

# Solenoid valve VDHT standard BSP (British Standard Pipe)



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VDHT for small flows



VDH 2E 1/4



VDHT 1/4 E

VDHT for small and medium flows



VDHT 3/8 E  
VDHT 1/2 E



VDHT 3/8 EA  
VDHT 1/2 EA

VDHT for big flows



VDHT 3/4 ED  
VDHT 1 ED



VDHT 3/4 EA  
VDHT 1 EA

VDHT manifold mounted valves



VDHT 30 C3  
G 3/8 / Cetop 3 manifold



VDHT 60 C5  
G 1/2 / Cetop 5 manifold

VDHT integrated valve blocks



VDHT B 2-5 stations  
Input G 1/2 / G 3/4  
Output G 1/2



VDHT BL 2-4 stations  
Input G 3/4 / G 1  
Output G 3/4 / G 1

VDHT manual bypass



VDHT EAM



VDHT BLM 2-4 stations

## Data sheet

## Solenoid valve VDHT

### Introduction

The VDHT valve series are designed for applications in neutral media compatible with the sealing and O-ring materials used. Typical media are water, cleaning fluids and light heating oil.

The valves are used in applications like car wash systems, stationary high pressure cleaning, mobile cleaning vehicles and dust bindings systems.

### Function

The directional valves are pilot operated ON/OFF – seat valves electrically activated by a coil.

### Features

- Corrosion-proof
- Easy-to-clean surface
- Reliability
- Dirt tolerant, max. sieve (strainer) width 200 µm or better
- High temperature-resistant
- The seat valve design prevents leakage
- High coil density NEMA 4X / IP67
- Possible to get a compact and simple block solution (Integrated valve block)

### Versions

The valve housing, blocks and manifolds are made of stainless steel AISI 304 (W.No. 1.4301), and the piston of stainless steel AISI 316 (W.No. 1.4401). As standard the valves are delivered with PTFE piston sealing and insert and FPM O-Rings.

VDHT inline valves are available with a number of mounting possibilities, flow direction, port size threads: 1/4, 3/8, 1/2, 3/4 and 1" BSPP and more - defining the following designation.

VDHT integrated valve blocks provide a space and cost-saving solution in applications where valves are placed next to each other. Furthermore, integrated valves blocks provide a pressure loss reduction.

### VDHT valve designation overview

|            |                             |             |                                          |
|------------|-----------------------------|-------------|------------------------------------------|
| <b>E</b>   | Straight flow direction     | <b>N</b>    | New version slimline                     |
| <b>EA</b>  | Angular flow direction      | <b>BL N</b> | Block version large / New version stroke |
| <b>ED</b>  | Displaced flow direction    | <b>DF</b>   | 2-Stage dampening system opening stroke  |
| <b>EC3</b> | Cetop 3 manifold            | <b>F</b>    | Flange port input                        |
| <b>EC5</b> | Cetop 5 manifold            | <b>NC</b>   | Normally closed                          |
| <b>HP</b>  | High pressure variant       | <b>NO</b>   | Normally opened                          |
| <b>B</b>   | Block version small         | <b>BSP</b>  | British Standard Pipe                    |
| <b>BL</b>  | Block version large         | <b>NPT</b>  | National Pipe Thread                     |
| <b>BLM</b> | Block version manual bypass | <b>SAE</b>  | Unified national fine thread             |

### Temperature

- Medium temperature: 2°C to 90°C
- Ambient temperature: 2°C to 80°C depending on the coil specification
- Storage temperature: -40°C to 80 °C  
Provided that the valve is drained from fluid and stored "plugged".

### General

|                                            |                                                                                                                                                  |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>P<sub>in</sub> &gt; P<sub>out</sub></b> | For correct functioning of the VDHT valves, always ensure the inlet pressure to be higher than the outlet pressure                               |
| <b>Pilot flow</b>                          | The VDHT pilot operated poppet type (armature + poppet) always needs min. 1 l/min. flow to ensure correct functioning                            |
| <b>Viscosity</b>                           | Max viscosity of fluid: 45mm <sup>2</sup> /s. Remark fluid viscosity has influence on pressure drop and opening/closing time of the VDHT valves. |

## Technical data overview

Note: All mentioned data in this data sheet are typical values with dim water as fluid.

### VDHT 1/4"

| Valve description                         |       | VDHT 2E 1,4 1/4 | VDH 2E 3,5 1/4 | VDHT 1/4E 1/4 |
|-------------------------------------------|-------|-----------------|----------------|---------------|
| P max (inlet)                             | bar   | 100             | 30             | 100           |
| Q nominal                                 | l/min | 2               | 5              | 15            |
| Operating pressure                        | bar   | 0               | 0              | 0.3           |
| Opening time NC<br>(at Q <sub>nom</sub> ) | ms    | 100-200         | 100-200        | 100-200       |
| Closing time NC<br>(at Q <sub>nom</sub> ) | ms    | 100-200         | 100-200        | 100-200       |
| Weight (incl. of coil)                    | kg    | 0.8             | 0.8            | 0.8           |

### VDHT 3/8" and 1/2"

| Valve description                         |       | VDHT 3/8   |            | VDHT 1/2   |            |
|-------------------------------------------|-------|------------|------------|------------|------------|
|                                           |       | E          | EA         | E          | EA         |
| P max (inlet)<br>HP version               | bar   | 160<br>210 | 160<br>210 | 160<br>210 | 160<br>210 |
| Q nominal                                 | l/min | 30         | 30         | 60         | 60         |
| Operating pressure                        | bar   | 3.5        | 3.5        | 3.5        | 3.5        |
| Opening time NC<br>(at Q <sub>nom</sub> ) | ms    | 100-125    | 100-125    | 120-140    | 120-140    |
| Closing time NC<br>(at Q <sub>nom</sub> ) | ms    | 200-300    | 200-300    | 200-300    | 200-300    |
| Weight (incl. of coil)                    | kg    | 1.2        | 1.2        | 1.2        | 1.2        |

### VDHT 3/4" and 1"

| Valve description                         |       | VDHT 3/4   |            | VDHT 1     |            |
|-------------------------------------------|-------|------------|------------|------------|------------|
|                                           |       | E          | EA         | E          | EA         |
| P max (inlet)<br>HP version               | bar   | 140<br>210 | 140<br>210 | 140<br>210 | 140<br>210 |
| Q nominal                                 | l/min | 120        | 120        | 150        | 150        |
| Operating pressure                        | bar   | 3.5        | 3.5        | 3.5        | 3.5        |
| Opening time NC<br>(at Q <sub>nom</sub> ) | ms    | 500-700    | 500-700    | 500-900    | 500-900    |
| Closing time NC<br>(at Q <sub>nom</sub> ) | ms    | 900-1200   | 900-1200   | 1200-2000  | 1200-2000  |
| Weight (incl. of coil)                    | kg    | 2.3        | 2.3        | 2.3        | 2.3        |

### VDHT EC manifolds

| Valve description                         |       | VDHT 30EC 3 | VDHT 60EC 5 |
|-------------------------------------------|-------|-------------|-------------|
| P max (inlet)<br>HP version               | bar   | 160<br>210  | 160<br>210  |
| Q nominal<br>(each outlet)                | l/min | 30          | 60          |
| Operating pressure                        | bar   | 3.5         | 3.5         |
| Opening time NC<br>(at Q <sub>nom</sub> ) | ms    | 100-125     | 100-140     |
| Closing time NC<br>(at Q <sub>nom</sub> ) | ms    | 200-300     | 200-300     |
| Flange connection                         |       | Cetop 3     | Cetop 5     |

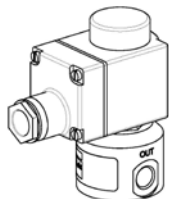
**VDHT B and BL integrated valve blocks**

| Valve description                       |       | VDHT B     | VDHT BL    |
|-----------------------------------------|-------|------------|------------|
| Possible block sizes or no. of stations |       | 2 to 5     | 2 to 4     |
| P max (inlet)<br>HP version             | bar   | 160<br>210 | 140<br>210 |
| Q nominal<br>(each outlet)              | l/min | 60         | 120-150    |
| Operating pressure                      | bar   | 3.5        | 3.5        |
| Inlet port sizes                        | BSP   | 1/2 or 3/4 | 3/4 or 1   |
| Outlet port sizes                       | BSP   | 1/2        | 3/4 or 1   |

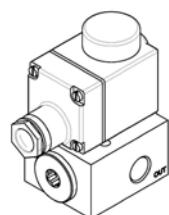


## Overview single valves

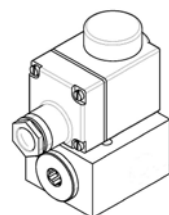
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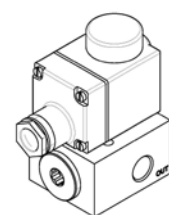
| Description           | Code no  | Q nom<br>m <sup>3</sup> /h | Q nom<br>ltr/min | p max<br>bar | T max<br>°C | Connec-<br>tion | Operating<br>pressure/<br>bar | Weight<br>coll kg | Piston<br>Ø | Orifice<br>kit |
|-----------------------|----------|----------------------------|------------------|--------------|-------------|-----------------|-------------------------------|-------------------|-------------|----------------|
| VDH 2E 1/4 NC 1,4 BSP | 180L0018 | 0,1                        | 2                | 100          | 90          | G 1/4           | 0,0                           | 0,8               | -           | 4              |
| VDH 2E 1/4 NO 1,4 BSP | 180L0019 | 0,1                        | 2                | 90           | 90          | G 1/4           | 0,0                           | 0,8               | -           | 4              |
| VDH 2E 1/4 NC 3,5 BSP | 180L1018 | 0,3                        | 5                | 30           | 90          | G 1/4           | 0,0                           | 0,8               | -           | 5              |
| VDHT 1/4 E NC BSP     | 180L0241 | 0,5                        | 15               | 100          | 90          | G 1/4           | 0,3                           | 0,8               | Ø 11,9      | -              |
| VDHT 1/4 E NO BSP     | 180L0242 | 0,5                        | 15               | 100          | 90          | G 1/4           | 0,3                           | 0,8               | Ø 11,9      | -              |



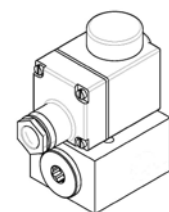
|                      |          |     |    |     |    |       |     |     |        |   |
|----------------------|----------|-----|----|-----|----|-------|-----|-----|--------|---|
| VDHT 3/8 E NC BSP    | 180L0086 | 1,0 | 30 | 160 | 90 | G 3/8 | 3,5 | 1,2 | Ø 18,1 | 1 |
| VDHT 3/8 E NC BSP    | 180L0092 | 1,0 | 30 | 160 | 90 | G 3/8 | 3,5 | 1,2 | Ø 18,1 | 1 |
| VDHT 3/8 E HP NC BSP | 180L0125 | 1,0 | 30 | 210 | 90 | G 3/8 | 3,5 | 1,2 | Ø 18,1 | 1 |
| VDHT 3/8 E HP NC BSP | 180L0178 | 1,0 | 30 | 210 | 90 | G 3/8 | 3,5 | 1,2 | Ø 18,1 | 1 |
| VDHT 3/8 E NO BSP    | 180L0295 | 1,0 | 30 | 160 | 90 | G 3/8 | 3,5 | 1,2 | Ø 18,1 | 1 |
| VDHT 3/8 E NO BSP    | 180L0093 | 1,0 | 30 | 160 | 90 | G 3/8 | 3,5 | 1,2 | Ø 18,1 | 1 |



|                    |          |     |    |     |    |       |     |     |        |   |
|--------------------|----------|-----|----|-----|----|-------|-----|-----|--------|---|
| VDHT 3/8 EA NC BSP | 180L0249 | 1,8 | 30 | 160 | 90 | G 3/8 | 3,5 | 1,2 | Ø 18,1 | 1 |
| VDHT 3/8 EA NC BSP | 180L0100 | 1,8 | 30 | 160 | 90 | G 3/8 | 3,5 | 1,2 | Ø 18,1 | 1 |
| VDHT 3/8 EA NO BSP | 180L0101 | 1,8 | 30 | 160 | 90 | G 3/8 | 3,5 | 1,2 | Ø 18,1 | 1 |



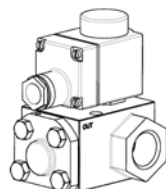
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|-----------------------|----------|-----|----|-----|----|-------------|-----|-----|--------|---|
| VDHT 3/4-1/2 E NC BSP | 180L0171 | 1,4 | 60 | 160 | 90 | G 3/4-G 1/2 | 3,5 | 1,2 | Ø 18,1 | 1 |
| VDHT 1/2 E NC BSP     | 180L0087 | 1,4 | 60 | 160 | 90 | G 1/2       | 3,5 | 1,2 | Ø 18,1 | 1 |
| VDHT 1/2 E NC BSP     | 180L0094 | 1,4 | 60 | 160 | 90 | G 1/2       | 3,5 | 1,2 | Ø 18,1 | 1 |
| VDHT 1/2 E HP NC BSP  | 180L0126 | 1,4 | 60 | 210 | 90 | G 1/2       | 3,5 | 1,2 | Ø 18,1 | 1 |
| VDHT 1/2 E HP NC BSP  | 180L0179 | 1,4 | 60 | 210 | 90 | G 1/2       | 3,5 | 1,2 | Ø 18,1 | 1 |
| VDHT 1/2 E NO BSP     | 180L0095 | 1,4 | 60 | 160 | 90 | G 1/2       | 3,5 | 1,2 | Ø 18,1 | 1 |



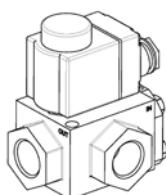
|                       |          |     |    |     |    |       |     |     |        |   |
|-----------------------|----------|-----|----|-----|----|-------|-----|-----|--------|---|
| VDHT 1/2 EA NC BSP    | 180L0188 | 3,0 | 60 | 160 | 90 | G 1/2 | 3,5 | 1,2 | Ø 18,1 | 1 |
| VDHT 1/2 EA NC BSP    | 180L0102 | 3,0 | 60 | 160 | 90 | G 1/2 | 3,5 | 1,2 | Ø 18,1 | 1 |
| VDHT 1/2 EA HP NC BSP | 180L0234 | 1,4 | 60 | 210 | 90 | G 1/2 | 3,5 | 1,2 | Ø 18,1 | 1 |
| VDHT 1/2 EA NO BSP    | 180L0103 | 3,0 | 60 | 160 | 90 | G 1/2 | 3,5 | 1,2 | Ø 18,1 | 1 |

Overview single valves

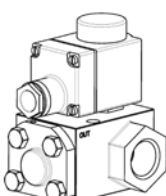
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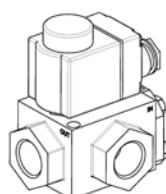
| Description            | Code no  | Q nom<br>m <sup>3</sup> /h | Q nom<br>ltr/min | p max<br>bar | T max<br>°C | Connec-<br>tion | Operating<br>pressure/<br>bar | Weight<br>coll kg | Piston<br>Ø | Orifice<br>kit |
|------------------------|----------|----------------------------|------------------|--------------|-------------|-----------------|-------------------------------|-------------------|-------------|----------------|
| VDH 3/4 ED NC BSP      | 180L0120 | 5,4                        | 120              | 140          | 90          | G 3/4           | 3,5                           | 2,3               | Ø 35,1      | 6              |
| VDH 3/4 ED NC BSP      | 180L0116 | 5,4                        | 120              | 140          | 90          | G 3/4           | 3,5                           | 2,3               | Ø 35,1      | 6              |
| VDH 3/4 ED NC BSP N    | 180L1012 | 5,4                        | 120              | 140          | 90          | G 3/4           | 3,5                           | 2,3               | Ø 35,1 N    | 1              |
| VDH 3/4 ED HP NC BSP   | 180L0282 | 5,4                        | 120              | 210          | 90          | G 3/4           | 3,5                           | 2,3               | Ø 35,1      | 6              |
| VDH 3/4 ED HP NC BSP N | 180L1030 | 5,4                        | 120              | 210          | 90          | G 3/4           | 3,5                           | 2,3               | Ø 35,1 N    | 1              |



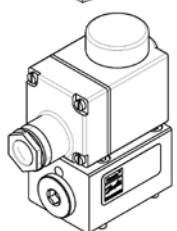
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|------------------------|----------|-----|-----|-----|----|---------------|-----|-----|----------|---|
| VDHT 3/4-1/2 EA NC BSP | 180L0090 | 3,0 | 60  | 140 | 90 | G 3/4 - G 1/2 | 3,5 | 2,3 | Ø 18,1   | 1 |
| VDHT 3/4 EA NC BSP     | 180L0118 | 6,6 | 120 | 140 | 90 | G 3/4         | 3,5 | 2,3 | Ø 35,1   | 6 |
| VDHT 3/4 EA NC BSP N   | 180L1015 | 6,6 | 120 | 140 | 90 | G 3/4         | 3,5 | 2,3 | Ø 35,1 N | 1 |
| VDHT 3/4 EA NC BSP     | 180L0121 | 6,6 | 120 | 140 | 90 | G 3/4         | 3,5 | 2,3 | Ø 35,1   | 6 |
| VDHT 3/4 EA NO BSP     | 180L0198 | 6,6 | 120 | 140 | 90 | G 3/4         | 3,5 | 2,3 | Ø 35,1   | 6 |



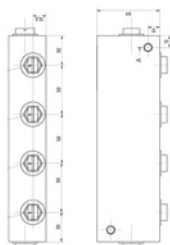
|                    |          |     |     |     |    |     |     |     |          |   |
|--------------------|----------|-----|-----|-----|----|-----|-----|-----|----------|---|
| VDHT 1 ED NC BSP   | 180L0104 | 7,2 | 150 | 140 | 90 | G1  | 3,5 | 2,3 | Ø 35,1   | 6 |
| VDHT 1 ED NC BSP N | 180L1022 | 7,2 | 150 | 140 | 90 | G1  | 3,5 | 2,3 | Ø 35,1 N | 1 |
| VDHT 1 ED NC BSP   | 180L0108 | 7,2 | 150 | 140 | 90 | G1  | 3,5 | 2,3 | Ø 35,1   | 6 |
| VDHT 1 ED NC BSP   | 180L0115 | 7,2 | 150 | 140 | 90 | G 1 | 3,5 | 2,3 | Ø 35,1   | 6 |
| VDHT 1 ED NO BSP N | 180L1014 | 7,2 | 150 | 140 | 90 | G 1 | 3,5 | 2,3 | Ø 35,1 N | 1 |



|                    |          |     |     |     |    |     |     |     |          |   |
|--------------------|----------|-----|-----|-----|----|-----|-----|-----|----------|---|
| VDHT 1 EA NC BSP   | 180L0106 | 9,0 | 150 | 140 | 90 | G 1 | 3,5 | 2,3 | Ø 35,1   | 6 |
| VDHT 1 EA NC BSP N | 180L1023 | 9,0 | 150 | 140 | 90 | G 1 | 3,5 | 2,3 | Ø 35,1 N | 1 |
| VDHT 1 EA NC BSP   | 180L0109 | 9,0 | 150 | 140 | 90 | G 1 | 3,5 | 2,3 | Ø 35,1   | 6 |



|                   |          |     |    |     |    |         |     |     |        |   |
|-------------------|----------|-----|----|-----|----|---------|-----|-----|--------|---|
| VDH 30 EC3 NC BSP | 180L0096 | 0,6 | 30 | 160 | 90 | CETOP 3 | 3,5 | 1,4 | Ø 18,1 | 1 |
| VDH 30 EC3 NO BSP | 180L0097 | 0,6 | 30 | 160 | 90 | CETOP 3 | 3,5 | 1,4 | Ø 18,1 | 1 |
| VDH 60 EC5 NC BSP | 180L0098 | 1,3 | 60 | 160 | 90 | CETOP 5 | 3,5 | 1,4 | Ø 18,1 | 1 |
| VDH 60 EC5 NO BSP | 180L0099 | 1,3 | 60 | 160 | 90 | CETOP 5 | 3,5 | 1,4 | Ø 18,1 | 1 |



|                              |            |     |    |     |    |       |     |     |   |   |
|------------------------------|------------|-----|----|-----|----|-------|-----|-----|---|---|
| Block for 1 Pe CETOP 3 valve | 180L0061   | 1,8 | 30 | 160 | 90 | G 3/8 | 3,5 | 1,0 | - | - |
| Block for 2 Pe CETOP 3 valve | 180L0062   | 1,8 | 30 | 160 | 90 | G 3/8 | 3,5 | 1,8 | - | - |
| Block for 3 Pe CETOP 3 valve | 180L0063   | 1,8 | 30 | 160 | 90 | G 3/8 | 3,5 | 2,6 | - | - |
| Block for 4 Pe CETOP 3 valve | 180L0064   | 1,8 | 30 | 160 | 90 | G 3/8 | 3,5 | 3,4 | - | - |
| Block for 1 Pe CETOP 5 valve | On request |     |    |     |    |       |     |     |   |   |
| Block for 2 Pe CETOP 5 valve | On request |     |    |     |    |       |     |     |   |   |
| Block for 3 Pe CETOP 5 valve | On request |     |    |     |    |       |     |     |   |   |
| Block for 4 Pe CETOP 5 valve | On request |     |    |     |    |       |     |     |   |   |



## Overview block valves

Red codes are phased out



| Description            | Code no  | Q nom<br>m <sup>3</sup> /h | Q nom<br>ltr/min | p max<br>bar | T max<br>°C | Conne-<br>ction | Operat-<br>ing pres-<br>sure/bar | Weight<br>coll kg | Piston<br>Ø | Orifice<br>kit |
|------------------------|----------|----------------------------|------------------|--------------|-------------|-----------------|----------------------------------|-------------------|-------------|----------------|
| VDHT 3/4-1/2 EA NC BSP | 180L0090 | 3,6                        | 60               | 140          | 90          | G 3/4-G 1/2     | 3,5                              | 2,3               | Ø 18,1      | 1              |
| VDHT B2 1/2 NC BSP     | 180L0270 | 3,6                        | 60               | 160          | 90          | G 1/2-G 1/2     | 3,5                              | 3,7               | Ø 18,1      | 1              |
| VDHT B2 1/2 NC-NO BSP  | 180L0258 | 3,6                        | 60               | 160          | 90          | G 1/2-G 1/2     | 3,5                              | 3,7               | Ø 18,1      | 1              |
| VDHT B2 3/4-1/2 NC BSP | 180L0124 | 3,6                        | 60               | 160          | 90          | G 3/4-G 1/2     | 3,5                              | 3,7               | Ø 18,1      | 1              |
| VDHT B3 3/4-1/2 NC BSP | 180L0088 | 3,6                        | 60               | 160          | 90          | G 3/4-G 1/2     | 3,5                              | 5,5               | Ø 18,1      | 1              |
| VDHT B4 3/4-1/2 NC BSP | 180L0123 | 3,6                        | 60               | 160          | 90          | G 3/4-G 1/2     |                                  | 7,4               | Ø 18,1      | 1              |
| VDHT B5 3/4-1/2 NC BSP | 180L0091 | 3,6                        | 60               | 160          | 90          | G 3/4-G 1/2     |                                  | 9,3               | Ø 18,1      | 1              |



|                             |          |     |     |     |    |             |     |      |          |   |
|-----------------------------|----------|-----|-----|-----|----|-------------|-----|------|----------|---|
| VDHT BL1 1-3/4 NC BSP FPM   | 180L0265 | 7,2 | 120 | 140 | 90 | G3/4 - G3/4 | 3,5 | 3,5  | Ø 35,1   | 1 |
| VDHT BL1S 28-3/4 NC BSP FPM | 180L0290 | 7,2 | 120 | 140 | 90 | 28 - G3/4   | 3,5 | 3,5  | Ø 35,1   | 1 |
| VDHT BL2 3/4 NC BSP FPM     | 180L0202 | 7,2 | 120 | 140 | 90 | G3/4 - G3/4 | 3,5 | 7    | Ø 35,1   | 2 |
| VDHT BL2 HP 3/4 NC BSP N    | 180L1003 | 7,2 | 120 | 140 | 90 | G3/4 - G3/4 | 3,5 | 7    | Ø 35,1 N | 1 |
| VDHT BL2 HP 3/4 NC BSP FPM  | 180L0285 | 7,2 | 120 | 210 | 90 | G3/4 - G3/4 | 3,5 | 7    | Ø 35,1   | 1 |
| VDHT BL2 HP 3/4 NC BSP N    | 180L1027 | 7,2 | 120 | 210 | 90 | G3/4 - G3/4 | 3,5 | 7    | Ø 35,1 N | 1 |
| VDHT BL2 3/4NC-NO BSP FPM   | 180L0273 | 7,2 | 120 | 140 | 90 | G3/4 - G3/4 | 3,5 | 7    | Ø 35,1   | 1 |
| VDHT BL2 3/4NC-NO BSP N     | 180L1024 | 7,2 | 120 | 140 | 90 | G3/4 - G3/4 | 3,5 | 7    | Ø 35,1 N | 1 |
| VDHT BL2 1 NC BSP FPM       | 180L0275 | 9,0 | 150 | 140 | 90 | G1 - G1     | 3,5 | 7    | Ø 35,1   | 1 |
| VDHT BL2 1 NC BSP N         | 180L1002 | 9,0 | 150 | 140 | 90 | G1 - G1     | 3,5 | 7    | Ø 35,1 N | 1 |
| VDHT BL2 1 NC-NO BSP FPM    | 180L0274 | 9,0 | 150 | 140 | 90 | G1 - G1     | 3,5 | 7    | Ø 35,1   | 1 |
| VDHT BL2S 3/4 NC BSP FPM    | 180L0267 | 7,2 | 120 | 140 | 90 | G3/4 - G3/4 | 3,5 | 7    | Ø 35,1   | 1 |
| VDHT BL2S 3/4 NC BSP N      | 180L1000 | 7,2 | 120 | 140 | 90 | G3/4 - G3/4 | 3,5 | 7    | Ø 35,1 N | 1 |
| VDHT BL2S 3/4 NC-NO BSP FPM | 180L0238 | 7,2 | 120 | 140 | 90 | G3/4 - G3/4 | 3,5 | 7    | Ø 35,1   | 1 |
| VDHT BL3 3/4 NC BSP FPM     | 180L0089 | 7,2 | 120 | 140 | 90 | G3/4 - G3/4 | 3,5 | 10,5 | Ø 35,1   | 2 |
| VDHT BL3 3/4 NC BSP N       | 180L1025 | 7,2 | 120 | 140 | 90 | G3/4 - G3/4 | 3,5 | 10,5 | Ø 35,1 N | 1 |
| VDHT BL3 HP 3/4 NC BSP FPM  | 180L0286 | 7,2 | 120 | 210 | 90 | G3/4 - G3/4 | 3,5 | 10,5 | Ø 35,1   | 1 |
| VDHT BL3 HP 3/4 NC BSP N    | 180L1028 | 7,2 | 120 | 210 | 90 | G3/4 - G3/4 | 3,5 | 10,5 | Ø 35,1 N | 1 |
| VDHT BL3 NC BSP FPM         | 180L0189 | 9,0 | 150 | 140 | 90 | G1 - G1     | 3,5 | 10,5 | Ø 35,1   | 2 |
| VDHT BL3 1 NC BSP N         | 180L1011 | 9,0 | 150 | 140 | 90 | G1 - G1     | 3,5 | 10,5 | Ø 35,1 N | 1 |
| VDHT BL4 1 NC BSP FPM       | 180L0172 | 9,0 | 150 | 140 | 90 | G1 - G1     | 3,5 | 14   | Ø 35,1   | 2 |
| VDHT BL4 1 NC BSP N         | 180L1016 | 9,0 | 150 | 140 | 90 | G1 - G1     | 3,5 | 14   | Ø 35,1 N | 1 |
| VDHT BL4 HP 1 NC BSP FPM    | 180L0287 | 9,0 | 150 | 210 | 90 | G1 - G1     | 3,5 | 14   | Ø 35,1   | 1 |
| VDHT BL4 HP 1 NC BSP N      | 180L1029 | 9,0 | 150 | 210 | 90 | G1 - G1     | 3,5 | 14   | Ø 35,1 N | 1 |



| VDHT / 2/2 way solenoid blockvalves manual bypass |          |     |     |     |    |             |     |      |        |   |
|---------------------------------------------------|----------|-----|-----|-----|----|-------------|-----|------|--------|---|
| VDHT 3/4 EAM NC BSP NBR                           | 180L0122 | 7,2 | 120 | 140 | 90 | G3/4        | 3,5 | 2,3  | Ø 35,1 | 2 |
| VDHT 1 EAM NC BSP NBR                             | 180L0110 | 9,0 | 150 | 140 | 90 | G1          | 3,5 | 2,5  | Ø 35,1 | 2 |
| VDHT BLM1 3/4-3/4 NC BSP NBR                      | 180L0196 | 7,2 | 120 | 140 | 90 | G3/4 - G3/4 | 3,5 | 4,0  | Ø 35,1 | 2 |
| VDHT BLM2 3/4-3/4 NC BSP NBR                      | 180L0167 | 7,2 | 120 | 140 | 90 | G3/4 - G3/4 | 3,5 | 7,4  | Ø 35,1 | 2 |
| VDHT BLM2 1-1 NC BSP NBR                          | 180L0199 | 9,0 | 150 | 140 | 90 | G1 - G1     | 3,5 | 5,3  | Ø 35,1 | 2 |
| VDHT BLM3 3/4-3/4 NC BSP NBR                      | 180L0168 | 7,2 | 120 | 140 | 90 | G3/4 - G3/4 | 3,5 | 11,7 | Ø 35,1 | 2 |
| VDHT BLM3 1-3/4 NC BSP NBR                        | 180L0187 | 7,2 | 120 | 140 | 90 | G1 - G3/4   | 3,5 | 10,9 | Ø 35,1 | 2 |
| VDHT BLM4 3/4-3/4 NC BSP NBR                      | 180L0169 | 7,2 | 120 | 140 | 90 | G3/4 - G3/4 | 3,5 | 15,0 | Ø 35,1 | 2 |

## Data sheet

## Solenoid valve VDHT

### Overview coils and accessories



| Description                                                     | Code no  | Voltage     | Power | Voltage tolerance | T max Ambiente °C | Connec-tion | Enclosure | Weight coll kg |
|-----------------------------------------------------------------|----------|-------------|-------|-------------------|-------------------|-------------|-----------|----------------|
| <b>Type BB / Without LED / for Hirschmann plug / excl. plug</b> |          |             |       |                   |                   |             |           |                |
| Coil 240V-50Hz-10W-IP65                                         | 018F7906 | 240 V 50 Hz | 10 W  | +/- 10-15%        | 80°C              | DIN 43650-A | IP65      | 0,24           |
| Coil 24V-50Hz-10W-IP65                                          | 018F7905 | 24 V 50 Hz  | 10 W  |                   | 80°C              | DIN 43650-A | IP65      | 0,24           |
| Coil 240V-50Hz-10W-IP65                                         | 018F7928 | 24 V DC     | 18 W  | +/- 10%           | 50°C              | DIN 43650-A | IP65      | 0,24           |

|                                                   |          |                    |      |            |      |              |      |     |
|---------------------------------------------------|----------|--------------------|------|------------|------|--------------|------|-----|
| <b>Type BE / Without LED / incl. Terminal box</b> |          |                    |      |            |      |              |      |     |
| Coil 240V-60Hz-10W-IP67                           | 018F7926 | 240 V 60 Hz        | 10 W | +/- 10-15% | 80°C | Terminal box | IP67 | 0,3 |
| Coil 240V-50Hz-10W-IP67                           | 018F7924 | 240 V 50 Hz        | 10 W |            | 80°C | Terminal box | IP67 | 0,3 |
| Coil 220-230V-50Hz-10W-IP67                       | 018F7921 | 220-230 V 50 Hz    | 10 W |            | 80°C | Terminal box | IP67 | 0,3 |
| Coil 220-230V-50-60Hz-10W-IP67                    | 018F7919 | 220-230 V 50-60 Hz | 10 W |            | 50°C | Terminal box | IP67 | 0,3 |
| Coil 220V-60Hz-10W-IP67                           | 018F7925 | 220 V 60 Hz        | 10 W |            | 80°C | Terminal box | IP67 | 0,3 |
| Coil 220V-50-60Hz-10W-IP67                        | 018F7929 | 220 V 50/60 Hz     | 10 W |            | 80°C | Terminal box | IP67 | 0,3 |
| Coil 110V-50Hz-10W-IP67                           | 018F7923 | 110 V 50 Hz        | 10 W |            | 50°C | Terminal box | IP67 | 0,3 |
| Coil 24V-60Hz-10W-IP67                            | 018F7922 | 24 V 60 Hz         | 10 W |            | 80°C | Terminal box | IP67 | 0,3 |
| Coil 24V-50Hz-10W-IP67                            | 018F7920 | 24 V 50 Hz         | 10 W |            | 80°C | Terminal box | IP67 | 0,3 |
| Coil 42V-50Hz-10W-IP67                            | 018F7927 | 42 V 50 Hz         | 10 W |            | 80°C | Terminal box | IP67 | 0,3 |
| Coil 24V-DC-18W-IP67                              | 018F7914 | 24 V DC            | 18 W | +/- 10%    | 50°C | Terminal box | IP67 | 0,3 |
| Coil 12V-DC-18W-IP67                              | 018F7913 | 12 V DC            | 18 W | +/- 10%    | 50°C | Terminal box | IP67 | 0,3 |

|                                                                               |          |                |      |            |      |              |      |      |
|-------------------------------------------------------------------------------|----------|----------------|------|------------|------|--------------|------|------|
| <b>Type BE / Without LED / for Hirschmann plug / prepare for terminal box</b> |          |                |      |            |      |              |      |      |
| Coil 200V-50-60Hz-10W-IP67                                                    | 018F7918 | 200 V 50/60 Hz | 10 W | +/- 10-15% | 50°C | Terminal box | IP67 | 0,24 |
| Coil 240V-50Hz-10W-IP67                                                       | 018F7917 | 240 V 50 Hz    | 10 W |            | 80°C | Terminal box | IP67 | 0,24 |
| Coil 12V-DC-18W-IP67                                                          | 018F7912 | 12 V DC        | 18 W | +/- 10%    | 50°C | Terminal box | IP67 | 0,3  |

|                                                                                 |          |                    |      |            |      |            |      |      |
|---------------------------------------------------------------------------------|----------|--------------------|------|------------|------|------------|------|------|
| <b>Type BY / Without LED / for Hirschmann plug / excl. plug / UL Recognised</b> |          |                    |      |            |      |            |      |      |
| Coil 208-240V-50-60Hz-14W-IP65-UL                                               | 018F7908 | 208-240 V 50/60 Hz | 14 W | +/- 10-15% | 50°C | DIN43650-A | IP65 | 0,24 |
| Coil 110V-50-60Hz-14W-IP65-UL                                                   | 018F7909 | 110 V 50-60 Hz     | 14 W |            | 50°C | DIN43650-A | IP65 | 0,24 |
| Coil 24V-50-60Hz-14W-IP65-UL                                                    | 018F7907 | 24 V 50-60 Hz      | 14 W |            | 50°C | DIN43650-A | IP65 | 0,24 |

|                                          |          |            |      |            |      |              |      |     |
|------------------------------------------|----------|------------|------|------------|------|--------------|------|-----|
| <b>Type BE / excl. LED / Incl. cable</b> |          |            |      |            |      |              |      |     |
| Coil 48V-50-60Hz-10W-IP67-4m cable       | 018F7915 | 48 V 50 Hz | 10 W | +/- 10-15% | 80°C | 4 mtr. cable | IP67 | 0,3 |

|                                                                                      |          |                |      |         |      |              |      |     |
|--------------------------------------------------------------------------------------|----------|----------------|------|---------|------|--------------|------|-----|
| <b>Type BO / Eex m II Ta 94/9/EC (ATEX 100A) EN5001 &amp; EN 50014 &amp; EN50028</b> |          |                |      |         |      |              |      |     |
| Coil Eex m II TA 230V-50-60Hz-10W-IP67                                               | 018Z7992 | 230 V 50-60 Hz | 10 W | +/- 10% | 40°C | 5 mtr. cable | IP67 | 0,6 |
| Coil Eex m II TA 24V-DC-10W-IP67                                                     | 180Z7993 | 24V DC         | 10 W | +/- 10% | 40°C | 5 mtr. cable | IP67 | 0,6 |

|                                                                                                     |          |  |          |  |       |          |      |     |
|-----------------------------------------------------------------------------------------------------|----------|--|----------|--|-------|----------|------|-----|
| <b>Connecting plug / Typ BY / excl. LED / for Hirschmann connection (DIN 43650-A) UL Recognised</b> |          |  |          |  |       |          |      |     |
| Plug DIN 43650-A PG11                                                                               | 018Z0183 |  | Excl LED |  | 125°C | BE-BB-BY | IP65 | 0,1 |

|                                                                                                     |          |           |          |  |      |          |      |     |
|-----------------------------------------------------------------------------------------------------|----------|-----------|----------|--|------|----------|------|-----|
| <b>Connecting plug / Typ BY / incl. LED / for Hirschmann connection (DIN 43650-A) UL Recognised</b> |          |           |          |  |      |          |      |     |
| Plug EN175301-803 A 230V AC/DC LED                                                                  | 042N0265 | 230V AC   | Incl LED |  | 60°C | BE-BB-BY | IP65 | 0,1 |
| Plug EN175301-803 A 24V AC/DC LED + PACK                                                            | 042N0263 | 24V AC/DC | Incl LED |  | 60°C | BE-BB-BY | IP65 | 0,1 |

|                                                           |          |                            |                 |  |      |    |      |     |
|-----------------------------------------------------------|----------|----------------------------|-----------------|--|------|----|------|-----|
| <b>Connection terminal box / Permanent magnet</b>         |          |                            |                 |  |      |    |      |     |
| Terminal box excl. LED pack unit 100 Pe                   | 018Z0279 |                            | Excl LED 100 PE |  | 80°C | BE | IP67 | 0,1 |
| Terminal box incl. LED 48-220 V DC 24-250V-50Hz / only BE | 018Z0089 | 48-220V DC24-250V 50/60 Hz | Incl. LED       |  | 80°C | BE | IP67 | 0,1 |
| Permanent magnet                                          | 180Z0212 | for testing                |                 |  |      |    |      | 0,3 |

## Overview spare parts



| Valve typ                                                 | Code no  | Other    | Pos. no.<br>explosion<br>drawing | T max<br>°C | Weight kg | Piston<br>diameter | Orifice<br>kit |
|-----------------------------------------------------------|----------|----------|----------------------------------|-------------|-----------|--------------------|----------------|
| Piston kit Ø 11,9<br>VDHT 1/4 E                           | 180Z0251 |          | 3                                | 80°C        | 0,1       | Ø 11,9             | -              |
| Piston kit Ø 18,1<br>VDHT 3/8 to 1/2<br>VDHT B<br>VDHT EC | 180Z0024 |          | 10/11                            | 90°C        | 0,1       | Ø 18,1             | -              |
| Piston kit Ø 35,1<br>VDHT 3/4 to 1<br>VDHT BL<br>VDHT BLM | 180Z0026 |          | 10/11                            | 90°C        | 0,2       | Ø 35,1             | -              |
| Piston kit Ø 35,1 N<br>VDHT 3/4 to 1 N<br>VDHT BL N       | 180Z0138 | Slimline | 10/11                            | 90°C        | 0,2       | Ø 35,1 N           | -              |



|                           |          |          |     |      |     |   |   |
|---------------------------|----------|----------|-----|------|-----|---|---|
| Orifice kit 1 VDHT 1,0    | 180Z0098 | standard | 6/7 | 90°C | 0,1 | - | 1 |
| Orifice kit 2 VDHT 1,0    | 180L4015 | BLM      | 6/7 | 90°C | 0,1 | - | 2 |
| Orifice kit 3 VDHT DF 1,4 | 180L4003 | DF/F     | 6/7 | 90°C | 0,1 |   | 3 |
| Orifice kit 4 VDHT 2E 1,4 | 180Z0097 | 1,4      | 6/7 | 90°C | 0,1 |   | 4 |
| Orifice kit 5 VDHT 2E 3,5 | 180L4014 | 3,5      | 6/7 | 90°C | 0,1 |   | 5 |
| Orifice kit 6 VDHT 1,0    | 180L4016 | formerly | 6/7 | 90°C | 0,1 |   | 6 |

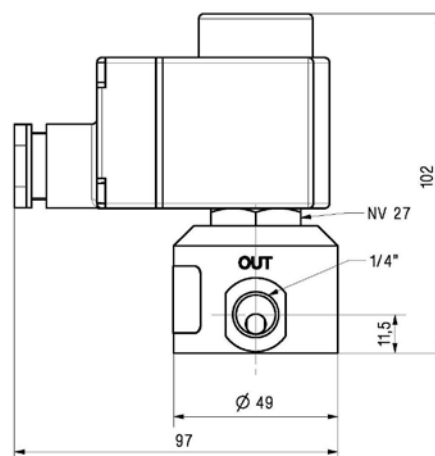
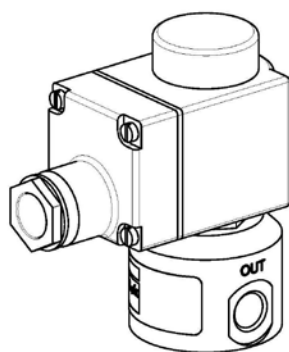


|                                     |          |  |     |      |     |   |    |
|-------------------------------------|----------|--|-----|------|-----|---|----|
| Armature kit NC<br>VDHT 1/4 to 1    | 180L5002 |  | 1/5 | 90°C | 0,2 | - |    |
| Armature kit NC HP<br>VDHT 3/8 to 1 | 180L5011 |  | 1/5 | 90°C | 0,2 | - | -- |



|                                  |          |  |     |      |     |   |    |
|----------------------------------|----------|--|-----|------|-----|---|----|
| Armature kit NO<br>VDHT 3/8 to 1 | 180L5010 |  | 4/5 | 90°C | 0,2 | - |    |
| Armature kit NO HP<br>VDHT 1/4   | 180L5013 |  | 4/5 | 90°C | 0,2 | - | -- |

**VDH 2E 1/4**  
**Drawings**  
**Spare parts**



**Code no. valves**

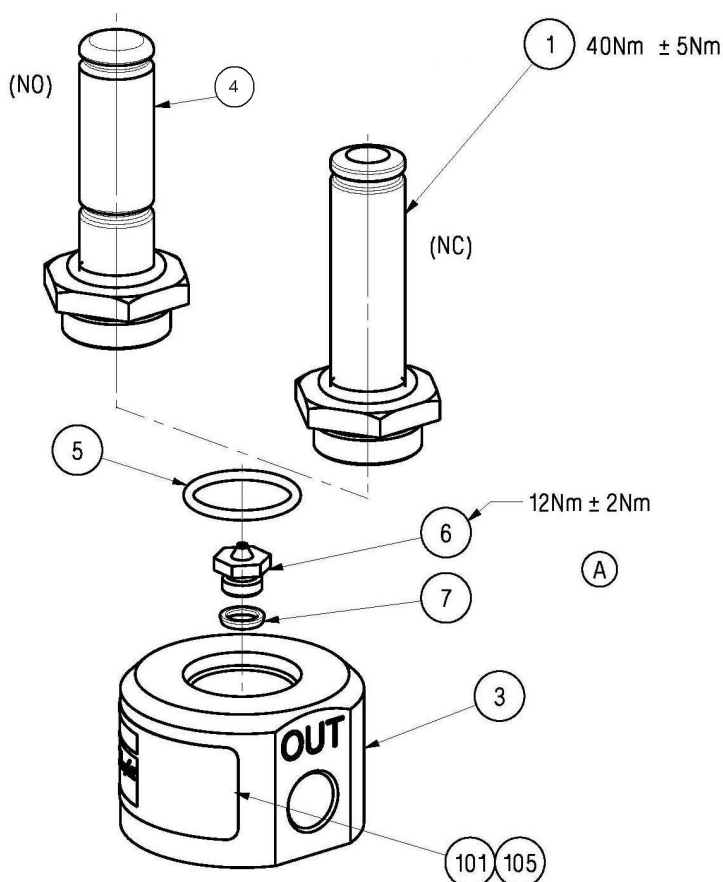
180L0018 / VDH 2E 1/4 NC 1,4 BSP  
180L0019 / VDH 2E 1/4 NO 1,4 BSP

**Spare parts**

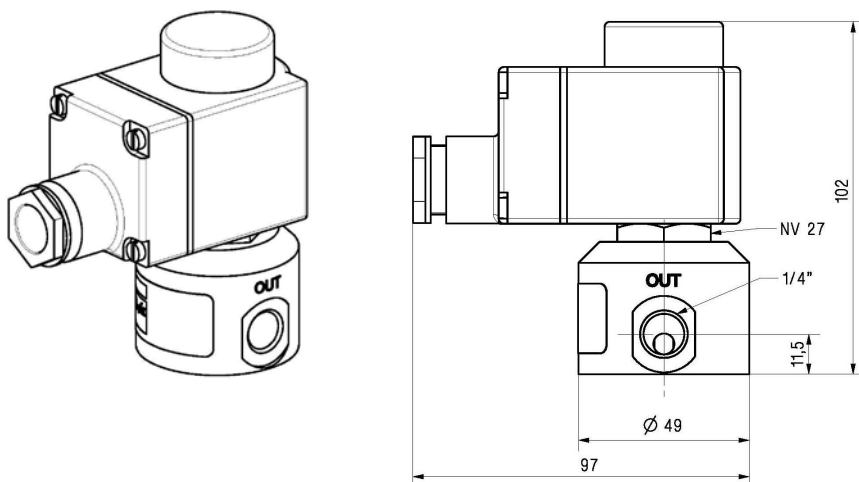
Armature kit NC 180L5002 / Pos.: 1, 5  
Armature kit NO 180L5010 / Pos.: 4, 5  
Orifice kit 4 180Z0097 / Pos.: 6, 7

180L1018 / VDH 2E 1/4 NC 3,5 BSP

Armature kit NC 180L5002 / Pos.: 1, 5  
Armature kit NO 180L5010 / Pos.: 4, 5  
Orifice kit 5 180L4014 / Pos.: 6, 7



**VDHT 1/4 E**  
**Drawings**  
**Spare parts**

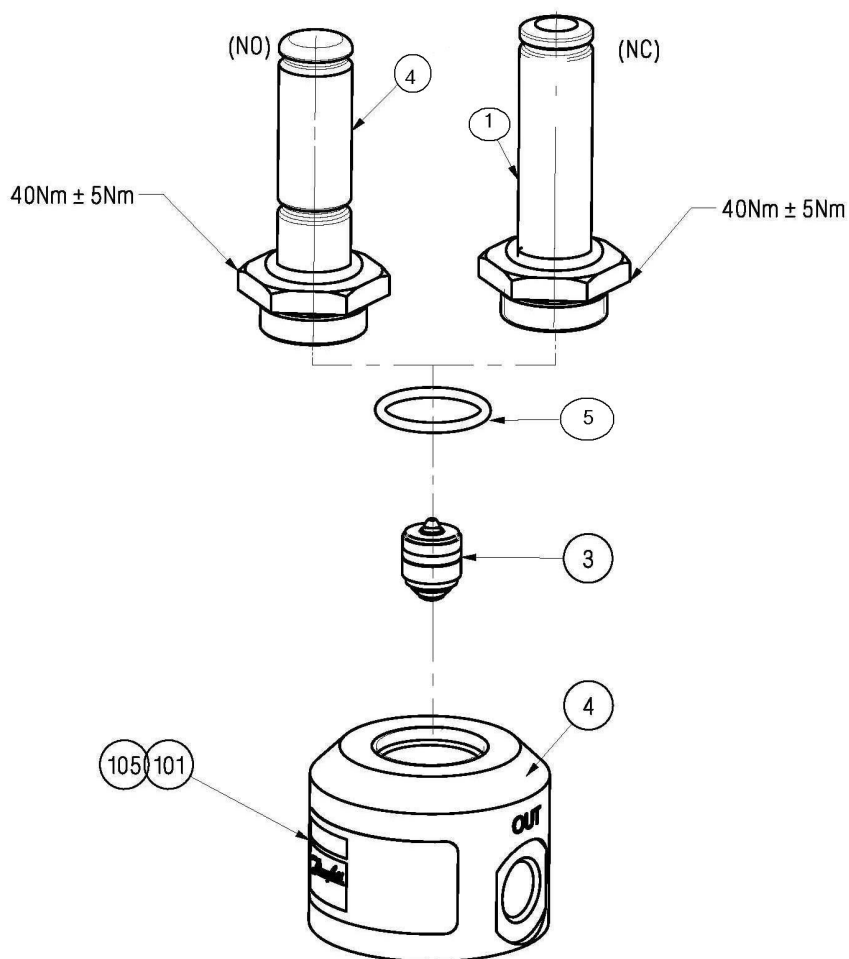


**Code no. valves**

180L0241 / VDHT 1/4 E NC BSP  
180L0243 / VDHT 1/4 E NC NPT  
180L0242 / VDHT 1/4 E NO BSP  
180L0244 / VDHT 1/4 E NO NPT

**Spare parts**

|                          |                       |
|--------------------------|-----------------------|
| Armature kit NC          | 180L5002 / Pos.: 1, 2 |
| Armature kit NO VDHT 1/4 | 180L5013 / Pos.: 1, 2 |
| Orifice kit 4            | 180Z0097 / Pos.: 6, 7 |
| Piston kit Ø 11,9        | 180Z0251 / Pos.: 3    |



**VDHT 3/8 E**  
**VDHT 1/2 E**  
**Drawings**  
**Spare parts**

**Code no. valves:**

180L0086 VDHT 3/8 E NC BSP FPM  
180L0092 VDHT 3/8 E NC BSP

180L0125 VDHT 3/8 E HP NC BSP FPM  
180L0178 VDHT 3/8 E HP NC BSP

180L0295 VDHT 3/8 E NO BSP FPM  
180L0093 VDHT 3/8 E NO BSP

180L0127 VDHT 3/8 E HP NC NPT  
180L0205 VDHT 3/8 E NO NPT

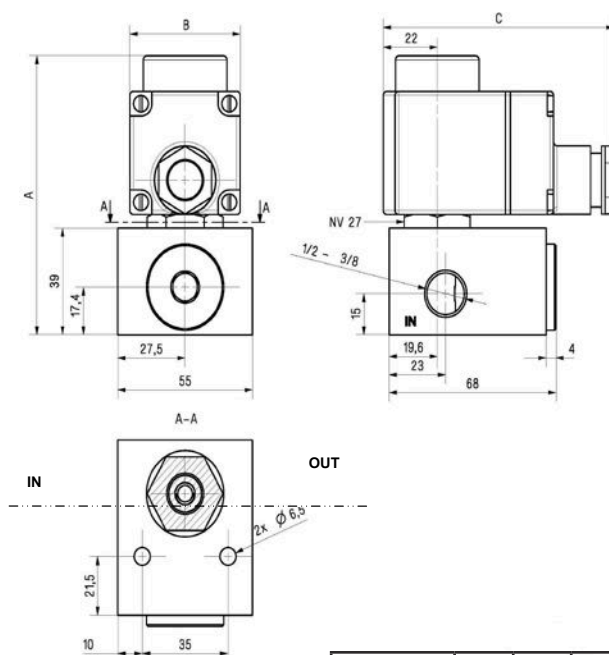
180L0087 VDHT 1/2 E NC BSP FPM  
180L0094 VDHT 1/2 E NC BSP

180L0179 VDHT 1/2 E HP NC BSP NBR  
180L0126 VDHT 1/2 E HP NC BSP

180L0095 VDHT 1/2 E NO BSP

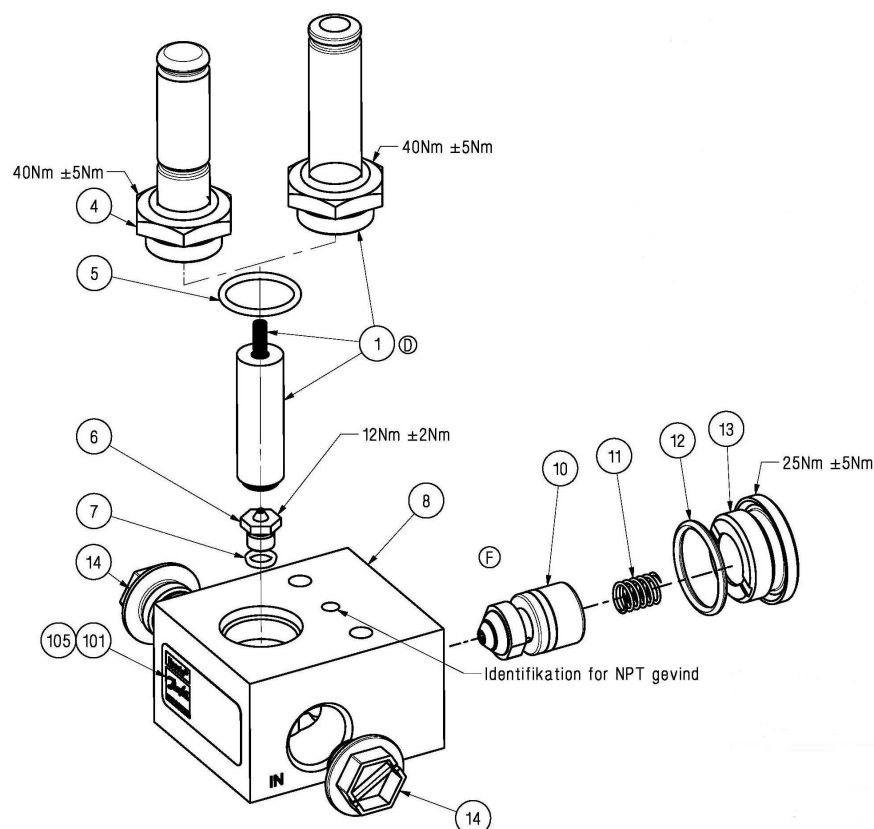
180L0209 VDHT 1/2 E NO NPT  
180L0128 VDHT 1/2 E HP NC NPT

180L0171 VDHT 3/4 - 1/2 E NC BSP  
(slightly different installation dimensions)



| Valve type | A   | B  | C   |
|------------|-----|----|-----|
| NO / NC    | 102 | 45 | 94  |
| EEX        | 112 | 68 | 125 |

(red part numbers are being phased out)



**Spare parts**

Armature kit NC  
Armature kit NC HP  
Armature kit NO  
Orifice kit 1  
Piston kit Ø 18,1

180L5002 / Pos.: 1, 5  
180L5011 / Pos.: 1, 5  
180L5010 / Pos.: 4, 5  
180Z0098 / Pos.: 6, 7  
180Z0024 / Pos.: 10, 11

**VDHT 3/8 EA**  
**VDHT 1/2 EA**  
**Drawings**  
**Spare parts**

**Code no. valves:**

180L0249 VDHT 3/8 EA NC BSP FPM  
 180L0100 VDHT 3/8 EA NC BSP

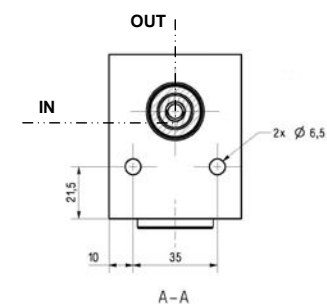
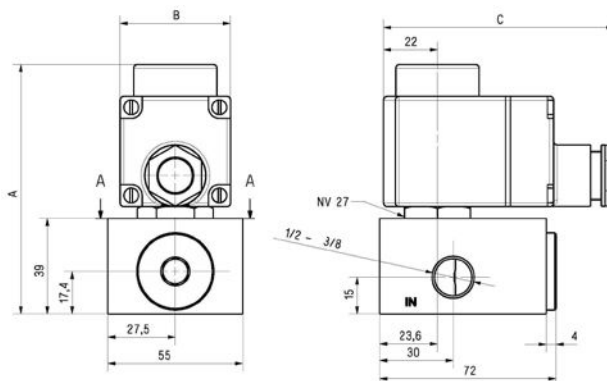
180L0101 VDHT 3/8 EA NO BSP

180L0102 VDHT 1/2 EA NC BSP NBR  
 180L0188 VDHT 1/2 EA NC BSP

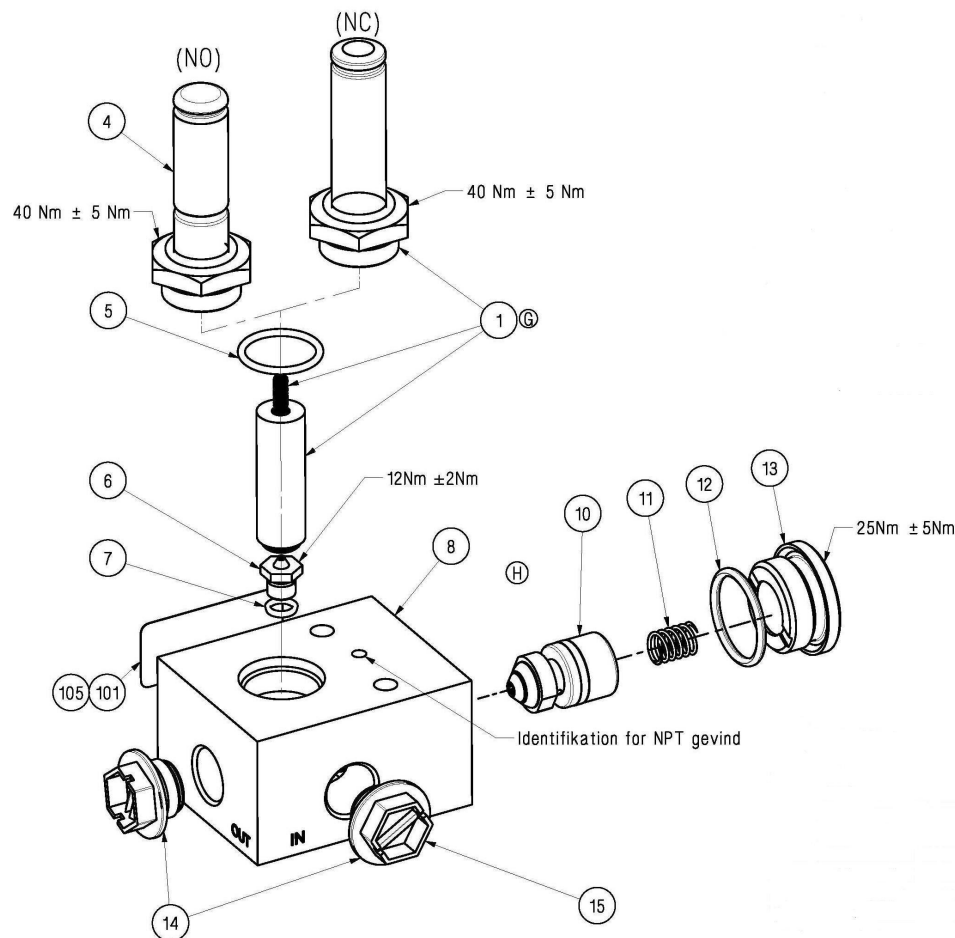
180L0234 VDHT 1/2 EA HP NC BSP

180L0103 VDHT 1/2 EA NO BSP

(red part numbers are being phased put)



| Ventiltype | A   | B  | C   |
|------------|-----|----|-----|
| NO/NC      | 102 | 45 | 94  |
| EEX        | 112 | 68 | 125 |



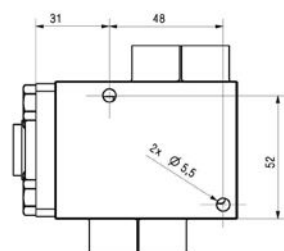
**Spare parts**

Armature kit NC  
 Armature kit NC HP  
 Armature kit NO  
 Orifice kit 1  
 Piston kit Ø 18,1

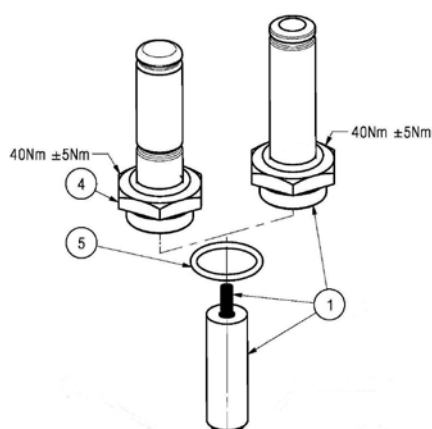
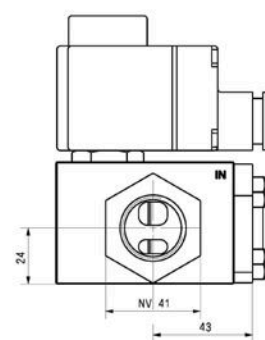
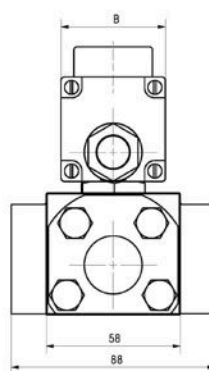
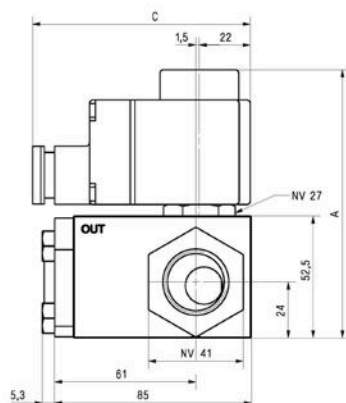
180L5002 / Pos.: 1, 5  
 180L5011 / Pos.: 1, 5  
 180L5010 / Pos.: 4, 5  
 180Z0098 / Pos.: 6, 7  
 180Z0024 / Pos.: 10, 11



**VDHT 3/4 ED and  
VDHT 1 ED  
Drawings  
Spare parts**



| Ventiltype | A     | B  | C   |
|------------|-------|----|-----|
| NC/NO      | 115,5 | 45 | 94  |
| EEX        | 125,5 | 68 | 125 |

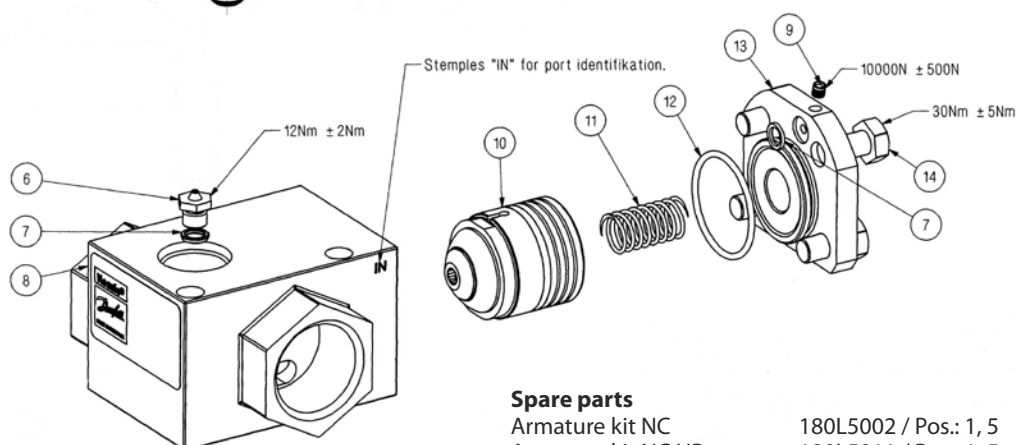


**Code no. valves:**

180L0120 VDHT 3/4 ED NC BSP NBR  
180L0116 VDHT 3/4 ED NC BSP FPM  
180L0117 VDHT 3/4 ED NC NPT NBR  
180L0282 VDHT 3/4 ED HP NC BSP FPM

180L0104 VDHT 1 ED NC BSP FPM  
180L0105 VDHT 1 ED NC NPT FPM  
180L0108 VDHT 1 ED NC BSP NBR  
180L0115 VDHT 1 ED NO BSP FPM  
180L0176 VDHT 1 ED NO NPT FPM

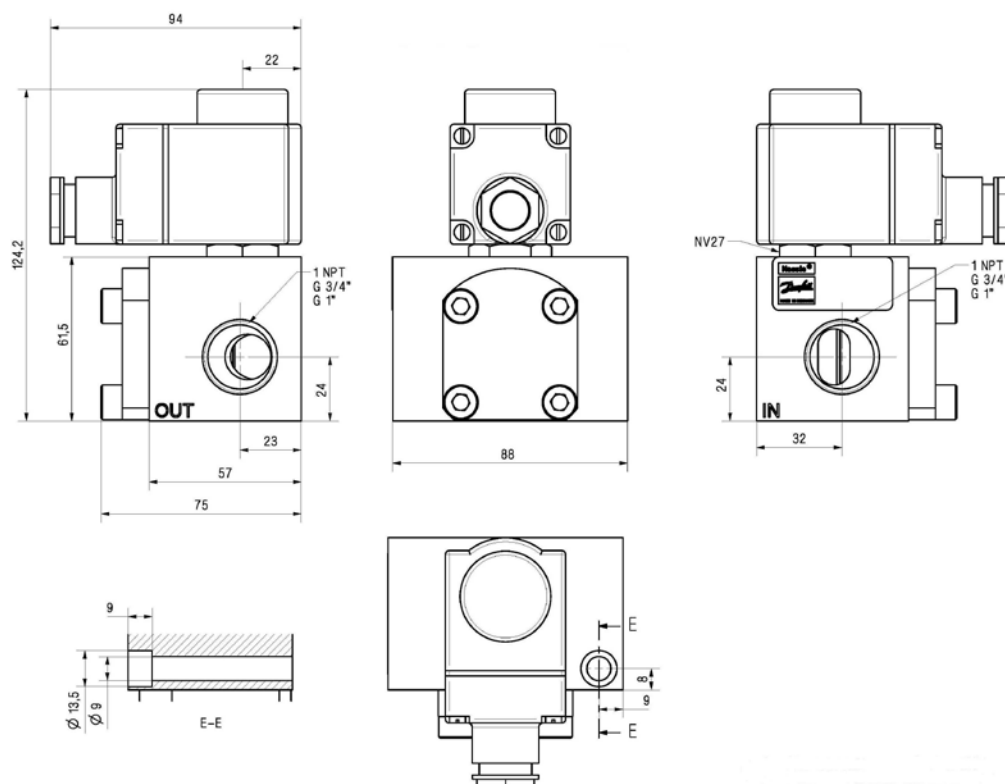
*(red part numbers are being phased out)*



**Spare parts**

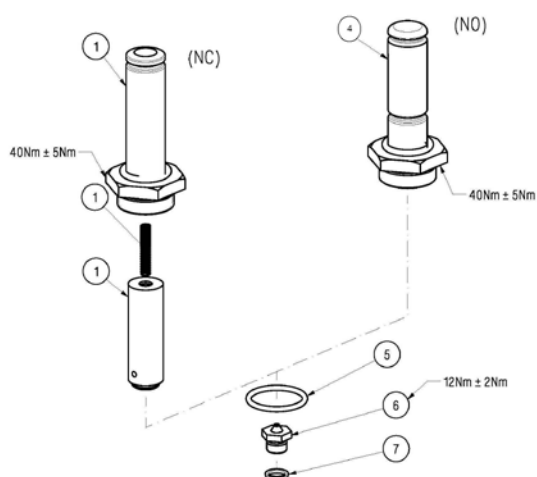
|                            |                         |
|----------------------------|-------------------------|
| Armature kit NC            | 180L5002 / Pos.: 1, 5   |
| Armature kit NC HP         | 180L5011 / Pos.: 1, 5   |
| Armature kit NO            | 180L5010 / Pos.: 4, 5   |
| Orifice kit 1 (see page 8) | 180Z0098 / Pos.: 6, 7   |
| Orifice kit 6 (see page 8) | 180L4016 / Pos.: 6, 7   |
| Piston kit Ø 35,1          | 180Z0026 / Pos.: 10, 11 |

**VDHT 3/4 ED N and  
VDHT 1 ED N  
Drawings  
Spare parts**



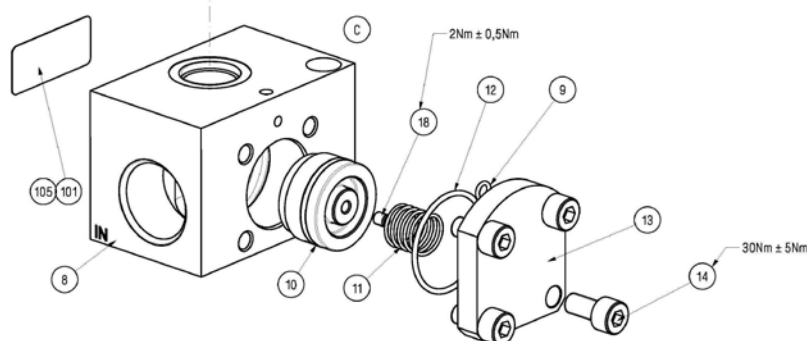
**Code no. valves:**

|          |                         |
|----------|-------------------------|
| 180L1012 | VDHT 3/4 ED NC BSP N    |
| 180L1030 | VDHT 3/4 ED HP NC BSP N |
| 180L1022 | VDHT 1 ED NC BSP N      |
| 180L1014 | VDHT 1 ED NO BSP N      |
| 180L1013 | VDHT 1 ED NC NPT N      |

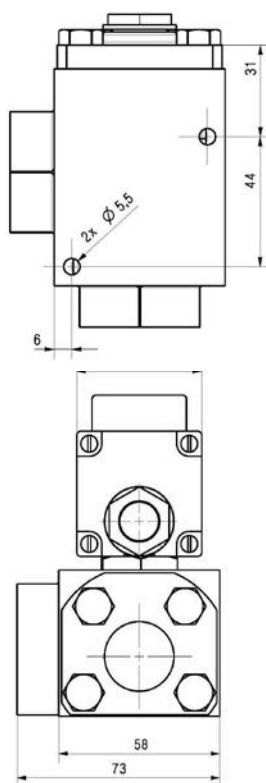


**Spare parts**

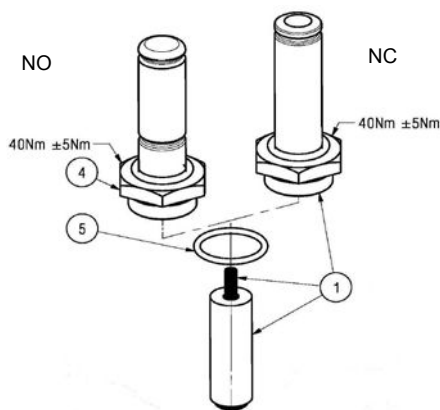
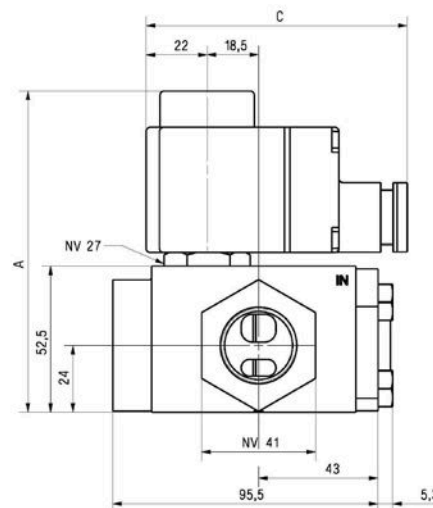
|                     |                             |
|---------------------|-----------------------------|
| Armature kit NC     | 180L5002 / Pos.: 1, 5       |
| Armature kit NC HP  | 180L5011 / Pos.: 1, 5       |
| Armature kit NO     | 180L5010 / Pos.: 4, 5       |
| Orifice kit 1       | 180Z0098 / Pos.: 6, 7       |
| Piston kit Ø 35,1 N | 180Z0138 / Pos.: 10, 11, 18 |



**VDHT 3/4 EA and  
VDHT 1 EA  
Drawings  
Spare parts**



| Ventiltype | A     | B  | C   |
|------------|-------|----|-----|
| NC/NO      | 115,5 | 45 | 94  |
| EEX        | 125,5 | 68 | 125 |



**Code no. valves:**

180L0118 VDHT 3/4 EA NC BSP FPM

180L0119 VDHT 3/4 EA NC NPT

180L0121 VDHT 3/4 EA NC BSP NBR

180L0198 VDHT 3/4 EA NO BSP FPM

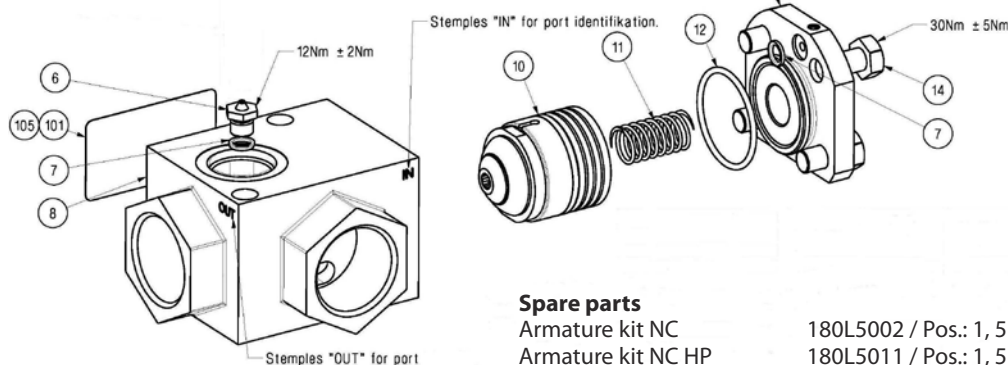
180L0106 VDHT 1 EA NC BSP FPM

180L0107 VDHT 1 EA NC NPT FPM

180L0109 VDHT 1 EA NC BSP NBR

180L0223 VDHT SAE-16 EA NC FPM

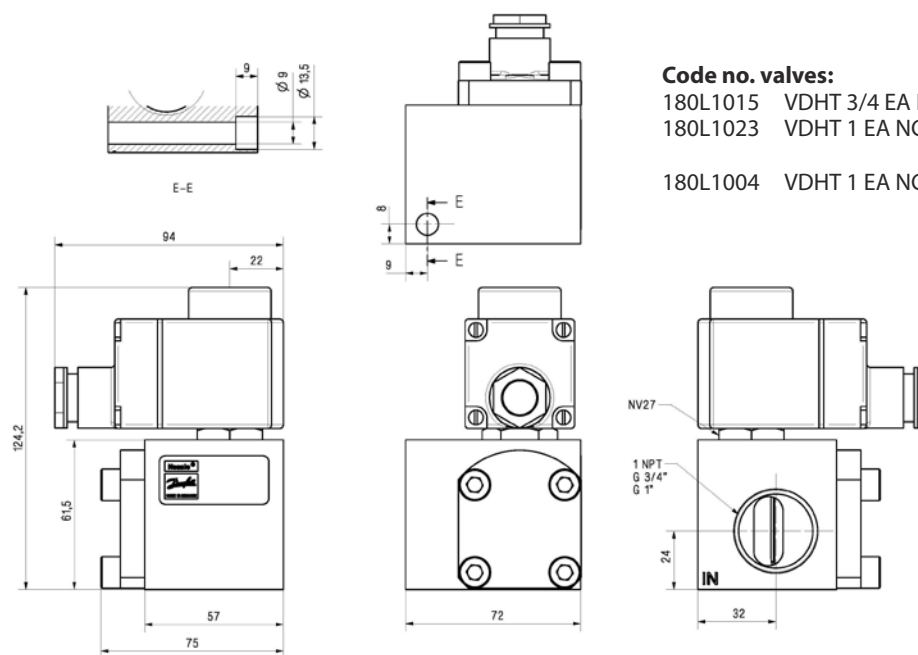
(red part numbers are being phased put)



**Spare parts**

|                            |                         |
|----------------------------|-------------------------|
| Armature kit NC            | 180L5002 / Pos.: 1, 5   |
| Armature kit NC HP         | 180L5011 / Pos.: 1, 5   |
| Armature kit NO            | 180L5010 / Pos.: 4, 5   |
| Orifice kit 1 (see page 8) | 180Z0098 / Pos.: 6, 7   |
| Orifice kit 6 (see page 8) | 180L4016 / Pos.: 6, 7   |
| Piston kit Ø 35,1          | 180Z0026 / Pos.: 10, 11 |

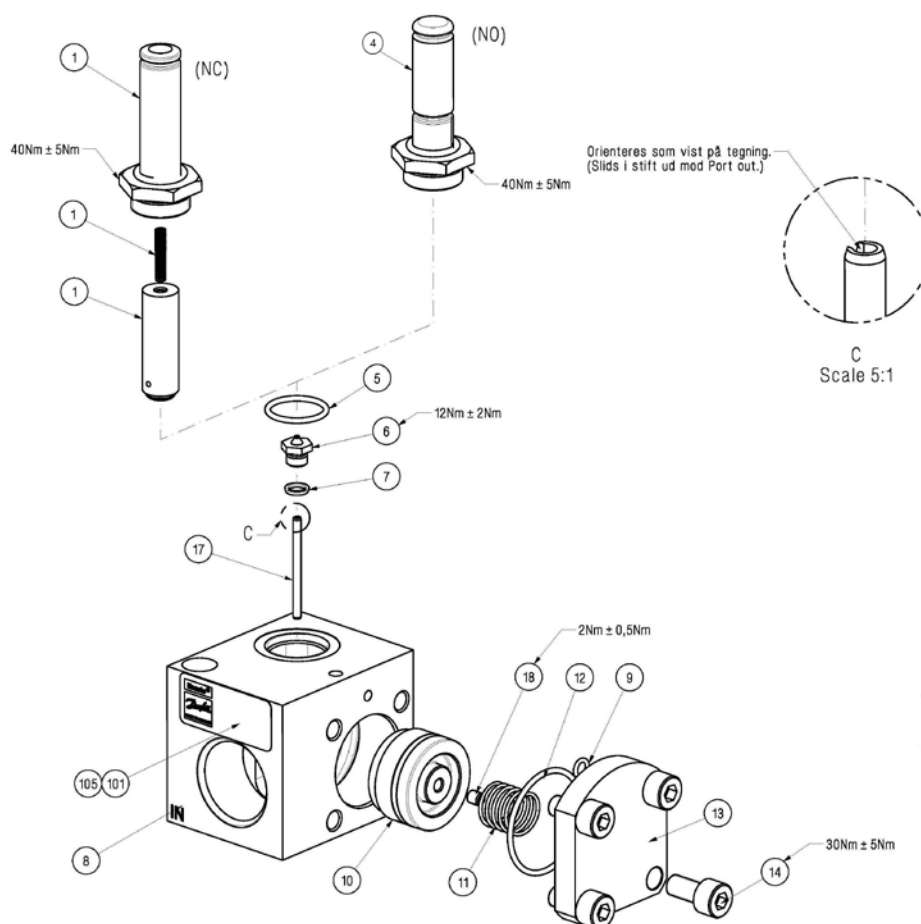
**VDHT 3/4 EA N and  
VDHT 1 EA N  
Drawings  
Spare parts**



**Code no. valves:**

180L1015 VDHT 3/4 EA NC BSP N  
180L1023 VDHT 1 EA NC BSP N

180L1004 VDHT 1 EA NC NPT N

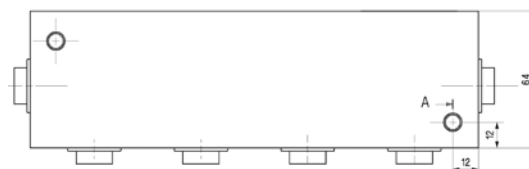
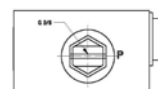
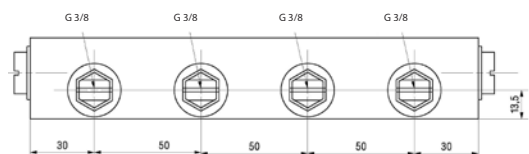
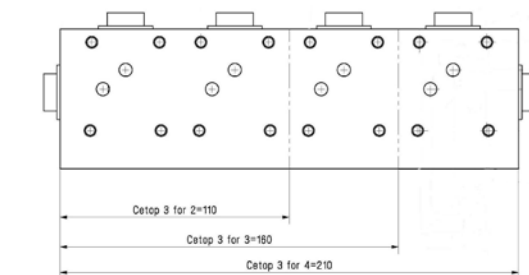
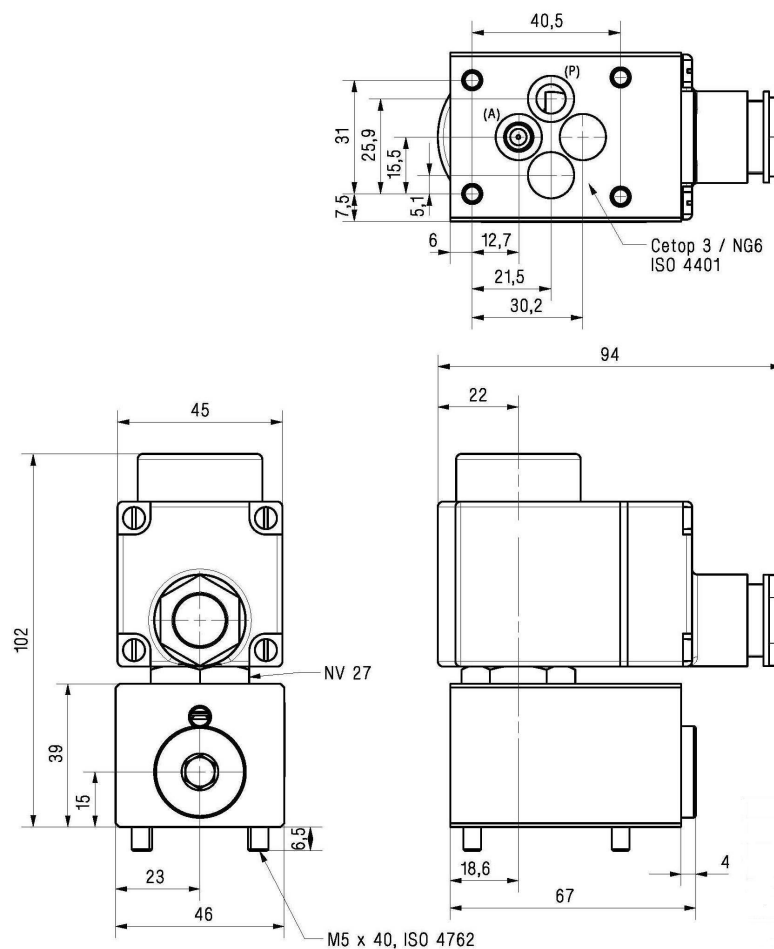


**Spare parts**

Armature kit NC  
Armature kit NC HP  
Armature kit NO  
Orifice kit 1  
Piston kit Ø 35,1 N

180L5002 / Pos.: 1, 5  
180L5011 / Pos.: 1, 5  
180L5010 / Pos.: 4, 5  
180Z0098 / Pos.: 6, 7  
180Z0138 / Pos.: 10, 11, 18

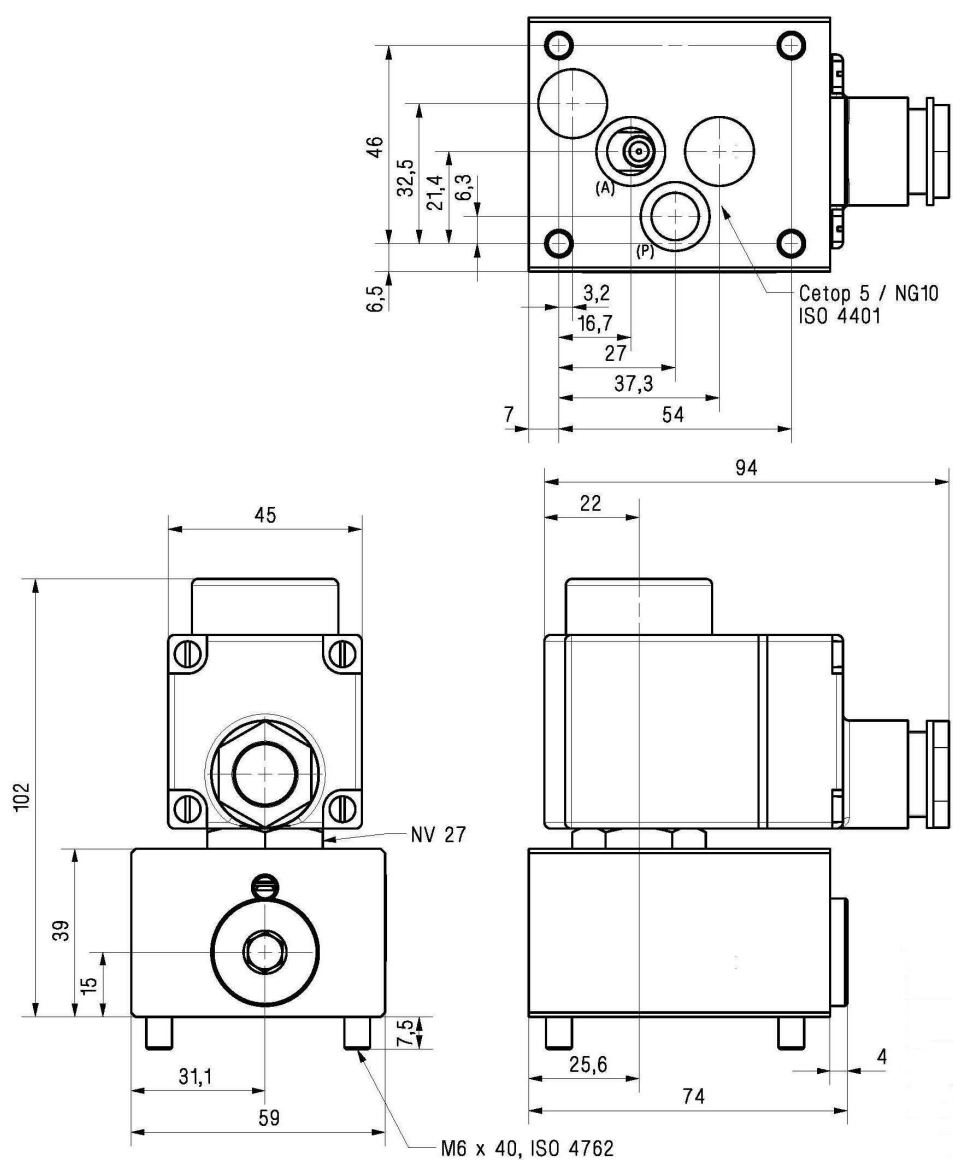
**VDHT 30 EC3**  
**Drawings**



**Cetop 3 block for VDH / VDHT 30 EC3**

- 1 Manifold 180L0061
- 2 Manifold 180L0062
- 3 Manifold 180L0063
- 4 Manifold 180L0064

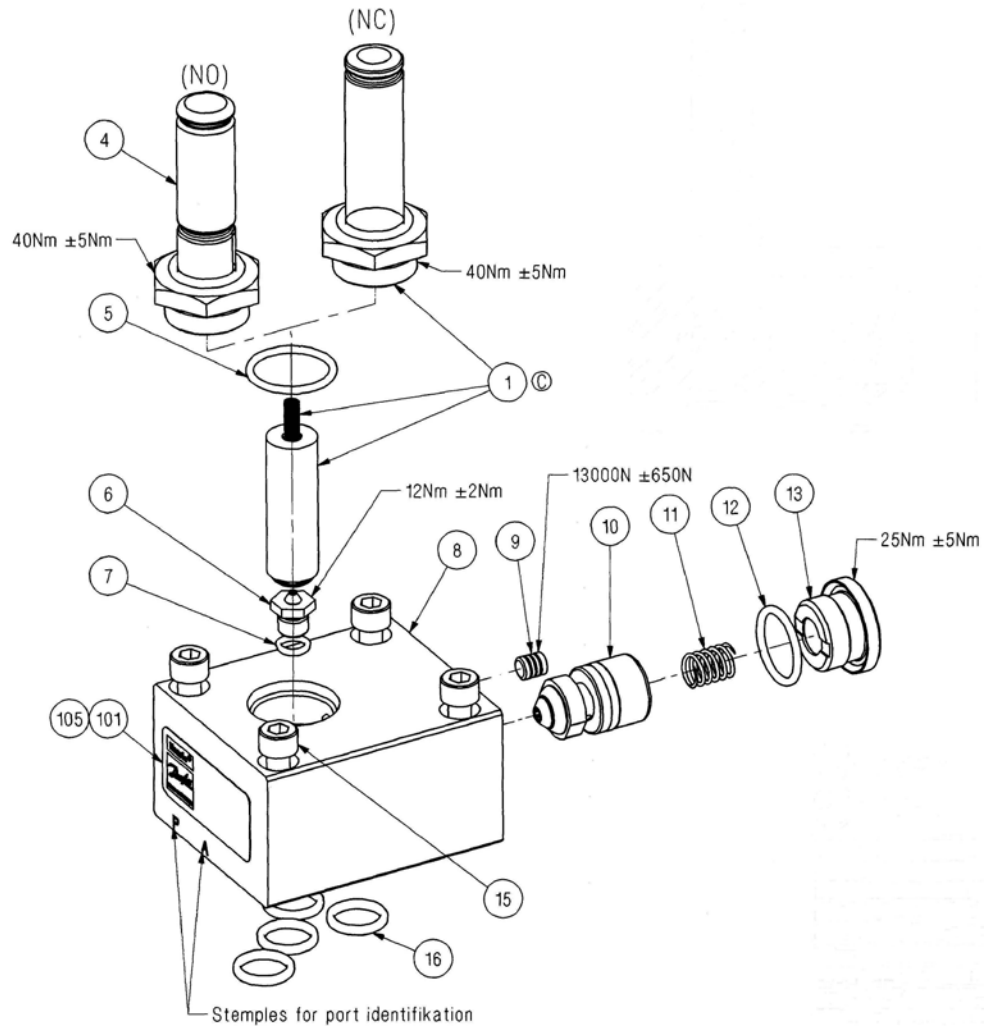
**VDHT 60 EC5**  
Drawings



**Cetop 5 block for VDHT 60 EC5**

- 1 Manifold On request
- 2 Manifold On request
- 3 Manifold On request
- 4 Manifold On request

**VDHT 30 EC3 / VDHT 60 EC5**  
**Spare parts**



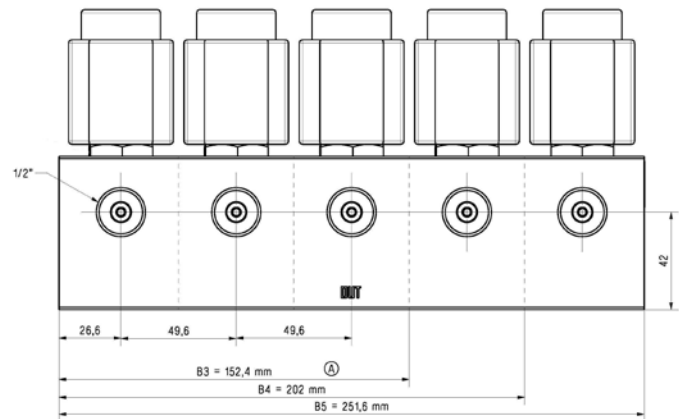
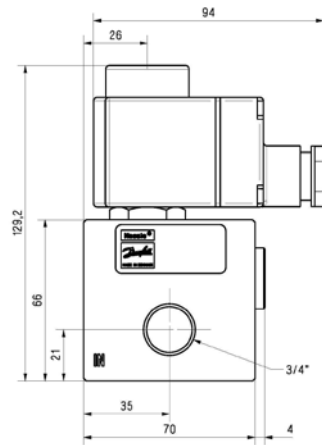
**Spare parts**

Armature kit NC  
Armature kit NC HP  
Armature kit NO  
Orifice kit 1  
Piston kit  $\varnothing$  18,1

180L5002 / Pos.: 1, 5  
180L5011 / Pos.: 1, 5  
180L5010 / Pos.: 4, 5  
180Z0098 / Pos.: 6, 7  
180Z0024 / Pos.: 10, 11

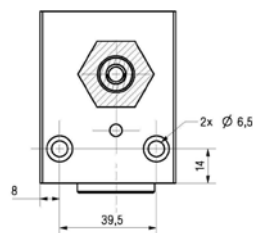
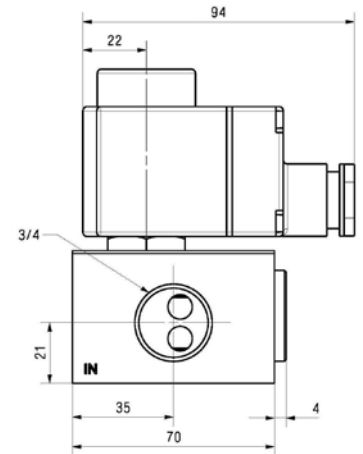
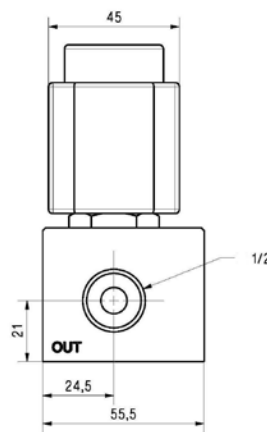
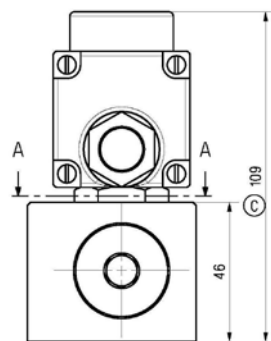
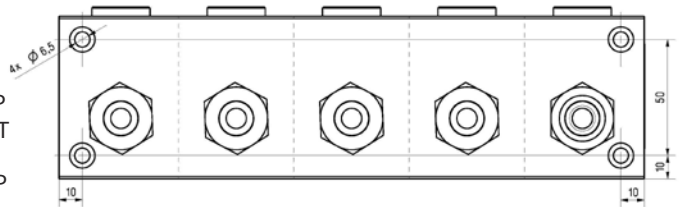


**VDHT B**  
**Drawings**



**Code no. valves:**

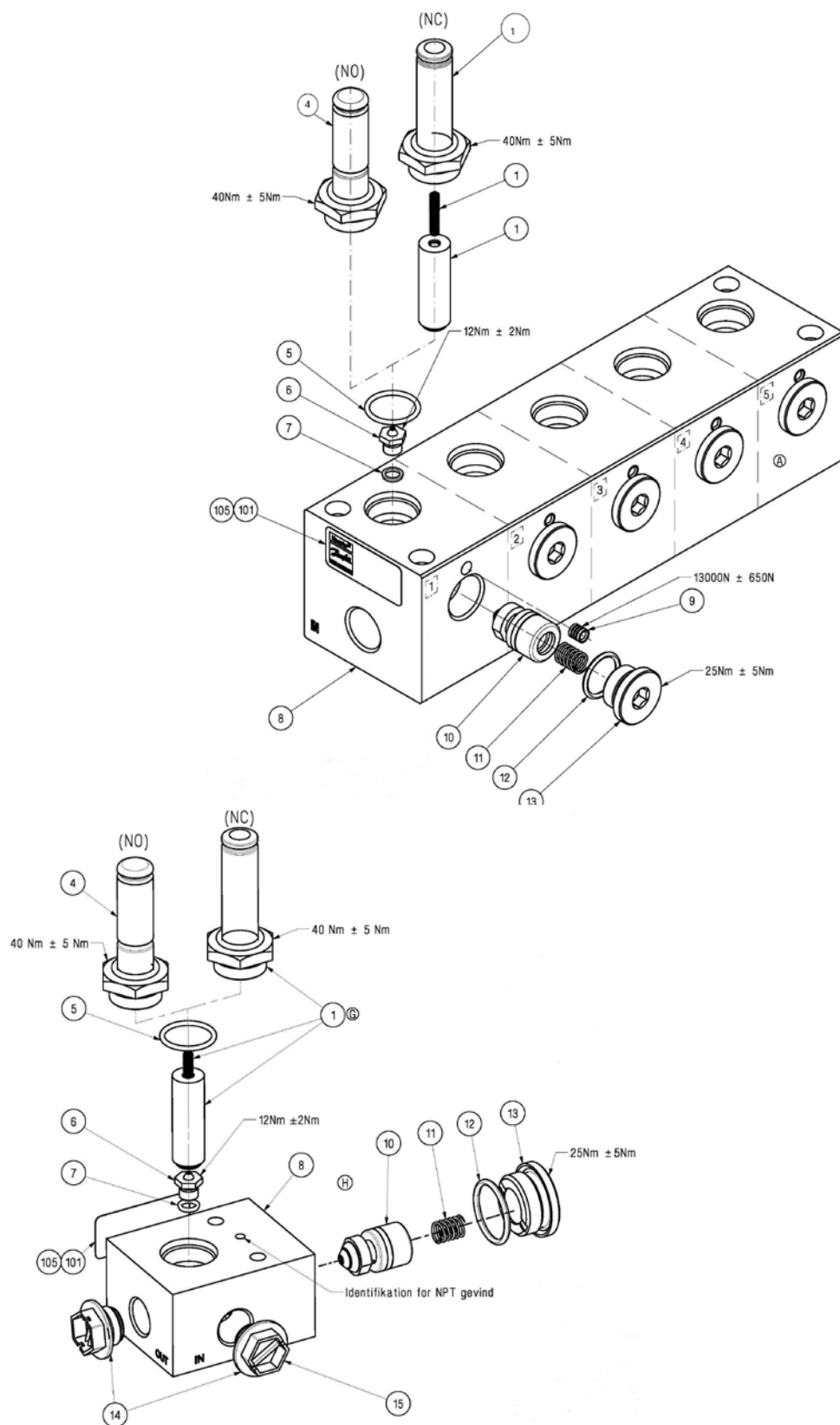
|          |                          |
|----------|--------------------------|
| 180L0270 | VDHT B2 1/2 NC BSP       |
| 180L0269 | VDHT B2 1/2 NC NPT       |
| 180L0258 | VDHT B2 1/2 NC-NO BSP    |
| 180L0177 | VDHT B2 1/2 NC-NO NPT    |
| 180L0210 | VDHT B2 1/2 NO NPT       |
| 180L0124 | VDHT B2 3/4 - 1/2 NC BSP |
| 180L0088 | VDHT 3/4 - 1/2 NC BSP    |
| 180L0255 | VDHT B3 3/4 - 1/2 NC NPT |
| 180L0123 | VDHT B4 3/4 - 1/2 BSP    |
| 180L0207 | VDHT B4 3/4 - 1/2 NC NPT |
| 180L0091 | VDHT B5 3/4 - 1/2 NC BSP |



**Extension module:**

180L0090 VDHT 3/4 - 1/2 EA NC BSP

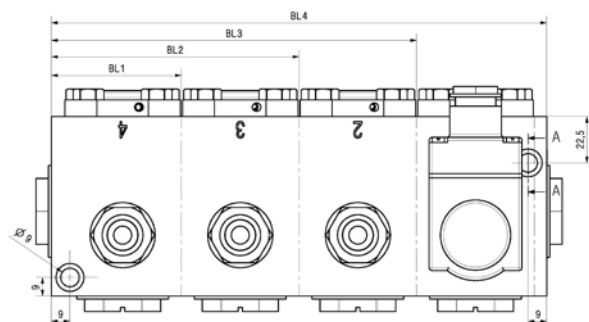
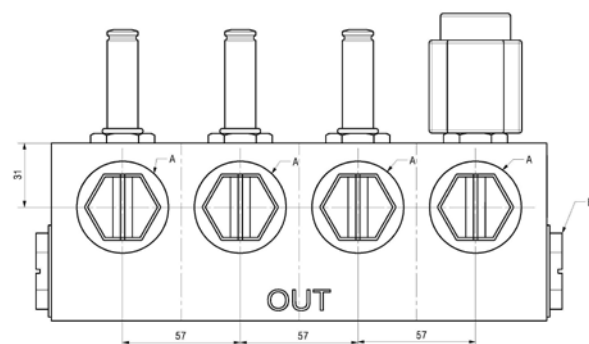
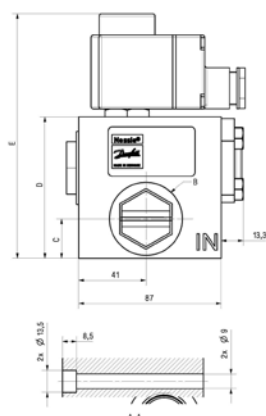
**VDHT B**  
**Spare parts**



**Spare parts**

|                    |                         |
|--------------------|-------------------------|
| Armature kit NC    | 180L5002 / Pos.: 1, 5   |
| Armature kit NC HP | 180L5011 / Pos.: 1, 5   |
| Armature kit NO    | 180L5010 / Pos.: 4, 5   |
| Orifice kit 1      | 180Z0098 / Pos.: 6, 7   |
| Piston kit Ø 18,1  | 180Z0024 / Pos.: 10, 11 |

**VDHT BL  
Drawings**

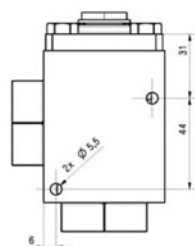


**Code no. valves:**

- 180L0265 VDHT BL 1 1-3/4 NC BSP
- 180L0290 VDHT BL 1S 28-3/4 NC BSP
- 180L0202 VDHT BL2 3/4 NC BSP
- 180L0285 VDHT BL2 HP 3/4 NC BSP
- 180L0206 VDHT BL2 3/4 NC NPT
- 180L0273 VDHT BL2 3/4 NC-NO BSP
- 180L0180 VDHT BL2 3/4 NC-NO NPT
- 180L0275 VDHT BL2 1 NC BSP
- 180L0224 VDHT BL2 1 NC SAE-16
- 180L0220 VDHT BL2S 1 NC SAE-16
- 180L0274 VDHT BL2 NC-NO BSP
- 180L0231 VDHT BL2S 1-3/4 NC NPT
- 180L0267 VDHT BL2S 3/4 NC BSP
- 180L0238 VDHT BL2S 3/4 NC NO BSP
- 180L0089 VDHT BL3 3/4 NC BSP
- 180L0286 VDHT BL3 HP 3/4 NC BSP
- 180L0204 VDHT BL3 3/4 NC NPT
- 180L0189 VDHT BL3 1 NC BSP
- 180L0268 VDHT BL3 1 NC NPT
- 180L0266 VDHT BL3S 1 NC SAE-16
- 180L0232 VDHT BL3S 1-3/4 NC NPT
- 180L0172 VDHT BL4 1 NC BSP
- 180L0287 VDHT BL4 HP 1 NC BSP
- 180L0225 VDHT BL4S 1 NC SAE-16
- 180L0272 VDHT BL4S NC

|          | A       | B       | C     | D     | E      | BL1   | BL2    | BL3    | BL4    |
|----------|---------|---------|-------|-------|--------|-------|--------|--------|--------|
| 180L0089 | 3/4"    | 3/4"    | 23 mm | 81 mm | 143 mm |       |        | 183 mm |        |
| 180L0204 | 3/4 NPT | 3/4 NPT | 23 mm | 81 mm | 143 mm |       |        | 183 mm |        |
| 180L0172 | 1"      | 1"      | 24 mm | 86 mm | 148 mm |       |        |        | 240 mm |
| 180L0287 | 1"      | 1"      | 24 mm | 86 mm | 148 mm |       |        |        | 240 mm |
| 180L0180 | 3/4"    | 3/4"    | 23 mm | 81 mm | 143 mm |       | 126 mm |        |        |
| 180L0189 | 1"      | 1"      | 24 mm | 86 mm | 148 mm |       |        | 183 mm |        |
| 180L0268 | 1"      | 1"      | 24 mm | 86 mm | 148 mm |       |        | 183 mm |        |
| 180L0265 | 3/4"    | 1"      | 24 mm | 86 mm | 148 mm | 69 mm |        |        |        |
| 180L0267 | 3/4"    | 3/4"    | 24 mm | 82 mm | 144 mm |       | 126 mm |        |        |
| 180L0202 | 3/4"    | 3/4"    | 24 mm | 82 mm | 144 mm |       | 126 mm |        |        |
| 180L0285 | 3/4"    | 3/4"    | 24 mm | 82 mm | 144 mm |       | 126 mm |        |        |
| 180L0274 | 1"      | 1"      | 24 mm | 86 mm | 144 mm |       | 126 mm |        |        |
| 180L0275 | 1"      | 1"      | 24 mm | 86 mm | 144 mm |       | 126 mm |        |        |
| 180L0289 | 1"      | 3/4"    | 24 mm | 86 mm | 144 mm |       | 126 mm |        |        |

(red part numbers are being phased out)

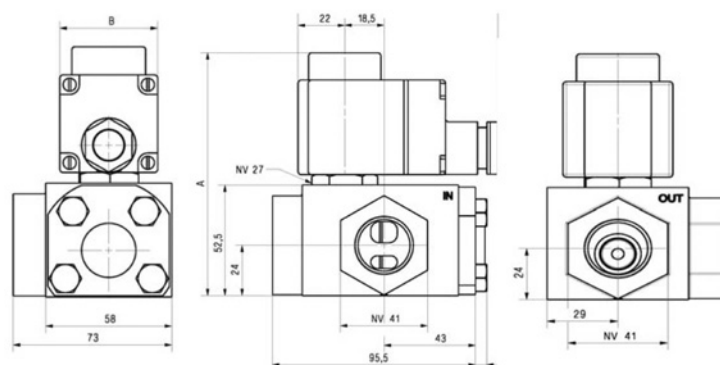


| Valve type | A     | B  | C   |
|------------|-------|----|-----|
| NC/NO      | 115,5 | 45 | 94  |
| EEX        | 125,5 | 68 | 125 |

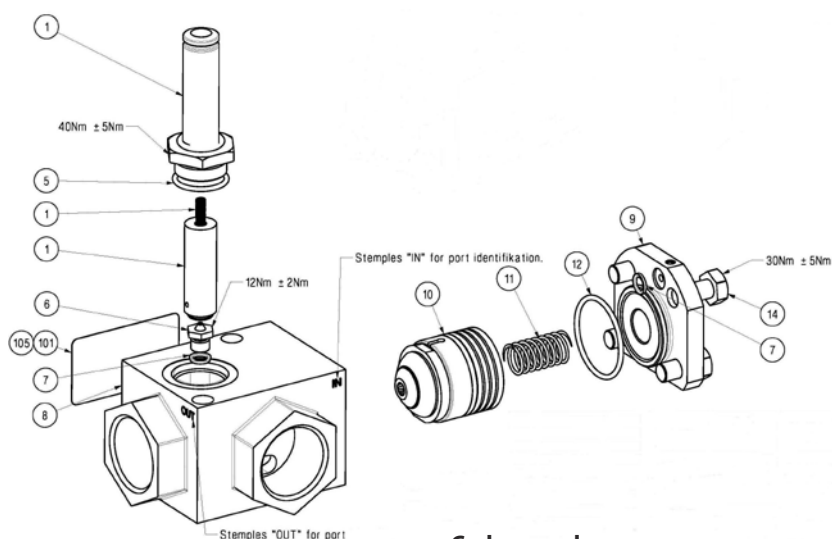
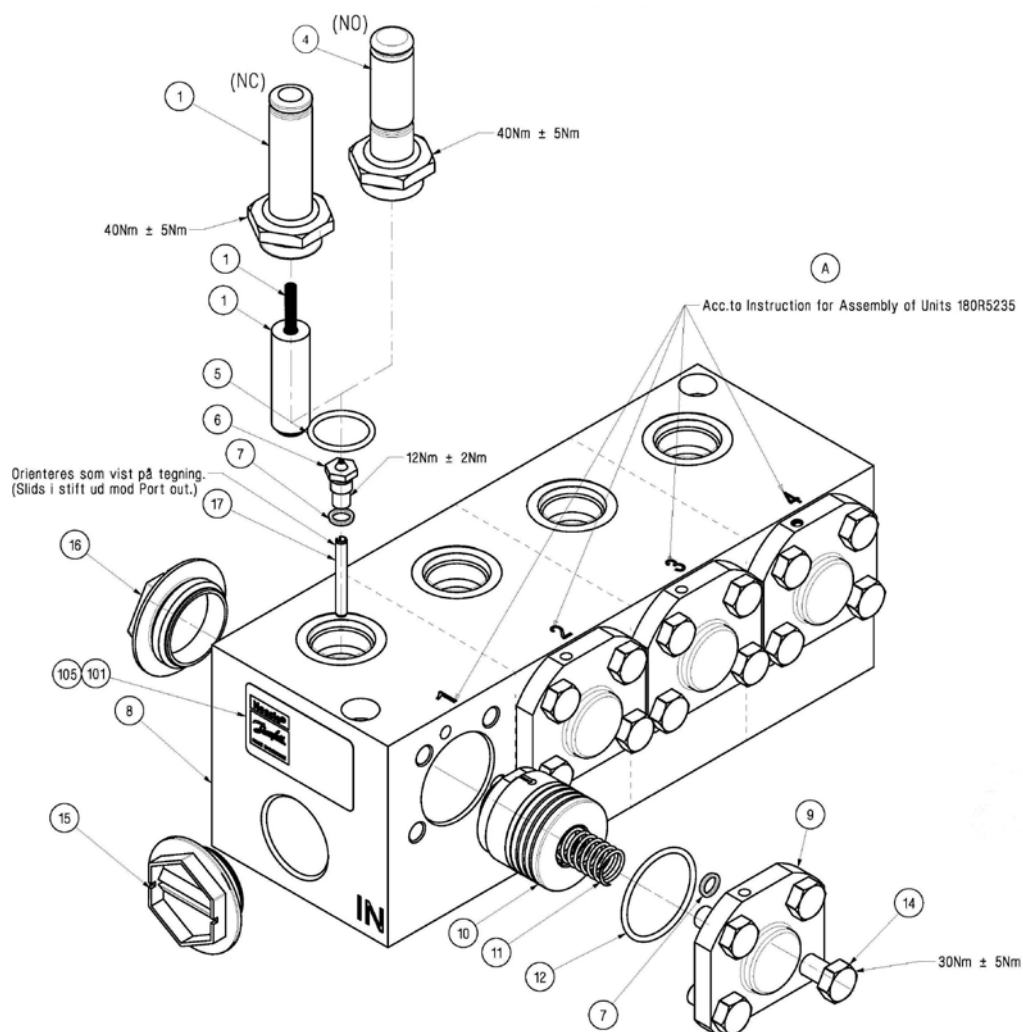
**Extension module:**

- 180L0118 VDHT 3/4 EA NC BSP
- 180L0119 VDHT 3/4 EA NC NPT
- 180L0106 VDHT 1 EA NC BSP
- 180L0107 VDHT 1 EA NC NPT

(red part numbers are being phased out)



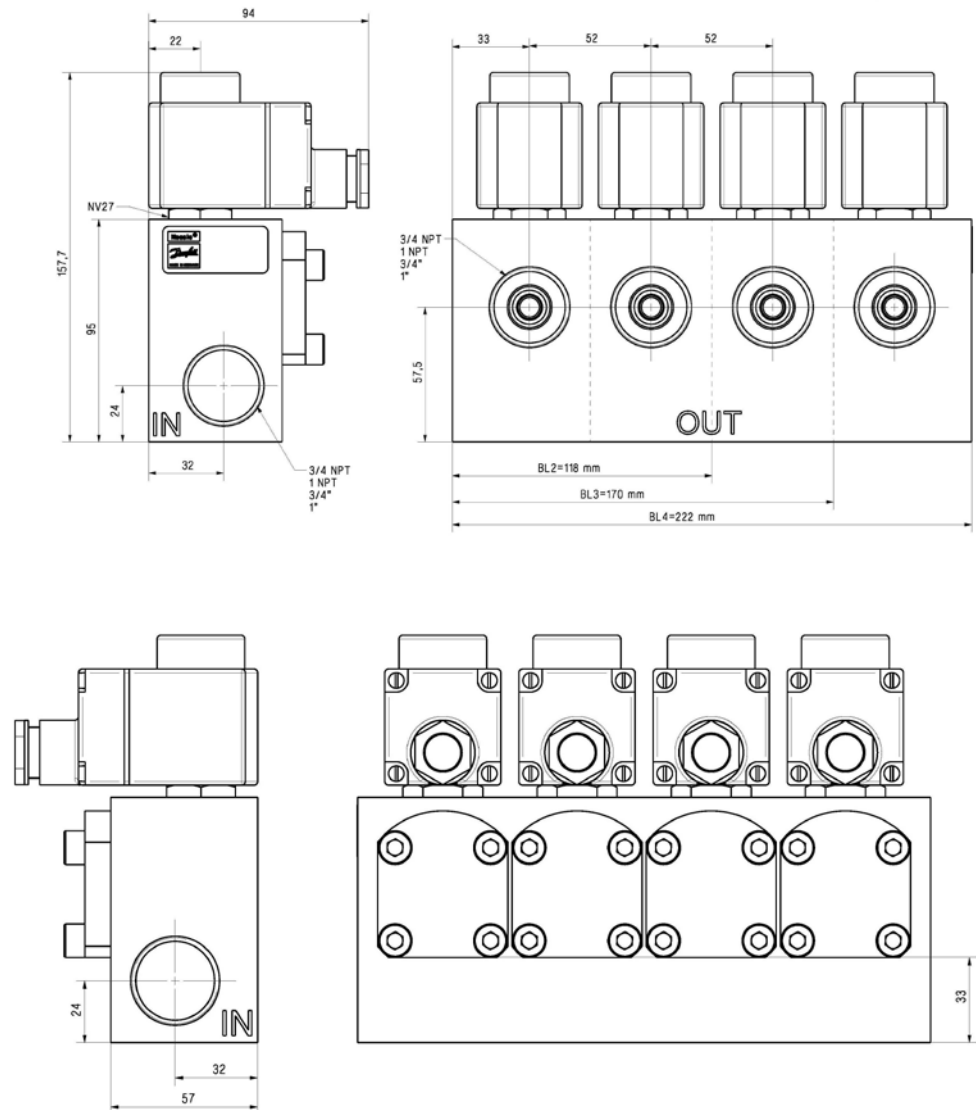
**VDHT BL**  
**Spare parts**



**Code no. valves**

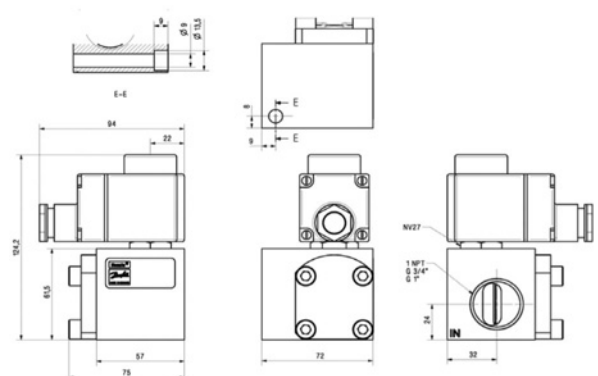
|                              |                         |
|------------------------------|-------------------------|
| Armature kit NC              | 180L5002 / Pos.: 1, 5   |
| Armature kit NC HP           | 180L5011 / Pos.: 1, 5   |
| Armature kit NO              | 180L5010 / Pos.: 4, 5   |
| Orifice kit 1 (see page 8/9) | 180Z0098 / Pos.: 6, 7   |
| Orifice kit 2 (see page 8/9) | 180L4015 / Pos.: 6, 7   |
| Orifice kit 6 (see page 8/9) | 180L4015 / Pos.: 6, 7   |
| Piston kit Ø 35,1            | 180Z0026 / Pos.: 10, 11 |

**VDHT BL N**  
**Drawings**



**Code no. valves:**

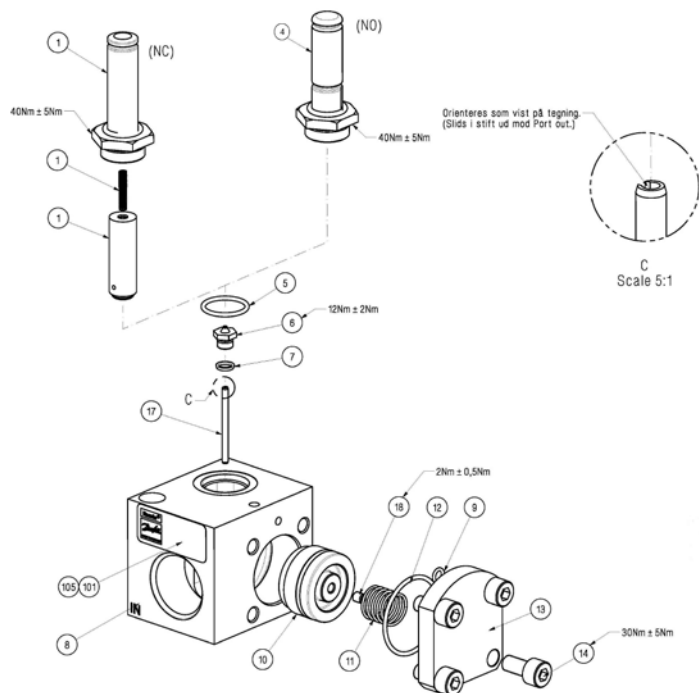
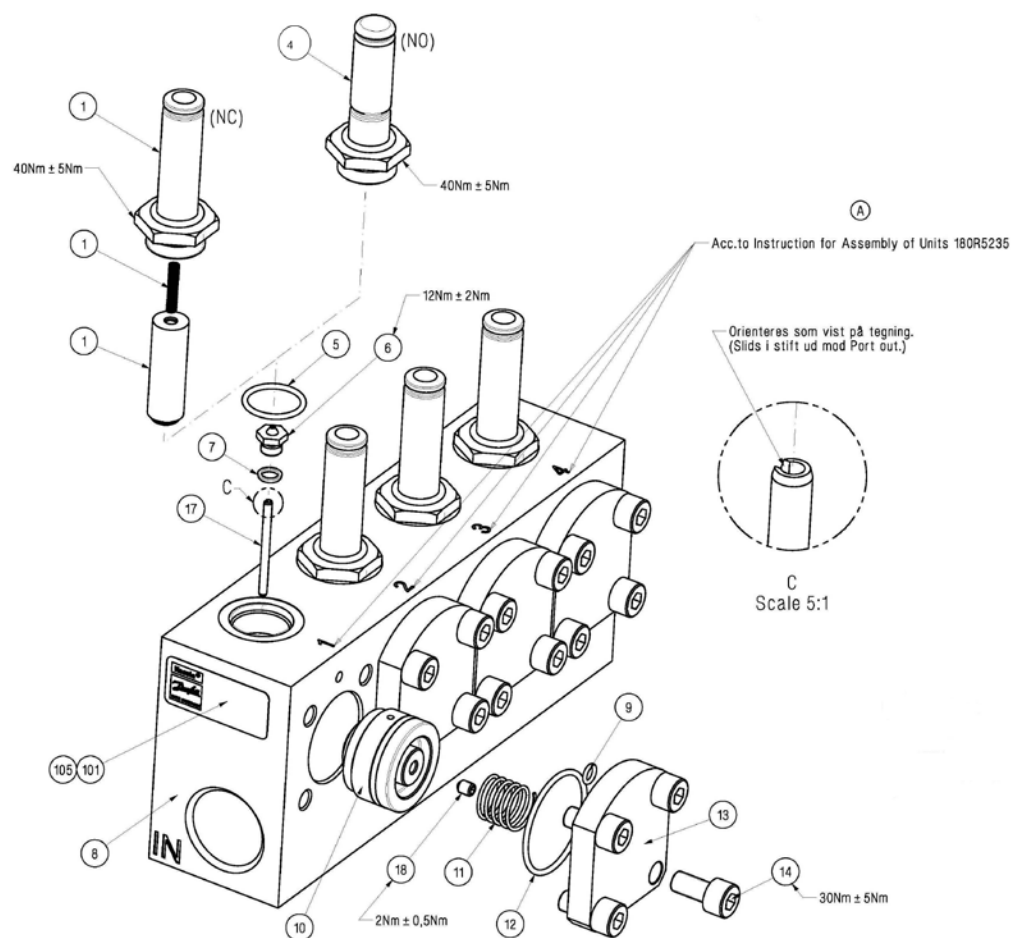
|          |                          |
|----------|--------------------------|
| 180L1003 | VDHT BL2 3/4 NC BSP N    |
| 180L1027 | VDHT BL2 HP 3/4 NC BSP N |
| 180L1007 | VDHT BL2 3/4 NC NPT N    |
| 180L1024 | VDHT BL2 3/4 NC-NO BSP N |
| 180L1002 | VDHT BL 1 NC BSP N       |
| 180L1026 | VDHT BL2 1 NC SAE-16 N   |
| 180L1000 | VDHT BL2S 3/4 NC BSP N   |
| 180L1025 | VDHT BL3 3/4 NC BSP N    |
| 180L1028 | VDHT BL3 HP 3/4 NC BSP N |
| 180L1010 | VDHT BL3 3/4 NC NPT N    |
| 180L1011 | VDHT BL3 1 NC BSP N      |
| 180L1016 | VDHT BL4 1 NC BSP N      |
| 180L1029 | VDHT BL4 HP 1 NC BSP N   |



**Extension module:**

|          |                        |
|----------|------------------------|
| 180L1015 | VDHT 3/4 - EA NC BSP N |
| 180L1023 | VDHT 1 EA NC BSP N     |
| 180L1004 | VDHT1 EA NC NPT N      |

**VDHT BL N**  
**Spare parts**



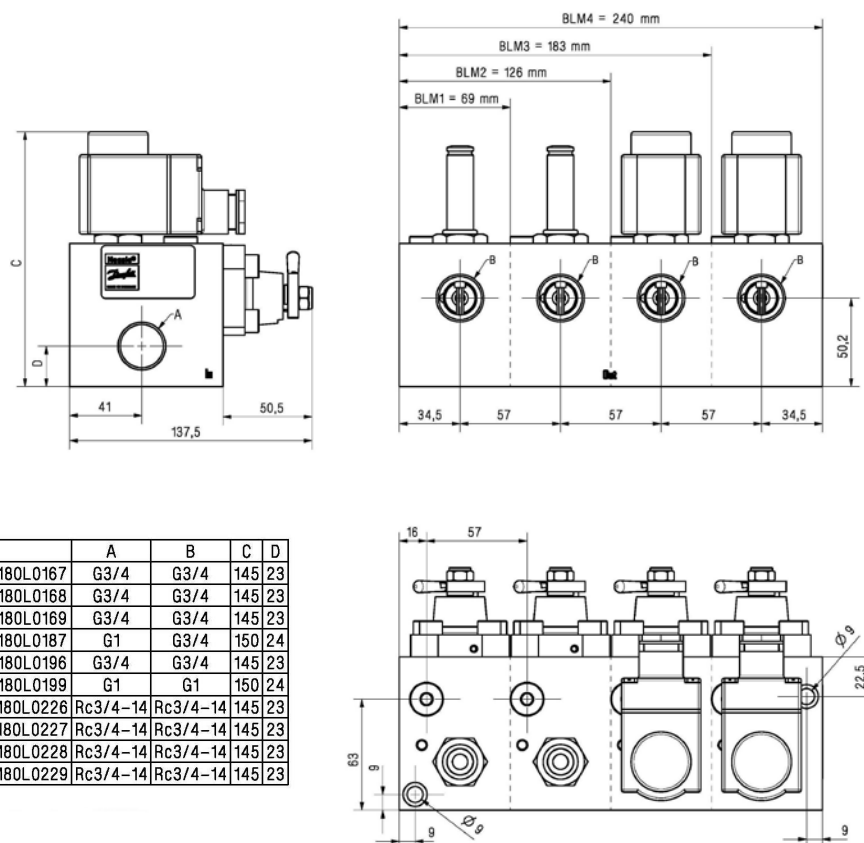
**Spare parts**

Armature kit NC  
Armature kit NC HP  
Armature kit NO  
Orifice kit 1  
Piston kit Ø 35,1 N

180L5002 / Pos.: 1, 5  
180L5011 / Pos.: 1, 5  
180L5010 / Pos.: 4, 5  
180Z0098 / Pos.: 6, 7  
180Z0138 / Pos.: 10, 11, 18



**VDHT BLM  
Drawings**

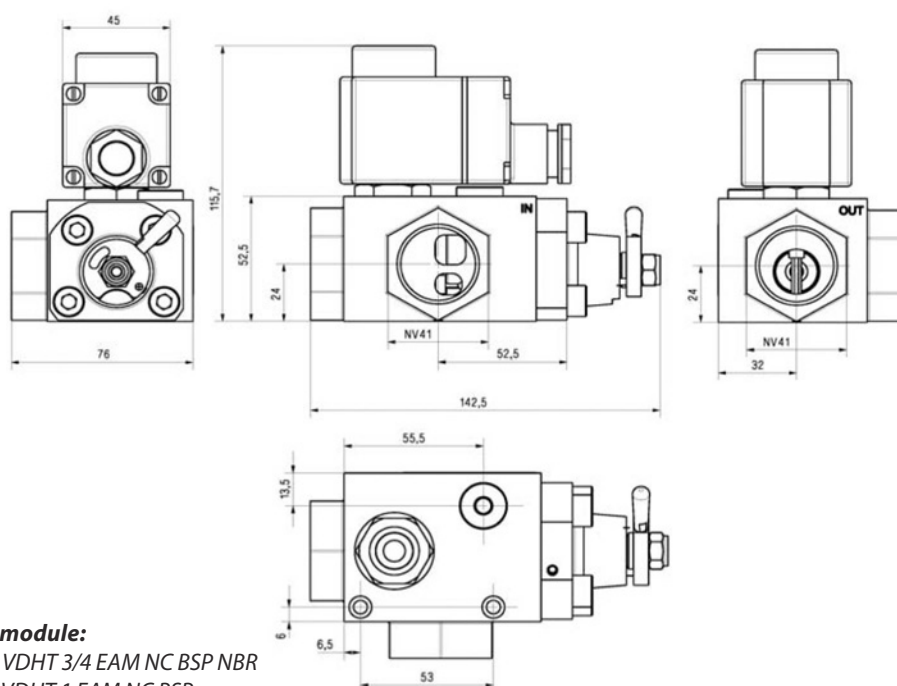


|          | A        | B        | C   | D  |
|----------|----------|----------|-----|----|
| 180L0167 | G3/4     | G3/4     | 145 | 23 |
| 180L0168 | G3/4     | G3/4     | 145 | 23 |
| 180L0169 | G3/4     | G3/4     | 145 | 23 |
| 180L0187 | G1       | G3/4     | 150 | 24 |
| 180L0196 | G3/4     | G3/4     | 145 | 23 |
| 180L0199 | G1       | G1       | 150 | 24 |
| 180L0226 | Rc3/4-14 | Rc3/4-14 | 145 | 23 |
| 180L0227 | Rc3/4-14 | Rc3/4-14 | 145 | 23 |
| 180L0228 | Rc3/4-14 | Rc3/4-14 | 145 | 23 |
| 180L0229 | Rc3/4-14 | Rc3/4-14 | 145 | 23 |

**Code no. valves:**

|          |                            |
|----------|----------------------------|
| 180L0196 | VDHT BLM 1-3/4 NC BSP NBR  |
| 180L0167 | VDHT BLM2 3/4 NC BSP NBR   |
| 180L0199 | VDHT BLM2 1 NC BSP NBR     |
| 180L0168 | VDHT BLM3 3/4 NC BSP NBR   |
| 180L0187 | VDHT BLM3 1-3/4 NC BSP NBR |
| 180L0169 | VDHT BLM 4 3/4 NC BSP NBR  |

*(red part numbers are being phased put)*

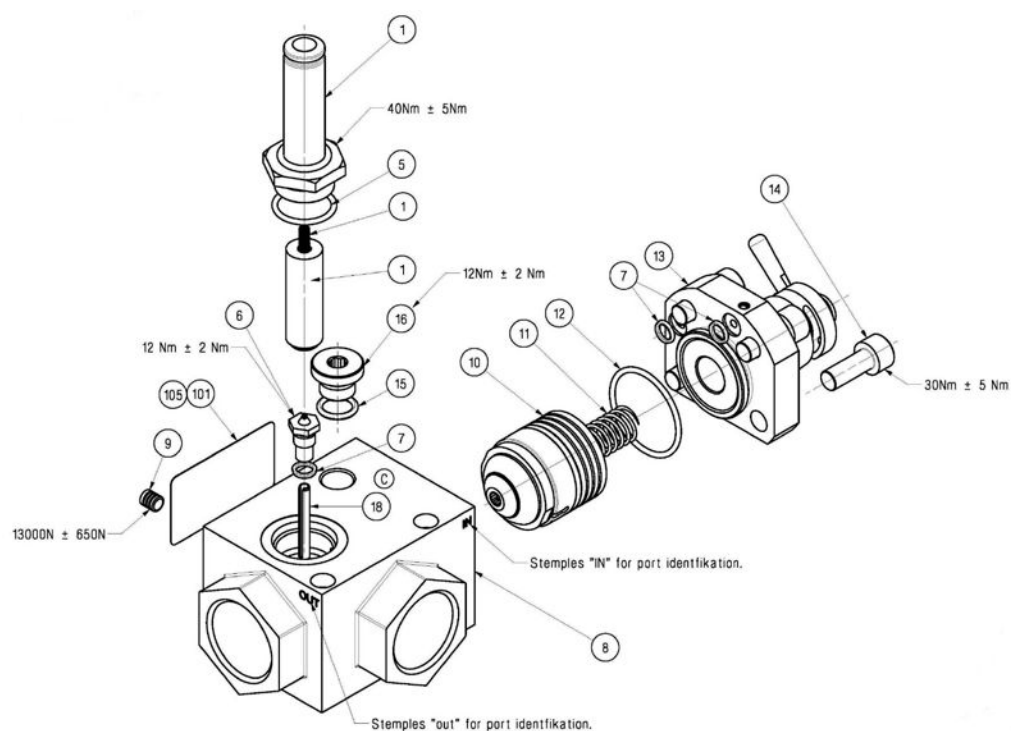
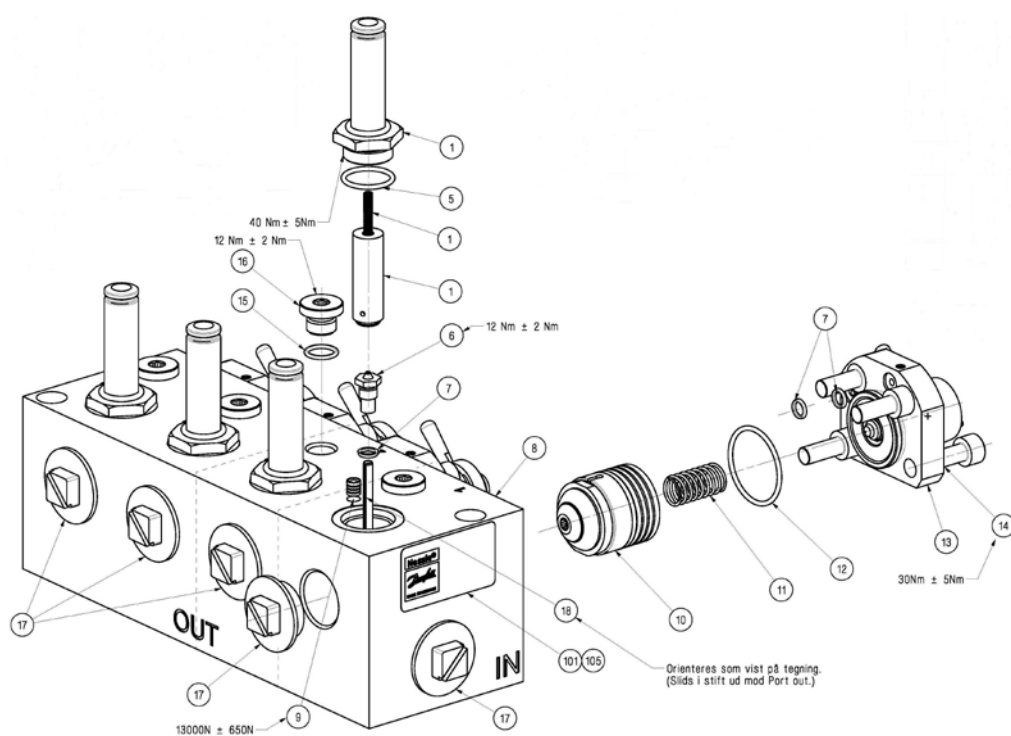


**Extension module:**

|          |                         |
|----------|-------------------------|
| 180L0122 | VDHT 3/4 EAM NC BSP NBR |
| 180L0110 | VDHT 1 EAM NC BSP       |



**VDHT BLM**  
**Spare parts**



**Spare parts**

Armature kit NC

Orifice kit 1 (see page 9)

Orifice kit 2 (see page 9)

Piston kit Ø 35,1

180L5002 / Pos.: 1, 5

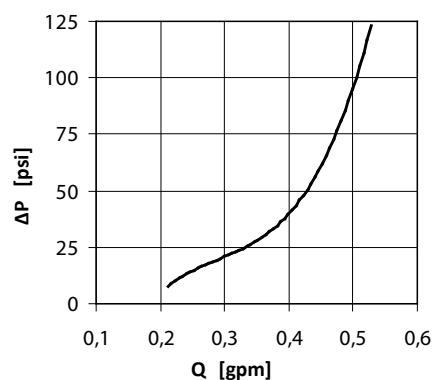
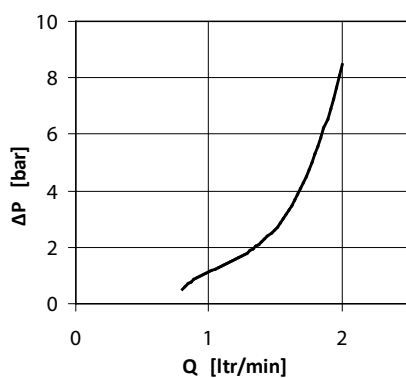
180Z0098 / Pos.: 6, 7

180L4015 / Pos.: 6, 7

180Z0026 / Pos.: 10, 11

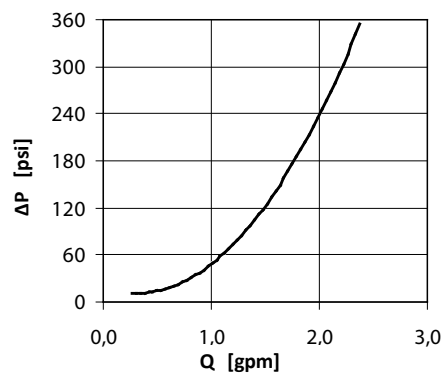
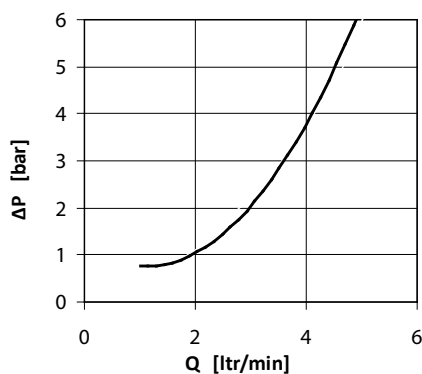
**Pressure losses p  
INLET to OUTLET**

**VDH 2E ¼ 1,4**



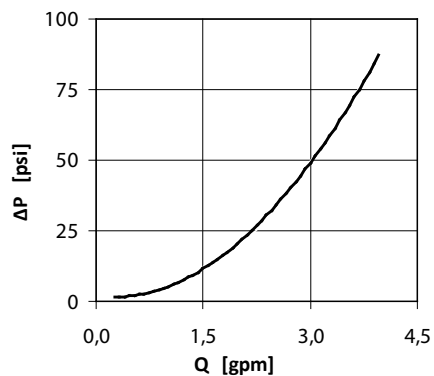
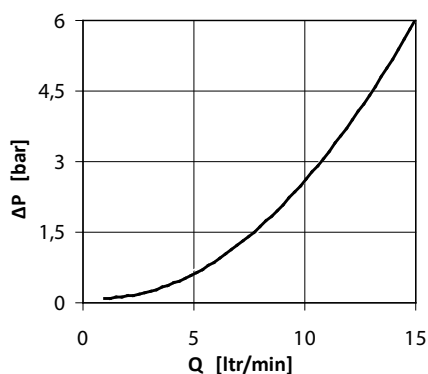
**Pressure losses p  
INLET to OUTLET**

**VDH 2E ¼ 3,5**



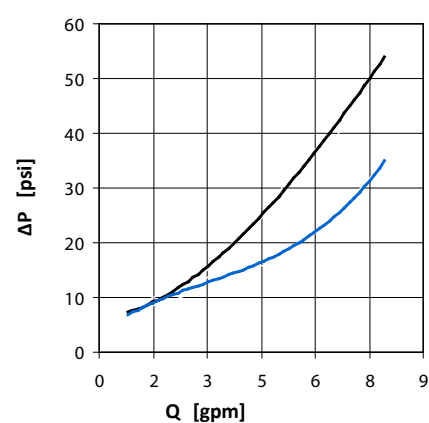
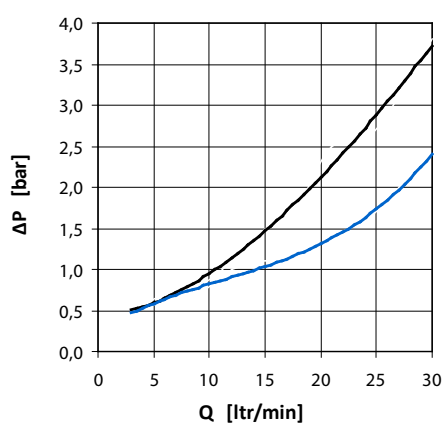
**Pressure losses p  
INLET to OUTLET**

**VDHT ¼ E**



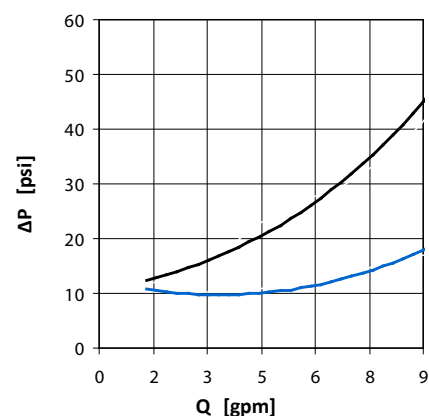
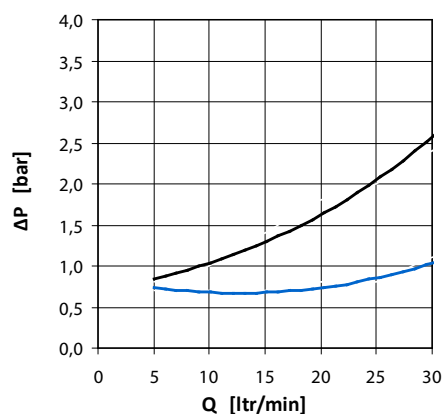
Pressure losses p  
INLET to OUTLET

VDHT 3/8 E  
VDHT 3/8 EA



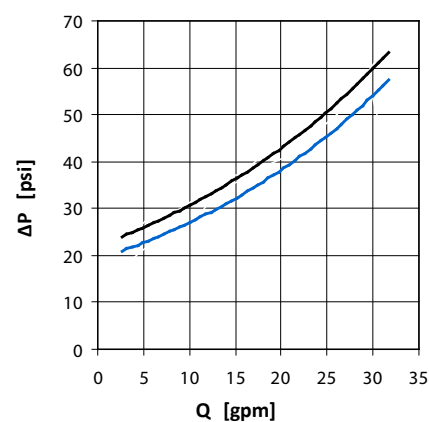
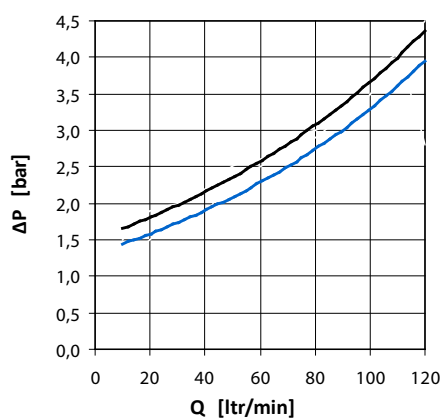
Pressure losses p  
INLET to OUTLET

VDHT 1/2 E  
VDHT 1/2 EA  
VDHT B



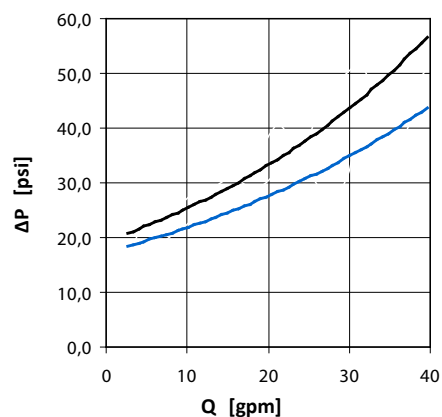
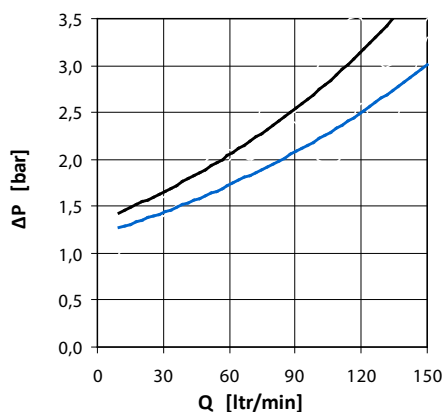
Pressure losses p  
INLET to OUTLET

VDHT 3/4 ED  
VDHT 3/4 ED N  
VDHT 3/4 EA  
VDHT 3/4 EA N  
VDHT 3/4 EAM  
VDHT BL  
VDHT BL N  
VDHT BLM



Pressure losses p  
INLET to OUTLET

VDHT 1 ED  
VDHT 1 ED N  
VDHT 1 EA  
VDHT 1 EA N  
VDHT 1 EAM  
VDHT BL  
VDHT BL N  
VDHT BLM



Pressure losses p  
INLET to OUTLET

VDHT 30 EC3  
VDHT 60 EC5

