ENGINEERING
TOMORROW

Data sheet.

VDHT Solenoid valves
Standard BSP (British Standard Pipes)



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1. Picture overview

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 valve 	
VDHT 30 EC **G 3/8 / Cetop 3 manifold**	
VDHT integrated valve blocks 	
VDHT B 2-5 **Input G 1/2 / G 3/4** **Output G 1/2**	**VDHT BL 2-4** **Input G 3/4 / G 1** **Output G 3/4 / G 1**
VDHT manual bypass 	
VDHT EAM	**VDHT BLM 2-4**

2. Introduction

The VDHT valve series are designed for several 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 several applications: car wash systems, stationary high pressure cleaning, mobile cleaning vehicles and dust bindings systems, ect.

Function

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

Features

- Corrosion resistant
- Easy-to-clean
- Reliability
- Dirt tolerant, max. sieve (strainer) width 200 µm or better
- High temperature-resistant
- Robust design prevents leakage
- High coil density IP67 (NEMA 4X)
- 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). Standard valves are delivered with PTFE piston and FKM as seal material and FPM O-rings.

VDHT inline valves are available with a number of mounting possibilities, flow direction, port size: ¼, $^3/_8$, ½, ¾ and 1" BSP and more - defining the following designation. The VDHT valves are also available with NPT thread.

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

If the recommendations in the manual are not followed, Danfoss reserves the right to void the warranty.

3. VDHT valve selection overview

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

Temperature

- Medium temperature: 2–90 °C (35.6–194 °F)
- Ambient temperature: 2–80 °C (35.6–176 °F) depending on the coil specification
- Storage temperature: -40–80 °C (-40–176 °F) Provided that the valve is drained from fluid and stored "plugged".

General

$P_{in} > P_{out}$	For correct functioning of the VDHT valves, always ensure the inlet pressure to be higher than the outlet pressure
Pilot flow	The VDHT pilot oprated poppet type (armature + poppet) always needs min. 1 l/min. (0.26 gpm) flow to ensure correct functioning
Viscosity	Max viscosity of fluid: 45mm²/s. Remark fluid viscosity has influence on pressure drop and opening/closing time of the VDHT valves.

4. Overview single valves



2/2-way solenoid valve, type VDH 2E 1/4

Opening / Closing time NC (at Qnom) 100–200 ms / 100–200 ms

Description	Code no.	Q nom l/min. (gpm)	p max barg (psig)	T max °C (°F)	Connec-tion	Operating pressure/ barg (psig)	Weight excl. coil kg (lbs)	Piston Ø mm	Orifice kit
VDH 2E 1/4 NC 1,4 BSP	180L0018	2 (0.5)	100 (1450)	90 (194)	G 1/4	0.0	0.5 (1.1)	–	4
VDH 2E 1/4 NO 1,4 BSP	180L0019	2 (0.5)	90 (1300)	90 (194)	G 1/4	0.0	0.5 (1.1)	–	4
VDH 2E 1/4 NC 3,5 BSP	180L1018	5 (0.7)	30 (435)	90 (194)	G 1/4	0.0	0.5 (1.1)	–	5



2/2 - way solenoid valve, type VDHT 1/4 E

Opening / Closing time NC (at Qnom) 100–200 ms / 100–200 ms

Description	Code no.	Q nom l/min. (gpm)	p max barg (psig)	T max °C (°F)	Connec-tion	Operating pressure/ barg (psig)	Weight excl. coil kg (lbs)	Piston Ø mm	Orifice kit
VDHT 1/4 E NC BSP	180L0241	15 (4.0)	100 (1450)	90 (194)	G 1/4	0.3 (4.5)	0.6 (1.3)	ø11.9	1
VDHT 1/4 E NO BSP	180L0242	15 (4.0)	100 (1450)	90 (194)	G 1/4	0.3 (4.5)	0.6 (1.3)	ø11.9	1



2/2 - way solenoid valve, type VDHT 3/8 E and 1/2 E

Opening / Closing time NC (at Qnom) G 3/8: 100–125 ms / 200–300 ms, G 1/2: 120–140 ms / 200–300 ms

Description	Code no.	Q nom l/min. (gpm)	p max barg (psig)	T max °C (°F)	Connec-tion	Operating pressure/ barg (psig)	Weight excl. coil kg (lbs)	Piston Ø mm	Orifice kit
VDHT 3/8 E NC BSP	180L0092	30 (8)	160 (2400)	90 (194)	G 3/8	3.5 (51)	1.2 (2.6)	ø18.1	1
VDHT 3/8 E NO BSP	180L0093	30 (8)	160 (2400)	90 (194)	G 3/8	3.5 (51)	1.2 (2.6)	ø18.1	1
VDHT 3/8 E HP NC BSP	180L0178	30 (8)	210 (3000)	90 (194)	G 3/8	3.5 (51)	1.2 (2.6)	ø18.1	1
VDHT 1/2 E NC BSP	180L0094	60 (16)	160 (2400)	90 (194)	G 1/2	3.5 (51)	1.2 (2.6)	ø18.1	1
VDHT 1/2 E NO BSP	180L0095	60 (16)	160 (2400)	90 (194)	G 1/2	3.5 (51)	1.2 (2.6)	ø18.1	1
VDHT 1/2 E HP NC BSP	180L0126	60 (16)	210 (3000)	90 (194)	G 1/2	3.5 (51)	1.2 (2.6)	ø18.1	1



2/2 - way solenoid valve, type VDHT 3/8 EA, 1/2 EA, 3/4 EA and 1 EA

Opening / Closing time NC (at Qnom) G 3/8: 100–125 ms / 200–300 ms, G 1/2: 120–140 ms / 200–300 ms,
G 3/4: 500–700 ms / 900–1200 ms, G1: 500–900 ms / 1200–2000 ms

Description	Code no.	Q nom l/min. (gpm)	p max barg (psig)	T max °C (°F)	Connec-tion	Operating pressure/ barg (psig)	Weight excl. coil kg (lbs)	Piston Ø mm	Orifice kit
VDHT 3/8 EA NC BSP	180L0100	30 (8)	160 (2400)	90 (194)	G 3/8	3.5 (51)	1.2 (2.6)	ø18.1	1
VDHT 3/8 EA NO BSP	180L0101	30 (8)	160 (2400)	90 (194)	G 3/8	3.5 (51)	1.2 (2.6)	ø18.1	1
VDHT 1/2 EA NC BSP	180L0188	60 (16)	160 (2400)	90 (194)	G 1/2	3.5 (51)	1.2 (2.6)	ø18.1	1
VDHT 1/2 EA NO BSP	180L0103	60 (16)	160 (2400)	90 (194)	G 1/2	3.5 (51)	1.2 (2.6)	ø18.1	1
VDHT 1/2 EA HP NC BSP	180L0234	60 (16)	210 (3000)	90 (194)	G 1/2	3.5 (51)	1.2 (2.6)	ø18.1	1
VDHT 3/4-1/2 EA NC BSP	180L0090	60 (16)	140 (2000)	90 (194)	G 3/4 - G 1/2	3.5 (51)	2.3 (5.0)	ø18.1	1
VDHT 3/4 EA NC BSP N	180L1015	120 (32)	140 (2000)	90 (194)	G 3/4	3.5 (51)	2.3 (5.0)	ø35.1 N	1
VDHT 1 EA NC BSP N	180L1023	150 (40)	140 (2000)	90 (194)	G 1	3.5 (51)	2.3 (5.0)	ø35.1 N	1

5. Overview single valves



2/2 - way solenoid block valve, type VDHT 3/4 ED and 1 ED

Opening / Closing time NC (at Qnom) G 3/4: 500–700 ms / 900–1200 ms, G 1: 500–900 ms / 1200–2000 ms

Description	Code no.	Q nom l/min (gpm)	p max barg (psig)	T max °C (°F)	Connection	Operating pressure/ barg (psig)	Weight excl. coil kg (lbs)	Piston Ø mm	Orifice kit
VDHT 3/4 ED NC BSP N	180L1012	120 (32)	140 (2030)	90 (194)	G 3/4	3.5 (51)	2.4 (5.3)	ø35.1 N	1
VDHT 3/4 ED HP NC BSP N	180L1030	120 (32)	210 (3000)	90 (194)	G 3/4	3.5 (51)	2.5 (5.5)	ø35.1 N	1
VDHT 1 ED NC BSP N	180L1022	150 (40)	140 (2030)	90 (194)	G 1	3.5 (51)	2.4 (5.3)	ø35.1 N	1
VDHT 1 ED NO BSP N	180L1014	150 (40)	140 (2030)	90 (194)	G 1	3.5 (51)	2.4 (5.3)	ø35.1 N	1



2/2 - way cetop 3 valves , type VDHT 30 EC

Opening / Closing time NC (at Qnom) 100–125 ms / 200–300 ms

Description	Code no.	Q nom l/min (gpm)	p max barg (psig)	T max °C (°F)	Connection	Operating pressure/ barg (psig)	Weight excl. coil kg (lbs)	Piston Ø mm	Orifice kit
VDHT 30 EC3 NC BSP	180L0096	30 (8)	160 (2400)	90 (194)	Cetop 3	3.5 (51)	1.0 (2.2)	ø18.1	1
VDHT 30 EC3 NO BSP	180L0097	30 (8)	160 (2400)	90 (194)	Cetop 3	3.5 (51)	1.0 (2.2)	ø18.1	1



Block for Cetop 3 valves

Description	Code no.	Q nom l/min (gpm)	p max barg (psig)	T max °C (°F)	Connection	Operating pressure/ barg (psig)	Weight kg (lbs)	Piston Ø mm	Orifice kit
Block for 2 Pe CETOP 3 valve	180L0062	30 (8)	160 (2400)	90 (194)	G 3/8	3.5 (51)	1.8 (3.9)	–	–
Block for 3 Pe CETOP 3 valve	180L0063	30 (8)	160 (2400)	90 (194)	G 3/8	3.5 (51)	2.6 (5.7)	–	–
Block for 4 Pe CETOP 3 valve	180L0064	30 (8)	160 (2400)	90 (194)	G 3/8	3.5 (51)	3.4 (7.5)	–	–

6. Overview block valves



2/2 - way integrated valve block, type VDHT B 2-5

Description	Code no.	Q nom l/min (gpm)	p max barg (psig)	T max °C (°F)	Connection	Operating pressure/ barg (psig)	Weight excl. coil kg (lbs)	Piston Ø mm	Orifice kit
VDHT B2 1/2 NC BSP	180L0270	60 (16)	160 (2400)	90 (194)	G 1/2 - G 1/2	3.5 (51)	3.7 (8.2)	ø18.1	1
VDHT B2 1/2 NC-NO BSP	180L0258	60 (16)	160 (2400)	90 (194)	G 1/2 - G 1/2	3.5 (51)	3.7 (8.2)	ø18.1	1
VDHT B2 3/4-1/2 NC BSP	180L0124	60 (16)	160 (2400)	90 (194)	G 3/4 - G 1/2	3.5 (51)	3.7 (8.2)	ø18.1	1
VDHT B3 3/4-1/2 NC BSP	180L0088	60 (16)	160 (2400)	90 (194)	G 3/4 - G 1/2	3.5 (51)	5.5 (12.1)	ø18.1	1
VDHT B4 3/4-1/2 NC BSP	180L0123	60 (16)	160 (2400)	90 (194)	G 3/4 - G 1/2	3.5 (51)	7.4 (16.3)	ø18.1	1
VDHT B5 3/4-1/2 NC BSP	180L0091	60 (16)	160 (2400)	90 (194)	G 3/4 - G 1/2	3.5 (51)	9.3 (20.5)	ø18.1	1



2/2 - way integrated valve block, type VDHT BL 2-4

Description	Code no.	Q nom l/min (gpm)	p max barg (psig)	T max °C (°F)	Connection	Operating pressure/ barg (psig)	Weight excl. coil kg (lbs)	Piston Ø mm	Orifice kit
VDHT BL2 3/4 NC BSP N	180L1003	120 (32)	140 (2030)	90 (194)	G 3/4 - G 3/4	3.5 (51)	4.8 (10.5)	ø35.1 N	1
VDHT BL2 HP 3/4 NC BSP N	180L1027	120 (32)	210 (3000)	90 (194)	G 3/4 - G 3/4	3.5 (51)	4.8 (10.5)	ø35.1 N	1
VDHT BL2 3/4 NC-NO BSP N	180L1024	120 (32)	140 (2030)	90 (194)	G 3/4 - G 3/4	3.5 (51)	4.8 (10.5)	ø35.1 N	1
VDHT BL2 1 NC BSP N	180L1002	150 (40)	140 (2030)	90 (194)	G 1 - G 1	3.5 (51)	4.8 (10.5)	ø35.1 N	1
VDHT BL2S 3/4 NC BSP N	180L1000	120 (32)	140 (2030)	90 (194)	G 3/4 - G 3/4	3.5 (51)	4.8 (10.5)	ø35.1 N	1
VDHT BL3 3/4 NC BSP N	180L1025	120 (32)	140 (2030)	90 (194)	G 3/4 - G 3/4	3.5 (51)	8.3 (18.2)	ø35.1 N	1
VDHT BL3 HP 3/4 NC BSP N	180L1028	120 (32)	210 (3000)	90 (194)	G 3/4 - G 3/4	3.5 (51)	8.3 (18.2)	ø35.1 N	1
VDHT BL3 1 NC BSP N	180L1011	150 (40)	140 (2030)	90 (194)	G 1 - G 1	3.5 (51)	8.3 (18.2)	ø35.1 N	1
VDHT BL4 1 NC BSP N	180L1016	150 (40)	140 (2030)	90 (194)	G 1 - G 1	3.5 (51)	9.7 (21.4)	ø35.1 N	1
VDHT BL4 HP 1 NC BSP N	180L1029	150 (40)	210 (3000)	90 (194)	G 1 - G 1	3.5 (51)	9.7 (21.4)	ø35.1 N	1



2/2-way solenoid block valve, type VDHT with manual bypass

Description	Code no.	Q nom l/min (gpm)	p max barg (psig)	T max °C (°F)	Connection	Operating pressure/ barg (psig)	Weight kg (lbs)	Piston Ø mm	Orifice kit
VDHT 3/4 EAM NC BSP	180L0122	120 (32)	140 (2030)	90 (194)	G 3/4	3.5 (51)	2.5 (5.5)	ø35.1	2
VDHT 1 EAM NC BSP	180L0110	150 (40)	140 (2030)	90 (194)	G 1	3.5 (51)	2.5 (5.5)	ø35.1	2
VDHT BLM1 3/4 NC BSP	180L0196	120 (32)	140 (2030)	90 (194)	G 3/4 - G 3/4	3.5 (51)	4.2 (9.2)	ø35.1	2
VDHT BLM2 3/4 NC BSP	180L0167	120 (32)	140 (2030)	90 (194)	G 3/4 - G 3/4	3.5 (51)	7.4 (16.3)	ø35.1	2
VDHT BLM2 1 NC BSP	180L0199	150 (40)	140 (2030)	90 (194)	G 1 - G 1	3.5 (51)	7.4 (16.3)	ø35.1	2
VDHT BLM3 3/4 NC BSP	180L0168	120 (32)	140 (2030)	90 (194)	G 3/4 - G 3/4	3.5 (51)	11.7 (25.7)	ø35.1	2
VDHT BLM4 3/4 NC BSP	180L0169	120 (32)	140 (2030)	90 (194)	G 3/4 - G 3/4	3.5 (51)	15.0 (33.0)	ø35.1	2

7. Overview coils and accessories



Description	Code no. HPP	Voltage	Power	Voltage tolerance	T max Ambiente °C (°F)	Connection	Enclosure	Weight kg (lbs)
Type BB / Without LED / for Hirschmann plug / excl. plug								
Coil 240V-50Hz-10W-IP65	018F7906	240V 50Hz	11W	± 10-15%	80 (176)	DIN 43650-A	IP65	0.2 (0.5)
Coil 24V-50Hz-10W-IP65	018F7905	24V 50Hz	11W		80 (176)	DIN 43650-A	IP65	0.2 (0.5)
Coil 24V-DC-18W-IP65	018F7928	24V DC	16W	± 10%	50 (122)	DIN 43650-A	IP65	0.2 (0.5)



Type BE / Without LED / incl. Terminal box								
Coil 240V-60Hz-10W-IP67	018F7926	240V 60Hz	15W	± 10-15%	80 (176)	Terminal box	IP67	0.3 (0.7)
Coil 240V-50Hz-10W-IP67	018F7924	240V 50Hz	11W		80 (176)	Terminal box	IP67	0.3 (0.7)
Coil 220-230V-50Hz-10W-IP67	018F7921	220-230 V 50 Hz	12W		80 (176)	Terminal box	IP67	0.3 (0.7)
Coil 220-230V-50-60Hz-10W-IP67	018F7919	220-230 V 50-60Hz	17W 14W		50 (122)	Terminal box	IP67	0.3 (0.7)
Coil 220V-60Hz-10W-IP67	018F7925	220V 60Hz	13W		80 (176)	Terminal box	IP67	0.3 (0.7)
Coil 200V-50-60Hz-10W-IP67	018F7929	200V 50/60Hz	10W		80 (176)	Terminal box	IP67	0.3 (0.7)
Coil 110V-50-60Hz-10W-IP67	018F7923	110V 50-60Hz	15W 13W		50 (122)	Terminal box	IP67	0.3 (0.7)
Coil 24V-60Hz-10W-IP67	018F7922	24V 60Hz	14W		80 (176)	Terminal box	IP67	0.3 (0.7)
Coil 24V-50Hz-10W-IP67	018F7920	24V 50Hz	12W		80 (176)	Terminal box	IP67	0.3 (0.7)
Coil 42V-50Hz-10W-IP67	018F7927	42V 50Hz	10W		80 (176)	Terminal box	IP67	0.3 (0.7)
Coil 24V-DC-18W-IP67	018F7914	24V DC	16W	± 10%	50 (122)	Terminal box	IP67	0.3 (0.7)
Coil 12V-DC-18W-IP67	018F7913	12V DC	15W	± 10%	50 (122)	Terminal box	IP67	0.3 (0.7)



Type BE / Without LED / for Hirschmann plug / prepare for terminal box								
Coil 200V-50-60Hz-10W-IP67	018F7918	200V 50/60 Hz	10W	± 10-15%	50 (122)	Terminal box	IP67	0.2 (0.5)
Coil 240V-50Hz-10W-IP67	018F7917	240V 50 Hz	11W		80 (176)	Terminal box	IP67	0.2 (0.5)
Coil 24V-DC-18W-IP67	018F7912	24V DC	16W	± 10%	50 (122)	Terminal box	IP67	0.3 (0.7)



Type BY / Without LED / for Hirschmann plug / excl. plug / UL Recognised								
Coil 208-240V-50-60Hz-14W-IP65-UL	018F7908	208-240V 50/60 Hz	16W 14W	± 10-15%	50 (122)	DIN43650-A	IP65	0.2 (0.5)
Coil 110V-50-60Hz-14W-IP65-UL	018F7909	110V 50-60 Hz	14W		50 (122)	DIN43650-A	IP65	0.2 (0.5)
Coil 24V-50-60Hz-14W-IP65-UL	018F7907	24V 50-60 Hz	14W 12W		50 (122)	DIN43650-A	IP65	0.2 (0.5)



Type BE / excl. LED / Incl. cable								
Coil 48V-50-60Hz-10W-IP67-4m cable	018F7915	48V 50Hz	10W	± 10-15%	80 (176)	4 m. cable	IP67	0.3 (0.7)



Type BO / Ex mb II T4 Gb - 2014/34/EU (ATEX) EN60079-D-2012+A11:2013, EN60079-D:2018, EN60079-18:2015 + A1:2017, EN60730-1:2011 [1]								
Coil Ex mb IIC T4 24V-50/60 Hz 10W-IP67	018Z6595[2]	24V 50/60 Hz	10W	±10%	60 (140)	5 m. cable	IP67	0.6 (1.4))
Coil Ex mb IIC T4 110V-50/60 Hz 10W-IP67	018Z6593[2]	110V 50/60 Hz	10W	±10%	60 (140)	5 m. cable	IP67	0.6 (1.4))
Coil Ex mb IIC T4 230V-50/60 Hz 10W-IP67	018Z6592[2]	230V 50/60 Hz	10W	±10%	60 (140)	5 m. cable	IP67	0.6 (1.4))
Coil Ex mb IIC T4 240V-50/60 Hz 10W-IP67	018Z6591[2]	240V 50/60 Hz	10W	±10%	60 (140)	5 m. cable	IP67	0.6 (1.4))
Coil Ex mb IIC T4 Gb 24V DC - IP67-10W-IP67	018Z6596[2]	24V DC	10W	± 10%	60 (140)	5 m. cable	IP67	0.6 (1.4)

[1] Due to physical dimensions of the ATEX coil, it is not possible to use these in combination with the HPP block valves (BL2 - 5)
[2] Code nos. to be ordered in Danfoss Sensing Solutions (PL04)



042N1256



042N1278

Connecting plug / Typ BY / excl. LED / for Hirschmann connection (DIN 43650-A) UL Recognised								
Plug EN175301-803 A PG9	042N1256[1)]	–	Excl LED	–	125 (257)	BE-BB-BY	IP67	0.1 (0.3)
Plug EN175301-803 A PG8	042N1278[1)]		Excl LED		90 (1949	BE-BB-BY	IP65	0.1 (0.3)



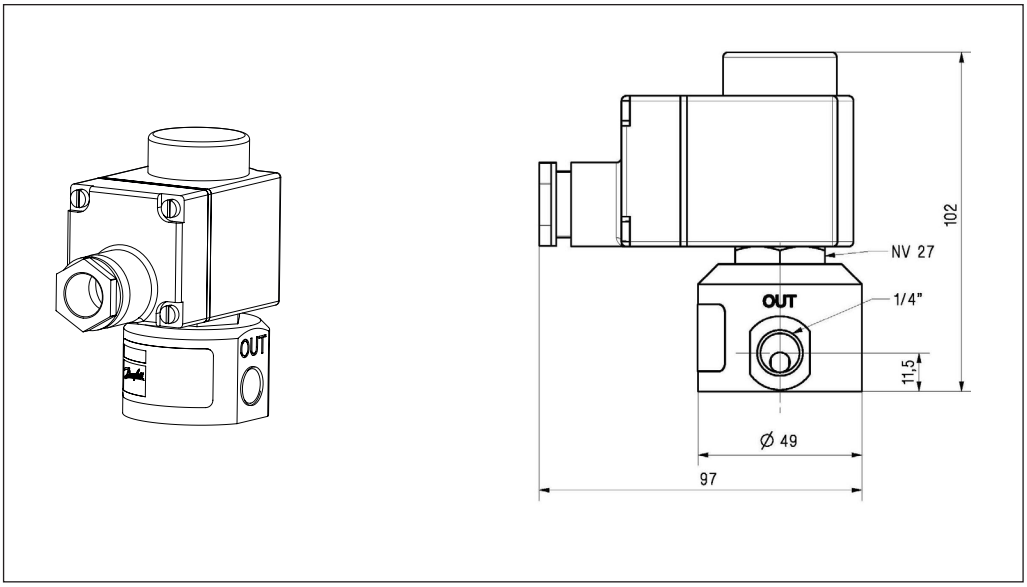
Connecting plug / Typ BY / incl. LED / for Hirschmann connection (DIN 43650-A) UL Recognised								
Plug EN175301-803 A 230V AC/DC LED	042N0265[1)]	230V AC	Incl LED	–	60 (140)	BE-BB-BY	IP65	0.1 (0.3)
Plug EN175301-803 A 24V AC/DC LED + PACK	042N0263[1)]	24V AC/DC	Incl LED	–	60 (140)	BE-BB-BY	IP65	0.1 (0.3)



Connection terminal box / Permanent magnet								
Terminal box excl. LED pack unit 100 Pe	018Z0279	–	Excl LED 100 PE	–	80 (176)	BE	IP67	0.1 (0.3)
Terminal box incl. LED 48-220V DC 24-250V-50Hz / only BE	018Z0089[1)]	48-220V DC24 -250V 50/60 Hz	Incl. LED	–	80 (176)	BE	IP67	0.1 (0.3)
Permanent magnet	180Z0212	for testing	–	–	–	–	–	0.3 (0.7)

[1)] Code nos. to be ordered in Danfoss Sensing Solutions (PL04)

8. VDH 2E 1/4
Drawing
Spare parts

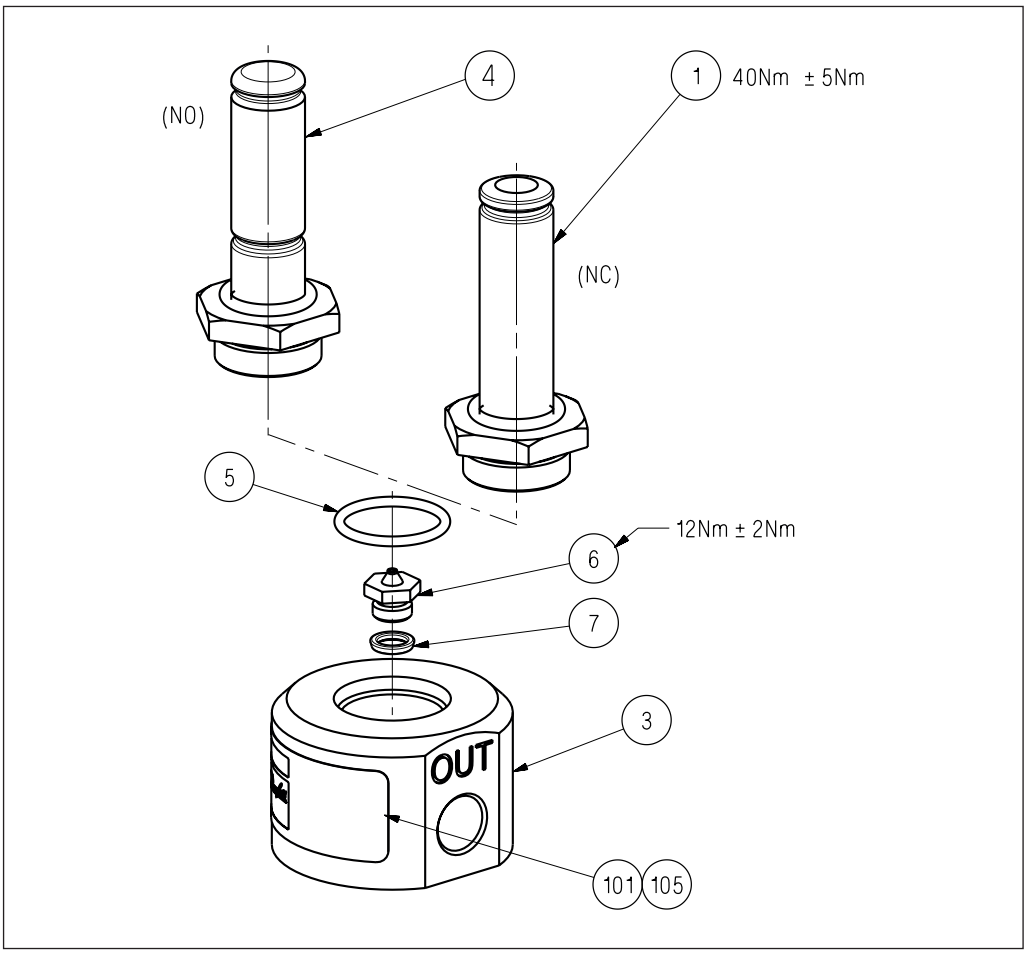


Spare parts VDH 2E 1/4 NC/NO 1.4 BSP

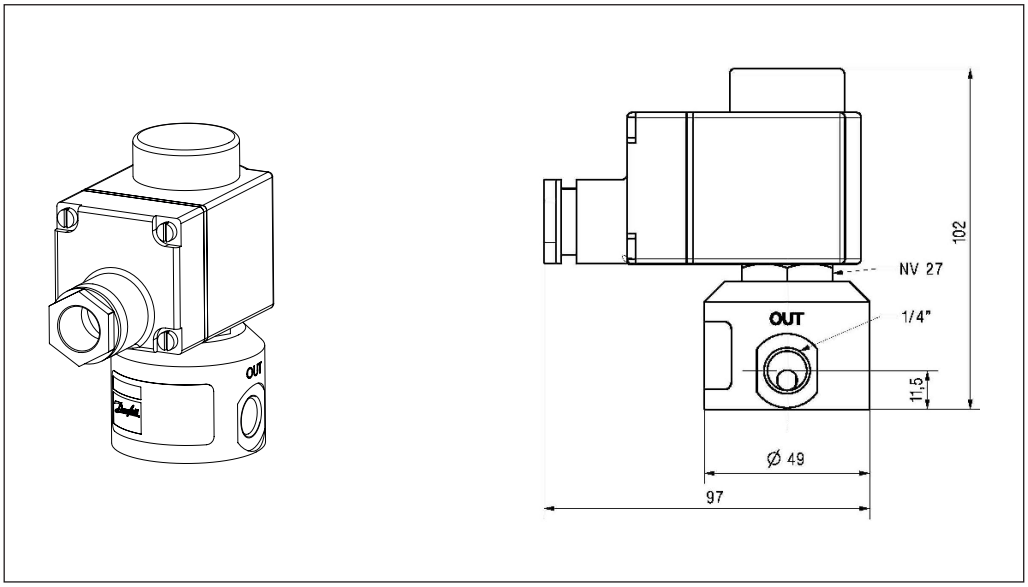
Armature kit NC	180L5002 / Pos.: 1, 5
Armature kit NO	180L5010 / Pos.: 4,5
Orifice kit 4	180Z0097 / Pos.: 6,7

Spare parts 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

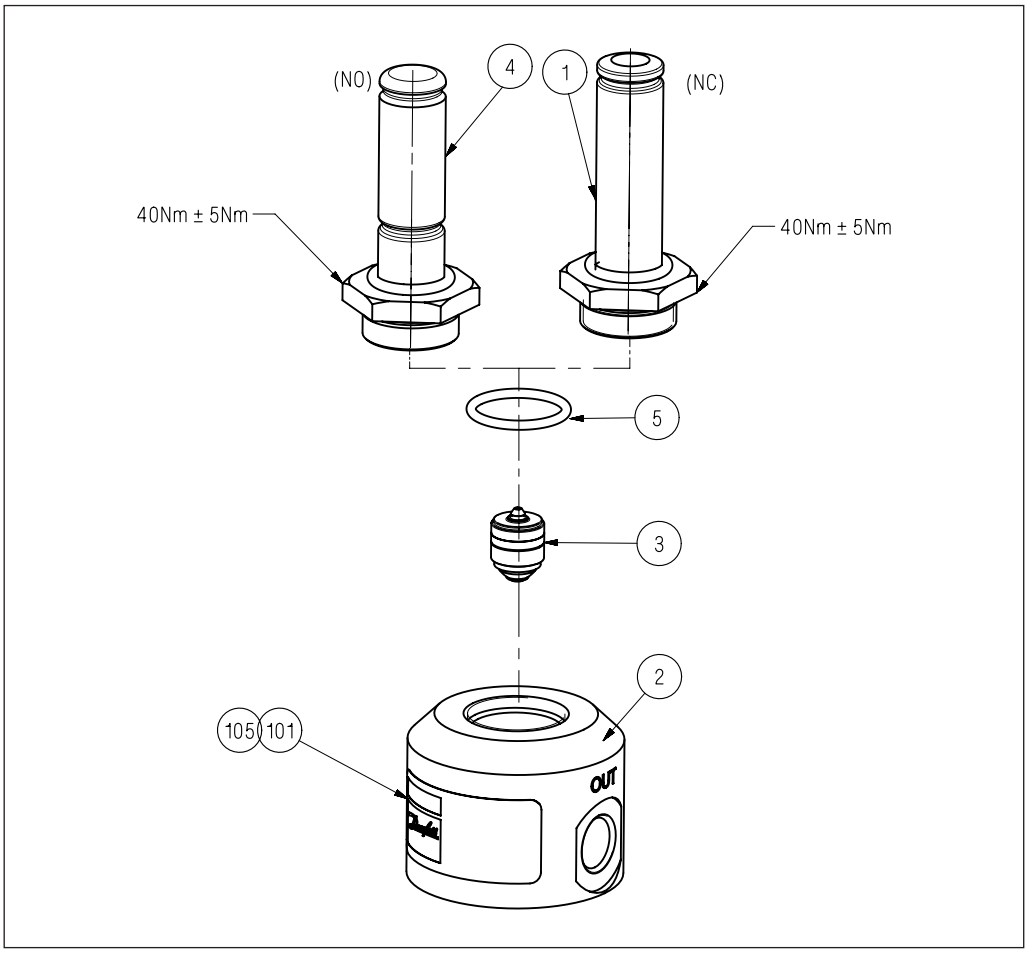


9. VDHT 1/4 E
Drawing
Spare parts

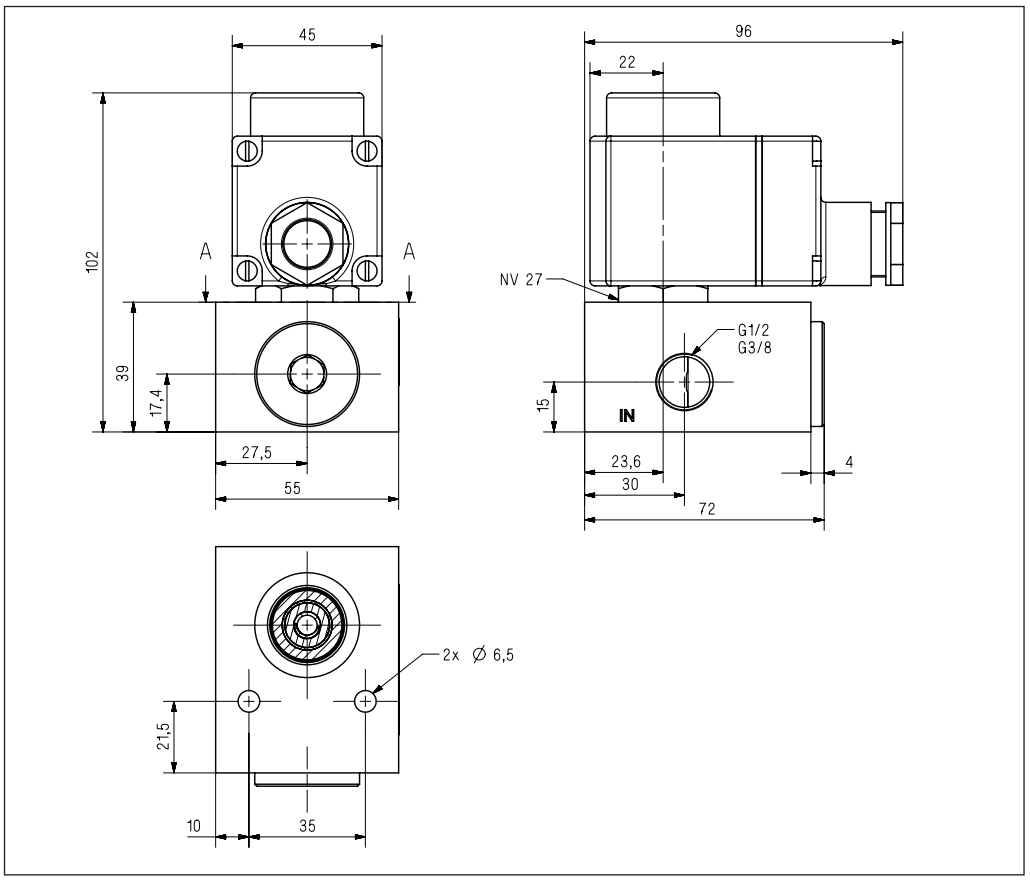


Spare parts

Armature kit NC	180L5002 / Pos.: 1, 5
Armature kit NO VDHT 1/4	180L5013 / Pos.: 4, 5
Piston kit ø11.9	180Z0251 / Pos.: 3

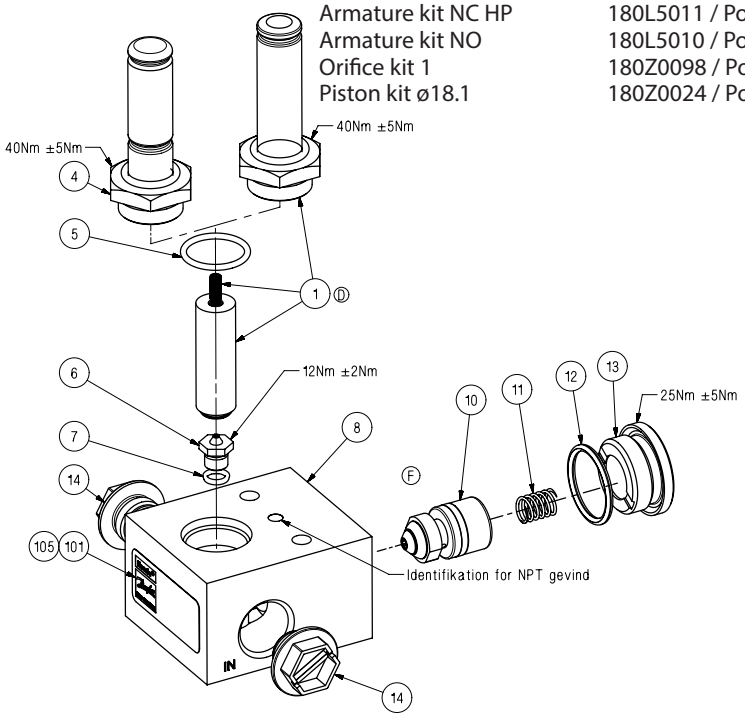


10. VDHT 3/8 E
VDHT 1/2 E
Drawing
Spare parts

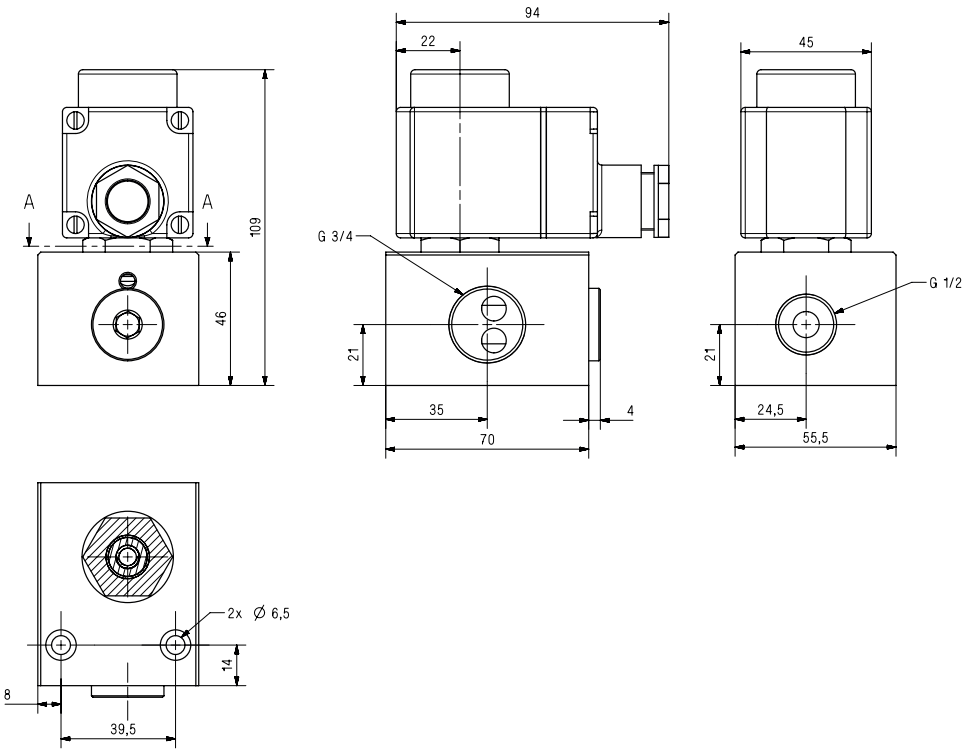


Spare parts

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 ø18.1	180Z0024 / Pos.: 10, 11

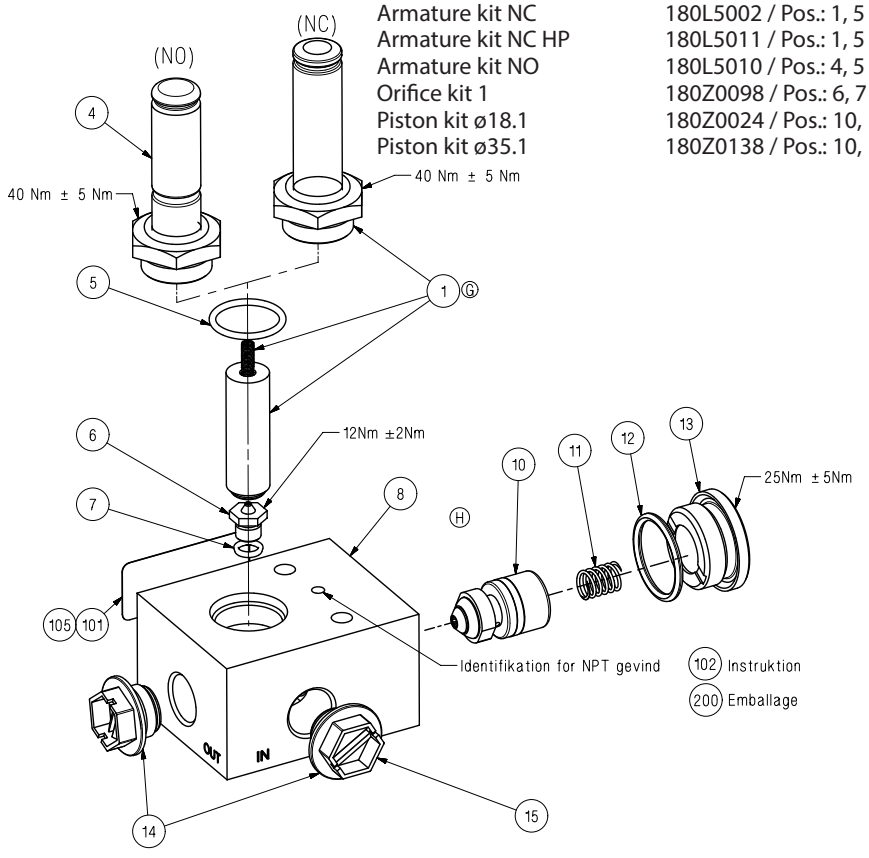


11. VDHT 3/8 EA
VDHT 1/2 EA
Drawing
Spare parts

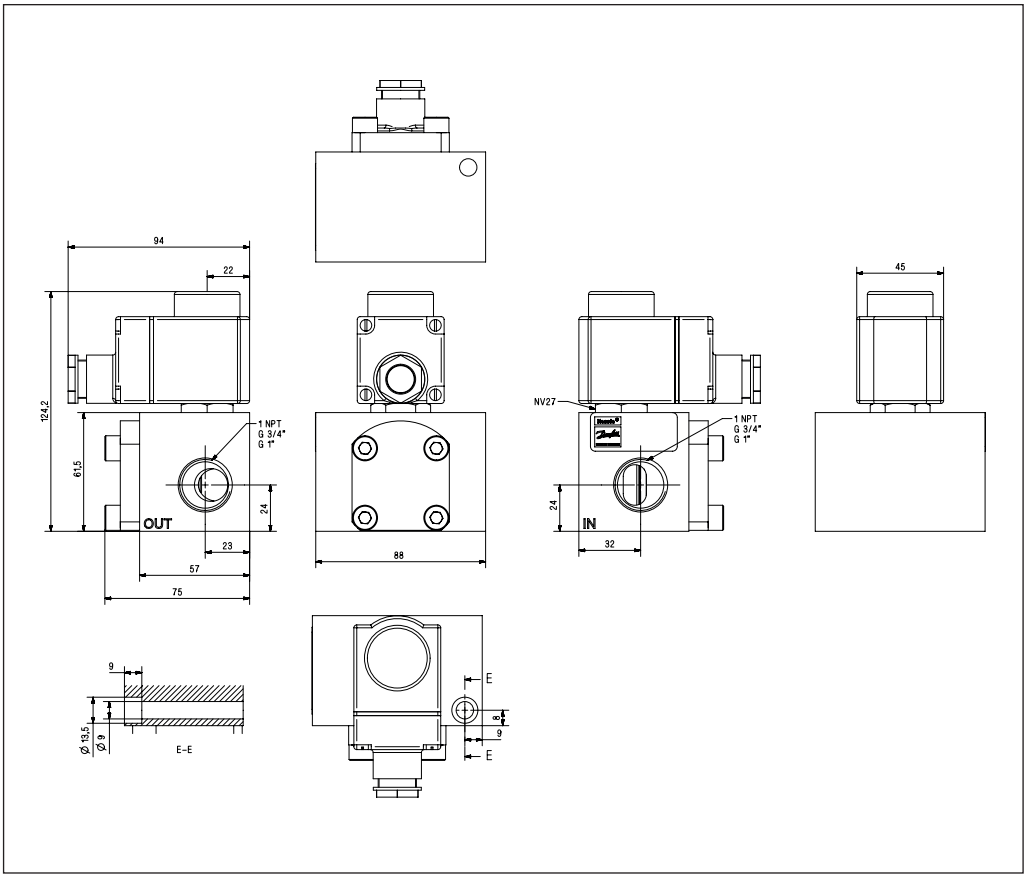


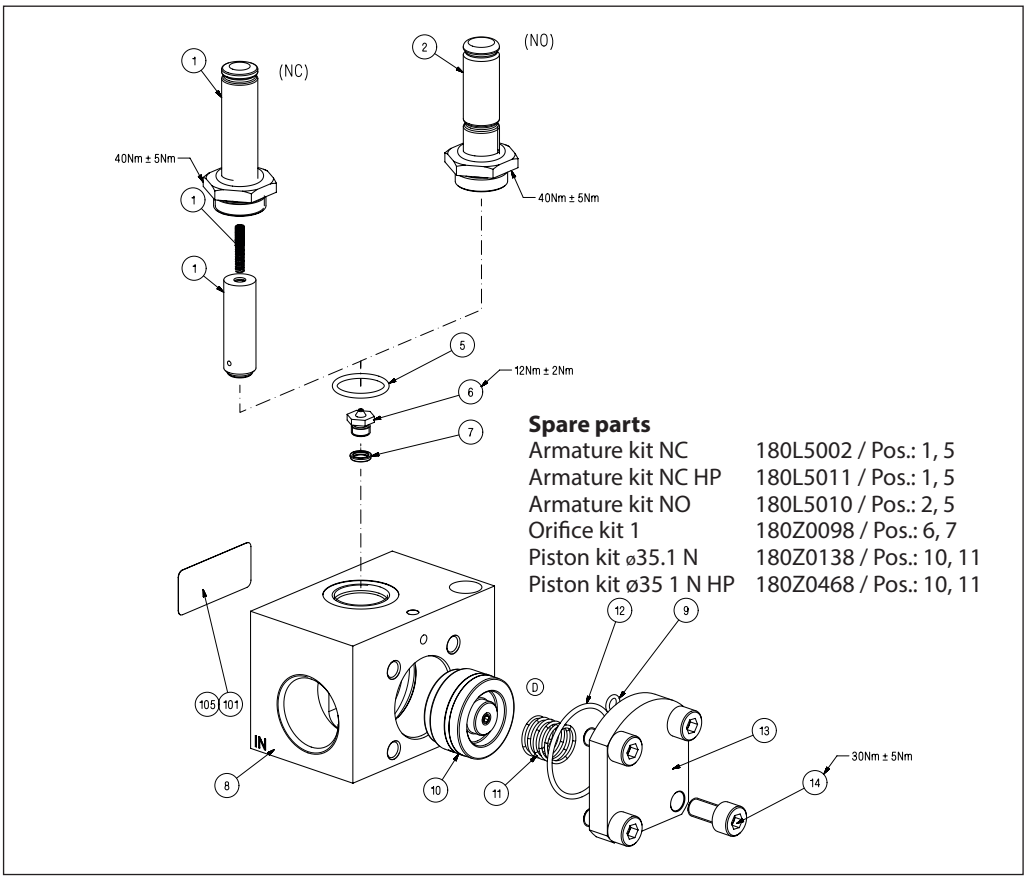
Spare parts

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 ø18.1	180Z0024 / Pos.: 10, 11
Piston kit ø35.1	180Z0138 / Pos.: 10, 11



12. VDHT 3/4 ED N
VDHT 1 ED N
Drawing
Spare parts

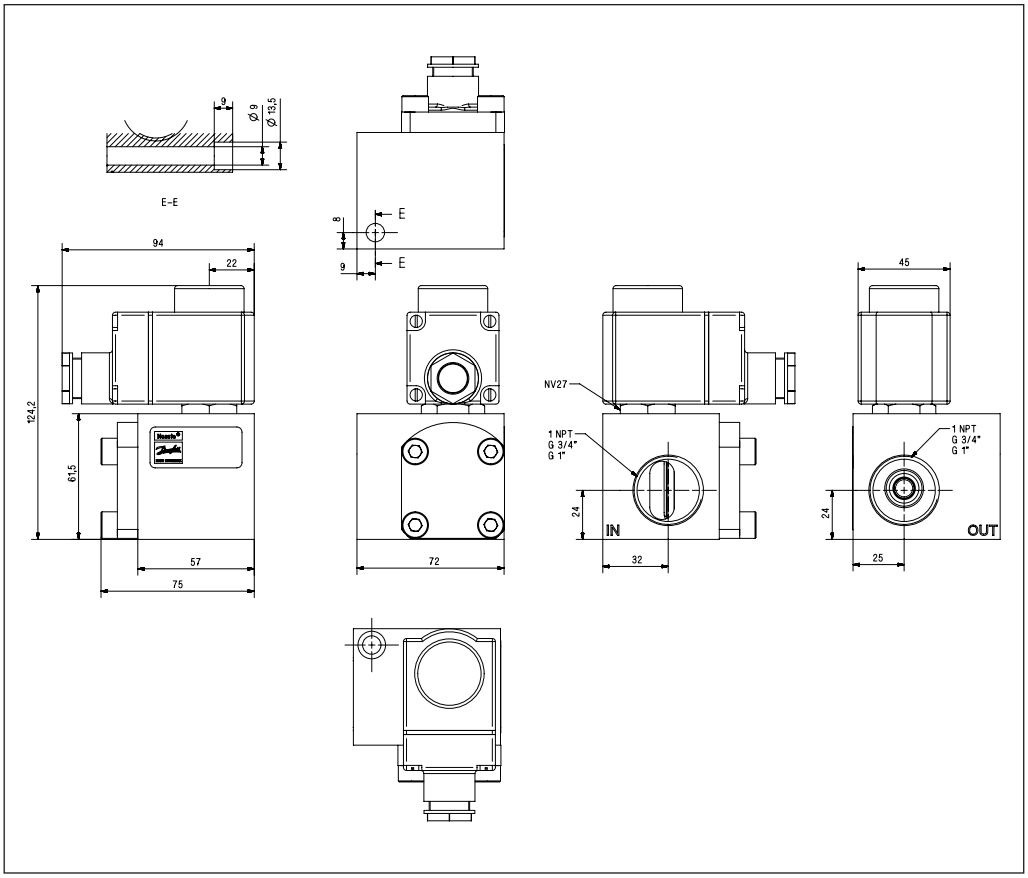


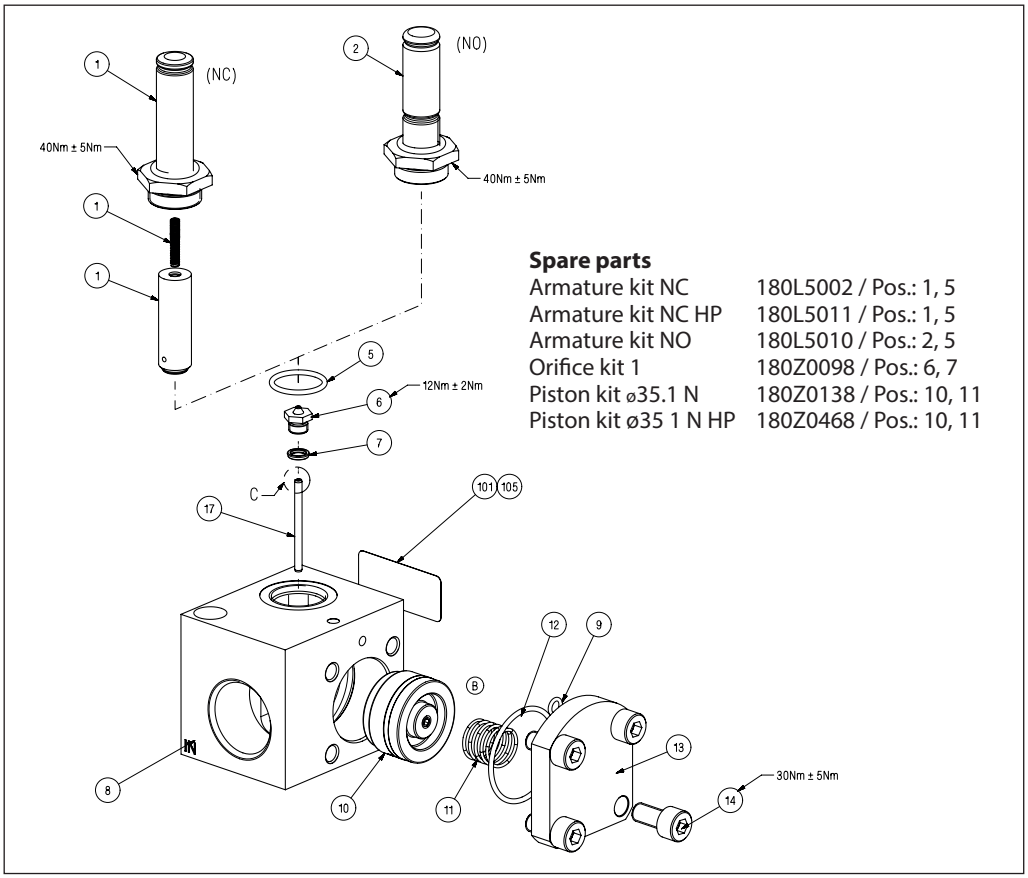


Spare parts

Armature kit NC	180L5002 / Pos.: 1, 5
Armature kit NC HP	180L5011 / Pos.: 1, 5
Armature kit NO	180L5010 / Pos.: 2, 5
Orifice kit 1	180Z0098 / Pos.: 6, 7
Piston kit ø35.1 N	180Z0138 / Pos.: 10, 11
Piston kit ø35 1 N HP	180Z0468 / Pos.: 10, 11

13. VDHT 3/4 EA N
VDHT 1 EA N
Drawing
Spare parts

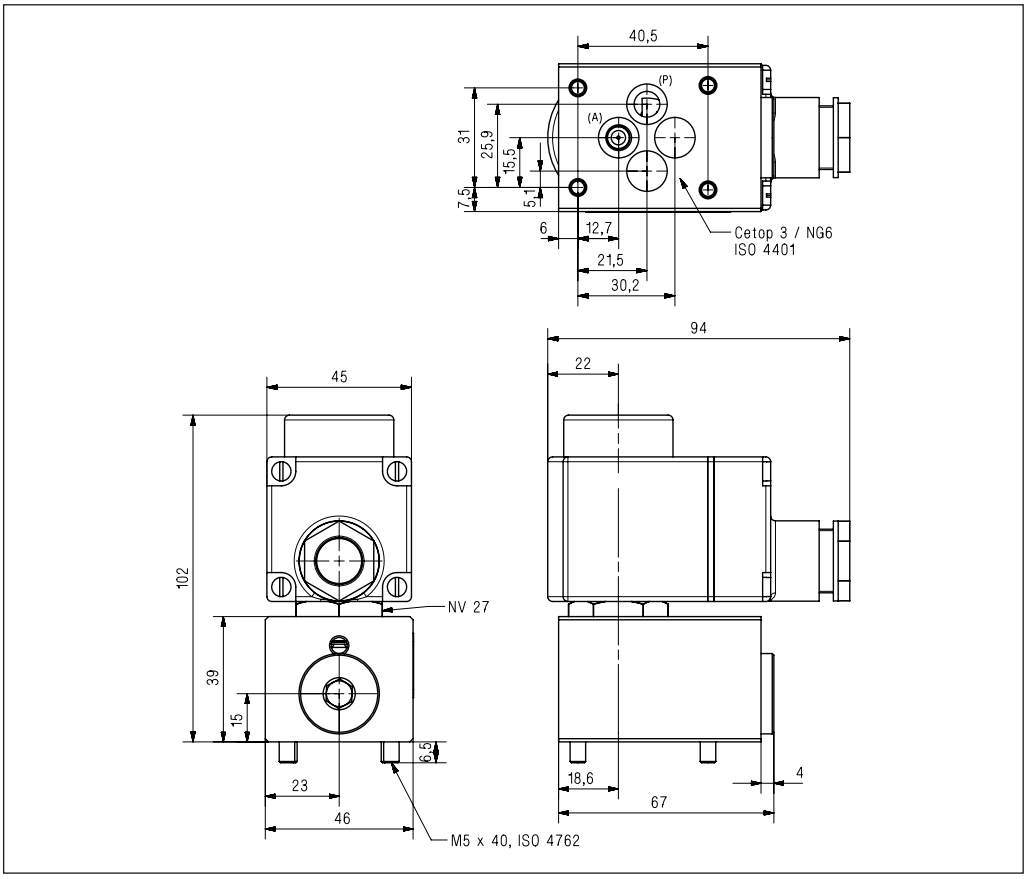


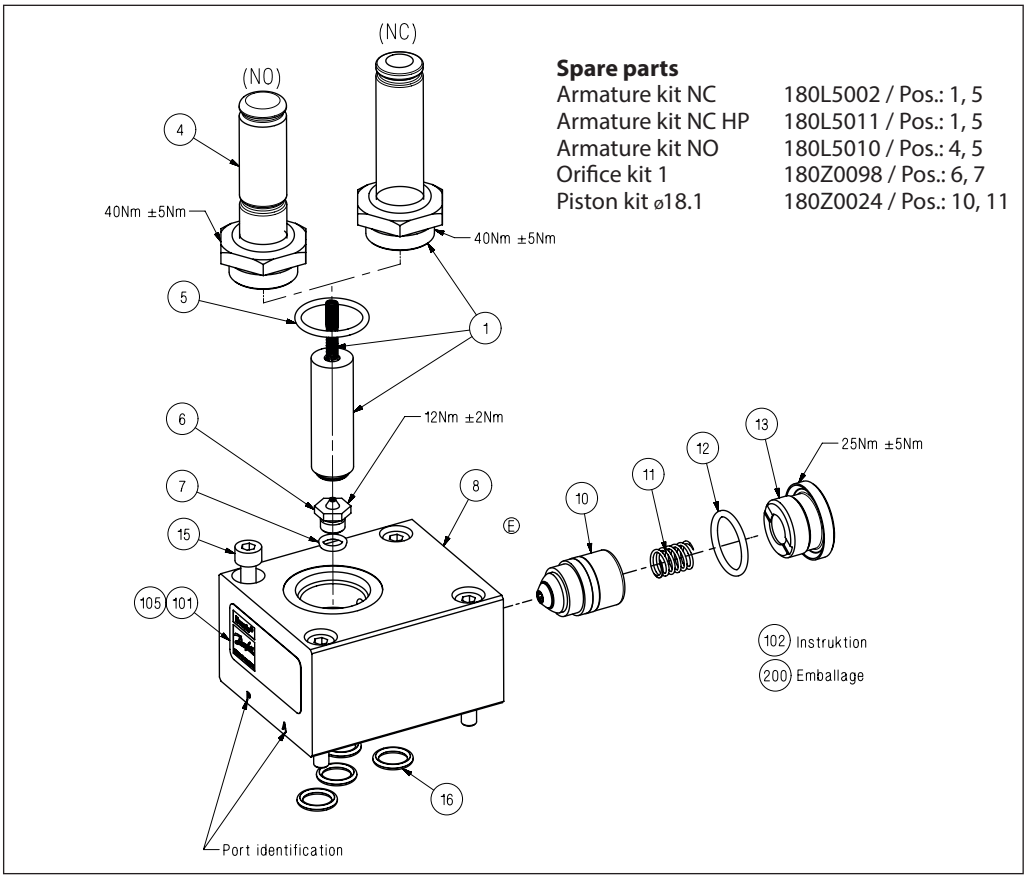


Spare parts

Armature kit NC	180L5002 / Pos.: 1, 5
Armature kit NC HP	180L5011 / Pos.: 1, 5
Armature kit NO	180L5010 / Pos.: 2, 5
Orifice kit 1	180Z0098 / Pos.: 6, 7
Piston kit ø35.1 N	180Z0138 / Pos.: 10, 11
Piston kit ø35 1 N HP	180Z0468 / Pos.: 10, 11

14. VDHT 30 EC Drawing

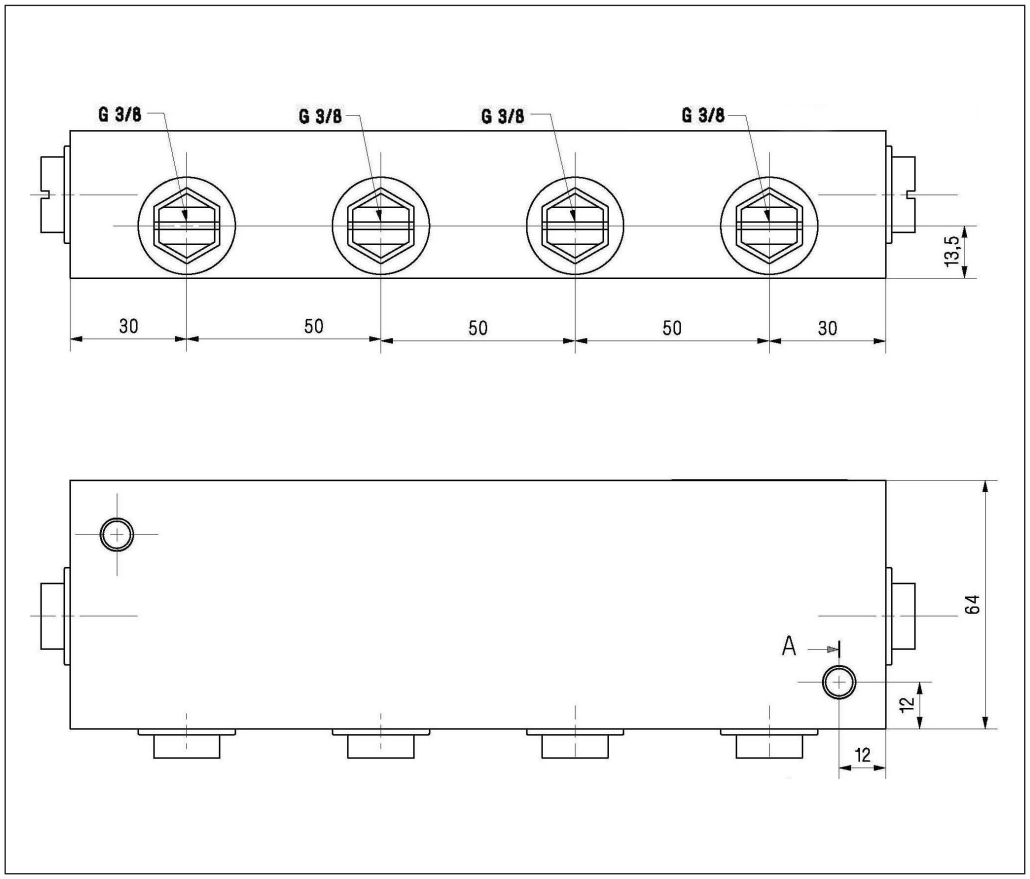




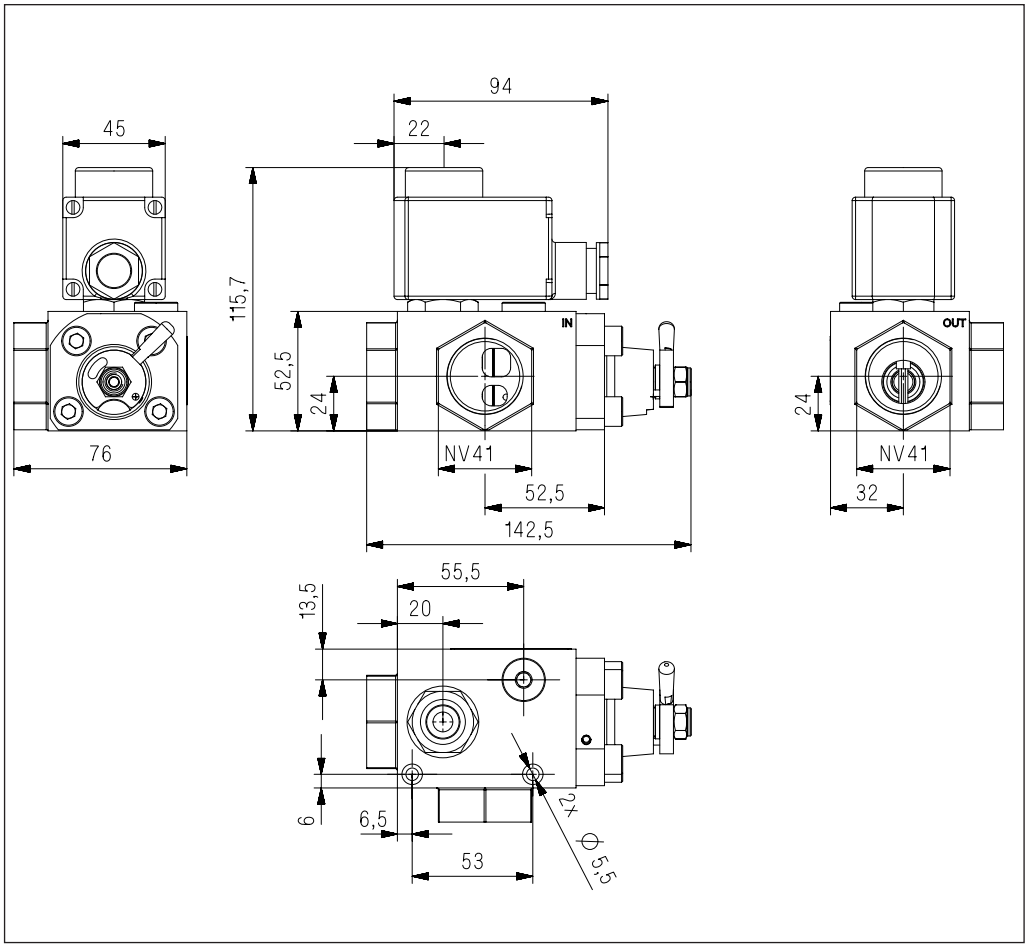
Spare parts

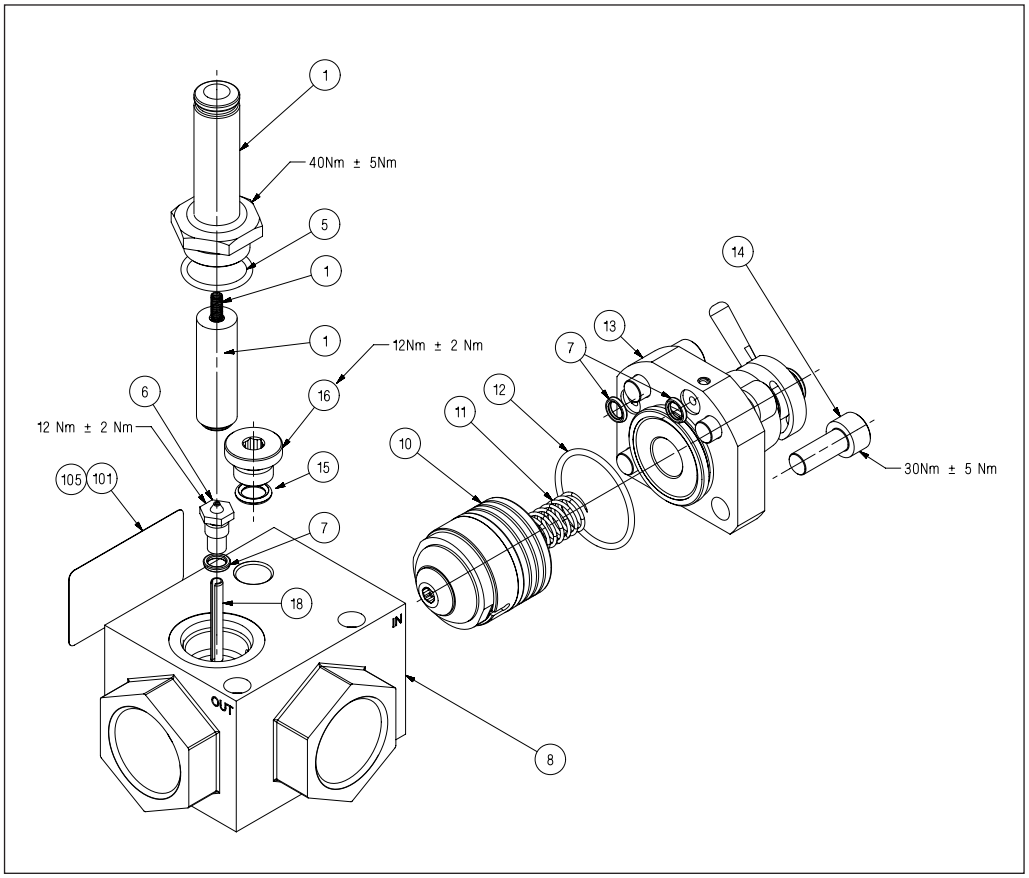
Armature kit NC	180L5002 / Pos.: 1, 5
Armature kit NC HP	180L5011 / Pos.: 1, 5
Armature kit NO	180L5010 / Pos.: 4, 5
Orifice kit 1	180Z0098 / Pos.: 6, 7
Piston kit ø18.1	180Z0024 / Pos.: 10, 11

15. Block for CETOP 3 valves

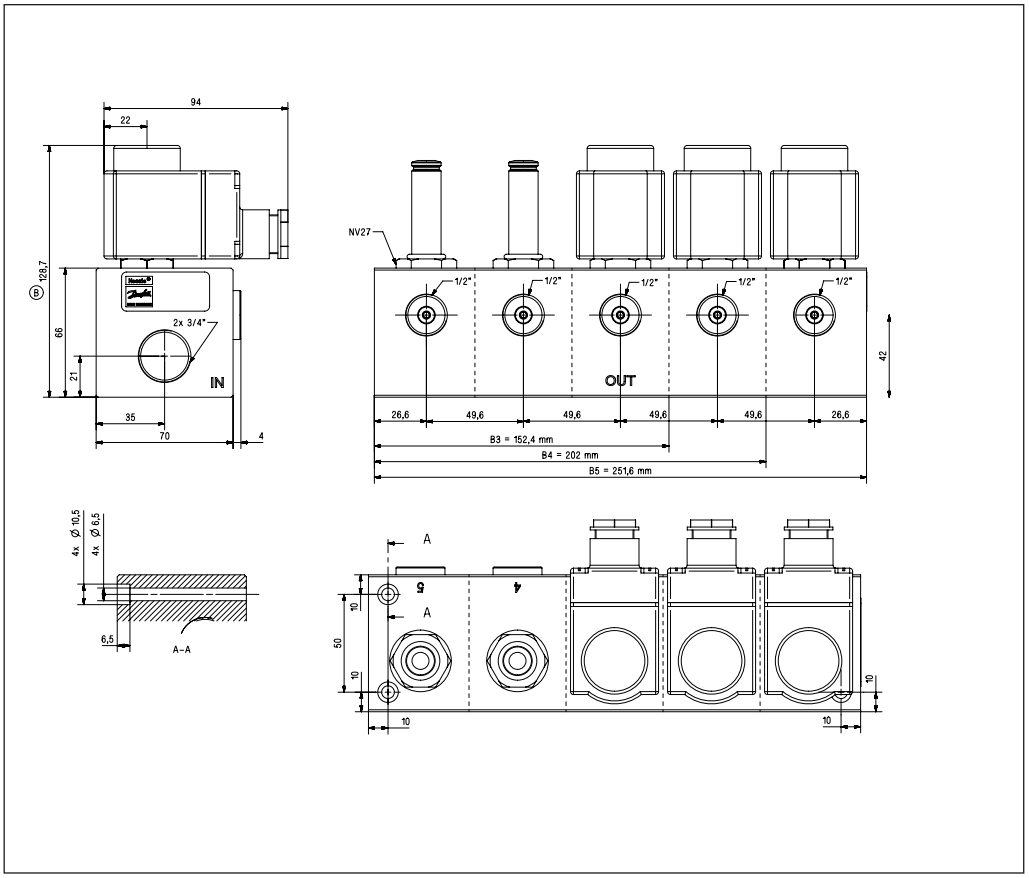


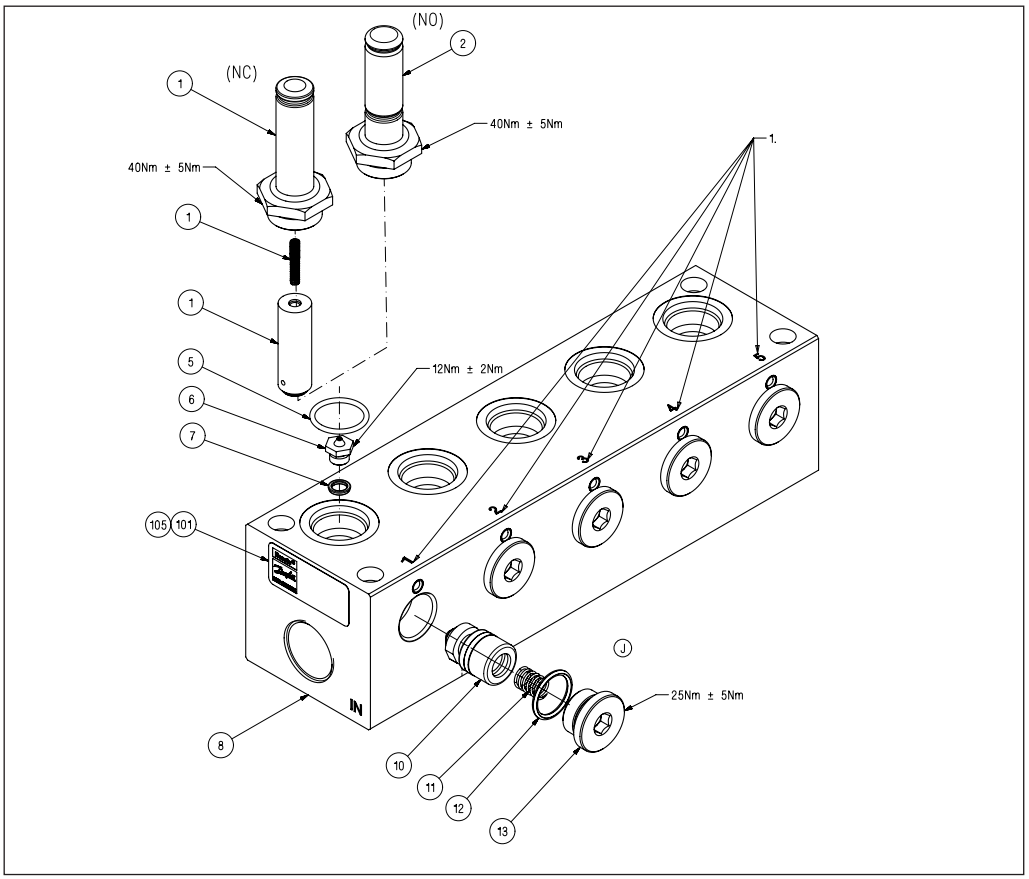
16. VDHT EAM valves



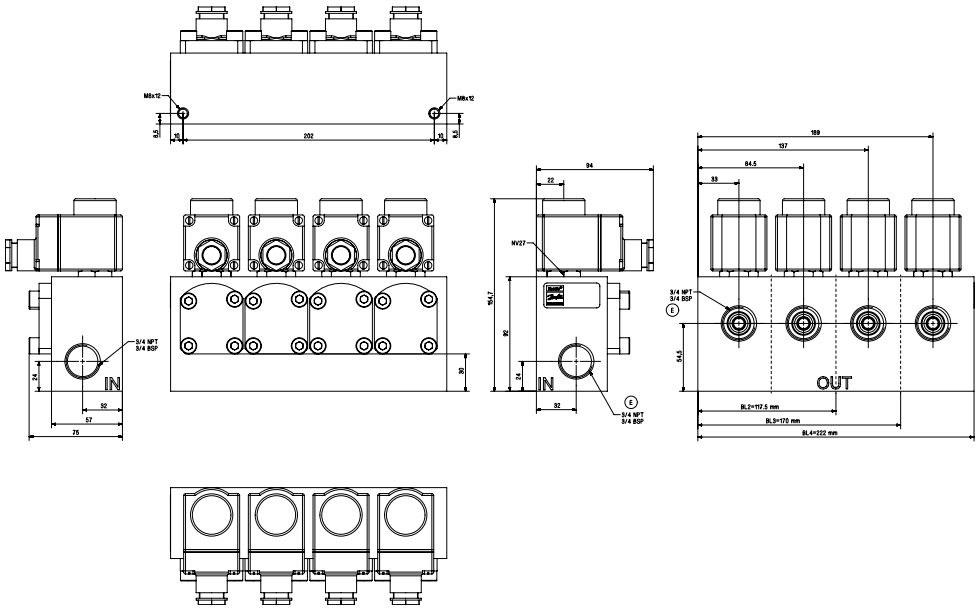


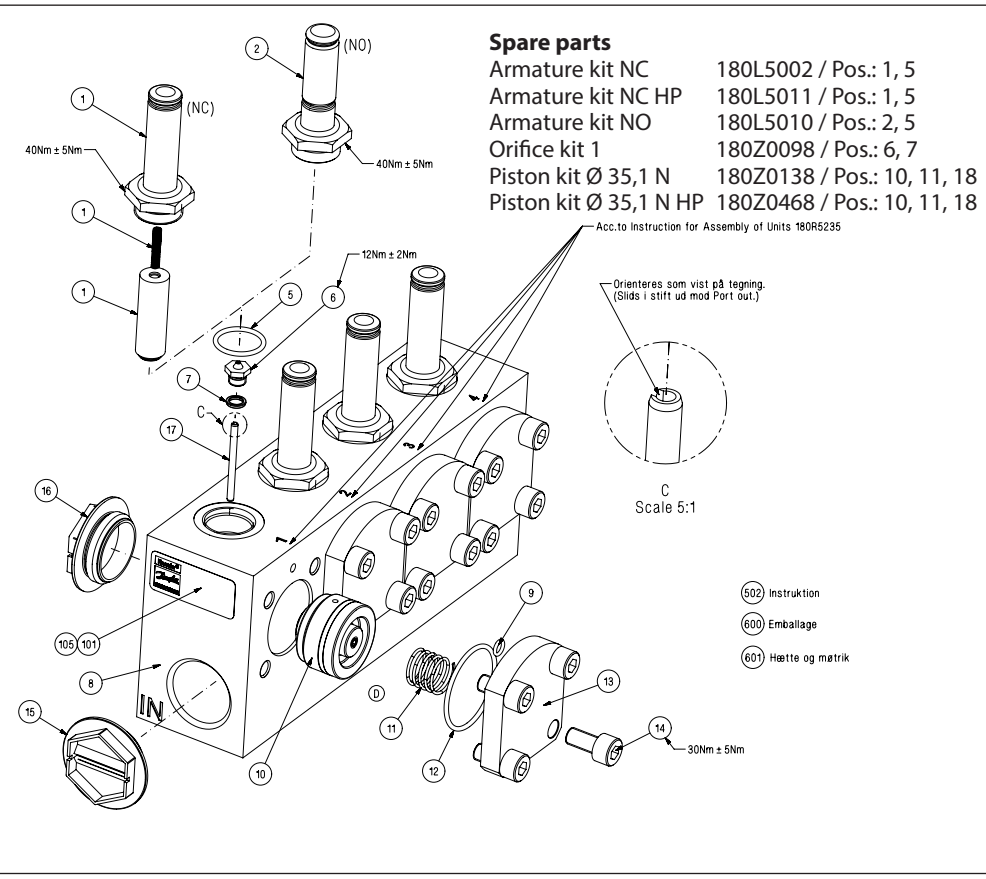
17. VDHT B
Spare parts





18. VDHT BL N Drawings

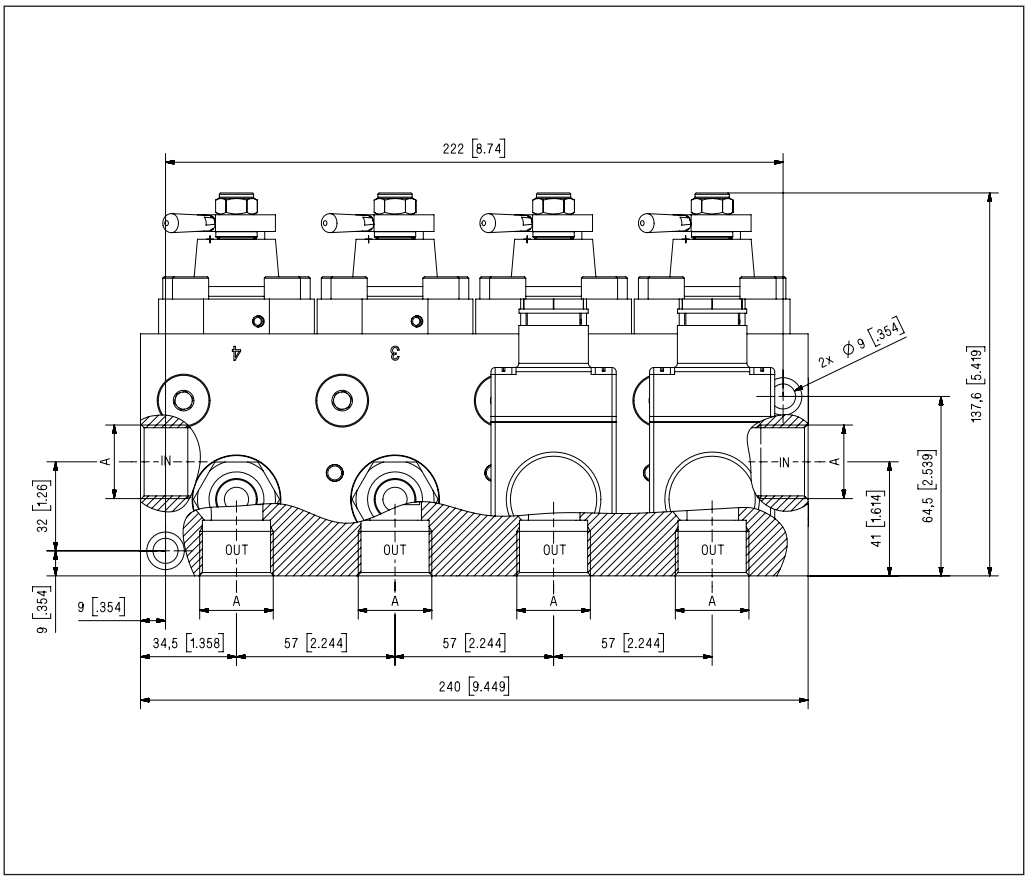


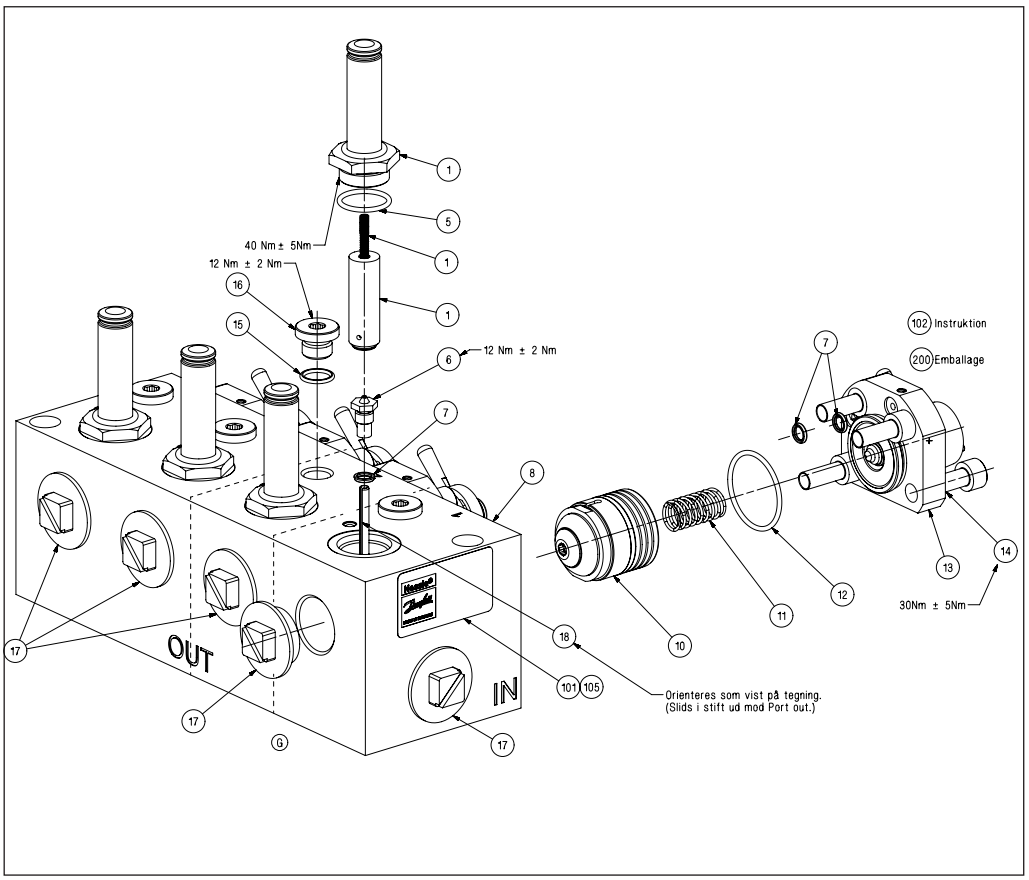


Spare parts

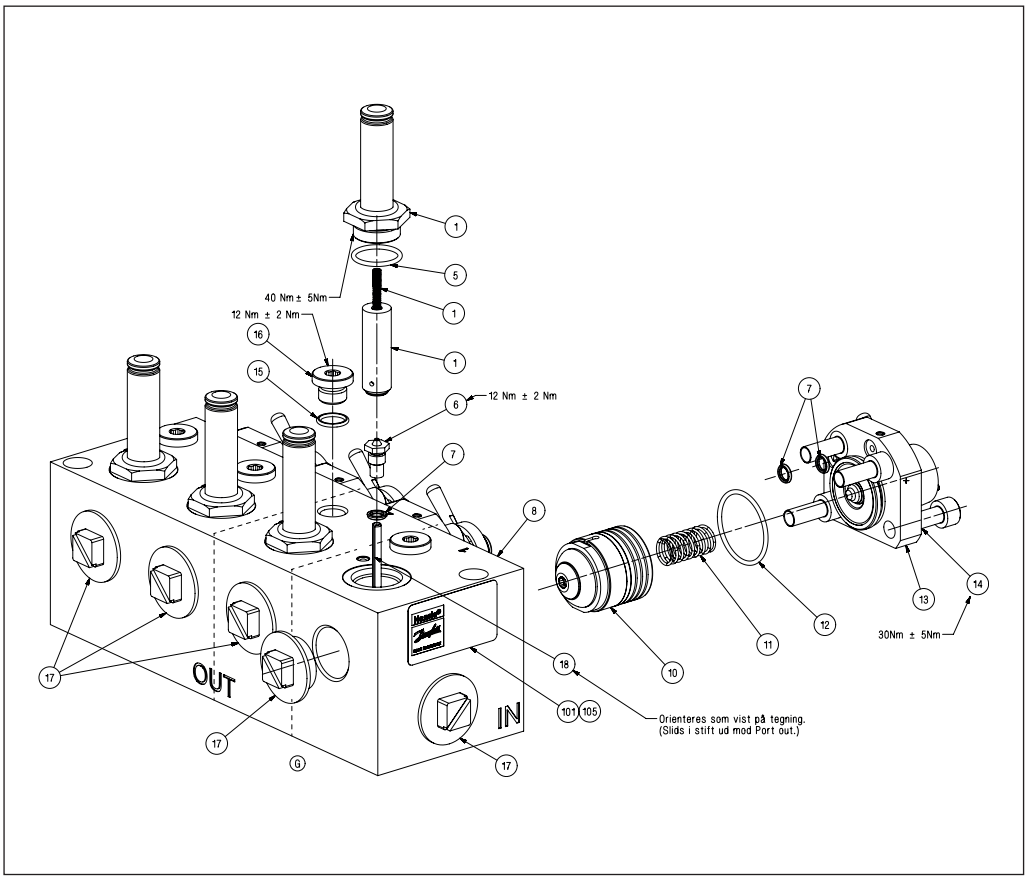
Armature kit NC	180L5002 / Pos.: 1, 5
Armature kit NC HP	180L5011 / Pos.: 1, 5
Armature kit NO	180L5010 / Pos.: 2, 5
Orifice kit 1	180Z0098 / Pos.: 6, 7
Piston kit Ø 35,1 N	180Z0138 / Pos.: 10, 11, 18
Piston kit Ø 35,1 N HP	180Z0468 / Pos.: 10, 11, 18

19. VDHT BLM Drawings



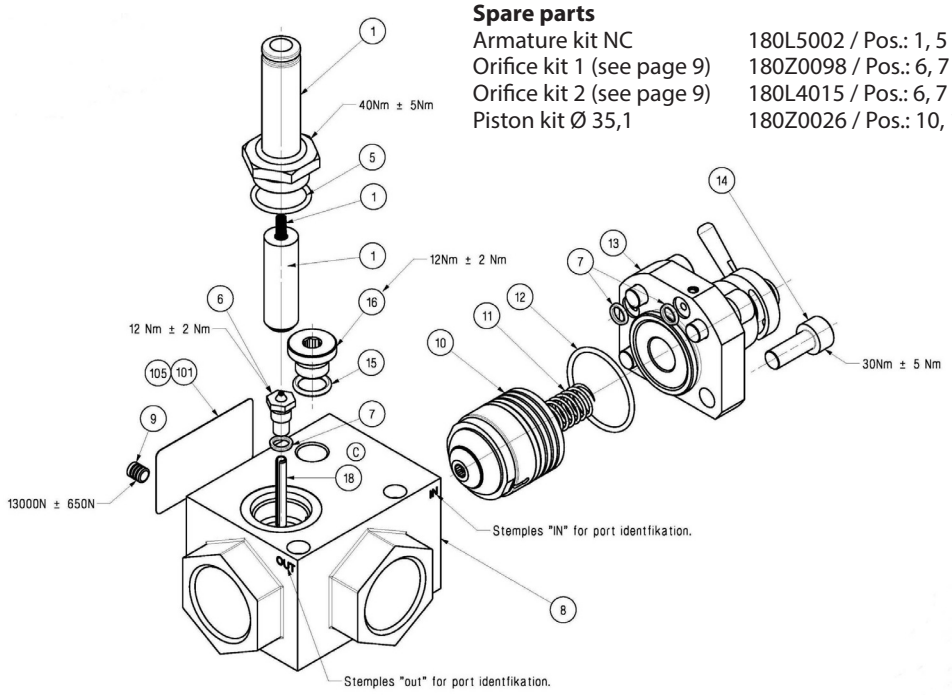


20. VDHT BLM
Spare parts



Spare parts

Armature kit NC	180L5002 / Pos.: 1, 5
Orifice kit 1 (see page 9)	180Z0098 / Pos.: 6, 7
Orifice kit 2 (see page 9)	180L4015 / Pos.: 6, 7
Piston kit Ø 35,1	180Z0026 / Pos.: 10, 11



21. Overview spare parts















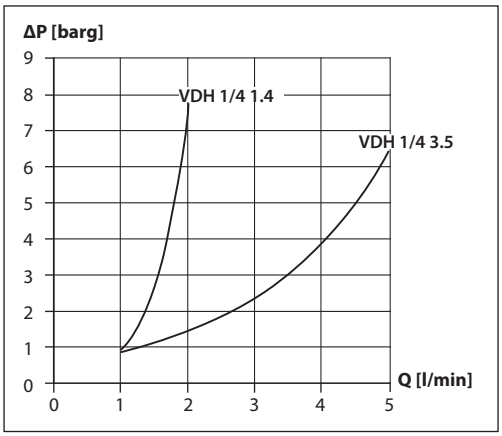


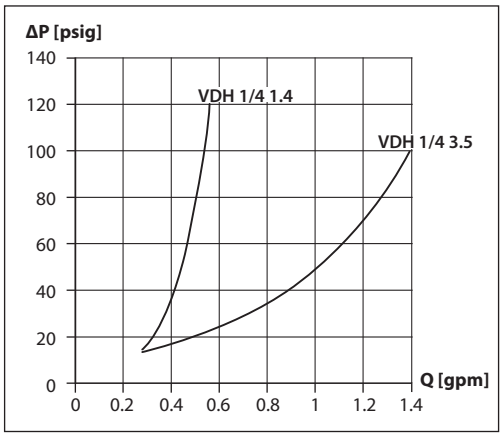


Valve type	Code no	Other	Pos. no. explosion drawing	T max °C (°F)	Weight kg (lbs)	Piston Ø mm	Orifice kit
Piston kit ø11.9 VDHT 1/4 E	180Z0251		3	90 (194)	0.09 (0.2)	ø11.9	-
Piston kit ø18.1 VDHT 3/8 VDHT B	180Z0024		10, 11	90 (194)	0.09 (0.2)	ø18.1	-
Piston kit ø35.1 VDHT 1 VDHT BL	180Z0026		10, 11	90 (194)	0.1 (0.4)	ø35.1	-
Piston kit ø35.1 N VDHT 3/4 to 1 N VDHT BL N	180Z0138	Slimline	10, 11	90 (194)	0.1 (0.4)	ø35.1 N	-
Piston kit ø35.1 HP N VDHT 3/4 to 1 VDHT BL HP N	180Z0468	Slimline	10, 11	90 (194)	0.1 (0.4)	ø35.1 N	-
Orifice kit 1 VDHT 1,0	180Z0098	standard	6, 7	90 (194)	0.09 (0.2)	-	1
Orifice kit 2 VDHT 1,0	180L4015	BLM	6, 7	90 (194)	0.09 (0.2)	-	2
Orifice kit 4 VDHT 2E 1.4	180Z0097	1.4	6, 7	90 (194)	0.09 (0.2)	-	4
Orifice kit 5 VDHT 2E 3,5	180L4014	3,5	6, 7	90 (194)	0.09 (0.2)	-	5
Orifice kit 6 VDHT 1,0	180L4016	formerly	6, 7	90 (194)	0.09 (0.2)	-	6
Armature kit NC VDHT 1/4 to 1 VDHT B / BL / BL N	180L5002		1, 5	90 (194)	0.1 (0.4)	-	-
Armature kit NC HP VDHT 3/8 to 1 VDHT B / BL / BL N	180L5011		1, 5	90 (194)	0.1 (0.4)	-	-
Armature kit NO VDHT 3/8 to 1 VDHT B / BL / BL N	180L5010		4, 5	90 (194)	0.1 (0.4)	-	-

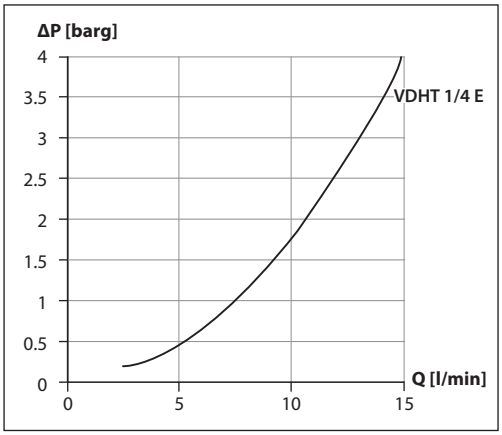
22. Pressure losses p INLET to OUTLET

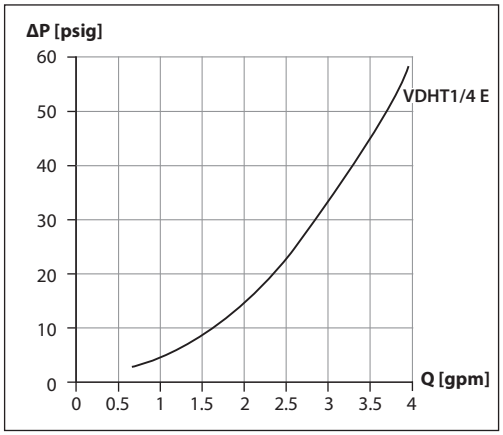
VDH 2 E 1/4 1.4
VDH 2 E 1/4 3.5



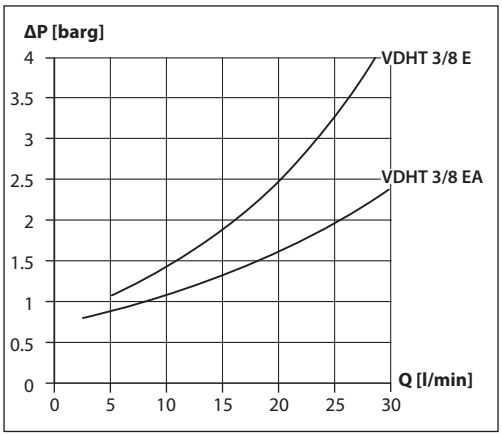


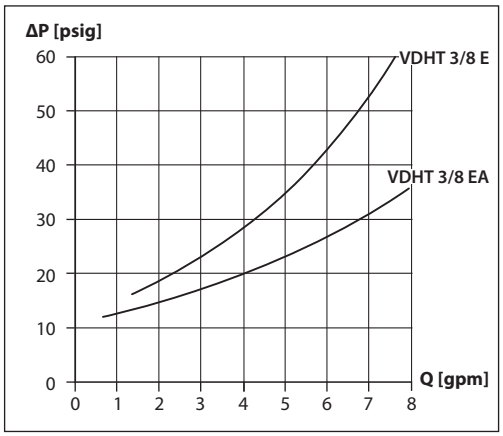
VDHT 1/4 E



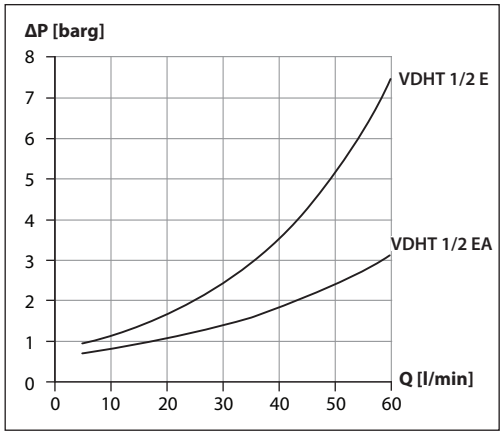


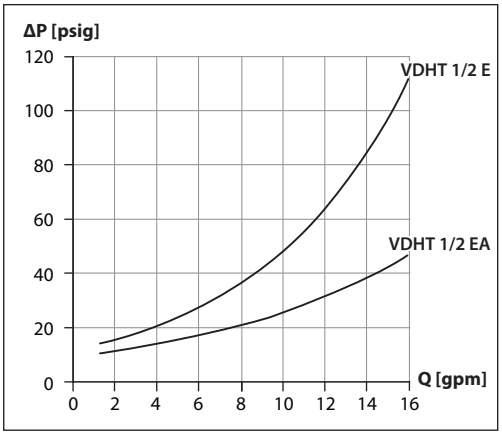
VDHT 3/8 E
VDHT 3/8 EA



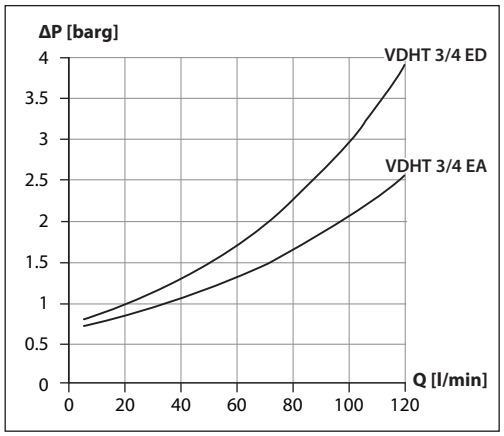


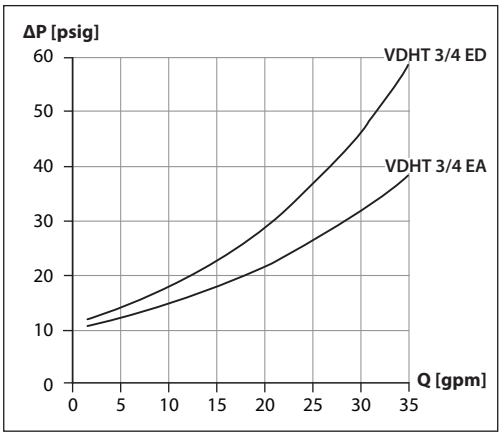
VDHT 1/2 E
VDHT 1/2 EA



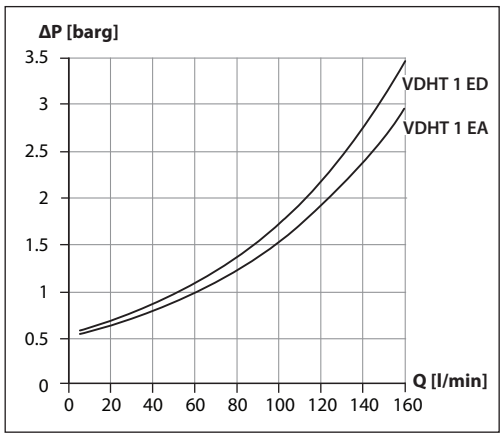


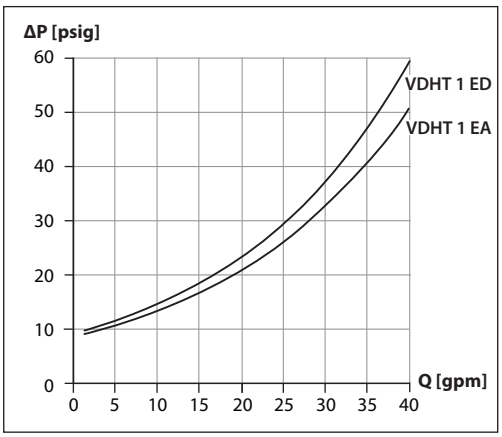
VDHT 3/4 ED
VDHT 3/4 EA



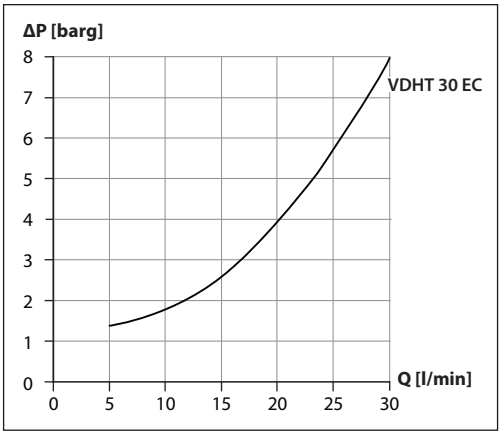


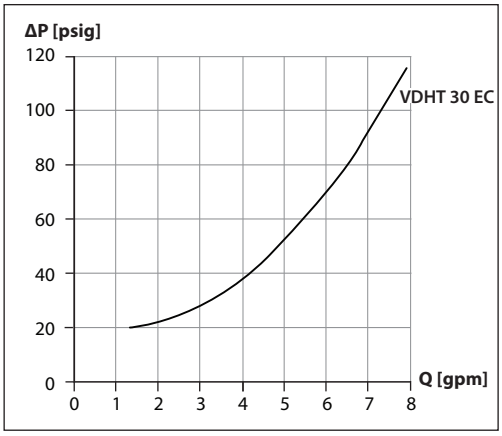
VDHT 1 ED
VDHT 1 EA



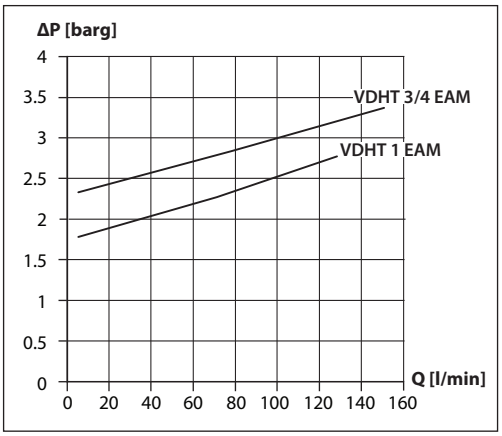


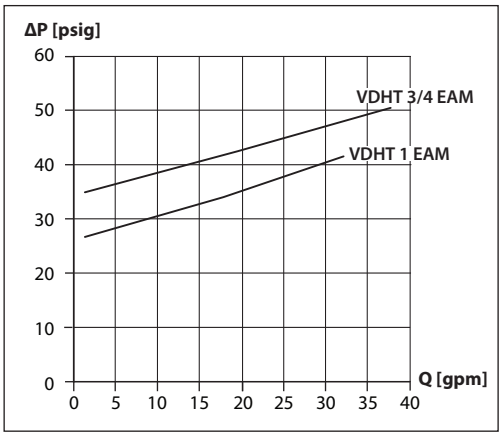
VDHT 30 EC



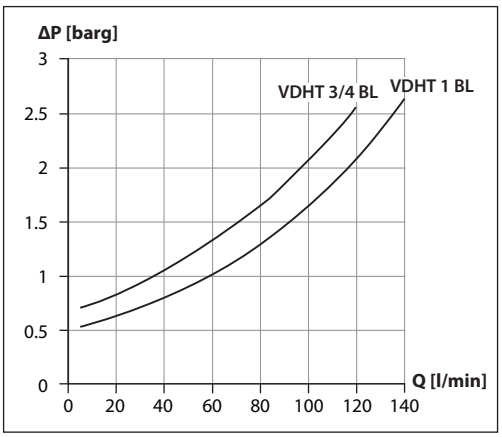


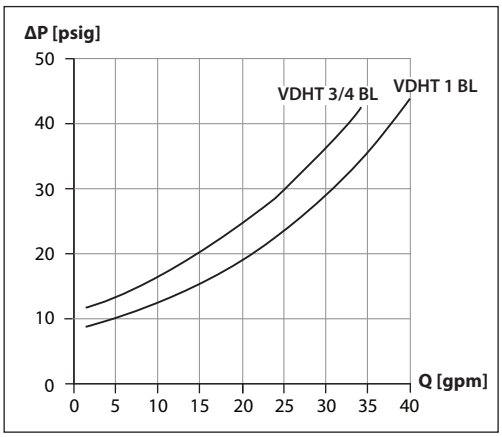
VDHT 3/4 EAM
VDHT 1 EAM





VDHT 3/4 BL
VDHT 1





ENGINEERING
TOMORROW

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Any information, including, but not limited to information on selection of product, its application or use, product design, weight, dimensions, capacity or any other technical data in product manuals,