H66H34I79 | H66H34I80                     | H66H34I80                     | H66H34I81                     |
|                                                       | BS               | H66H36I79 | H66H36I80                     | H66H36I80                     | H66H36I81                     |
|                                                       | GT               | H66H54I79 | H66H54I80                     | H66H54I80                     | H66H54I81                     |
|                                                       | BT               | H66H56I79 | H66H56I80                     | H66H56I80                     | H66H56I81                     |
|                                                       | Pipe standard    |           | NPS                           |                               | 1 <sup>1</sup> / <sub>2</sub> |
| Aseptic flanged connection                            |                  |           | Option Code inlet             |                               |                               |
| Pipe standard                                         |                  | DN        |                               | 25                            |                               |
| DIN 11850 /<br>DIN 11866<br>Range A                   | NF               | H85H71I16 |                               | H85H71I17                     |                               |
|                                                       | BF               | H85H73I16 |                               | H85H73I17                     |                               |
|                                                       | NG               | H85H75I16 |                               | H85H75I17                     |                               |
|                                                       | BG               | H85H77I16 |                               | H85H77I17                     |                               |
|                                                       | TN               | H85L78I16 |                               | H85L78I17                     |                               |
|                                                       | AF               | H85L90I16 |                               | H85L90I17                     |                               |
|                                                       | AN               | H85L92I16 |                               | H85L92I17                     |                               |
|                                                       | VG               | H85I82I16 |                               | -                             |                               |
|                                                       | VH               | H85I83I16 |                               | H85I83I17                     |                               |
| Pipe standard                                         |                  | DN        |                               | 25                            |                               |
| DIN EN<br>ISO 1127 /<br>DIN 11866<br>Range B          | NF               | H86H71I16 |                               |                               |                               |
|                                                       | BF               | H86H73I16 |                               |                               |                               |
|                                                       | NG               | H86H75I16 |                               |                               |                               |
|                                                       | BG               | H86H77I16 |                               |                               |                               |
| Pipe standard                                         |                  | NPS       |                               | 1                             |                               |
| ASME BPE /<br>DIN 11866<br>Range C                    | NF               | H66H71I79 | H66H71I80                     | H66H71I80                     | H66H71I81                     |
|                                                       | BF               | H66H73I79 | H66H73I80                     | H66H73I80                     | H66H73I81                     |
|                                                       | NG               | H66H75I79 | H66H75I80                     | H66H75I80                     | H66H75I81                     |
|                                                       | BG               | H66H77I79 | H66H77I80                     | H66H77I80                     | H66H77I81                     |
|                                                       | Pipe standard    |           | NPS                           |                               | 1 <sup>1</sup> / <sub>2</sub> |
| Aseptic flanged connection                            |                  |           | Option Code outlet            |                               |                               |
| Pipe standard                                         |                  | DN        |                               | 25                            |                               |
| DIN 11850 /<br>DIN 11866<br>Range A                   | NF               | H85H72A16 |                               | H85H72A17                     |                               |
|                                                       | BF               | H85H74A16 |                               | H85H74A17                     |                               |
|                                                       | NG               | H85H76A16 |                               | H85H76A17                     |                               |
|                                                       | BG               | H85H78A16 |                               | H85H78A17                     |                               |
|                                                       | TN               | H85L84A16 |                               | H85L84A17                     |                               |
|                                                       | AF               | H85L91A16 |                               | H85L91A17                     |                               |
|                                                       | AN               | H85L93A16 |                               | H85L93A17                     |                               |
|                                                       | VG               | -         |                               | -                             |                               |
|                                                       | VH               | -         |                               | -                             |                               |
| Pipe standard                                         |                  | DN        |                               | 25                            |                               |
| DIN EN<br>ISO 1127 /<br>DIN 11866<br>Range B          | NF               | H86H72A16 |                               |                               |                               |
|                                                       | BF               | H86H74A16 |                               |                               |                               |
|                                                       | NG               | H86H76A16 |                               |                               |                               |
|                                                       | BG               | H86H78A16 |                               |                               |                               |
| Pipe standard                                         |                  | NPS       |                               | 1 <sup>1</sup> / <sub>2</sub> |                               |
| ASME BPE /<br>DIN 11866<br>Range C                    | NF               | H84H72A80 | H84H72A81                     |                               |                               |
|                                                       | BF               | H84H74A80 | H84H74A81                     |                               |                               |
|                                                       | NG               | H84H76A80 | H84H76A81                     |                               |                               |
|                                                       | BG               | H84H78A80 | H84H78A81                     |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | NF               | H85L83A16 |                               |                               |                               |
|                                                       | GS               | H85H35A16 |                               |                               |                               |
|                                                       | BS               | H85H37A16 |                               |                               |                               |
|                                                       | GT               | H85H55A16 |                               |                               |                               |
|                                                       | BT               | H85H57A16 |                               |                               |                               |
| ASME BPE /<br>DIN 11866<br>Range C                    | GO               | H85L81A16 |                               |                               |                               |
|                                                       | KO               | H85L82A16 |                               |                               |                               |
|                                                       | GD <sup>1)</sup> | H85H61A16 |                               |                               |                               |
|                                                       | BD <sup>1)</sup> | H85H59A16 |                               |                               |                               |
|                                                       | Pipe standard    |           | DN                            |                               | 25                            |
| DIN EN<br>ISO 1127 /<br>DIN 11866<br>Range B          | GS               | A86H35A16 |                               | A86H35A17                     |                               |
|                                                       | BS               | A86H37A16 |                               | A86H37A17                     |                               |
|                                                       | GT               | A86H55A16 |                               | A86H55A17                     |                               |
|                                                       | BT               | A86H57A16 |                               | A86H57A17                     |                               |
|                                                       | GD <sup>1)</sup> | A86H61A16 |                               | A86H61A17                     |                               |
|                                                       | BD <sup>1)</sup> | A86H59A16 |                               | A86H59A17                     |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 1 <sup>1</sup> / <sub>2</sub> |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |
|                                                       | BS               | A84H37A80 |                               |                               |                               |
|                                                       | GT               | A84H55A80 |                               |                               |                               |
|                                                       | BT               | A84H57A80 |                               |                               |                               |
|                                                       | Pipe standard    |           | NPS                           |                               | 2                             |
| ASME BPE /<br>DIN 11866<br>Range C                    | GS               | A84H35A80 |                               |                               |                               |

## Clean Service

Top runners – delivery time 2 weeks

### Type 484

| Aseptic screwed connection       |                     | Inlet |                      | Outlet |            | LESER Surface package |                    |                    |
|----------------------------------|---------------------|-------|----------------------|--------|------------|-----------------------|--------------------|--------------------|
| Pipe standard                    | d <sub>0</sub> [mm] | DN    |                      | Code   |            | Clean finish B56      | HyClean finish B57 | Sterile finish B58 |
| DIN 11850 /<br>DIN 11866 Range A | 13                  | 25    | Vessel<br>connection | 00     | Welded end | ✓                     | ✓                  | ✓                  |
|                                  | 25                  | 40    |                      | 00     |            | ✓                     | ✓                  | ✓                  |

### Type 5034

### Vessel connection

| Vessel connection |  | LESER Surface package |                    |                    |
|-------------------|--|-----------------------|--------------------|--------------------|
| Art. No.          |  | Clean finish B59      | HyClean finish B60 | Sterile finish B61 |
| 5034.0981         |  | ✓                     | ✓                  | ✓                  |
| 5034.0982         |  | ✓                     | ✓                  |                    |
| 5034.0983         |  | ✓                     | ✓                  | ✓                  |

For definitions of connection codes please refer to pages "Clamps and treaded connections – Overview".

# Clean Service

## Available connections

### Type 484

#### Clamps

#### Option Code inlet

For inlet please select vessel connection  
Type 5034 as shown on page 310.  
For connections directly machined into vessel wall  
please ask for drawing.

#### Aseptic screwed connection

#### Option Code inlet

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#### Aseptic flanged connection

#### Option Code inlet

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|-----------------------------------|-----|-----|
| d <sub>0</sub> [mm]               | 13  | 25  |
| A <sub>0</sub> [mm <sup>2</sup> ] | 133 | 491 |

#### Clamps

#### Option Code outlet

|     |        |        |
|-----|--------|--------|
| DN  | 25     | 40     |
| SO  | L86A16 | L86A17 |
| DO  | I74A16 | I71A17 |
| NPS | 1½     | 2      |
| BO  | I76A80 | I76A81 |
| CO  | L97A80 | L97A81 |

#### Aseptic screwed connection

#### Option Code outlet

|                                     |                  |           |           |
|-------------------------------------|------------------|-----------|-----------|
| Pipe standard                       | DN               | 25        | 40        |
| DIN 11850 /<br>DIN 11866<br>Range A | 00               | A85L83A16 | A85L83A17 |
|                                     | GS               | A85H35A16 | A85H35A17 |
|                                     | BS               | A85H37A16 | A85H37A17 |
|                                     | GT               | A85H55A16 | A85H55A17 |
|                                     | BT               | A85H57A16 | A85H57A17 |
|                                     | GO               | A85L81A16 | A85L81A17 |
|                                     | KO               | A85L82A16 | A85L82A17 |
|                                     | GD <sup>1)</sup> | A85H61A16 | A85H61A17 |
|                                     | BD <sup>1)</sup> | A85H59A16 | A85H59A17 |

|                                              |                  |           |           |
|----------------------------------------------|------------------|-----------|-----------|
| Pipe standard                                | DN               | 25        | 40        |
| DIN EN<br>ISO 1127 /<br>DIN 11866<br>Range B | GS               | A86H35A16 | A86H35A17 |
|                                              | BS               | A86H37A16 | A86H37A17 |
|                                              | GT               | A86H55A16 | A86H55A17 |
|                                              | BT               | A86H57A16 | A86H57A17 |
|                                              | GD <sup>1)</sup> | A86H61A16 | A86H61A17 |
|                                              | BD <sup>1)</sup> | A86H59A16 | A86H59A17 |

|                                    |     |           |           |
|------------------------------------|-----|-----------|-----------|
| Pipe standard                      | NPS | 1½        | 2         |
| ASME BPE /<br>DIN 11866<br>Range C | GS  | A84H35A80 | A84H35A81 |
|                                    | BS  | A84H37A80 | A84H37A81 |
|                                    | GT  | A84H55A80 | A84H55A81 |
|                                    | BT  | A84H57A80 | A84H57A81 |

#### Aseptic flanged connection

#### Option Code outlet

|                                     |    |           |           |
|-------------------------------------|----|-----------|-----------|
| Pipe standard                       | DN | 25        | 40        |
| DIN 11850 /<br>DIN 11866<br>Range A | NF | A85H72A16 | A85H72A17 |
|                                     | BF | A85H74A16 | A85H74A17 |
|                                     | NG | A85H76A16 | A85H76A17 |
|                                     | BG | A85H78A16 | A85H78A17 |
|                                     | TN | A85L84A16 | A85L84A17 |
|                                     | AF | A85L91A16 | A85L91A17 |
|                                     | AN | A85L93A16 | A85L93A17 |

|                                              |    |           |           |
|----------------------------------------------|----|-----------|-----------|
| Pipe standard                                | DN | 25        | 40        |
| DIN EN<br>ISO 1127 /<br>DIN 11866<br>Range B | NF | A86H72A16 | A86H72A17 |
|                                              | BF | A86H74A16 | A86H74A17 |
|                                              | NG | A86H76A16 | A86H76A17 |
|                                              | BG | A86H78A16 | A86H78A17 |

|                                    |    |           |           |
|------------------------------------|----|-----------|-----------|
| Pipe standard                      | DN | 1½"       | 2"        |
| ASME BPE /<br>DIN 11866<br>Range C | NF | A84H72A80 | A84H72A81 |
|                                    | BF | A84H74A80 | A84H74A81 |
|                                    | NG | A84H76A80 | A84H76A81 |
|                                    | BG | A84H78A80 | A84H78A81 |

For definitions of connection codes please refer to pages "Clamps and treated connections – Overview". For grey highlighted options an extra amount will be charged.

<sup>1)</sup> NEUMO BioConnect® is registered wordmark of NEUMO GmbH & Co. KG, D – 75438 Knittlingen

## Clean Service

Top runners – delivery time 2 weeks

### Type 485

| Aseptic screwed connection       |                     | Inlet |                        | Outlet |            | LESER Surface package |                    |                    |
|----------------------------------|---------------------|-------|------------------------|--------|------------|-----------------------|--------------------|--------------------|
| Pipe standard                    | d <sub>0</sub> [mm] | DN    |                        | Code   |            | Clean finish B62      | HyClean finish B63 | Sterile finish B64 |
| DIN 11850 /<br>DIN 11866 Range A | 13                  | 25    | Pipework<br>connection | 00     | Welded end | ✓                     |                    |                    |
|                                  | 25                  | 40    |                        | 00     |            |                       | ✓                  |                    |

### Type 5034

Integrated pipework connection, dead space free

| Integrated pipework connection |  | LESER Surface package |                    |                    |
|--------------------------------|--|-----------------------|--------------------|--------------------|
| Art. No.                       |  | Clean finish B65      | HyClean finish B66 | Sterile finish B67 |
| 5034.0991                      |  | ✓                     | ✓                  |                    |

# Clean Service

## Available connections

### Type 485

### Available connections

#### Clamps

#### Option Code inlet

For inlet please select integrated pipework connection Type 5034 as shown on page 313.

#### Aseptic screwed connection

#### Option Code inlet

| Option Code | Option Code |
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| Option Code | Option Code |
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#### Aseptic flanged connection

#### Option Code inlet

| Option Code | Option Code |
|-------------|-------------|
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| Option Code | Option Code |
|-------------|-------------|
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| Option Code | Option Code |
|-------------|-------------|
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|             |             |

|                                   |     |     |
|-----------------------------------|-----|-----|
| d <sub>0</sub> [mm]               | 13  | 25  |
| A <sub>0</sub> [mm <sup>2</sup> ] | 133 | 491 |

#### Clamps

#### Option Code outlet

| DN  | 25     | 40     |
|-----|--------|--------|
| SO  | L86A16 | L86A17 |
| DO  | I74A16 | I71A17 |
| NPS | 1 1/2  | 2      |
| BO  | I76A80 | I76A81 |
| CO  | L97A80 | L97A81 |

#### Aseptic screwed connection

#### Option Code outlet

| Pipe standard                       | DN               | 25        | 40        |
|-------------------------------------|------------------|-----------|-----------|
| DIN 11850 /<br>DIN 11866<br>Range A | 00               | A85L83A16 | A85L83A17 |
|                                     | GS               | A85H35A16 | A85H35A17 |
|                                     | BS               | A85H37A16 | A85H37A17 |
|                                     | GT               | A85H55A16 | A85H55A17 |
|                                     | BT               | A85H57A16 | A85H57A17 |
|                                     | GO               | A85L81A16 | A85L81A17 |
|                                     | KO               | A85L82A16 | A85L82A17 |
|                                     | GD <sup>1)</sup> | A85H61A16 | A85H61A17 |
|                                     | BD <sup>1)</sup> | A85H59A16 | A85H59A17 |

| Pipe standard                                | DN               | 25        | 40        |
|----------------------------------------------|------------------|-----------|-----------|
| DIN EN<br>ISO 1127 /<br>DIN 11866<br>Range B | GS               | A86H35A16 | A86H35A17 |
|                                              | BS               | A86H37A16 | A86H37A17 |
|                                              | GT               | A86H55A16 | A86H55A17 |
|                                              | BT               | A86H57A16 | A86H57A17 |
|                                              | GD <sup>1)</sup> | A86H61A16 | A86H61A17 |
|                                              | BD <sup>1)</sup> | A86H59A16 | A86H59A17 |

| Pipe standard                      | NPS | 1 1/2     | 2         |
|------------------------------------|-----|-----------|-----------|
| ASME BPE /<br>DIN 11866<br>Range C | GS  | A84H35A80 | A84H35A81 |
|                                    | BS  | A84H37A80 | A84H37A81 |
|                                    | GT  | A84H55A80 | A84H55A81 |
|                                    | BT  | A84H57A80 | A84H57A81 |

#### Aseptic flanged connection

#### Option Code outlet

| Pipe standard                       | DN | 25        | 40        |
|-------------------------------------|----|-----------|-----------|
| DIN 11850 /<br>DIN 11866<br>Range A | NF | A85H72A16 | A85H72A17 |
|                                     | BF | A85H74A16 | A85H74A17 |
|                                     | NG | A85H76A16 | A85H76A17 |
|                                     | BG | A85H78A16 | A85H78A17 |
|                                     | TN | A85L84A16 | A85L84A17 |
|                                     | AF | A85L91A16 | A85L91A17 |
|                                     | AN | A85L93A16 | A85L93A17 |

| Pipe standard                                | DN | 25        | 40        |
|----------------------------------------------|----|-----------|-----------|
| DIN EN<br>ISO 1127 /<br>DIN 11866<br>Range B | NF | A86H72A16 | A86H72A17 |
|                                              | BF | A86H74A16 | A86H74A17 |
|                                              | NG | A86H76A16 | A86H76A17 |
|                                              | BG | A86H78A16 | A86H78A17 |

| Pipe standard                      | DN | 1 1/2"    | 2"        |
|------------------------------------|----|-----------|-----------|
| ASME BPE /<br>DIN 11866<br>Range C | NF | A84H72A80 | A84H72A81 |
|                                    | BF | A84H74A80 | A84H74A81 |
|                                    | NG | A84H76A80 | A84H76A81 |
|                                    | BG | A84H78A80 | A84H78A81 |

For definitions of connection codes please refer to pages "Clamps and treated connections – Overview". For grey highlighted options an extra amount will be charged.

<sup>1)</sup> NEUMO BioConnect® is registered wordmark of NEUMO GmbH & Co. KG, D – 75438 Knittlingen

## Clean Service

Top runners – delivery time 2 weeks

### Type 488

| Clamps                                 |                     | Inlet |          | Outlet |          | LESER Surface package |                    |                    |
|----------------------------------------|---------------------|-------|----------|--------|----------|-----------------------|--------------------|--------------------|
| Pipe standard                          | d <sub>0</sub> [mm] | Code  | DN / NPS | Code   | DN / NPS | Clean finish B68      | HyClean finish B69 | Sterile finish B70 |
| DIN 11850 /<br>DIN 11866 Range A       | 23                  | SO    | 25       | SO     | 40       | ✓                     |                    |                    |
| DIN EN ISO 1127 /<br>DIN 11866 Range B |                     | DO    | 25       | DO     | 40       | ✓                     | ✓                  | ✓                  |
| ASME BPE /<br>DIN 11866 Range C        |                     | BO    | 1½       | BO     | 2        | ✓                     | ✓                  | ✓                  |
| ASME BPE and ISO 2037                  |                     | CO    | 1½       | CO     | 2        | ✓                     | ✓                  | ✓                  |
| DIN 11850 /<br>DIN 11866 Range A       | 37                  | SO    | 40       | SO     | 65       | ✓                     |                    |                    |
| ASME BPE /<br>DIN 11866 Range C        |                     | BO    | 2        | BO     | 3        | ✓                     | ✓                  | ✓                  |
| ASME BPE and ISO 2037                  |                     | CO    | 2        | CO     | 3        | ✓                     |                    |                    |
| ASME BPE /<br>DIN 11866 Range C        | 46                  | BO    | 2½       | BO     | 4        | ✓                     | ✓                  | ✓                  |
| ASME BPE and ISO 2037                  |                     | CO    | 2½       | CO     | 4        | ✓                     |                    |                    |
| ASME BPE and ISO 2037                  | 60                  | CO    | 3        | CO     | 4½       | ✓                     |                    |                    |
| Aseptic screwed connection             |                     | Inlet |          | Outlet |          | LESER Surface package |                    |                    |
| Pipe standard                          | d <sub>0</sub> [mm] | Code  | DN       | Code   | DN       | Clean finish B68      | HyClean finish B69 | Sterile finish B70 |
| DIN 11850 /<br>DIN 11866<br>Range A    | 23                  | 00    | 25       | 00     | 40       | ✓                     |                    |                    |
|                                        | 46                  | 00    | 50       | 00     | 80       | ✓                     |                    |                    |
|                                        | 60                  | BS    | 65       | GS     | 100      | ✓                     |                    |                    |
| Flanged connection                     |                     | Inlet |          | Outlet |          | LESER Surface package |                    |                    |
|                                        | d <sub>0</sub> [mm] | Code  | DN       | Code   | DN       | Clean finish B68      | HyClean finish B69 | Sterile finish B70 |
|                                        | 23                  | FD    | 25       | FD     | 40       | ✓                     |                    |                    |
|                                        | 37                  | FD    | 40       | FD     | 65       | ✓                     |                    |                    |
|                                        | 46                  | FD    | 50       | FD     | 80       | ✓                     |                    |                    |
| Aseptic flanged connection             |                     | Inlet |          | Outlet |          | LESER Surface package |                    |                    |
| Pipe standard                          | d <sub>0</sub> [mm] | Code  | DN       | Code   | DN       | Clean finish B68      | HyClean finish B69 | Sterile finish B70 |
| DIN 11850 /<br>DIN 11866 Range A       | 23                  | NF    | 25       | SO     | 40       | ✓                     |                    |                    |
| DIN EN ISO 1127 /<br>DIN 11866 Range B |                     | NF    | 25       | NF     | 40       | ✓                     |                    |                    |
| DIN 11850 /<br>DIN 11866 Range A       |                     | NF    | 25       | NF     | 40       | ✓                     |                    |                    |
| Range B / Range A                      |                     | BF    | 25       | BF     | 40       | ✓                     |                    |                    |
|                                        |                     | BF    | 25       | 00     | 40       | ✓                     |                    |                    |
|                                        | TN                  | 25    | TN       | 40     | ✓        |                       |                    |                    |
|                                        | 37                  | NF    | 40       | NF     | 65       | ✓                     |                    |                    |
|                                        |                     | TN    | 40       | TN     | 65       | ✓                     |                    |                    |
|                                        |                     | AN    | 40       | AN     | 65       | ✓                     |                    |                    |
|                                        |                     | VH    | 40       | AN     | 65       | ✓                     |                    |                    |
|                                        | 46                  | NF    | 50       | NF     | 80       | ✓                     |                    |                    |
|                                        |                     | BF    | 50       | BF     | 80       | ✓                     |                    |                    |
|                                        |                     | TN    | 50       | TN     | 80       | ✓                     |                    |                    |
|                                        |                     | AN    | 50       | AN     | 80       | ✓                     |                    |                    |
|                                        | 60                  | TN    | 65       | TN     | 100      | ✓                     |                    |                    |
|                                        | 74                  | TN    | 80       | TN     | 125      | ✓                     |                    |                    |
|                                        | 92                  | TN    | 100      | TN     | 150      | ✓                     |                    |                    |

For definitions of connection codes please refer to pages "Clamps and treaded connections – Overview".

For grey highlighted options an extra amount will be charged.

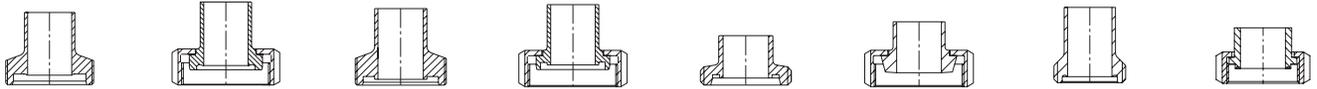
| Type 488 HyTight                             |                  | Available connections |       |       |      |       |                                   |                            |        |                    |       |       |       |     |  |
|----------------------------------------------|------------------|-----------------------|-------|-------|------|-------|-----------------------------------|----------------------------|--------|--------------------|-------|-------|-------|-----|--|
| d <sub>0</sub> [mm]                          | 23               | 37                    | 46    | 60    | 74   | 92    | d <sub>0</sub> [mm]               | 23                         | 37     | 46                 | 60    | 74    | 92    |     |  |
| A <sub>0</sub> [mm <sup>2</sup> ]            | 416              | 1057                  | 1662  | 2827  | 4301 | 6648  | A <sub>0</sub> [mm <sup>2</sup> ] | 416                        | 1057   | 1662               | 2827  | 4301  | 6648  |     |  |
| Clamps                                       |                  | Option Code inlet     |       |       |      |       |                                   | Clamps                     |        | Option Code outlet |       |       |       |     |  |
| DN                                           | 25               | 40                    | 50    | 65    | 80   | 100   | DN                                | 40                         | 65     | 80                 | 100   | 125   | 150   |     |  |
| SO                                           | L79              |                       |       |       |      |       | SO                                | L86                        |        |                    |       |       |       |     |  |
| DO                                           | I73              |                       |       |       |      |       | DO                                | I74                        |        |                    |       |       |       |     |  |
| NPS                                          | 1 1/2            | 2                     | 2 1/2 | 3     | 4    | 1)    | NPS                               | 2                          | 3      | 4                  | 1)    | 1)    | 1)    |     |  |
| BO                                           | I75              |                       |       |       |      |       | BO                                | I76 Please select CO       |        |                    |       |       |       |     |  |
| NPS                                          | 1 1/2            | 2                     | 2 1/2 | 3     | 4    | 4 1/2 | NPS                               | 2                          | 3      | 4                  | 4 1/2 | 5 1/2 | 6.625 |     |  |
| CO                                           | L96              |                       |       |       |      |       | CO                                | L97                        |        |                    |       |       |       |     |  |
| Aseptic screwed connection                   |                  | Option Code inlet     |       |       |      |       |                                   | Aseptic screwed connection |        | Option Code outlet |       |       |       |     |  |
| Pipe standard                                | DN               | 25                    | 40    | 50    | 65   | 80    | 100                               | DN                         | 40     | 65                 | 80    | 100   | 125   | 150 |  |
| DIN 11850 /<br>DIN 11866<br>Range A          | 00               | H85L77                |       |       |      |       |                                   | 00                         | A85L83 |                    |       |       |       |     |  |
|                                              | GS               | H85H34                |       |       |      |       |                                   | GS                         | A85H35 |                    |       |       |       |     |  |
|                                              | BS               | H85H36                |       |       |      |       |                                   | BS                         | A85H37 |                    |       |       |       |     |  |
|                                              | GT               | H85H54                |       |       |      |       |                                   | GT                         | A85H55 |                    |       |       |       |     |  |
|                                              | BT               | H85H56                |       |       |      |       |                                   | BT                         | A85H57 |                    |       |       |       |     |  |
|                                              | GO               | H85L75                |       |       |      |       |                                   | GO                         | A85L81 |                    |       |       |       |     |  |
|                                              | KO               | H85L76                |       |       |      |       |                                   | KO                         | A85L82 |                    |       |       |       |     |  |
|                                              | GD <sup>2)</sup> | H85H60                |       |       |      |       |                                   | GD <sup>2)</sup>           | A85H61 |                    |       |       |       |     |  |
| BD <sup>2)</sup>                             | H85H58           |                       |       |       |      |       | BD <sup>2)</sup>                  | A85H59                     |        |                    |       |       |       |     |  |
| Pipe standard                                | DN               | 25                    | 40    | 50    | 65   | 80    | 100                               | DN                         | 40     | 65                 | 80    | 100   | 125   | 150 |  |
| DIN EN<br>ISO 1127 /<br>DIN 11866<br>Range B | GS               | H86H34                |       |       |      |       |                                   | GS                         | A86H35 |                    |       |       |       |     |  |
|                                              | BS               | H86H36                |       |       |      |       |                                   | BS                         | A86H37 |                    |       |       |       |     |  |
|                                              | GT               | H86H54                |       |       |      |       |                                   | GT                         | A86H55 |                    |       |       |       |     |  |
|                                              | BT               | H86H56                |       |       |      |       |                                   | BT                         | A86H57 |                    |       |       |       |     |  |
|                                              | GD <sup>2)</sup> | H86H60                |       |       |      |       |                                   | GD <sup>2)</sup>           | A86H61 |                    |       |       |       |     |  |
|                                              | BD <sup>2)</sup> | H86H58                |       |       |      |       |                                   | BD <sup>2)</sup>           | A86H59 |                    |       |       |       |     |  |
| Pipe standard                                | NPS              | 1 1/2                 | 2     | 2 1/2 | 3    | 4     | 4 1/2                             | NPS                        | 2      | 3                  | 4     | 4 1/2 | 5     | 6   |  |
| ASME BPE /<br>DIN 11866<br>Range C           | GS               | H66H34                |       |       |      |       |                                   | GS                         | A84H35 |                    |       |       |       |     |  |
|                                              | BS               | H66H36                |       |       |      |       |                                   | BS                         | A84H37 |                    |       |       |       |     |  |
|                                              | GT               | H66H54                |       |       |      |       |                                   | GT                         | A84H55 |                    |       |       |       |     |  |
|                                              | BT               | H66H56                |       |       |      |       |                                   | BT                         | A84H57 |                    |       |       |       |     |  |
| Flanged connection                           |                  | Option Code inlet     |       |       |      |       |                                   | Flanged connection         |        | Option Code outlet |       |       |       |     |  |
| DN                                           | 25               | 40                    | 50    | 65    | 80   | 100   | DN                                | 40                         | 65     | 80                 | 100   | 125   | 150   |     |  |
| FD                                           | I71              |                       |       |       |      |       | FD                                | I72                        |        |                    |       |       |       |     |  |
| NPS                                          | 1                | 1 1/2                 | 2     | 2 1/2 | 3    | 4     | NPS                               | 1 1/2                      | 2 1/2  | 3                  | 4     | 5     | 6     |     |  |
| FA                                           | L94              |                       |       |       |      |       | FA                                | L95                        |        |                    |       |       |       |     |  |
| Aseptic flanged connection                   |                  | Option Code inlet     |       |       |      |       |                                   | Aseptic flanged connection |        | Option Code outlet |       |       |       |     |  |
| Pipe standard                                | DN               | 25                    | 40    | 50    | 65   | 80    | 100                               | DN                         | 40     | 65                 | 80    | 100   | 125   | 150 |  |
| DIN 11850 /<br>DIN 11866<br>Range A          | NF               | H85H71                |       |       |      |       |                                   | NF                         | A85H72 |                    |       |       |       |     |  |
|                                              | BF               | H85H73                |       |       |      |       |                                   | BF                         | A85H74 |                    |       |       |       |     |  |
|                                              | NG               | H85H75                |       |       |      |       |                                   | NG                         | A85H76 |                    |       |       |       |     |  |
|                                              | BG               | H85H77                |       |       |      |       |                                   | BG                         | A85H78 |                    |       |       |       |     |  |
|                                              | TN               | H85L78                |       |       |      |       |                                   | TN                         | A85L84 |                    |       |       |       |     |  |
|                                              | AF               | L90                   |       |       |      |       |                                   | AF                         | L91    |                    |       |       |       |     |  |
|                                              | AN               | L92                   |       |       |      |       |                                   | AN                         | L93    |                    |       |       |       |     |  |
|                                              | VC               | L70                   |       |       |      |       |                                   | VC                         | -      |                    |       |       |       |     |  |
|                                              | VG               | 182                   | -     |       |      |       |                                   |                            | VG     | -                  |       |       |       |     |  |
|                                              | VH               | 183                   |       |       |      |       |                                   | VH                         | -      |                    |       |       |       |     |  |
| VE                                           | L80              |                       |       |       |      |       | VE                                | -                          |        |                    |       |       |       |     |  |
| Pipe standard                                | DN               | 25                    | 40    | 50    | 65   | 80    | 100                               | DN                         | 40     | 65                 | 80    | 100   | 125   | 150 |  |
| DIN EN<br>ISO 1127 /<br>DIN 11866<br>Range B | NF               | H86H71                |       |       |      |       |                                   | NF                         | A86H72 |                    |       |       |       |     |  |
|                                              | BF               | H86H73                |       |       |      |       |                                   | BF                         | A86H74 |                    |       |       |       |     |  |
|                                              | NG               | H86H75                |       |       |      |       |                                   | NG                         | A86H76 |                    |       |       |       |     |  |
|                                              | BG               | H86H77                |       |       |      |       |                                   | BG                         | A86H78 |                    |       |       |       |     |  |
| Pipe standard                                | NPS              | 1 1/2                 | 2     | 2 1/2 | 3    | 4     | 4 1/2                             | NPS                        | 2      | 3                  | 4     | 4 1/2 | 5     | 6   |  |
| ASME BPE /<br>DIN 11866<br>Range C           | NF               | H66H71                |       |       |      |       |                                   | NF                         | A84H72 |                    |       |       |       |     |  |
|                                              | BF               | H66H73                |       |       |      |       |                                   | BF                         | A84H74 |                    |       |       |       |     |  |
|                                              | NG               | H66H75                |       |       |      |       |                                   | NG                         | A84H76 |                    |       |       |       |     |  |
|                                              | BG               | H66H77                |       |       |      |       |                                   | BG                         | A84H78 |                    |       |       |       |     |  |

For definitions of connection codes please refer to pages "Clamps and threaded connections – Overview". For grey highlighted options an extra amount will be charged.

<sup>1)</sup> Please select CO-Clamp

<sup>2)</sup> NEUMO BioConnect® is registered wordmark of NEUMO GmbH & Co. KG, D – 75438 Knittlingen





| Aseptic thread                           | Aseptic clamp and nut                    | Aseptic thread                           | Aseptic clamp and nut                    | SC threaded connection | Taper connection with union nut | Sterile thread               | Sterile clamp and nut        |
|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------|---------------------------------|------------------------------|------------------------------|
| GS                                       | BS                                       | GT                                       | BT                                       | GO                     | KO                              | GD                           | BD                           |
| DIN 11864 T1 Range A                     | DIN 11864 T1 Range A                     | DIN 11864 T1 Range B                     | DIN 11864 T1 Range B                     | DIN 11851              | DIN 11851                       | Neumo <sup>2)</sup>          | Neumo <sup>2)</sup>          |
| DIN 11850<br>DIN EN ISO 1127<br>ASME BPE | DIN 11850              | DIN 11850                       | DIN 11850<br>DIN EN ISO 1127 | DIN 11850<br>DIN EN ISO 1127 |
| Option Code                              |                                          |                                          |                                          |                        |                                 |                              |                              |
| ✓                                        | ✓                                        | ✓                                        | ✓                                        | H85L75I16              | H85L76I16                       | ✓                            | ✓                            |
| ✓                                        | ✓                                        | ✓                                        | ✓                                        | A85L81A16              | A85L82A16                       | ✓                            | ✓                            |
| ✓                                        | ✓                                        | ✓                                        | ✓                                        | H85L75I16              | H85L76I16                       | ✓                            | ✓                            |
| ✓                                        | ✓                                        | ✓                                        | ✓                                        | A85L81A16              | A85L82A16                       | ✓                            | ✓                            |
| ✓                                        | ✓                                        | ✓                                        | ✓                                        | H85L75I17              | H85L76I17                       | ✓                            | ✓                            |
| ✓                                        | ✓                                        | ✓                                        | ✓                                        | A85L81A17              | A85L82A17                       | ✓                            | ✓                            |
| ✓                                        | ✓                                        | ✓                                        | ✓                                        | ✓                      | ✓                               | ✓                            | ✓                            |
| ✓                                        | ✓                                        | ✓                                        | ✓                                        | ✓                      | ✓                               | ✓                            | ✓                            |
| ✓                                        | ✓                                        | ✓                                        | ✓                                        | ✓                      | ✓                               | ✓                            | ✓                            |
| ✓                                        | ✓                                        | ✓                                        | ✓                                        | ✓                      | ✓                               | ✓                            | ✓                            |
| ✓                                        | ✓                                        | ✓                                        | ✓                                        | ✓                      | ✓                               | ✓                            | ✓                            |
| ✓                                        | ✓                                        | ✓                                        | ✓                                        | ✓                      | ✓                               | ✓                            | ✓                            |
| ✓                                        | ✓                                        | ✓                                        | ✓                                        | ✓                      | ✓                               | ✓                            | ✓                            |
| ✓ <sup>1)</sup>                          | ✓ <sup>1)</sup>                          | ✓ <sup>1)</sup>                          | ✓ <sup>1)</sup>                          | ✓                      | ✓                               | ✓                            | ✓                            |
| ✓                                        | ✓                                        | ✓                                        | ✓                                        | ✓                      | ✓                               | ✓                            | ✓                            |
| -                                        | -                                        | -                                        | -                                        | ✓                      | ✓                               | -                            | -                            |
| ✓ <sup>1)</sup>                          | ✓ <sup>1)</sup>                          | ✓ <sup>1)</sup>                          | ✓ <sup>1)</sup>                          | ✓                      | ✓                               | ✓                            | ✓                            |
| -                                        | -                                        | -                                        | -                                        | ✓                      | ✓                               | -                            | -                            |
| -                                        | -                                        | -                                        | -                                        | -                      | -                               | -                            | -                            |
| ✓                                        | ✓                                        | ✓                                        | ✓                                        | A85L81A16              | A85L82A16                       | ✓                            | ✓                            |
| -                                        | -                                        | -                                        | -                                        | -                      | -                               | -                            | -                            |
| ✓                                        | ✓                                        | ✓                                        | ✓                                        | A85L81A17              | A85L82A17                       | ✓                            | ✓                            |
| -                                        | -                                        | -                                        | -                                        | -                      | -                               | -                            | -                            |
| ✓                                        | ✓                                        | ✓                                        | ✓                                        | A85L81A16              | A85L82A16                       | ✓                            | ✓                            |
| -                                        | -                                        | -                                        | -                                        | -                      | -                               | -                            | -                            |
| ✓                                        | ✓                                        | ✓                                        | ✓                                        | A85L81A17              | A85L82A17                       | ✓                            | ✓                            |

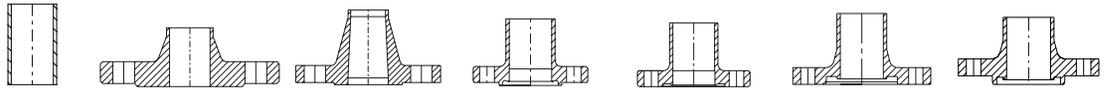
<sup>1)</sup> Available for pipe standard DIN 11850 only

<sup>2)</sup> NEUMO BioConnect® is registered wordmark of NEUMO GmbH & Co. KG, D – 75438 Knittlingen

## Clean Service

### Flanged connections and welded end – Overview

LESER supplies a wide range of aseptic connections for clean service applications. To order the correct connection, please specify the LESER Option Code for inlet and outlet. If the Option Code is not listed in this table, please refer to the "available connections" page of the respective valve type.

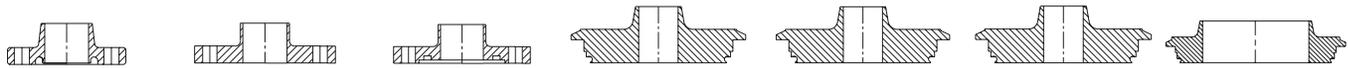


| Overview    |                   | Connection    | Welded end | Flange PN 16 Range B1 | Flange ASME Class 150RF | Aseptic flange groove                    | Aseptic flange tongue                    | Aseptic flange groove                    | Aseptic flange tongue                    |
|-------------|-------------------|---------------|------------|-----------------------|-------------------------|------------------------------------------|------------------------------------------|------------------------------------------|------------------------------------------|
|             |                   | Code          | 00         | FD                    | FA                      | NF                                       | BF                                       | NG                                       | BG                                       |
|             |                   | According to  | DIN 11850  | DIN EN 1092           | ASME B 16.5             | DIN 11864 T2 Range A                     | DIN 11864 T2 Range A                     | DIN 11864 T2 Range B                     | DIN 11864 T2 Range B                     |
|             |                   | Pipe standard | DIN 11850  | -                     | -                       | DIN 11850<br>DIN EN ISO 1127<br>ASME BPE |
| Option Code |                   |               |            |                       |                         |                                          |                                          |                                          |                                          |
| Type 481    | d <sub>0</sub> 10 | Inlet         | -          | -                     | -                       | -                                        | -                                        | -                                        | -                                        |
|             |                   | Outlet        | -          | -                     | -                       | -                                        | -                                        | -                                        | -                                        |
| Type 483    | d <sub>0</sub> 13 | Inlet         | -          | -                     | -                       | ✓                                        | ✓                                        | ✓                                        | ✓                                        |
|             |                   | Outlet        | A85L83A16  | -                     | -                       | ✓                                        | ✓                                        | ✓                                        | ✓                                        |
|             | d <sub>0</sub> 25 | Inlet         | -          | -                     | -                       | ✓                                        | ✓                                        | ✓                                        | ✓                                        |
|             |                   | Outlet        | A85L83A17  | -                     | -                       | ✓                                        | ✓                                        | ✓                                        | ✓                                        |
|             | d <sub>0</sub> 23 | Inlet         | H85L77     | I71                   | L94                     | ✓                                        | ✓                                        | ✓                                        | ✓                                        |
|             |                   | Outlet        | A85L83     | I72                   | L95                     | ✓                                        | ✓                                        | ✓                                        | ✓                                        |
|             | d <sub>0</sub> 37 | Inlet         | H85L77     | I71                   | L94                     | ✓                                        | ✓                                        | ✓                                        | ✓                                        |
|             |                   | Outlet        | A85L83     | I72                   | L95                     | ✓                                        | ✓                                        | ✓                                        | ✓                                        |
| Type 488    | d <sub>0</sub> 46 | Inlet         | H85L77     | I71                   | L94                     | ✓                                        | ✓                                        | ✓                                        | ✓                                        |
|             |                   | Outlet        | A85L83     | I72                   | L95                     | ✓                                        | ✓                                        | ✓                                        | ✓                                        |
|             | d <sub>0</sub> 60 | Inlet         | H85L77     | I71                   | L94                     | ✓                                        | ✓                                        | ✓                                        | ✓                                        |
|             |                   | Outlet        | A85L83     | I72                   | L95                     | ✓ <sup>1)</sup>                          | ✓ <sup>1)</sup>                          | ✓ <sup>1)</sup>                          | ✓ <sup>1)</sup>                          |
|             | d <sub>0</sub> 74 | Inlet         | H85L77     | I71                   | L94                     | ✓                                        | ✓                                        | ✓                                        | ✓                                        |
|             |                   | Outlet        | A85L83     | I72                   | L95                     | ✓ <sup>2)</sup>                          | ✓ <sup>2)</sup>                          | ✓ <sup>2)</sup>                          | ✓ <sup>2)</sup>                          |
|             | d <sub>0</sub> 92 | Inlet         | H85L77     | I71                   | L94                     | ✓ <sup>1)</sup>                          | ✓ <sup>1)</sup>                          | ✓ <sup>1)</sup>                          | ✓ <sup>1)</sup>                          |
|             |                   | Outlet        | -          | I72                   | L95                     | ✓ <sup>2)</sup>                          | ✓ <sup>2)</sup>                          | ✓ <sup>2)</sup>                          | ✓ <sup>2)</sup>                          |
| Type 484    | d <sub>0</sub> 13 | Inlet         | -          | -                     | -                       | -                                        | -                                        | -                                        | -                                        |
|             |                   | Outlet        | ✓          | -                     | -                       | ✓                                        | ✓                                        | ✓                                        | ✓                                        |
|             | d <sub>0</sub> 25 | Inlet         | -          | -                     | -                       | -                                        | -                                        | -                                        | -                                        |
|             |                   | Outlet        | ✓          | -                     | -                       | ✓                                        | ✓                                        | ✓                                        | ✓                                        |
| Type 485    | d <sub>0</sub> 13 | Inlet         | -          | -                     | -                       | -                                        | -                                        | -                                        | -                                        |
|             |                   | Outlet        | ✓          | -                     | -                       | ✓                                        | ✓                                        | ✓                                        | ✓                                        |
|             | d <sub>0</sub> 25 | Inlet         | -          | -                     | -                       | -                                        | -                                        | -                                        | -                                        |
|             |                   | Outlet        | ✓          | -                     | -                       | ✓                                        | ✓                                        | ✓                                        | ✓                                        |

<sup>1)</sup> Not available for pipe standard ASME BPE

<sup>2)</sup> Available for pipe standard DIN 11850 only

<sup>3)</sup> XX = nominal pipe size of the safety valve.



| Varivent flange groove | APV-FG1 Flange flat face PN 10 | APV-FN1 Flange groove PN 10 | DN 32/XX <sup>3)</sup> Varivent connection | DN 50/XX <sup>3)</sup> Varivent connection | DN 80/XX <sup>3)</sup> Varivent connection | DN 100/XX <sup>3)</sup> Varivent connection |
|------------------------|--------------------------------|-----------------------------|--------------------------------------------|--------------------------------------------|--------------------------------------------|---------------------------------------------|
| TN                     | AF                             | AN                          | VG                                         | VH                                         | VC                                         | VD                                          |
| Tuchenhagen            | APV                            | APV                         | Tuchenhagen                                | Tuchenhagen                                | Tuchenhagen                                | Tuchenhagen                                 |
| DIN 11850              | DIN 11850                      | DIN 11850                   | -                                          | -                                          | -                                          | -                                           |
| Option Code            |                                |                             |                                            |                                            |                                            |                                             |
| -                      | -                              | -                           | -                                          | -                                          | -                                          | -                                           |
| -                      | -                              | -                           | -                                          | -                                          | -                                          | -                                           |
| H85H78I16              | H85L90I16                      | H85L92I16                   | H85I82I16                                  | H85I83I16                                  | -                                          | -                                           |
| A85L84A16              | A85L91A16                      | A85L93A16                   | -                                          | -                                          | -                                          | -                                           |
| H85H78I17              | H85L90I17                      | H85L92I17                   | -                                          | H85I83I17                                  | -                                          | -                                           |
| A85L84A17              | A85L91A17                      | A85L93A17                   | -                                          | -                                          | -                                          | -                                           |
| H85L78                 | L90                            | L92                         | I82                                        | -                                          | L70                                        | L80                                         |
| A85L84                 | L91                            | L93                         | -                                          | -                                          | -                                          | -                                           |
| H85L78                 | L90                            | L92                         | -                                          | I83                                        | L70                                        | L80                                         |
| A85L84                 | L91                            | L93                         | -                                          | -                                          | -                                          | -                                           |
| H85L78                 | L90                            | L92                         | -                                          | -                                          | L70                                        | L80                                         |
| A85L84                 | L91                            | L93                         | -                                          | -                                          | -                                          | -                                           |
| H85L78                 | L90                            | L92                         | -                                          | -                                          | L70                                        | L80                                         |
| A85L84                 | L91                            | L93                         | -                                          | -                                          | -                                          | -                                           |
| H85L78                 | L90                            | L92                         | -                                          | -                                          | L70                                        | L80                                         |
| A85L84                 | L91                            | L93                         | -                                          | -                                          | -                                          | -                                           |
| H85L78                 | L90                            | L92                         | -                                          | -                                          | -                                          | L80                                         |
| A85L84                 | L91                            | L93                         | -                                          | -                                          | -                                          | -                                           |
| -                      | -                              | -                           | -                                          | -                                          | -                                          | -                                           |
| A85L84A16              | A85L91A16                      | A85L93A16                   | -                                          | -                                          | -                                          | -                                           |
| -                      | -                              | -                           | -                                          | -                                          | -                                          | -                                           |
| A85L84A17              | A85L91A17                      | A85L93A17                   | -                                          | -                                          | -                                          | -                                           |
| -                      | -                              | -                           | -                                          | -                                          | -                                          | -                                           |
| A85L84A16              | A85L91A16                      | A85L93A16                   | -                                          | -                                          | -                                          | -                                           |
| -                      | -                              | -                           | -                                          | -                                          | -                                          | -                                           |
| A85L84A17              | A85L91A17                      | A85L93A17                   | -                                          | -                                          | -                                          | -                                           |