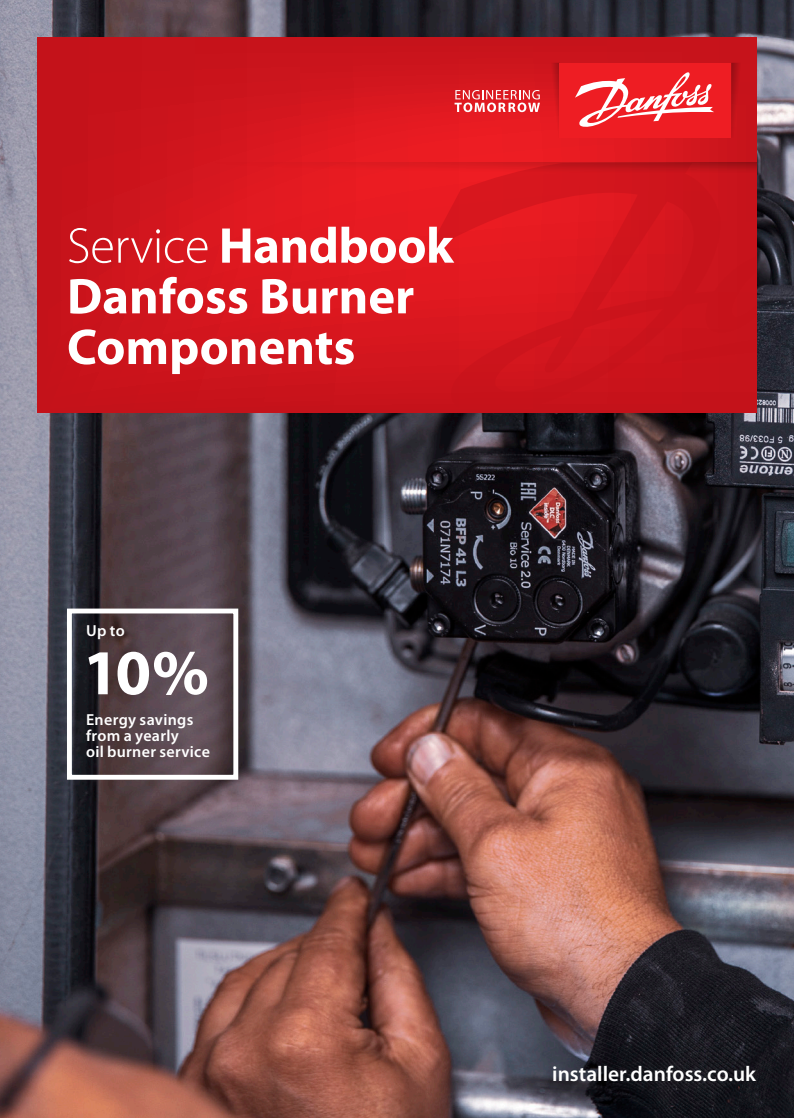
ENGINEERING
TOMORROW

# Service **Handbook Danfoss Burner Components**




installer.danfoss.co.uk

## Good service is to fix customers' problems. Excellent service is to prevent those problems from occurring.

Dear Danfoss partner,

Your oil burner needs the same attention as your car in order to perform at its best. Regular inspection and servicing are essential to ensure that it is running reliably and at optimum efficiency. By servicing your oil burner on a yearly basis incl. replacement of components like nozzles, filters and coils the burner can reduce oil consumption by as much as 10%. Keeping it free from soot can achieve even greater savings.

Danfoss offers a complete range of components for most oil burners on the market. The service manual is intended to make it easy for you to find the most suitable components from the comprehensive Danfoss range and service tip videos via the QR codes.

Happy service!
**Your Danfoss Team**

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**Changing the oil nozzle**
Instructions for a safe and optimal change of a Danfoss oil nozzle on an oil burner.

**Changing the oil pump (BFP)**
Instructions for a safe and optimal changing of the Danfoss oil pump (BFP).

**Changing the cartridge filter in the oil pump (BFP 20, 21, 41 and 52)**
Instructions for a safe and optimal change of a cartridge filter in a Danfoss oil pump (BFP 20, 21, 41 and 52).

**Changing the ring filter in the oil pump (BFP 10 and 11)**
Instructions for a safe and optimal change of ring filter in a Danfoss oil pump (BFP 10 and 11).

**Changing the coil on the oil pump (BFP)**
Instructions for a safe and optimal change of the coil on a Danfoss oil pump (BFP).

**Changing the solenoid valve (NC) on the oil pump (BFP)**
Instructions for a safe and optimal change of the solenoid valve (NC valve) on a Danfoss oil pump (BFP).

**Converting the oil pump from a 1 to a 2 pipe system (BFP 20, 21, 41, 52)**
Instructions for a safe and optimal conversion from a one pipe system to a two pipe system on a Danfoss oil pump (BFP 20, 21, 41 and 52).

**Converting the oil pump from a 1 to a 2 pipe system (BFP 10 and 11)**
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**Bleeding the oil pump (BFP 20, 21, 41 and 52)**
Instructions for a safe and optimal bleeding of a Danfoss oil pump (BFP 20, 21, 41 and 52).

**Bleeding the oil pump (BFP 10 and 11)**
Instructions for a safe and optimal bleeding of the oil pump (BFP 10 and 11)

**Bleeding the oil pump (BFP with bleed plug)**
Instructions for a safe and optimal bleeding of the oil pump (BFP with bleed plug)

**Changing the LE valve in the preheater**
Instructions for a safe and optimal change of the LE valve in the preheater

**Changing the oil burner control (OBC with a UV sensor)**
Instructions for a safe and optimal change of the oil burner control (OBC with a UV sensor)

**Reading failure codes on the oil burner control (OBC)**
Instructions for reading failure codes on the oil burner control (OBC)

**Changing the oil burner control (OBC with a LD/LDS sensor)**
Instructions for a safe and optimal change of oil burner control (OBC with a LD/LDS sensor)

**Changing the flame sensor (UV sensor)**
Instructions for a safe and optimal change of the flame sensor (UV sensor)

**Changing the flame sensor (LD/LDS sensor)**
Instructions for a safe and optimal change of the flame sensor (LD/LDS sensor)

**Changing the ignition unit (EBI3 to an EBI4)**
Instructions for a safe and optimal change of ignition unit (EBI3 to an EBI4)

**Oil pumps**

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## Oil pump conversion

The tables below give the following pump conversions:

- Danfoss RS pumps to RSA pumps
- Danfoss RSL/MSL/MS/BFP pumps to BFP service pumps
- Suntec pumps to BFP service pumps
- Eckerle pumps to BFP service pumps
- Delta pumps to BFP service pumps

Using Danfoss service pumps BFP 21 L3 and BFP 21 R3 it is possible to maintain 90% of existing small burners. In other cases it can be difficult to find the correct Danfoss service pump. The main purpose of the conversion tables is to make the replacement of such pumps easier.

The tables are compiled as follows:

- Column 1 always gives the pump type to be replaced.

- Column 2 gives the code number of the pump to be replaced.

  Note: Where Eckerle UNI-pumps are concerned, column 1 gives the old and column 2 the new designation.

- Column 3 states whether the pump is for 1-pipe or 2-pipe operation.

  Note: With the MS pump, the numbers „1 +2“ are added because this particular unit has automatic changeover. Eckerle pumps have no suffixes.

- Column 5 gives the Danfoss pump type able to replace the existing pump.

- Column 6 gives the corresponding Danfoss code number.

- The last column, „Comments/accessories“, refers to special characteristics and features. Please note that in some cases accessories are necessary.

Explanation – code number and comments:

When changing over from pumps with hydraulic shut-off valve (RSL and MSLC) to BFP with electric shut-off valve (BFP 11, 21 and 41) a cable must be ordered for connection to the motor terminals in the oil burner control.

Some pump types carry the comment „No repl.". There are several possible explanations, among them:

- The BFP service pump cannot supply the required nozzle capacity.
- The BFP service pump does not have the required coil voltage. BFP coils are only available for 220-240 V a.c., 110-120V a.c., 24V a.c./12 V d.c. and 24 V d.c.
- The shaft of the BFP service pump is not of a suitable diameter.
- With the BFP service pump it is possible that a hydraulic cylinder might be connected to the pressure gauge port on the front.

The position of connections and clockwise/counterclockwise indication are always given when looking on the shaft end. See Changeover 1-2 pipe.

**Before fitting a service pump, a check must be made of whether it is set for 1-pipe or 2-pipe operation.** If necessary, the pump must be reset to suit the system in which it is being installed.

As per October 2017 all service pumps have been upgraded to Diamond Series 2.0 with Danfoss DLC inside™ and extra durable Diamond Coil. All service pumps are released for B10 bio heating oil.

Conversion of industrial pumps:
Pump types RSB/RSBK, RSF/RSFH, KSM, KSN, KSB, KSV, KSVB and pressure regulating valves: B-PP, B-P, B-G, B-GH, B-GHG and former Safag products please contact HP Pumps; www.hptechnik.com

## Conversion Danfoss RS ➨ RSA Service

| Danfoss oil pumps – older series | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| RS 28 | 070-5300 | 1 | ➨ | RSA 28 | 070-5376 | |
| RS 28 | 070L5376 | 1 | ➨ | RSA 28 | 070L5370 | |
| RS 28 | 070-5302 | 2 | ➨ | RSA 28 | 070-5376 | + mount 2-pipe screw |
| RS 28 | 070L5370 | 2 | ➨ | RSA 28 | 070L5370 | + mount 2-pipe screw |
| RS 28 | 070-5310 | 1 | ➨ | | No repl. | |
| RS 28 | 070L5310 | 1 | ➨ | | No repl. | |
| RS 28 | 070-5312 | 2 | ➨ | | No repl. | |
| RS 28 | 070L5312 | 2 | ➨ | | No repl. | |
| RS 28 | 070-5322 | 2 | ➨ | | No repl. | |
| RS 28 | 070L5322 | 2 | ➨ | | No repl. | |
| RS 40 | 070-3200 | 1 | ➨ | RSA 40 | 070-3230 | |
| RS 40 | 070L3200 | 1 | ➨ | RSA 40 | 070L3230 | |
| RS 40 | 070-3202 | 2 | ➨ | RSA 40 | 070-3230 | + mount 2-pipe screw |
| RS 40 | 070L3202 | 2 | ➨ | RSA 40 | 070L3230 | + mount 2-pipe screw |
| RS 40 | 070-3210 | 1 | ➨ | RSA 40 | 070-3240 | |
| RS 40 | 070L3210 | 1 | ➨ | RSA 40 | 070L3244 | |
| RS 40 | 070-3212 | 2 | ➨ | RSA 40 | 070-3240 | + mount 2-pipe screw |
| RS 40 | 070L3212 | 2 | ➨ | RSA 40 | 070L3244 | + mount 2-pipe screw |
| RS 40 | 070-3222 | 2 | ➨ | RSA 40 | 070-3249 | |
| RS 40 | 070L3222 | 2 | ➨ | RSA 40 | 070L3249 | |
| RS 60 | 070-3300 | 1 | ➨ | RSA 60 | 070-3354 | |
| RS 60 | 070L3300 | 1 | ➨ | RSA 60 | 070L3350 | |
| RS 60 | 070-3302 | 2 | ➨ | RSA 60 | 070-3354 | + mount 2-pipe screw |
| RS 60 | 070L3302 | 2 | ➨ | RSA 60 | 070L3350 | + mount 2-pipe screw |

## Conversion Danfoss RS ➨ RSA Service

| Danfoss oil pumps – older series | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| RS 60 | 070-3310 | 1 | ➨ | RSA 60 | 070-3360 | |
| RS 60 | 070L3310 | 1 | ➨ | RSA 60 | 070L3366 | |
| RS 60 | 070-3312 | 2 | ➨ | RSA 60 | 070-3360 | + mount 2-pipe screw |
| RS 60 | 070L3312 | 2 | ➨ | RSA 60 | 070L3362 | |

## Conversion Danfoss RSA/RSH ➨ RSA Service

| Danfoss oil pumps – older series | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| RSA 40 | 070-3232 | 2 | ➨ | RSA 40 | 070-3230 | + mount 2-pipe screw |
| RSA 40 | 070-3242 | 2 | ➨ | RSA 40 | 070-3240 | |
| RSA 60 | 070-3350 | 1 | ➨ | RSA 60 | 070-3354 | |
| RSA 60 | 070-3352 | 2 | ➨ | RSA 60 | 070-3354 | + mount 2-pipe screw |
| RSA 60 | 070-3362 | 2 | ➨ | RSA 60 | 070-3360 | |
| RSA 125 | 070-3402 | 2 | ➨ | RSA 125 | 070-3400 | |
| RSA 125 | 070-3412 | 2 | ➨ | RSA 125 | 070-3410 | |
| RSA 95 | 070-3472 | 2 | ➨ | RSA 95 | 070-3470 | |
| RSA 95 | 070-3482 | 2 | ➨ | RSA 95 | 070-3480 | |
| RSA 28 | 070-5332 | 2 | ➨ | | No repl. | |
| RSA 28 | 070-5370 | 1 | ➨ | RSA 28 | 070-5376 | |
| RSA 28 | 070-5372 | 2 | ➨ | RSA 28 | 070-5376 | + mount 2-pipe screw |
| RSA 28 | 070-5380 | 1 | ➨ | | No repl. | |
| RSA 28 | 070-5382 | 2 | ➨ | | No repl. | |
| RSA 40 | 070L3232 | 2 | ➨ | RSA 40 | 070L3230 | + mount 2-pipe screw |
| RSA 40 | 070L3240 | 1 | ➨ | RSA 40 | 070L3244 | |

## Conversion Danfoss RSA/RSH ➨ RSA Service

| Danfoss oil pumps – older series | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| RSA 40 | 070L3242 | 2 | ➨ | RSA 40 | 070L3244 | + mount 2-pipe screw |
| RSA 40 | 070L3247 | 1 | ➨ | RSA 40 | 070L3248 | |
| RSA 60 | 070L3356 | 2 | ➨ | RSA 60 | 070L3350 | + mount 2-pipe screw |
| RSA 60 | 070L3360 | 1 | ➨ | RSA 60 | 070L3366 | |
| RSA 125 | 070L3402 | 2 | ➨ | RSA 125 | 070L3400 | + mount 2-pipe screw |
| RSA 125 | 070L3403 | 2 | ➨ | | No repl. | |
| RSA 125 | 070L3413 | 1 | ➨ | RSA 125 | 070L3410 | +070-0211 |
| RSA 125 | 070L3422 | 2 | ➨ | RSA 125 | 070L3410 | use 15-30 bar spring 070-0031+ 070-0211<br>+ mount 2 -pipe screw |
| RSA 95 | 070L3472 | 2 | ➨ | RSA 95 | 070L3470 | + mount 2-pipe screw |
| RSA 95 | 070L3474 | 1 | ➨ | | No repl. | |
| RSA 28 | 070L5332 | 2 | ➨ | | No repl. | |
| RSA 28 | 070L5372 | 2 | ➨ | RSA 28 | 070L5370 | + mount 2-pipe screw |
| RSA 28 | 070L5380 | 1 | ➨ | | No repl. | |
| RSA 28 | 070L5382 | 2 | ➨ | | No repl. | |
| RSH 63 | 070-6300 | 1 | ➨ | RSA 60 | 070-3354 | use 15-30 bar spring 070-0031 + 070-0042 |
| RSH 63 | 070-6310 | 1 | ➨ | RSA 60 | 070-3360 | use 15-30 bar spring 070-0031 + 070-0042 |
| RSH 125 | 070-6400 | 1 | ➨ | RSA 125 | 070-3400 | use 15-30 bar spring 070-0031 |
| RSH 125 | 070-6410 | 1 | ➨ | RSA 125 | 070-3410 | use 15-30 bar spring 070-0031 |
| RSH 95 | 070-6480 | 1 | ➨ | RSA 95 | 070-3480 | use 15-30 bar spring 070-0031 |
| RSH 32 | 070-7300 | 1 | ➨ | RSA 40 | 070-3230 | use 15-30 bar spring 070-0031 |
| RSH 32 | 070-7310 | 1 | ➨ | RSA 40 | 070-3240 | use 15-30 bar spring 070-0031 |
| RSH 63 | 070L6300 | 1 | ➨ | RSA 60 | 070L3350 | use 15-30 bar spring 070-0031 + 070-0042 |
| RSH 63 | 070L6310 | 1 | ➨ | RSA 60 | 070L3366 | use 15-30 bar spring 070-0031 + 070-0042 |
| RSH 125 | 070L6400 | 1 | ➨ | RSA 125 | 070L3400 | use 15-30 bar spring 070-0031 |
| RSH 125 | 070L6410 | 1 | ➨ | RSA 125 | 070L3410 | use 15-30 bar spring 070-0031 |
| RSH 95 | 070L6480 | 1 | ➨ | RSA 95 | 070L3482 | use 15-30 bar spring 070-0031 |
| RSH 32 | 070L7300 | 1 | ➨ | RSA 40 | 070L3230 | use 15-30 bar spring 070-0031 |
| RSH 32 | 070L7310 | 1 | ➨ | RSA 40 | 070L3244 | use 15-30 bar spring 070-0031 |

## Conversion Danfoss RSL ➨ BFP Service

| Danfoss oil pumps – older series | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| RSL 028 | 070-4330 | 1 | ➨ | BFP 21 R3 | 071N7157[1)] | + cable, L = 710 mm: 071G0204 |
| RSL 028 | 070L4330 | 1 | ➨ | BFP 21 L3 | 071N7156[1)] | |
| RSL 028 | 070-4332 | 2 | ➨ | BFP 21 R3 | 071N7157[1)] | |
| RSL 028 | 070L4332 | 2 | ➨ | BFP 21 L3 | 071N7156[1)] | |
| RSL 028 | 070-4340 | 1 | ➨ | BFP 21 R3 | 071N7157[1)] | + cable, L = 710 mm: 071G0204<br>+ bush ∅54: 071B0011 |
| RSL 028 | 070L4340 | 1 | ➨ | BFP 21 L3 | 071N7156[1)] | |
| RSL 028 | 070-4342 | 2 | ➨ | BFP 21 R3 | 071N7157[1)] | |
| RSL 028 | 070L4342 | 2 | ➨ | BFP 21 L3 | 071N7156[1)] | |
| RSL 050 | 070-3130 | 1 | ➨ | BFP 21 R5 | 071N7173[1)] | + cable, L = 710 mm: 071G0204 |
| RSL 050 | 070L3130 | 1 | ➨ | BFP 21 L5 | 071N7172[1)] | |
| RSL 050 | 070-3132 | 2 | ➨ | BFP 21 R5 | 071N7173[1)] | |
| RSL 050 | 070L3132 | 2 | ➨ | BFP 21 L5 | 071N7172[1)] | |
| RSL 050 | 070-3140 | 1 | ➨ | BFP 21 R5 | 071N7173[1)] | + cable, L = 710 mm: 071G0204<br>+ bush ∅54: 071B0011 |
| RSL 050 | 070L3140 | 1 | ➨ | RFP 21 L5 | 071N7172[1)] | |
| RSL 050 | 070-3142 | 2 | ➨ | BFP 21 R5 | 071N7173[1)] | |
| RSL 050 | 070L3142 | 2 | ➨ | BFP 21 L5 | 071N7172[1)] | |

1) The solenoid coil must be connected in parallel with the burner motor.

## Conversion Danfoss RSLB ➨ BFP Service

| Danfoss oil pumps – older series | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| RSLB 028 | 070-4030 | 1 | ➨ | BFP 20 R3 | 071N7169[2)] | |
| RSLB 028 | 070L4030 | 1 | ➨ | BFP 20 L3 | 071N7168[2)] | |
| RSLB 028 | 070-4032 | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| RSLB 028 | 070L4032 | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| RSLB 028 | 070-4040 | 1 | ➨ | BFP 20 R3 | 071N7169 | |
| RSLB 028 | 070L4040 | 1 | ➨ | BFP 20 L3 | 071N7168 | + bush ∅54: 071B0011 |
| RSLB 028 | 070-4042 | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| RSLB 028 | 070L4042 | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| RSLB 050 | 070-4130 | 1 | ➨ | BFP 20 R5 | 071N7129[2)] | |
| RSLB 050 | 070L4130 | 1 | ➨ | BFP 20 L5 | 071N7126[2)] | |
| RSLB 050 | 070-4132 | 2 | ➨ | BFP 20 R5 | 071N7129 | |
| RSLB 050 | 070L4132 | 2 | ➨ | BFP 20 L5 | 071N7126 | |
| RSLB 050 | 070-4140 | 1 | ➨ | BFP 20 R5 | 071N7129 | |
| RSLB 050 | 070L4140 | 1 | ➨ | BFP 20 L5 | 071N7126 | + bush ∅54: 071B0011 |
| RSLB 050 | 070-4142 | 2 | ➨ | BFP 20 R5 | 071N7129 | |
| RSLB 050 | 070L4142 | 2 | ➨ | BFP 20 L5 | 071N7126 | |

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Danfoss MSLA ➨ BFP Service

| Danfoss oil pumps – older series | | | ➨ | Relevant Danfoss types | | | |
|---|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories | |
| MSLA 032 | 071B0101 | 1 | ➨ | BFP 21 R3 | 071N7157 | | |
| MSLA 032 | 071B0102 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | | |
| MSLA 032 | 071B0103 | 1 | ➨ | | No repl. | MSLA = 100 V a.c. | |
| MSLA 032 | 071B0104 | 2 | ➨ | | No repl. | | |
| MSLA 032 | 071B0105 | 1 | ➨ | BFP 21 R3 | 071N7157 | + coil 110-120 V a.c.: 071N0061 | |
| MSLA 032 | 071B0108 | 2 | ➨ | | No repl. | MSLA = 200 V a.c. | |
| MSLA 032 | 071B0112 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | | |
| MSLA 032 | 071B0113 | 1 | ➨ | BFP 21 R3 | 071N7157 | | |
| MSLA 032 | 071B0132 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | + coil 24 V a.c.: 071N0062 | |
| MSLA 032 | 071B1101 | 1 | ➨ | BFP 21 L3 | 071N7156 | | |
| MSLA 032 | 071B1102 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | | |
| MSLA 032 | 071B1103 | 1 | ➨ | | No repl. | MSLA 100 V a.c. | + cable, L = 710 mm: 071G0204 |
| MSLA 032 | 071B1104 | 2 | ➨ | | No repl. | | |
| MSLA 032 | 071B1105 | 1 | ➨ | BFP 21 L3 | 071N7156 | + coil 110-120 V a.c.: 071N0061 | |
| MSLA 032 | 071B1111 | 1 | ➨ | BFP 21 L3 | 071N7156 | | |
| MSLA 032 | 071B1112 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | | |
| MSLA 032 | 071B1114 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | | |
| MSLA 032 | 071B1118 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | | |
| MSLA 032 | 071B1120 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | | |
| MSLA 032 | 071B1126 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | | |
| MSLA 032 | 071B1128 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | | |
| MSLA 032 | 071B1132 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | + coil 24 V a.c.: 071N0062 | |
| MSLA 032 | 071B1134 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | | |
| MSLA 032 | 071B1136 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | | |
| MSLA 032 | 071B1138 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | | |

3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Danfoss MSLA/MSLB ➨ BFP Service

| Danfoss oil pumps – older series | | | ➨ | Relevant Danfoss types | | | |
|---|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories | |
| MSLA 050 | 071B0201 | 1 | ➨ | BFP 21 R5 | 071N7173[2)] | | + cable, L = 710 mm, 071G0204 |
| MSLA 050 | 071B0202 | 2 | ➨ | BFP 21 R5 | 071N7173 | | |
| MSLA 050 | 071B0203 | 1 | ➨ | BFP 21 R5 | 071N7173[2)] | MSLA = 100 V a.c. + coil 110-120 V a.c.: 071N0061 | |
| MSLA 050 | 071B0204 | 2 | ➨ | BFP 21 R5 | 071N7173 | | |
| MSLA 050 | 071B0205 | 1 | ➨ | BFP 21 R5 | 071N7173[2)] | | |
| MSLA 050 | 071B0208 | 2 | ➨ | BFP 21 R5 | 071N7173 | MSLA = 200 V a.c. | |
| MSLA 050 | 071B1201 | 1 | ➨ | BFP 21 L5 | 071N7172[2)] | | |
| MSLA 050 | 071B1202 | 2 | ➨ | BFP 21 L5 | 071N7172 | | |
| MSLA 050 | 071B1203 | 1 | ➨ | BFP 21 L5 | 071N7172[2)] | MSLA = 100 V a.c. + coil 110-120 V a.c.: 071N0061 | |
| MSLA 050 | 071B1204 | 2 | ➨ | BFP 21 L5 | 071N7172 | | |
| MSLB 032 | 071B2101 | 1 | ➨ | BFP 20 R3 | 071N7169[2)] | | |
| MSLB 032 | 071B3101 | 1 | ➨ | BFP 20 L3 | 071N7168[2)] | | |
| MSLB 032 | 071B2102 | 2 | ➨ | BFP 20 R3 | 071N7169 | | |
| MSLB 032 | 071B2104 | 2 | ➨ | BFP 20 R3 | 071N7169 | | |
| MSLB 032 | 071B3102 | 2 | ➨ | BFP 20 L3 | 071N7168 | | |
| MSLB 050 | 071B2201 | 1 | ➨ | BFP 20 R5 | 071N7129[2)] | | |
| MSLB 050 | 071B3201 | 1 | ➨ | BFP 20 L5 | 071N7126[2)] | | |
| MSLB 050 | 071B2202 | 2 | ➨ | BFP 20 R5 | 071N7129 | | |
| MSLB 050 | 071B2203 | 1 | ➨ | BFP 20 R5 | 071N7129[2)] | | |
| MSLB 050 | 071B3202 | 2 | ➨ | BFP 20 L5 | 071N7126 | | |

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Danfoss MSLC/MSLD ➨ BFP Service

| Danfoss oil pumps – older series | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| MSLC 032 | 071B4101 | 1 | ➨ | BFP 21 R3 | 071N7157[1)] | |
| MSLC 032 | 071B5101 | 1 | ➨ | BFP 21 L3 | 071N7156[1)] | |
| MSLC 032 | 071B4102 | 2 | ➨ | BFP 21 R3 | 071N7157[1) 3)] | |
| MSLC 032 | 071B5102 | 2 | ➨ | BFP 21 L3 | 071N7156[1) 3)] | |
| MSLC 032 | 071B4103 | 1 | ➨ | BFP 21 R3 | 071N7157[1)] | |
| MSLC 032 | 071B4105 | 1 | ➨ | BFP 21 R3 | 071N7157[1)] | + cable, L = 710 mm: 071G0204 |
| MSLC 050 | 071B4201 | 1 | ➨ | BFP 21 R5 | 071N7173[1) 2)] | |
| MSLC 050 | 071B5201 | 1 | ➨ | BFP 21 L5 | 071N7172[1) 2)] | |
| MSLC 050 | 071B4202 | 2 | ➨ | BFP 21 R5 | 071N7173[1)] | |
| MSLC 050 | 071B5202 | 2 | ➨ | BFP 21 L5 | 071N7172[1)] | |
| MSLD 032 | 071B6101 | 1 | ➨ | BFP 20 R3 | 071N7169[2)] | |
| MSLD 032 | 071B6102 | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| MSLD 032 | 071B7101 | 1 | ➨ | BFP 20 L3 | 071N7168[2)] | |
| MSLD 032 | 071B7102 | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| MSLD 032 | 071B6201 | 1 | ➨ | BFP 20 R5 | 071N7129[2)] | |
| MSLD 050 | 071B6202 | 2 | ➨ | BFP 20 R5 | 071N7129 | |
| MSLD 050 | 071B7201 | 1 | ➨ | BFP 20 L5 | 071N7126[2)] | |
| MSLD 050 | 071B7202 | 2 | ➨ | BFP 20 L5 | 071N7126 | |

1) The solenoid coil must be connected in parallel with the burner motor.
2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.
3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Danfoss MS ➨ BFP Service

| Danfoss oil pumps – older series | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| MS 10 L3 | 071G0125 | 1 + 2 | ➨ | BFP 20 L3 | 071N7168[2)] | |
| MS 10 R3 | 071G0123 | 1 + 2 | ➨ | BFP 20 R3 | 071N7169[2)] | |
| MS 10 L3 | 071G0153 | 1 + 2 | ➨ | | No repl. | |
| MS 10 R3 | 071G0175 | 1 + 2 | ➨ | BFP 20 R3 | 071N7169[2)] | |
| MS 10 R5 | 071G0176 | 1 + 2 | ➨ | BFP 20 R5 | 071N7129[2)] | |
| MS 10 L5 | 071G0128 | 1 + 2 | ➨ | BFP 20 L5 | 071N7126[2)] | |
| MS 10 R5 | 071G0124 | 1 + 2 | ➨ | BFP 20 R5 | 071N7129[2)] | |
| MS 11 L3 | 071G0117 | 1 + 2 | ➨ | BFP 21 L3 | 071N7156 | |
| MS 11 R3 | 071G0118 | 1 + 2 | ➨ | BFP 21 R3 | 071N7157 | |
| MS 11 L3 | 071G0121 | 1 + 2 | ➨ | BFP 21 L3 | 071N7156 | |
| MS 11 L3 | 071G0134 | 1 + 2 | ➨ | BFP 21 L3 | 071N7156 | |
| MS 11 L3 | 071G0137 | 1 + 2 | ➨ | BFP 21 L3 | 071N7156 | |
| MS 11 L3 | 071G0139 | 1 + 2 | ➨ | BFP 21 L3 | 071N7156 | |
| MS 11 L3 | 071G0154 | 1 + 2 | ➨ | BFP 21 L3 | 071N7156 | + coupling with single flat in hole (D-shaped) |
| MS 11 L3 | 071G0156 | 1 + 2 | ➨ | BFP 21 L3 | 071N7156 | + coil 24 V a.c.: 071N0062 |
| MS 11 L3 | 071G0158 | 1 + 2 | ➨ | BFP 21 L3 | 071N7156 | |
| MS 11 R3 | 071G0160 | 1 + 2 | ➨ | BFP 21 R3 | 071N7157 | + coil 24 V a.c.: 071N0062 |
| MS 11 L3 | 071G0162 | 1 + 2 | ➨ | BFP 11 L3 | 071N7141[3)] | |
| MS 11 L3 | 071G0163 | 1 + 2 | ➨ | BFP 11 L3 | 071N7141[3)] | + coil 24 V a.c.: 071N0062 |
| MS 11 L3 | 071G0165 | 1 | ➨ | BFP 21 L3 | 071N7156 | MS has manual conversion |
| MS 11 R3 | 071G0173 | 1 + 2 | ➨ | BFP 21 R3 | 071N7157 | |
| MS 11 R5 | 071G0174 | 1 + 2 | ➨ | BFP 21 R5 | 071N7173[2)] | |
| MS 11 R3 | 071G0177 | 1 + 2 | ➨ | BFP 21 R3 | 071N7157 | |
| MS 11 L3 | 071G0178 | 1 + 2 | ➨ | BFP 21 L3 | 071N7156 | |

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.
3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Danfoss MS ➨ BFP Service

| Danfoss oil pumps – older series | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 Strang | ➨ | Type | Code no. | Comments/accessories |
| MS 11 L3 | 071G0179 | 1 + 2 | ➨ | BFP 21 L3 | 071N7156[3] | Any hydraulic cylinder must be connected to the pressure gauge port on the front. |
| MS 11 L5 | 071G0127 | 1 + 2 | ➨ | BFP 21 L5 | 071N7172[2] | |
| MS 11 R5 | 071G0126 | 1 + 2 | ➨ | BFP 21 R5 | 071N7173[2] | |
| MS 12 L3 | 071G0115 | 1 + 2 | ➨ | | No repl.) | |
| MS 12 R3 | 071G0113 | 1 + 2 | ➨ | | No repl. | |
| MS 12 L5 | 071G0116 | 1 + 2 | ➨ | | No repl. | |
| MS 12 R5 | 071G0114 | 1 + 2 | ➨ | | No repl. | |
| MS 12 L3 | 071G0161 | 1 + 2 | ➨ | | No repl. | |
| MS 12E L3 | 071G0130 | 1 + 2 | ➨ | BFP 52E L3 | 071N3201[2] | |
| MS 12E R3 | 071G0129 | 1 + 2 | ➨ | BFP 52E R3 | 071N3203[2] | |
| MS 12E L5 | 071G0120 | 1 + 2 | ➨ | BFP 52E L5 | 071N3202[2] | |
| MS 12E R5 | 071G0119 | 1 + 2 | ➨ | BFP 52E R5 | 071N3204[2] | |
| MS 12E L3 | 071G0140 | 1 + 2 | ➨ | BFP 52E L3 | 071N3201[2] | |
| MS 12E L5 | 071G0181 | 1 + 2 | ➨ | BFP 52E L5 | 071N3202[2] | |
| MS 21 L3 | 071G0157 | 1 + 2 | ➨ | BFP 21 L3 | 071N7156[3] | |
| MS 21 R3 | 071G0167 | 1 + 2 | ➨ | BFP 21 R3 | 071N7157[3] | |

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.
3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Danfoss BFP ➨ BFP Service

| BFP – standard pump | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| BFP 11 L3 | 071N0101 | 2 | ➨ | BFP 11 L3 | 071N7141[3] | |
| BFP 21 L3 | 071N0102 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | |
| BFP 11 L3 | 071N0103 | 2 | ➨ | BFP 11 L3 | 071N7141[3] | |
| BFP 21 L3 | 071N0104 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | |
| BFP 11 L5 | 071N0105 | 2 | ➨ | BFP 21 L5 | 071N7172 | |
| BFP 21 L3 | 071N0107 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | |
| BFP 20 L3 | 071N0108 | 1 | ➨ | BFP 20 L3 | 071N7168[2] | |
| BFP 21 R3 | 071N0109 | 2 | ➨ | BFP 21 R3 | 071N7157[3] | Any hydraulic cylinder must be connected to the pressure gauge port on the front. |
| BFP 21 L3 | 071N0111 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | |
| BFP 21 R3 | 071N0112 | 2 | ➨ | BFP 21 R3 | 071N7157[3] | |
| BFP 21 L3 | 071N0113 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | |
| BFP 11 L3 | 071N0114 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | + coupling with single flat in hole (D-shaped) |
| BFP 31 L3 | 071N0115 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | |
| BFP 21 L5 | 071N0116 | 2 | ➨ | BFP 21 L5 | 071N7172 | Any hydraulic cylinder must be connected to the pressure gauge port on the front. |
| BFP 21 L3 | 071N0117 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | + coupling with single flat in hole (D-shaped) |
| BFP 20 R3 | 071N0118 | 1 | ➨ | BFP 20 R3 | 071N7169[2] | |
| BFP 21 L3 | 071N0119 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | |
| BFP 21 R5 | 071N0120 | 1 | ➨ | BFP 21 R5 | 071N7173[2] | |
| BFP 21 L3 | 071N0122 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| BFP 21 L3 | 071N0123 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | + coil 110 V: 071N0061 |
| BFP 21 L3 | 071N0124 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | |
| BFP 20 L3 | 071N0125 | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| BFP 20 L5 | 071N0126 | 2 | ➨ | BFP 20 L5 | 071N7126 | |
| BFP 20 L3 | 071N0127 | 1 | ➨ | BFP 20 L3 | 071N7168[2] | |

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.
3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Danfoss BFP ➨ BFP Service

| BFP – standard pump | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| BFP 20 R3 | 071N0128 | 1 | ➨ | BFP 20 R3 | 071N7169[2)] | |
| BFP 20 R5 | 071N0129 | 2 | ➨ | BFP 20 R5 | 071N7129 | |
| BFP 21 L3 | 071N0130 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 21 L3 | 071N0132 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| BFP 31 L3 | 071N0133 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | + coupling with single flat in hole (D-shaped) |
| BFP 41 L3 | 071N0135 | 2 | ➨ | BFP 41 L3 | 071N8213[3)] | |
| BFP 21 R3 | 071N0136 | 1 | ➨ | BFP 21 R3 | 071N7157 | |
| BFP 41 R3 | 071N0137 | 2 | ➨ | BFP 41 R3 | 071N7137 | |
| BFP 21 L3 | 071N0138 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | Old fittings must be used |
| BFP 20 R3 | 071N0140 | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| BFP 11 L3 | 071N0141 | 1 | ➨ | BFP 11 L3 | 071N7141 | |
| BFP 11 L3 | 071N0142 | 1 | ➨ | BFP 11 L3 | 071N7141 | |
| BFP 11 R3 | 071N0143 | 1 | ➨ | BFP 11 R3 | 071N7155 | |
| BFP 11 L3 | 071N0144 | 2 | ➨ | BFP 11 L3 | 071N7141[3)] | |
| BFP 11 R3 | 071N0145 | 2 | ➨ | BFP 11 R3 | 071N7155[3)] | |
| BFP 11 L3 | 071N0146 | 2 | ➨ | BFP 11 L3 | 071N7141[3)] | Old coil might be usable |
| BFP 21 L3 | 071N0147 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 21 L3 | 071N0148 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 31 L3 | 071N0149 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 21 L3 | 071N0150 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 21 L3 | 071N0151 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 11 L3 | 071N0152 | 2 | ➨ | BFP 11 L3 | 071N7141[3)] | |
| BFP 11 L3 | 071N0153 | 2 | ➨ | BFP 11 L3 | 071N7141[3)] | + coil 24 V a.c.: 071N0062 |
| BFP 21 R3 | 071N0154 | 1 | ➨ | BFP 21 R3 | 071N7157 | |
| BFP 11 R3 | 071N0155 | 1 | ➨ | BFP 11 R3 | 071N7155 | |
| BFP 21 L3 | 071N0156 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| BFP 21 R3 | 071N0157 | 1 | ➨ | BFP 21 R3 | 071N7157 | |
| BFP 21 L5 | 071N0158 | 1 | ➨ | BFP 21 L5 | 071N7172[2)] | |

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.
3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Danfoss BFP ➨ BFP Service

| BFP – standard pump | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| BFP 21 R5 | 071N0159 | 1 | ➨ | BFP 21 R5 | 071N7173[2)] | |
| BFP 41 L3 | 071N0160 | 1 | ➨ | BFP 41 L3 | 071N8213 | |
| BFP 20 L3 | 071N0161 | 1 | ➨ | BFP 20 L3 | 071N7168[2)] | |
| BFP 20 R3 | 071N0162 | 1 | ➨ | BFP 20 R3 | 071N7169[2)] | |
| BFP 11 R5 | 071N0163 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFP 21 L3 | 071N0164 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 11 R5 | 071N0165 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFP 10 R5 | 071N0166 | 2 | ➨ | BFP 20 R5 | 071N7129 | |
| BFP 21 R3 | 071N0167 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| BFP 20 L3 | 071N0168 | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| BFP 20 R3 | 071N0169 | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| BFP 21 L3 | 071N0170 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 21 R3 | 071N0171 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| BFP 21 L5 | 071N0172 | 2 | ➨ | BFP 21 L5 | 071N7172 | |
| BFP 21 R5 | 071N0173 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFP 41 L3 | 071N0174 | 2 | ➨ | BFP 41 L3 | 071N8213[3)] | |
| BFP 21 L3 | 071N0175 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| BFP 21 L3 | 071N0176 | 1 | ➨ | BFP 21 L3 | 071N7156 | + coil: 071N0061 |
| BFP 10 R3 | 071N0177 | 2 | ➨ | BFP 10 R3 | 071N7253 | |
| BFP 11 L5 | 071N0178 | 2 | ➨ | BFP 21 L5 | 071N7172 | |
| BFP 21 L3 | 071N0179 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 20 R5 | 071N0180 | 2 | ➨ | BFP 20 R5 | 071N7129 | |
| BFP 11 R3 | 071N0181 | 2 | ➨ | BFP 11 R3 | 071N7155[3)] | |
| BFP 21 L3 | 071N0182 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 11 R3 | 071N0183 | 2 | ➨ | BFP 11 R3 | 071N7155[3)] | |
| BFP 21 L3 | 071N0184 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 21 L3 | 071N0185 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.
3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Danfoss BFP ➨ BFP Service

| BFP – standard pump | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| BFP 41 L3 | 071N0188 | 2 | ➨ | BFP 41 L3 | 071N8213[3)] | |
| BFP 21 L3 | 071N0189 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | + coil: 071N0062 |
| BFP 31 L3 | 071N0190 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 31 R3 | 071N0191 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| BFP 31 L3 | 071N0192 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| BFP 21 L3 | 071N0193 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| BFP 21 L5 | 071N0194 | 1 | ➨ | BFP 21 L5 | 071N7172[2)] | |
| BFP 21 R5 | 071N0195 | 1 | ➨ | BFP 21 R5 | 071N7173[2)] | |
| BFP 41 R3 | 071N0196 | 1 | ➨ | BFP 41 R3 | 071N7137[2)] | |
| BFP 21 L3 | 071N0197 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 21 R3 | 071N0198 | 1 | ➨ | BFP 21 R3 | 071N7157 | |
| BFP 20 R3 | 071N0200 | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| BFP 21 L5 | 071N0202 | 2 | ➨ | BFP 21 L5 | 071N7172 | |
| BFP 21 L3 | 071N0203 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 21 L3 | 071N0204 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 21 R5 | 071N0207 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFP 21 R3 | 071N0208 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| BFP 21 L3 | 071N0209 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 11 L3 | 071N0210 | 1 | ➨ | BFP 11 L3 | 071N7141 | |
| BFP 21 L4 | 071N0211 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | + coupling with single flat in hole (D-shaped) |
| BFP 20 L3 | 071N0212 | 2 | ➨ | BFP 20 L3 | 071N7168 | + coupling with single flat in hole (D-shaped) |
| BFP 11 L3 | 071N0213 | 1 | ➨ | BFP 11 L3 | 071N7141 | |
| BFP 21 R3 | 071N0214 | 1 | ➨ | BFP 21 R3 | 071N7157 | |
| BFP 21 R3 | 071N0215 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | 071N0215 has G 1/8 in S+R |
| BFP 21 R5 | 071N0216 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFP 21 L3 | 071N0217 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 20 L3 | 071N0218 | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| BFP 21 L4 | 071N0219 | 2 | ➨ | BFP21 L3 | 071N7156[3)] | + coupling with single flat in hole (D-shaped) |

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.
3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Danfoss BFP ➨ BFP Service

| BFP – standard pump | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| BFP 21 L3 | 071N0221 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| BFP 41 L3 | 071N0224 | 1 | ➨ | BFP 41 L3 | 071N8213 | |
| BFP 41 L3 | 071N0225 | 2 | ➨ | BFP 41 L3 | 071N8213[3] | |
| BFP 21 L3 | 071N0226 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | |
| BFP 21 L5 | 071N0227 | 2 | ➨ | BFP 21 L5 | 071N7172 | + coupling with single flat in hole (D-shaped) |
| BFP 21 L3 | 071N0228 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | |
| BFP 20 R3 | 071N0229 | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| BFP 21 R3 | 071N0230 | 2 | ➨ | BFP 21 R3 | 071N7157[3] | |
| BFP 21 R3 | 071N0231 | 1 | ➨ | BFP 21 R3 | 071N7157 | |
| BFP 21 L3 | 071N0232 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| BFP 21 L3 LE-S | 071N0233 | 2 | ➨ | BFP 21 L3 LE-S | 071N3225 | + coupling with single flat in hole (D-shaped) |
| BFP 21 L5 LE-S | 071N0234 | 2 | ➨ | BFP 21 L5 LE-S | 071N3136 | Use the coupling included |
| BFP 41 R3 | 071N0235 | 2 | ➨ | BFP 41 R3 | 071N7137 | |
| BFP 21 L3 | 071N0236 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | Old pump is with 1/8" RG in S+R |
| BFPC-21 L5 | 071N0237 | 2 | ➨ | BFP 21 L5 | 071N7172 | |
| BFPC-21 L3 | 071N0238 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | |
| BFP21 L3 LE-S | 071N0239 | 2 | ➨ | BFP21 L3 LE-S | 071N3225 | Old pump is with 1/8" RG in S+R |
| BFPC-21 L3 | 071N0240 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| BFPC-21 L3 | 071N0241 | 1 | ➨ | BFP 21 L3 | 071N7156 | + 24 V a.c. coil 071N0062 |
| BFPC-21 L3 | 071N0242 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | |
| BFPC-21 L3 | 071N0243 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | + 24 V a.c. coil 071N0062 |
| BFPC-21 R3 | 071N0245 | 2 | ➨ | BFP 21 R3 | 071N7157[3] | |
| BFPC-21 R5 | 071N0248 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFP 21 L3 | 071N0250 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | |
| BFP 21 L3 | 071N0251 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | |
| BFP 21 L3 | 071N0252 | 1 | ➨ | BFP 21 L3 | 071N7156[3] | |
| BFP 10 R3 | 071N0253 | 1 | ➨ | BFP 10 R3 | 071N7253 | |
| BFP 21 R3 | 071N0254 | 2 | ➨ | BFP 21 R3 | 071N7157[3] | |

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.
3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Danfoss BFP ➨ BFP Service

| BFP – standard pump | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| BFP 21 R3 | 071N0255 | 2 | ➨ | BFP 21 R3 | 071N7157[3] | |
| BFP 21 R3 | 071N0256 | 1 | ➨ | BFP 21 R3 | 071N7157 | |
| BFP 21 L5 | 071N0257 | 2 | ➨ | BFP 21 L5 | 071N7172 | |
| BFP 21 L5 | 071N0258 | 2 | ➨ | BFP 21 L5 | 071N7172 | |
| BFP 21 R5 | 071N0259 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFP 21 R5 | 071N0260 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFP 21 L4 | 071N0261 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | + coupling with single flat in hole (D-shaped) |
| BFP 41 L3 LE-S | 071N0262 | 2 | ➨ | BFP 41 L3 LE-S | 071N3137 | |
| BFP 20 L5 | 071N0263 | 2 | ➨ | BFP 20 L5 | 071N7126 | |
| BFP 21 L3 LE-S | 071N0264 | 2 | ➨ | BFP 21 L3 LE-S | 071N3225 | |
| BFP 20 L3 | 071N0267 | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| BFP 21 L5 | 071N0268 | 1 | ➨ | BFP 21 L5 | 071N7172[2] | 100 V a.c. |
| BFP 21 L5 | 071N0269 | 1 | ➨ | BFP 21 L5 | 071N7172[2] | 100 V a.c. |
| BFP 11 L6 | 071N0270 | 2 | ➨ | BFP 21 L5 | 071N7172 | |
| BFP 11 R6 | 071N0271 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFP 10 L6 | 071N0272 | 2 | ➨ | BFP 20 L5 | 071N7126 | Max. 40 l/h at 10 bar |
| BFP 10 R6 | 071N0273 | 2 | ➨ | BFP 20 R5 | 071N7129 | |
| BFP 11 L6 | 071N0274 | 1 | ➨ | BFP 21 L5 | 071N7172[2] | |
| BFP 11 R6 | 071N0275 | 1 | ➨ | BFP 21 R5 | 071N7173[2] | |
| BFPC-21 R3 | 071N0279 | 1 | ➨ | BFP 21 R3 | 071N7157 | + 24 V a.c. coil 071N0062 |
| BFPC-21 R3 | 071N0280 | 2 | ➨ | BFP 21 R3 | 071N7157[3] | |
| BFPC-21 R5 | 071N0281 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFPC-21 L3 | 071N0282 | 1 | ➨ | BFP 21 L3 | 071N7156 | Old coil might be usable |
| BFPC-21 R3 | 071N0283 | 1 | ➨ | BFP 21 R3 | 071N7157 | Old coil might be usable |
| BFPC-21 L3 | 071N0284 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | Old coil might be usable |
| BFPC-21 R3 | 071N0285 | 2 | ➨ | BFP 21 R3 | 071N7157[3] | + 24 V a.c. coil 071N0062 |
| BFPC-21 R3 | 071N0286 | 2 | ➨ | BFP 21 R3 | 071N7157[3] | + 24 V a.c. coil 071N0062 |
| BFPC-21 R3 | 071N0287 | 2 | ➨ | BFP 21 R3 | 071N7157[3] | + 24 V a.c. coil 071N0062 |

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.
3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Danfoss BFP ➨ BFP Service

| BFP – standard pump | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| BFP 10 R3 | 071N0288 | 1 | ➨ | BFP 10 R3 | 071N7253 | |
| BFPC-21 L3 | 071N0289 | 1 | ➨ | BFP 21 L3 | 071N7156 | Old coil might be usable |
| BFP 21 L4 | 071N0291 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | + coupling with single flat in hole (D-shaped) |
| BFP 21 L5 | 071N0292 | 2 | ➨ | BFP 21 L5 | 071N7172 | + coupling with single flat in hole (D-shaped) |
| BFP 21 L3 | 071N0295 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 20 R3 | 071N0298 | 1 | ➨ | BFP 20 R3 | 071N7169[2)] | |
| BFP 21 L5 | 071N0299 | 2 | ➨ | BFP 21 L5 | 071N7172 | 200 V a.c. |
| BFP 21 L3 | 071N1107 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 11 R3 | 071N1108 | 2 | ➨ | BFP 11 R3 | 071N7155[3)] | |
| BFP 21 R3 | 071N1109 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| BFP 21 R5 | 071N1173 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFP 21 L3 | 071N1175 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 41 L3 | 071N1196 | 2 | ➨ | BFP 41 L3 | 071N8213[3)] | |
| BFP 21 L3 LE-S | 071N1199 | 2 | ➨ | BFP 21 L3 LE-S | 071N3225 | |
| BFP 21 L3 | 071N1200 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 31 L3 | 071N1201 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 31 L3 | 071N1203 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 41 L3 | 071N1206 | 2 | ➨ | BFP 41 L3 | 071N8213[3)] | |
| BFP 21 R5 | 071N1207 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFP 21 R3 | 071N1208 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| BFP 31 L3 | 071N1209 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 21 L3 LE-S | 071N1211 | 2 | ➨ | BFP 21 L3 LE-S | 071N3225 | + coupling with single flat in hole (D-shaped) |
| BFP 41 L3 | 071N1213 | 1 | ➨ | BFP 41 L3 | 071N8213 | |
| BFP 21 L3 | 071N1214 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| BFP 21 R3 | 071N1215 | 1 | ➨ | BFP 21 R3 | 071N7157 | |
| BFP 21 L3 | 071N1216 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 21 L3 | 071N1217 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | + coupling with single flat in hole (D-shaped) |
| BFP 21 L3 | 071N1219 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | + coupling with single flat in hole (D-shaped) |
| BFP 20 L3 | 071N1220 | 2 | ➨ | BFP 20 L3 | 071N7168 | |

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.
3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Danfoss BFP ➨ BFP Service

| BFP – standard pump | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| BFA 01 L3 | 071N1221 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | |
| BFA 01 R3 | 071N1223 | 2 | ➨ | BFP 21 R3 | 071N7157[3] | |
| BFA 01 R3 | 071N1224 | 1 | ➨ | BFP 21 R3 | 071N7157 | |
| BFA 01 L3 | 071N1225 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | + 24 V a.c. coil 071N0062 |
| BFA 01 L3 | 071N1226 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | |
| BFA 00 L3 | 071N1227 | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| BFA 01 L3 | 071N1228 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| BFA 01 L3 | 071N1229 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | + 110 V a.c. coil 071N0061 |
| BFA 01 R3 | 071N1230 | 1 | ➨ | BFP 21 R3 | 071N7157 | + 24 V a.c. coil 071N0062 |
| BFA 01 R3 | 071N1231 | 2 | ➨ | BFP 21 R3 | 071N7157[3] | + 24 V a.c. coil 071N0062 |
| BFA 01 R5 | 071N1232 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFA 01 R5 | 071N1233 | 2 | ➨ | BFP 21 R5 | 071N7173 | + 110 V a.c. coil 071N0061 |
| BFA 00 R5 | 071N1234 | 2 | ➨ | BFP 20 R5 | 071N7129 | |
| BFA 01 R3 | 071N1235 | 1 | ➨ | BFP 21 R3 | 071N7157 | |
| BFA 01 L3 | 071N1236 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | + 24 V a.c. coil 071N0062 |
| BFP 20 L3 | 071N1237 | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| BFPC 21 L3 | 071N1238 | 1 | ➨ | BFP 21 L3 | 071N7156 | Old coil might be usable |
| BFPC 21 L3 | 071N1239 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | Old coil might be usable |
| BFA 01 R3 | 071N1240 | 2 | ➨ | BFP 21 R3 | 071N7157[3] | + 110 V a.c. coil 071N0061 |
| BFA 01 L3 | 071N1241 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | + 24 V a.c. coil 071N0008 and valve 071N0007 |
| BFP 52E L3 LE-S | 071N1244 | 2 | ➨ | BFP 52E L3 LE-S | 071N3214 | |
| BFPC 21 R3 | 071N1245 | 1 | ➨ | BFP 21 R3 | 071N7157 | |
| BFP 21 R5 | 071N1247 | 1 | ➨ | BFP 21 R5 | 071N7173[2] | 200 V a.c. |
| BFP 21 L3 | 071N1249 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | + 110 V a.c. coil 071N0061 |
| BFP 21 L3 | 071N1250 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | + 24 V a.c. coil 071N0062 |
| BFP 21 L3 | 071N1251 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | + 24 V a.c. coil 071N0062 |
| BFP 21 R3 | 071N1254 | 2 | ➨ | BFP 21 R3 | 071N7157[3] | + 24 V a.c. coil 071N0062 |
| BFP 52E L3 LE-S | 071N1259 | 2 | ➨ | BFP 52E L3 LE-S | 071N3214 | |

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.
3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Danfoss BFP ➨ BFP Service

| BFP – standard pump | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| BFP 21 L5 | 071N1260 | 2 | ➨ | BFP 21 L5 | 071N7172 | + coupling with single flat in hole (D-shaped) |
| BFA 01 R3 | 071N1262 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | + 24 V a.c. coil 071N0062 |
| BFA 01 R3 | 071N1263 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| BFA 01 R3 | 071N1264 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | + 110 V a.c. coil 071N0061 |
| BFA 01 R3 | 071N1265 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| BFP 21 L5 | 071N1266 | 2 | ➨ | BFP 21 L5 | 071N7172 | |
| BFP 21 L5 | 071N1267 | 1 | ➨ | BFP 21 L5 | 071N7172[2)] | 100 V a.c. |
| BFP 21 L5 | 071N1268 | 2 | ➨ | BFP 21 L5 | 071N7172 | |
| BFP 21 L5 | 071N1269 | 1 | ➨ | BFP 21 L5 | 071N7172[2)] | |
| BFA 01 L3 | 071N1277 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | Old coil might be usable |
| BFA 01 L3 | 071N1279 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | Old fittings must be used |
| BFP 20 R5 | 071N1281 | 2 | ➨ | BFP 20 R5 | 071N7129 | |
| BFPC 21 R5 | 071N1282 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFPC 21 R3 | 071N1283 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| BFA 01 R4 | 071N1284 | 1 | ➨ | BFP 21 R5 | 071N7173[2)] | |
| BFA 01 R4 | 071N1285 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFA 01 R3 | 071N1286 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| BFA 01 R5 | 071N1287 | 2 | ➨ | BFP 21 R5 | 071N7173 | + 110 V a.c. coil 071N0061 |
| BFA 01 R5 | 071N1288 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFA 01 L4 | 071N1289 | 2 | ➨ | BFP 21 L5 | 071N7172 | + 24 V a.c. coil 071N0062 |
| BFA 01 L3 | 071N1290 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFA 01 L3 | 071N1291 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFA 01 R3 | 071N1292 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFP 01 R5 | 071N1293 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFA 01 R5 | 071N1294 | 1 | ➨ | BFP 21 R5 | 071N7173[2)] | |
| BFA 01 R5 | 071N1295 | 1 | ➨ | BFP 21 R5 | 071N7173[2)] | |
| BFA 01 L3 | 071N1296 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| BFA 01 R3 | 071N1298 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.
3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Danfoss BFP ➨ BFP Service

| BFP – standard pump | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| BFA 01 R3 | 071N1299 | 1 | ➨ | BFP 21 R3 | 071N7157 | |
| BFP 21L3 LE | 071N2103 | 2 | ➨ | BFP 21 L3 LE | 071N3119 | |
| BFP 21L3 LE | 071N2104 | 2 | ➨ | BFP 21 L3 LE | 071N3119 | |
| BFP 21L3 LE | 071N2105 | 2 | ➨ | BFP 21 L3 LE | 071N3118 | + coupling with single flat in hole (D-shaped) |
| BFP 21R3-LE | 071N2107 | 2 | ➨ | | No repl. | |
| BFP 21L3 LE | 071N2108 | 2 | ➨ | BFP 21 L3 LE | 071N3119 | |
| BFP 21 R3 | 071N2109 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| BFP 21L3 LE | 071N2110 | 2 | ➨ | BFP 21 L3 LE | 071N3118 | |
| BFP 21L4 | 071N2111 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | + coupling with single flat in hole (D-shaped) |
| BFP 21L3 LE | 071N2112 | 2 | ➨ | BFP 21 L3 LE | 071N3119 | + coupling with single flat in hole (D-shaped) |
| BFP 21L3 LE | 071N2113 | 2 | ➨ | BFP 21 L3 LE | 071N3119 | |
| BFP 21L3 LE | 071N2114 | 2 | ➨ | BFP 21 L3 LE | 071N3119 | |
| BFP 21L3 LE-S | 071N2115 | 2 | ➨ | BFP 21L3 LE-S | 071N3225 | |
| BFP 21L3 LE-S | 071N2116 | 2 | ➨ | BFP 21 L3 LE-S | 071N3225 | |
| BFP 21 R3 | 071N2117 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| BFP 21 L3 LE | 071N2118 | 2 | ➨ | BFP 21 L3 LE | 071N3118 | |
| BFP 21 L3 LE | 071N2119 | 2 | ➨ | BFP 21 L3 LE | 071N3119 | |
| BFP 21 R5 | 071N2121 | 1 | ➨ | BFP 21 R5 | 071N7173 | Old coil might be usable |
| BFP 21 L3 LE-S | 071N2122 | 2 | ➨ | BFP 21 L3 LE-S | 071N3225 | |
| BFP 21 L2 | 071N2123 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | Old pump is with 1/8" RG in ports. |
| BFP 21 L3 LE | 071N2124 | 2 | ➨ | BFP 21 L3 LE | 071N3118 | |
| BFP 21 L3 LE-S | 071N2125 | 2 | ➨ | BFP 21 L3 LE-S | 071N3225 | |
| BFP 21 R3 LE-S | 071N2127 | 2 | ➨ | | No repl. | |
| BFP 21 L3 LE-S | 071N2128 | 2 | ➨ | BFP 21 L3 LE-S | 071N3225 | |
| BFP 21 R5 | 071N2129 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFP 21 L3 L2 | 071N2130 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 21 L5 LE-S | 071N2131 | 2 | ➨ | BFP 21 L5 LE-S | 071N3136 | Don't use the coupling included |
| BFP 21 L3 L2 | 071N2132 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 21 L3 LE | 071N2135 | 1 | ➨ | BFP 21 L3 LE | 071N3119[2)] | 071N007 + 071N008 |

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.
3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Danfoss BFP ➨ BFP Service

| BFP – standard pump | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| BFP 21 L5 LE-S | 071N2136 | 2 | ➨ | BFP 21 L5 LE-S | 071N3136 | |
| BFP 41 L3 LE-S | 071N2137 | 2 | ➨ | BFP 41 L3 LE-S | 071N3137 | |
| BFPC 21 L5 | 071N2151 | 2 | ➨ | BFP 21 L5 | 071N7172 | |
| BFP 21 L5 | 071N2172 | 2 | ➨ | BFP 21 L5 | 071N7172 | |
| BFP 31 L5 | 071N2173 | 2 | ➨ | BFP 21 L5 | 071N7172 | |
| BFP 21 L3 | 071N7174 | 2 | ➨ | BFP21 L3 | 071N7156[3)] | |
| BFP 52E L3 | 071N2201 | 2 | ➨ | BFP 52E L3 | 071N3201 | |
| BFP 52E L5 | 071N2202 | 2 | ➨ | BFP 52E L5 | 071N3202 | |
| BFP 52E R3 | 071N2203 | 2 | ➨ | BFP 52E R3 | 071N3203 | |
| BFP 52E R5 | 071N2204 | 2 | ➨ | BFP 52E R5 | 071N3204 | |
| BFP 52E L5 | 071N2205 | 2 | ➨ | BFP 52E L5 | 071N3202 | |
| BFP 52E R5 | 071N2206 | 2 | ➨ | BFP 52E R5 | 071N3204 | |
| BFP 52E R5 | 071N2207 | 2 | ➨ | | No repl. | |
| BFP 52E L3 | 071N2209 | 2 | ➨ | BFP 52E L3 | 071N3201 | |
| BFP 52E L3 | 071N2211 | 2 | ➨ | BFP 52E L3 | 071N3201 | + coupling with single flat in hole (D-shaped) |
| BFP 52E L5 | 071N2212 | 2 | ➨ | BFP 52E L5 | 071N3202 | + coupling with single flat in hole (D-shaped) |
| BFP 52E L3 LE-S | 071N2213 | 2 | ➨ | BFP 52E L3 LE-S | 071N3213 | |
| BFP 52E L3 LE-S | 071N2214 | 2 | ➨ | BFP 52E L3 LE-S | 071N3214 | |
| BFP 52E L3 LE-S | 071N2215 | 2 | ➨ | BFP 52E L3 LE-S | 071N3215 | |
| BFP 52E L5 | 071N2216 | 2 | ➨ | BFP 52E L3 | 071N3202 | + coupling with single flat in hole (D-shaped) |
| BFP 52E L5 | 071N2217 | 1 | ➨ | BFP 52E L5 | 071N3202[2)] | |
| BFP 52E L5 | 071N2220 | 2 | ➨ | BFP 52E L5 | 071N3202 | + coupling with single flat in hole (D-shaped) |
| BFP 52E L3 LE-S | 071N2222 | 2 | ➨ | BFP 52E L3 LE-S | 071N3214 | |
| BFP 21 L3 LE-S | 071N2225 | 2 | ➨ | BFP 21 L3 LE-S | 071N3225 | |
| BFP 20 L5 | 071N2235 | 2 | ➨ | BFP 20 L5 | 071N7126 | |
| BFPC 21 L3 | 071N2242 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 21 R5 | 071N2248 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFP 21 L3 | 071N2250 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 52E L3 | 071N2251 | 2 | ➨ | BFP 52E L3 | 071N3201 | |

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.
3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Danfoss BFP ➨ BFP Service

| BFP – standard pump | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| BFP 52E L5 | 071N2252 | 2 | ➨ | BFP 52E L5 | 071N3202 | |
| BFP 52E R3 | 071N2253 | 2 | ➨ | BFP 52E R3 | 071N3203 | |
| BFP 52E R5 | 071N2254 | 2 | ➨ | BFP 52E R5 | 071N3204 | |
| BFP 21 R3 | 071N2255 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| BFP 52E R5 | 071N2256 | 2 | ➨ | BFP 52E R5 | 071N3204 | |
| BFP 52E L3 | 071N2264 | 2 | ➨ | BFP 52E L3 | 071N3201 | |
| BFP 52E L5 | 071N2265 | 2 | ➨ | BFP 52E L5 | 071N3202 | |
| BFP 52E R3 | 071N2273 | 2 | ➨ | BFP 52E R3 | 071N3203 | |
| BFP 52E L3 LE-S | 071N2274 | 2 | ➨ | BFP 52E L3 LE-S | 071N3214 | |
| BFP 52E L3 LE-S | 071N2275 | 2 | ➨ | BFP 52E L3 LE-S | 071N3214 | |
| BFP 52E L3 LE-S | 071N2276 | 2 | ➨ | BFP 52E L3 LE-S | 071N3214 | |
| BFP 52E L3 LE-S | 071N2277 | 2 | ➨ | BFP 52E L3 LE-S | 071N3214 | |
| BFPC 21 R3 | 071N2280 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| BFP 52E L3 | 071N2281 | 2 | ➨ | BFP 52E L3 | 071N3201 | |
| BFP 52E R3 | 071N2283 | 2 | ➨ | BFP 52E R3 | 071N3203 | |
| BFP 52E R5 | 071N2284 | 2 | ➨ | BFP 52E R5 | 071N3204 | |
| BFP 21 L3 LE | 071N2285 | 2 | ➨ | BFP 21 L3 LE | 071N3118 | |
| BFP 52E L3 | 071N2286 | 2 | ➨ | | No repl. | |
| BFP 52E L3 LE-S | 071N2288 | 2 | ➨ | BFP 52E L3 LE-S | 071N3215 | |
| BFP 52E L3 | 071N2291 | 2 | ➨ | BFP 52E L3 | 071N3201 | + coupling with single flat in hole (D-shaped) |
| BFP 52E L3 LE-S | 071N2293 | 2 | ➨ | BFP 52E L3 LE-S | 071N3215 | |
| BFP 52E L3 | 071N2295 | 2 | ➨ | BFP 52E L3 | 071N3201 | |
| BFP 52E L3 LE-S | 071N2296 | 2 | ➨ | BFP 52E L3 LE-S | 071N3213 | + coupling with single flat (D-shaped) |
| BFP 52E L3 | 071N2299 | 2 | ➨ | BFP 52E L3 | No repl. | |
| BFP 52E L3 LE-S | 071N2301 | 2 | ➨ | BFP 52E L3 LE-S | 071N3213 | |
| BFP 52E L5 | 071N2302 | 2 | ➨ | BFP 52E L5 | 071N3202 | |
| BFP 21 L3 LE-S | 071N2303 | 2 | ➨ | BFP 21 L3 LE-S | 071N3225 | + coupling with single flat in hole (D-shaped) |
| BFP 21 L3 | 071N2304 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | + coupling with single flat in hole (D-shaped) |
| BFP 21 L3 | 071N2305 | 1 | ➨ | BFP 21 L3 | 071N7156 | |

3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Danfoss BFP ➨ BFP Service

| BFP – standard pump | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| BFP 21 R5 | 071N2335 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFP 21 R3 | 071N2336 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| BFPC 21 R3 | 071N2380 | 1 | ➨ | BFP 21 R3 | 071N7157 | |
| BFPC 21 R5 | 071N2381 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFP 21 L3 LE | 071N3118 | 2 | ➨ | BFP 21 L3 LE | 071N3118 | |
| BFP 21 L3 LE | 071N3119 | 2 | ➨ | BFP 21 L3 LE | 071N3119 | |
| BFP 21 L5 LE-S | 071N3136 | 2 | ➨ | BFP 21 L5 LE-S | 071N3136 | |
| BFP 41 L3 LE-S | 071N3137 | 2 | ➨ | BFP 41 L3 LE-S | 071N3137 | |
| BFP 52E L3 | 071N3201 | 2 | ➨ | BFP 52E L3 | 071N3201 | |
| BFP 52E L5 | 071N3202 | 2 | ➨ | BFP 52E L5 | 071N3202 | |
| BFP 52E R3 | 071N3203 | 2 | ➨ | BFP 52E R3 | 071N3203 | |
| BFP 52E R5 | 071N3204 | 2 | ➨ | BFP 52E R5 | 071N3204 | |
| BFP 52E L3 LE-S | 071N3213 | 2 | ➨ | BFP 52E L3 LE-S | 071N3213 | |
| BFP 52E L3 LE-S | 071N3214 | 2 | ➨ | BFP 52E L3 LE-S | 071N3214 | |
| BFP 52E L3 LE-S | 071N3215 | 2 | ➨ | BFP 52E L3 LE-S | 071N3215 | |
| BFP 21 L3 LE-S | 071N3225 | 2 | ➨ | BFP 21 L3 LE-S | 071N3225 | |
| BFP 21 L3 LE | 071N4105 | 2 | ➨ | BFP 21 L3 LE | 071N3118 | + coupling with single flat in hole (D-shaped) |
| BFP 21 L3 | 071N4107 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 11 L3 | 071N4141 | 1 | ➨ | BFP 11 L3 | 071N7141 | |
| BFP 11 R3 | 071N4143 | 1 | ➨ | BFP 11 R3 | 071N7155 | |
| BFP 52E L3 LE-S | 071N4222 | 2 | ➨ | BFP 52E L3 LE-S | 071N3215 | |
| BFP 11 L13 | 071N6101 | 2 | ➨ | | No repl. | |
| BFP 11 R13 | 071N6102 | 2 | ➨ | | No repl. | |
| BFP 10 L13 | 071N6103 | 2 | ➨ | | No repl. | |
| BFP 10 R13 | 071N6104 | 2 | ➨ | | No repl. | |
| BFP 11 L11 | 071N6105 | 2 | ➨ | | No repl. | |
| BFP 11 R11 | 071N6106 | 2 | ➨ | | No repl. | |
| BFP 10 L11 | 071N6107 | 2 | ➨ | | No repl. | |
| BFP 10 R11 | 071N6108 | 2 | ➨ | | No repl. | |

3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Danfoss BFP ➨ BFP Service

| BFP – standard pump | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| BFP 11 L8 | 071N6109 | 2 | ➨ | | No repl. | |
| BFP 11 R8 | 071N6110 | 2 | ➨ | | No repl. | |
| BFP 10 L8 | 071N6111 | 2 | ➨ | | No repl. | |
| BFP 10 R8 | 071N6112 | 2 | ➨ | | No repl. | |
| BFP 12 L8 | 071N6201 | 2 | ➨ | | No repl. | |
| BFP 12 L11 | 071N6202 | 2 | ➨ | | No repl. | |
| BFP 12 L13 | 071N6203 | 2 | ➨ | | No repl. | |
| BFP 51 L6 | 071N6204 | 2 | ➨ | | No repl. | |
| BFP 51 L11 | 071N6205 | 2 | ➨ | | No repl. | |
| BFP 52 L6 | 071N6206 | 2 | ➨ | BFP 52 E L5 | 071N3202 | Max. 40 l/h at 10 bar |
| BFP 52 L8 | 071N6207 | 2 | ➨ | | No repl. | |
| BFP 52 L11 | 071N6209 | 2 | ➨ | | No repl. | |
| BFP 52 R11 | 071N6210 | 2 | ➨ | | No repl. | |
| BFP 52 L13 | 071N6211 | 2 | ➨ | | No repl. | |
| BFP 52 R13 | 071N6212 | 2 | ➨ | | No repl. | |
| BFP 53 L6 | 071N6213 | 2 | ➨ | | No repl. | |
| BFP 12 R11 | 071N6214 | 2 | ➨ | | No repl. | |
| BFP 53 L11 | 071N6216 | 2 | ➨ | | No repl. | |
| BFP 12 L6 | 071N6217 | 2 | ➨ | | No repl. | |
| BFP 12 R6 | 071N6218 | 2 | ➨ | | No repl. | |
| BFP 12 R8 | 071N6219 | 2 | ➨ | | No repl. | |
| BFP 12 R13 | 071N6220 | 2 | ➨ | | No repl. | |
| BFP 51 R6 | 071N6221 | 2 | ➨ | | No repl. | |
| BFP 51 L8 | 071N6222 | 2 | ➨ | | No repl. | |
| BFP 51 R8 | 071N6223 | 2 | ➨ | | No repl. | |
| BFP 51 R11 | 071N6224 | 2 | ➨ | | No repl. | |
| BFP 51 L13 | 071N6225 | 2 | ➨ | | No repl. | |
| BFP 51 R13 | 071N6226 | 2 | ➨ | | No repl. | |
| BFP 52 R6 | 071N6227 | 2 | ➨ | BFP 52 E R5 | 071N3204 | Max. 40 l/h at 10 bar |

## Conversion Danfoss BFP ➨ BFP Service

| BFP – standard pump | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| BFP 53 R6 | 071N6228 | 2 | ➨ | | No repl. | |
| BFP 53 L8 | 071N6229 | 2 | ➨ | | No repl. | |
| BFP 53 R8 | 071N6230 | 2 | ➨ | | No repl. | |
| BFP 53 R11 | 071N6231 | 2 | ➨ | | No repl. | |
| BFP 53 L13 | 071N6232 | 2 | ➨ | | No repl. | |
| BFP 53 R13 | 071N6233 | 2 | ➨ | | No repl. | |
| BFP 20 L5 | 071N7126 | 2 | ➨ | BFP 20 L5 | 071N7126 | |
| BFP 20 R5 | 071N7129 | 2 | ➨ | BFP 20 R5 | 071N7129 | |
| BFP 41 R3 | 071N7137 | 2 | ➨ | BFP 41 R3 | 071N7137 | |
| BFP 11 L3 | 071N7141 | 1 | ➨ | BFP 11 L3 | 071N7141 | |
| BFP 11 R3 | 071N7155 | 1 | ➨ | BFP 11 R3 | 071N7155 | |
| BFP 21 L3 | 071N7156 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| BFP 21 R3 | 071N7157 | 1 | ➨ | BFP 21 R3 | 071N7157 | |
| BFP 20 L3 | 071N7168 | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| BFP 20 R3 | 071N7169 | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| BFP 21 L3 | 071N7170 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| BFP 21 R3 | 071N7171 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| BFP 21 L5 | 071N7172 | 2 | ➨ | BFP 21 L5 | 071N7172 | |
| BFP 21 R5 | 071N7173 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| BFP 41 L3 | 071N7174 | 2 | ➨ | BFP 41 L3 | 071N8213[3)] | |
| BFP 10 R3 | 071N7253 | 1 | ➨ | BFP 10 R3 | 071N7253 | |
| BFP 41 L3 | 071N8213 | 1 | ➨ | BFP 41 L3 | 071N8213 | |
| BFP 21 L3 | 071N8214 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| BFP 21 R3 | 071N8215 | 1 | ➨ | BFP 21 R3 | 071N7157 | |

3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Suntec ➨ BFP Service

| Suntec | | | ➨ | Danfoss oil pumps | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| AN47A | 13261P | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| AN47D | 13391P | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| AN47C | 13421P | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| AN47B | 13951P | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| AN47A | 72163P | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| AN47B | 72173P | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| AN47C | 72183P | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| AN47D | 72193P | 2 | ➨ | BFP 20 L3 | 071N7168 | + flange and bush ∅54: 071N0047 |
| AN47A | 72263P | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| AN47B | 72273P | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| AN47C | 72283P | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| AN47D | 72293P | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| AN47C | 72473M | 1 | ➨ | BFP 20 L3 | 071N7168[2)] | + 071N0047, possible changeover to 1-pipe operation |
| AN47A | 72832M | 1 | ➨ | BFP 20 R3 | 071N7169[2)] | |
| AN47A | 73263P | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| AN47B | 73273P | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| AN47C | 73283P | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| AN47A | 73443P | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| AN57B | 13301P | 2 | ➨ | BFP 20 R5 | 071N7129 | |
| AN57A | 72433P | 2 | ➨ | BFP 20 R5 | 071N7129 | + flange and bush ∅54: 071N0047<br>Suntec: 60 l/h, BFP: 40 l/h at 12 bar |
| AN57C | 72823P | 2 | ➨ | BFP 20 L5 | 071N7126 | |
| AN57C | 78823E6 | 2 | ➨ | BFP 20 L5 | 071N7126 | |
| AN67B | 13351P | 2 | ➨ | BFP 20 R5 | 071N7129 | |
| AN67C | 13361P | 2 | ➨ | | No repl. | |
| AN67D | 13571P | 2 | ➨ | | No repl. | |
| AN67B | 13351P | 2 | ➨ | | No repl. | |
| AN67C | 13381P | 2 | ➨ | | No repl. | |

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Suntec ➨ BFP Service

| Suntec | | | ➨ | Danfoss oil pumps | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| AN67C | 84102 E1 | 2 | ➨ | | No repl. | |
| AN67C | 72333 P | 2 | ➨ | | No repl. | |
| AN67A | 72383 P | 2 | ➨ | | No repl. | |
| AN67C | 72423 P | 2 | ➨ | | No repl. | |
| AN67B | 72513 P | 2 | ➨ | | No repl. | |
| AN67D | 72523 P | 2 | ➨ | | No repl. | |
| AN67B | 73353 P | 2 | ➨ | | No repl. | |
| AN67A | 73453 P | 2 | ➨ | | No repl. | |
| AL35B | 95202 P0200 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | + 24 V a.c. coil: 071N0062 |
| AL35B | 95202 P0500 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| AL35C | 95212 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| AL35C | 95242 M0500 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| AL35A | 95262 P0500 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| AL35C | 95282 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| AL35D | 95292 P0200 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | + 24 V a.c. coil: 071N0062 |
| AL35C | 95402 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | Suntec: G $^{1}/_{8}$ in S+R |
| AL35C | 95652 M0500 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| AL35A | 95702 P0500 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| AL35C | 95782 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| AL35B | 95802 P0500 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| AL35C | 95402 P0500R | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |

3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Suntec ➨ BFP Service

| Suntec | | | ➨ | Danfoss oil pumps | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| AL55B | 95312 P0500 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| AL65C | - | 2 | ➨ | | No repl. | |
| ALE V 30C | 93004 P0700R | 2 | ➨ | BFP 21 L3 LE-S | 071N3225 | Old pump is with G1/8" in S+R |
| ALE 35C | 93242 P0500 | 2 | ➨ | BFP 21 L3-LE-S | 071N3225 | |
| AS47A | 15361 P0500 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| AS47B | 15371 P0500 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| AS47C | 15381 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| AS47D | 15391 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| AS47D | 15501 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| AS47B | 15511 P0500 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| AS47C | 15541 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| AS47D | 15571 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | + coupling with single flat in hole (D-shaped) |
| AS47D | 15621 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| AS47D | 15681 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| AS47C | 15691 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| AS47D | 15721 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| AS47D | 15801 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| AS47A | 74323 P0500 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| AS47C | 74343 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| AS47D | 74353 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| AS47A | 74363 P0500 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| AS47C | 74383 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | + flange and bush ∅54: 071N0047 |
| AS47D | 74393 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| AS47C | 74443 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| AS47B | 74453 P0500 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| AS47C | 74513 M0500 | 1 | ➨ | BFP 21 L3 | 071N7156 | |

3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Suntec ➨ BFP Service

| Suntec | | | ➨ | Danfoss oil pumps | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| AS47C | 74613 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | + flange and bush ∅54: 071N0047 |
| AS47C | 75543 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | |
| AS47D | 75623 P0500 | 2 | ➨ | BFP 21 L3 | 071N7156[3] | |
| AS47A | 75643 P0500 | 2 | ➨ | BFP 21 R3 | 071N7157[3] | |
| AS57C | 15441 P0500 | 2 | ➨ | BFP 21 L5 | 071N7172 | |
| AS57C | 74413 P0500 | 2 | ➨ | BFP 21 L5 | 071N7172 | + flange and bush ∅54: 071N0047 |
| AS57B | 74423 P0500 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| AS57C | 75443 P0500 | 2 | ➨ | BFP 21 L5 | 071N7172 | |
| AS67C | | | ➨ | | No repl. | |
| AE45C | 13601 P | 2 | ➨ | BFP 20 L5 | 071N7126 | |
| AE45C | 13701 M | 1 | ➨ | BFP 20 L5 | 071N7126[2] | Suntec: 1/8 NPTF in nozzle outlet |
| AE47B | 13661 P | 2 | ➨ | BFP 20 R5 | 071N7129 | |
| AE47D | 13781 M | 1 | ➨ | BFP 20 L5 | 071N7126[2] | |
| AE47A | 13841 M | 1 | ➨ | BFP 20 R5 | 071N7129[2] | |
| AE47D | 13851 P | 2 | ➨ | BFP 20 L5 | 071N7126 | |
| AE47C | 13861 P | 2 | ➨ | BFP 20 L5 | 071N7126 | |
| AE47C | 13871 P | 2 | ➨ | BFP 20 L5 | 071N7126 | |
| AE47B | 72673 P | 2 | ➨ | BFP 20 R5 | 071N7129 | + flange and bush ∅54: 071N0047 |
| AE47C | 72743 M | 1 | ➨ | BFP 20 L5 | 071N7126[2] | + flange and bush ∅54: 071N0047 |
| AE47C | 73683 P | 2 | ➨ | BFP 20 L5 | 071N7126 | |
| AE57B | 13641 M | 1 | ➨ | BFP 20 R5 | 071N7129[2] | |
| AE57C | 73733 P | 2 | ➨ | BFP 20 L5 | 071N7126 | |
| AE67D | 72783 P | 2 | ➨ | | No repl. | |
| AE67C | 73613 P | 2 | ➨ | | No repl. | |
| AE77C | 72702 P | 2 | ➨ | | No repl. | |
| AE77C | 73802 P | 2 | ➨ | | No repl. | |
| AP47A | 75553 P0500 | 2 | ➨ | | No repl. | |
| AP47C | 75563 P0500 | 2 | ➨ | BFP 52E L5 | 071N3202[4] | |
| AP47B | 75613 P0500 | 2 | ➨ | BFP 52E R5 | 071N3204[4] | |

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.
3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.
4) The pump NC valve must be connected in parallel to the NC valve in nozzle line.

## Conversion Suntec ➨ BFP Service

| Suntec | | | ➨ | Danfoss oil pumps | | |
|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| AP47C | 74603 P0500 | 2 | ➨ | BFP 52E L5 | 071N3202[4)] | + flange and bush ∅54: 071N0047 |
| AP57C | 74433 P0500 | 2 | ➨ | BFP 52E L5 | 071N3202[4)] | Suntec: 35 l/h, BFP: 26 l/h at 22 bar + 071N0047 |
| AP57C | 75453 P0500 | 2 | ➨ | BFP 52E L5 | 071N3202[4)] | Suntec: 35 l/h, BFP: 26 l/h at 22 bar |
| AP57A | 75493 P0500 | 2 | ➨ | BFP 52E R5 | 071N3204[4)] | |
| AP67C | 74583 P0500 | 2 | ➨ | BFP 52E L5 | 071N3202[4)] | Suntec: 58 l/h, BFP: 26 l/h at 22 bar + 071N0047 |
| AP67C | 75593 P0500 | 2 | ➨ | BFP 52E L5 | 071N3202[4)] | Suntec: 58 l/h, BFP: 26 l/h at 22 bar |
| AP245C | 95541 P0500 | 2 | ➨ | BFP 52E L5 | 071N3202[4)] | |
| AP245C | 95601 P0500 | 2 | ➨ | BFP 52E L5 | 071N3202[4)] | |
| AP345C | 95101 P0500 | 2 | ➨ | | No repl. | |
| AT245C | 95412 P0500 | 2 | ➨ | BFP 52E L5 | 071N3202 | |
| AT245D | 95442 P0500 | 2 | ➨ | | No repl. | |
| AT245A | 95472 P0500 | 2 | ➨ | | No repl. | Suntec: Nozzle outlet to the right |
| AT245D | 95482 P0500 | 2 | ➨ | | No repl. | |
| AT255C | 95492 P0500 | 2 | ➨ | BFP 52E L5 | 071N3202 | Suntec: 47 l/h, BFP: 26 l/h at 22 bar |
| AT255A | 95522 P0500 | 2 | ➨ | | No repl. | Suntec: Nozzle outlet to the right |
| AT3.... | | | ➨ | | No repl. | Special pump |
| AT275C | 95832 P0500 | 2 | ➨ | | No repl. | |
| AT355D | 95642 P0500 | 2 | ➨ | | No repl. | Suntec: Nozzle outlet to the right |
| AT355C | 9550 | 2 | ➨ | | No repl. | |
| A2L95D | 97022 P0500 | 2 | ➨ | | No repl. | |
| AU47L | 9853-6 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| AU47R | 9852-6 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| AUV47L | 9877-6P 0700 | 2 | ➨ | BFP 21 L3 LE-S | 071N3225 | In case no LE nozzle or valve is used 071N7156[3)] is to be used instead. |
| AUV47R | 9876-6P 0700 | 2 | ➨ | BFP 21R3 | 071N7156[3)] | In case LE nozzle or valve is used then there is no replacement |
| ATUV45L | 9860-6P 0700 | 2 | ➨ | BFP 52E L3 LE-S | 071N3214 | In case no LE nozzle or valve is used 071N3201 is to be used instead. |
| ATUV45R | 9861-6P 0700 | 2 | ➨ | BFP 52E R3 | 071N3203 | In case LE nozzle or valve is used then there is no replacement |

3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.
4) The pump NC valve must be connected in parallel to the NC valve in nozzle line.

## Conversion Eckerle ➨ BFP Service

| Eckerle | | ➨ | Danfoss oil pumps | | |
|---|---|---|---|---|---|
| Old designation | New designation | ➨ | Type | Code no. | Comments/accessories |
| UNI 1.1 L5 L64W | UNI-E 2.1 L1 L64 | ➨ | BFP 20 L3 | 071N7168 | Eckerle: G 1/8 in S+R |
| UNI 1.2 L1 L64-50 | UNI 2.12 L1 L64 | ➨ | BFP 21 L3 | 071N7156 | |
| UNI 1.2 L5 L14 | UNI 2.12 L1 L14 | ➨ | BFP 21 L3 | 071N7156 | |
| UNI 1.2 L5 L64-M1 | UNI-E 2.1 L1 L64-21 | ➨ | BFP 21 L3 | 071N7156 | Eckerle: G 1/8 in S+R |
| UNI 1.2 L5 L64-50 | UNI 2.12 L1 L64 | ➨ | BFP 21 L3 | 071N7156 | |
| UNI 1.2 L5 M14-50 | UNI 2.12 L1 M14 | ➨ | BFP 21 L3 | 071N7156 | |
| UNI 1.2 L5 M64-50-W | UNI 2.12 L1 M64-65 | ➨ | BFP 21 L3 | 071N7156 | Eckerle: G 1/8 in S+R |
| UNI 1.2 L62 M14-01-W | UNI 2.12 L6 M14-65 | ➨ | BFP 21 L5 | 071N7172 | BFP: Max. 40 l/h at 12 bar |
| UNI 1.2 L62 L14W | | ➨ | BFP 21 L5 | 071N7172 | BFP: Max. 40 l/h at 12 bar |
| UNI 1.42 L5 A64-W | UNI 2.42 L5 L64-65 | ➨ | BFP 52E L5 | 071N3202 | Eckerle: G 1/8 in S+R |
| UNI 1.42 L5 L64W | | ➨ | BFP 52E L5 | 071N3202 | Eckerle: Max. 75 l/h, |
| UNI 1.42 L6 L64W | | ➨ | BFP 52E L5 | 071N3202 | BFP: Max. 40 l/h at 12 bar |
| UNI 1.72 L62 L14-W | UNI 2.17 L6 M14-65 | ➨ | | No repl. | |
| UNI 2.1 L1 L40 | UNI-E 2.1 L1 L10 (-22,-30) | ➨ | BFP 20 L3 | 071N7168 | + coupling with single flat in hole (D-shaped) |
| UNI 2.1 L1 L44 | UNI-E 2.1 L1 L14 | ➨ | BFP 20 L3 | 071N7168 | |
| UNI 2.1 L1 L44H | UNI-E 2.1 L14 | ➨ | BFP 20 L3 | 071N7168 | |
| UNI 2.1 R1 L40 | UNI-E 2.1 R1 L10 | ➨ | BFP 20 R3 | 071N7169 | + coupling with single flat in hole (D-shaped) |
| UNI 2.1 R1 L44-21 | UNI-E 2.1 R1 L14 | ➨ | BFP 20 R3 | 071N7169 | |
| UNI 2.1 L5 L40-21 | UNI-E 2.1 L5 L10 | ➨ | BFP 20 L5 | 071N7126 | + coupling with single flat in hole (D-shaped) |
| UNI 2.1 L5 L42 | UNI-E 2.1 L5 L12 | ➨ | BFP 20 L5 | 071N7126 | + coupling with single flat in hole (D-shaped) + 071B0011 |
| UNI 2.1 L5 L44 | UNI-E 2.1 L5 L14 (-13) | ➨ | BFP 20 L5 | 071N7126 | |
| UNI 2.1 L5 L50 | UNI-E 2.1 L5 L10 | ➨ | BFP 20 L5 | 071N7126 | Eckerle: 10-25 bar, BFP: Max. 20 bar + coupling with single flat in hole (D-shaped) |
| UNI 2.1 L5 R44 | UNI-E 2.1 L5 R14 (-13) | ➨ | BFP 20 L5 | 071N7126 | |
| UNI 2.1 L5 R94 | UNI-E 2.1 L5 R74 | ➨ | BFP 20 L5 | 071N7126 | Eckerle: G 1/8 in S+R |
| UNI 2.1 R5 L42-UI-21 | UNI-E 2.1 R5 L12-80 | ➨ | BFP 20 R5 | 071N7129 | + coupling with single flat in hole (D-shaped) |
| UNI 2.1 R5 L43-UI-21 | UNI-E 2.1 R5 L13-80 | ➨ | BFP 20 R5 | 071N7129 | + flange: 071N0047 |
| UNI 2.1 R5 L43 | | ➨ | BFP 20 R5 | 071N7129 | |

## Conversion Eckerle ➨ BFP Service

| Eckerle | | ➨ | Danfoss oil pumps | | |
|---|---|---|---|---|---|
| Old designation | New designation | ➨ | Type | Code no. | Comments/accessories |
| UNI 2.1 R5 L44 | UNI-E 2.1 R5 L14 | ➨ | BFP 20 R5 | 071N7129 | |
| UNI 2.1 R5 L54 | UNI-E 2.1 R5 L24 | ➨ | BFP 20 R5 | 071N7129 | Eckerle: Max. 25 bar |
| UNI 2.1 R5 R42 | | ➨ | BFP 20 R5 | 071N7129 | |
| UNI 2.1 R5 R44 | UNI-E 2.1 R5 R14 | ➨ | BFP 20 R5 | 071N7129 | |
| UNI 2.1 R5 R45-21 | UNI-E 2.1 R5 R15 | ➨ | BFP 20 R5 | 071N7129 | + bush: 071B0011 |
| | UNI-E 2.1 R5 R60 | ➨ | BFP 20 R5 | 071N7129 | G 1/8 in S+R + coupling with single flat in hole (D-shaped) |
| UNI 2.1 R5 R80 | UNI-E 2.1 R5 R40 | ➨ | BFP 20 R5 | 071N7129 | + coupling with single flat in hole (D-shaped) |
| UNI 2.1 L6 L46 | UNI-E 2.1 L6 L26 | ➨ | RSA 40 | 070L3249 | + flange: 070N0211 |
| UNI 2.1 L6 L46-S-W | UNI-E 2.1 L6 L16-11 | ➨ | RSA 40 | 070L3249 | |
| UNI 2.1 L6 L54 | UNI-E 2.1 L6 L24 | ➨ | | No repl. | Eckerle ∅32, RSA ∅54 neck diameter |
| UNI 2.1 L6 L54-06 | UNI-E 2.1 L6 L24 | ➨ | | No repl. | |
| UNI 2.1 R6 L25 | UNI-E 2.1 R6 L25 | ➨ | RSA 40 | 070-3249 | |
| UNI 2.1 R6 R54 | UNI-E 2.1 R6 L24 | ➨ | | No repl. | Eckerle ∅32, RSA ∅54 neck diameter |
| UNI 2.1 L7 L55 | UNI-E 2.1 L7 L15 | ➨ | RSA 60 | 070L3352 | |
| UNI 2.1 L7 L55-05 | UNI-E 2.1 L7 L25 | ➨ | RSA 60 | 070L3352 | Shaft: Eckerle ∅8, RSA ∅10 |
| UNI 2.1 R7 L55 | UNI-E 2.1 R7 L15 | ➨ | RSA 60 | 070L3352 | |
| UNI 2.1 G22 L1 L10/L40 | UNI-E 2.1 G22 | ➨ | BFP 20 L3 | 071N7168 | + coupling with single flat in hole (D-shaped) |
| | UNI-E 2.1 L1 L64 (-21) | ➨ | BFP 20 L3 | 071N7168 | G 1/8 in S+R |
| | UNI-E 2.1 L5 R74 | ➨ | BFP 20 L5 | 071N7172 | |
| UNI 2.1 G41-21 L1 L10 | UNI-E 2.1 G41 | ➨ | BFP 20 L3 | 071N7168 | |
| | UNI-E 2.1 G41-13 | ➨ | BFP 20 L3 | 071N7168 | + coupling with single flat in hole (D-shaped) |
| | UNI- E 2.2 L1 L10 | ➨ | BFP 21 L3 | 071N7156 | |
| UNI 2.2 L1 L14 | UNI-E 2.2 L1 L14 | ➨ | BFP 21 L3 | 071N7156 | |
| UNI 2.2 L1 L16W | UNI-E 2.2 L1 L16-10 | ➨ | BFP 21 L3 | 071N7156 | + flange: 071N0047 |
| UNI 2.2 L1 L44 | UNI-E 2.2 L1 L14 | ➨ | BFP 21 L3 | 071N7156 | |
| UNI 2.2 L1 R14 | UNI-E 2.2 L1 R14-12 | ➨ | BFP 21 L3 | 071N7156 | |
| UNI 2.2 R1 L40 | UNI-E 2.2 R1 L10 | ➨ | BFP 21 R3 | 071N7157 | + coupling with single flat in hole (D-shaped) |
| UNI 2.2 R1 M14 | UNI-E 2.2 R1 M14 | ➨ | BFP 21 R3 | 071N7157 | |

## Conversion Eckerle ➨ BFP Service

| Eckerle | | ➨ | Danfoss oil pumps | | |
|---|---|---|---|---|---|
| Old designation | New designation | ➨ | Type | Code no. | Comments/accessories |
| UNI 2.2 R1 R24 | UNI-E 2.2 R1 R24 | ➨ | BFP 21 R3 | 071N7157 | Eckerle: Max. 25 bar |
| | UNI-E 2.2 R1 S14 | ➨ | BFP 21 R3 | 071N7157 | |
| UNI 2.2 L5 L14 | UNI-E 2.2 L5 L14-92 | ➨ | BFP 21 L5 | 071N7172 | Eckerle: G 1/8 in S+R<br>Eckerle: 10-25 bar, BFP: Max. 20 bar |
| UNI 2.2 L5 L15-21-05 | UNI-E 2.2 L5 L15 | ➨ | BFP 21 L5 | 071N7172 | + bush: 071B0011 |
| UNI 2.2 L5 L40-X | UNI-E 2.2 L5 L10-50 | ➨ | BFP 21 L5 | 071N7172 | + coupling with single flat in hole (D-shaped) |
| UNI 2.2 L5 L42 | UNI-E 2.2 L5 L12 | ➨ | BFP 21 L5 | 071N7172 | + bush: 071B0011<br>+ coupling with single flat in hole (D-shaped) |
| UNI 2.2 L5 L60 | | ➨ | BFP 21 L5 | 071N7172 | + coupling with single flat in hole (D-shaped) |
| | UNI-E 2.2 L5 L60 | ➨ | BFP 21 L5 | 071N7172 | Eckerle: G 1/8 in S+R<br>+ coupling with single flat in hole (D-shaped) |
| UNI 2.2 L5 L62 | | ➨ | BFP 21 L5 | 071N7172 | |
| UNI 2.2 L5 M14-C1 | UNI.E 2.2 L5 M14-12 | ➨ | BFP 21 L5 | 071N7172 | |
| UNI 2.2 L5 S20 | UNI-E 2.2 L5 S20 | ➨ | BFP 21 L5 | 071N7172 | Eckerle: 10-25 bar, BFP: Max. 20 bar<br>+ coupling with single flat in hole (D-shaped) |
| UNI 2.2 L5 S20-21-BUD | UNI-E 2.2 L5 S20 BUD | ➨ | BFP 21 L5 | 071N7172 | Eckerle: Max. 25 bar, BFP: Max. 20 bar<br>+ coupling with single flat in hole (D-shaped) |
| UNI 2.2 L5 S74 | UNI-E 2.2 L5 L14 | ➨ | BFP 21 L5 | 071N7172 | Eckerle: 10-25 bar, BFP: Max. 20 bar<br>+ coupling with single flat in hole (D-shaped) |
| | UNI-E 2.2 L5 S74 | ➨ | BFP 21 L5 | 071N7172 | G 1/8 in S+R. Eckerle: Max. 25 bar |
| UNI 2.2 R5 L14 | UNI-E 2.2 R5 L14 | ➨ | BFP 21 R5 | 071N7173 | |
| | UNI-E 22 R5 M14 | ➨ | BFP 21 R5 | 071N7173 | |
| UNI 2.2 R5 M45 | UNI-E 2.2 R5 M15 | ➨ | BFP 21 R5 | 071N7173 | + bush: 071B0011 |
| UNI 2.2 R5 R14 | UNI-E 2.2 R5 R14 | ➨ | BFP 21 R5 | 071N7173 | |
| UNI 2.2 R5 R60-21 | UNI-E 2.2 R5 R60 | ➨ | BFP 21 R5 | 071N7173 | Eckerle: G 1/8 in S+R + coupling with single flat in hole (D-shaped) |
| UNI 2.2 R5 R80B | UNI-E 2.2 R5 R60 | ➨ | BFP 21 R5 | 071N7173 | |
| | UNI-E 2.2 R5 S14 | ➨ | BFP 21 R5 | 071N7173 | |
| UNI 2.2 R5 S60 | UNI-E 2.2 R5 S60 | ➨ | BFP 21 R5 | 071N7173 | |

## Conversion Eckerle ➨ BFP Service

| Eckerle | | ➨ | Danfoss oil pumps | | |
|---|---|---|---|---|---|
| Old designation | New designation | ➨ | Type | Code no. | Comments/accessories |
| | UNI-E 2.2 L6 L14 | ➨ | BFP 21 L5 | 071N7172 | Eckerle: 75 l/h, BFP: Max. 40 l/h at 12 bar |
| UNI 2.2 L6 L16W | UNI-E 2.2 L6 L16-10 | ➨ | BFP 21 L5 | 071N7172 | Eckerle: 75 l/h, BFP: Max. 40 l/h at 12 bar + 071N0047 |
| UNI 2.2 L6 L24 | UNI-E 2.2 L6 L24 | ➨ | BFP 21 L5 | 071N7172 | Eckerle: 120 l/h, BFP: Max. 40 l/h at 12 bar |
| | UNI-E 2.2 L6 LR14-81 | ➨ | BFP 21 L5 | 071N7172 | |
| UNI 2.2 R6 M24 | UNI-E 2.2 R6 M24 | ➨ | BFP 21 R5 | 071N7173 | |
| UNI 2.2 R6 S24-ET | UNI-E 2.2 R6 S24 (-40) | ➨ | BFP 21 R5 | 071N7173 | |
| UNI 2.2 R6 S24 ET(R1) | UNI-E 2.2 R6 S24-40 | ➨ | BFP 21 R5 | 071N7173 | |
| UNI 2.3 L1 L56 (W-1-0 | UNI-E 2.3 L1 L26-80 | ➨ | BFP 20 L3 | 071N7168 | Eckerle: 10-25 bar BFP: Max. 20 bar + flange: 071N0047 |
| UNI 2.3 L1 R54 | UNI-E 2.3 L1 R24-13 | ➨ | BFP 20 L3 | 071N7168 | Eckerle: 10-25 bar, BFP: Max. 20 bar |
| | UNI-E L5 L24-13 | ➨ | BFP 20 L5 | 071N7126 | Eckerle: Max. 25 bar, BFP: Max. 20 bar |
| UNI 2.3 L5 L54 | UNI-E 2.3 L5 L24-13 | ➨ | BFP 20 L5 | 071N7126 | Eckerle: 10-25 bar, BFP: Max. 20 bar |
| UNI 2.3 L5 L56-I (W-06) | UNI-E 2.3 L5 L26-80 | ➨ | BFP 20 L5 | 071N7126 | Eckerle: 10-25 bar, BFP: Max. 20 bar + flange: 071N0047 |
| | UNI-E 2.3 L5 L64 | ➨ | BFP 20 L5 | 071N7126 | Eckerle: G $^{1}/_{8}$ in S+R |
| UNI 2.3 L5 R54-S | UNI-E 2.3 L5 R24-13 | ➨ | BFP 20 L5 | 071N7126 | |
| UNI 2.3 R5 L54-05 | UNI-E 2.3 R5 L24 | ➨ | BFP 20 R5 | 071N7129 | Eckerle: Max. 25 bar, BFP: Max. 20 bar |
| | UNI-E 2.3 R5 R24-13 | ➨ | BFP 20 R5 | 071N7129 | |
| UNI 2.3 R5 R54 | | ➨ | BFP 20 R5 | 071N7129 | Eckerle: 10-25 bar, BFP: Max. 20 bar |
| UNI 2.3 R5 R64-I | UNI-E 2.3 R5 R24-93 | ➨ | BFP 20 R5 | 071N7129 | Eckerle: Max. 25 bar, BFP: Max. 20 bar |
| UNI 2.3 R6 L55-05 | UNI-E 2.3 R6 L25 | ➨ | BFP 20 R5 | 071N7129 | Eckerle: 75 l/h, BFP: 40 l/h at 12 bar + 071B0011 |
| UNI 2.4 L1 M10-VO | UNI-E 2.4 L1 M10-22 | ➨ | BFP 52E L3 | 071N3201[4)] | + coupling with single flat in hole (D-shaped) |
| UNI 2.4 L1 M14-C1 | UNI-E 2.4 L1 M14-12 | ➨ | BFP 52E L3 | 071N3201[4)] | |
| UNI 2.4 L1 R14-C | | ➨ | | No repl. | |
| UNI 2.4 L1 R14-V1-21 | UNI-E 2.4 L1 R14-12 | ➨ | | No repl. | Righthand nozzle outlet on Eckerle |
| UNI 2.4 L1 R44 | UNI-E 2.4 L1 R14 | ➨ | | No repl. | |

4) The pump NC valve must be connected in parallel to the NC valve in nozzle line.

## Conversion Eckerle ➨ BFP Service

| Eckerle | | ➨ | Danfoss oil pumps | | |
|---|---|---|---|---|---|
| Old designation | New designation | ➨ | Type | Code no. | Comments/accessories |
| | UNI-E 2.4 L5 L20 | ➨ | BFP 52E L5 | 071N3202[4)] | + coupling with single flat in hole (D-shaped) |
| UNI 2.4 L5 L24 | UNI-E 2.4 L5 L24 | ➨ | BFP 52E L5 | 071N3202[4)] | |
| | UNI-E 2.4 L5 M20 | ➨ | BFP 52E L5 | 071N3202[4)] | + coupling with single flat in hole (D-shaped) |
| UNI 2.4 L5 M24 | | ➨ | BFP 52E L5 | 071N3202[4)] | |
| UNI 2.4 L5 M20-21 | UNI-E 2.4 L5 M20 | ➨ | BFP 52E L5 | 071N3202[4)] | + coupling with single flat in hole (D-shaped) |
| UNI 2.4 L5 R24 | | ➨ | | No repl. | |
| UNI 2.4 L5 R24 | | ➨ | | No repl. | Righthand nozzle outlet on Eckerle |
| UNI 2.4 L5 S24 | UNI-E 2.4 L5 S24 | ➨ | | No repl. | |
| UNI 2.4 R5 L24 | | ➨ | BFP 52E R5 | 071N3204[4)] | |
| UNI 2.4 R5 L24-05 | UNI-E 2.4 R5 L24 | ➨ | BFP 52E R5 | 071N3204[4)] | |
| UNI 2.4 R5 R24 | UNI-E 2.4 R5 R24 | ➨ | | No repl. | Righthand nozzle outlet on Eckerle |
| UNI 2.4 R5 S70 | | ➨ | | No repl. | |
| UNI 2.4 R5 S70-ET | UNI-E 2.4 R5 S70 | ➨ | | No repl. | |
| UNI 2.4 R5.5 L24 | UNI-E 2.4 R5.5 L24 | ➨ | | No repl. | |
| UNI 2.4 L6 L22 | UNI-E 2.4 L6 L22 | ➨ | BFP 52E L5 | 071N3202[4)] | Eckerle: Max. 75 l/h, BFP: Max. 40 l/h at 12 bar + bush: 071B0011 |
| UNI 2.4 L6 L24 | | ➨ | BFP 52E L5 | 071N3202[4)] | |
| UNI 2.4 L6 L24-05 | UNI-E 2.4 L6 L24 | ➨ | BFP 52E L5 | 071N3202[4)] | Eckerle: Max. 75 l/h, BFP: Max. 40 l/h at 12 bar |
| UNI 2.4 L6 M24-C1 | UNI-E 2.4 L6 M24-12 | ➨ | BFP 52E L5 | 071N3202[4)] | |
| UNI 2.4 R6 S24 | | ➨ | | No repl. | Righthand nozzle outlet on Eckerle |
| UNI 2.4 R6 S24 ET | UNI-E 2.4 R6 S24 | ➨ | | No repl. | |
| UNI 2.4 R7 R54-06 | UNI-E 2.4 R7 R24 | ➨ | | No repl. | Righthand nozzle outlet on Eckerle |
| UNI 2.42 R5 R70-ET | UNI-E 2.42 R5 R70 | ➨ | | No repl. | |
| | UNI-E 2.42 L5 L64-65 | ➨ | BFP 52E L5 | 071N3202 | Eckerle: G $^{1}/_{8}$ in S+R |
| | UNI-E 2.6 L5 L14 | ➨ | BFP 20 L5 | 071N7126 | |
| UNI 2.6 L5 L44 | | ➨ | BFP 20 L5 | 071N7126 | Possible changeover to 1-pipe operation |
| | UNI-E 2.6 L6 L14 | ➨ | BFP 20 L5 | 071N7126 | Eckerle: 75 l/h, BFP: 40 l/h at 12 bar |
| UNI 2.6 L6 L44 | UNI-E 2.6 L6 L14 | ➨ | BFP 20 L5 | 071N7126 | |

4) The pump NC valve must be connected in parallel to the NC valve in nozzle line.

## Conversion Eckerle ➨ BFP Service

| Eckerle | | ➨ | Danfoss oil pumps | | |
|---|---|---|---|---|---|
| Old designation | New designation | ➨ | Type | Code no. | Comments/accessories |
| UNI 2.6 Stage 6 | | ➨ | | No repl. | |
| UNI 2.6 Stage 7 | | ➨ | | No repl. | |
| UNI 2.7 L5 L44 | | ➨ | BFP 20 L5 | 071N7126 | |
| UNI 2.7 R5 R44 | UNI-E 2.7 R5 R14 | ➨ | BFP 20 R5 | 071N7129 | |
| UNI 2.8 L5 L16 | | ➨ | BFP 21 L5 | 071N7172 | BFP without remote setting + flange: 071N0047 |
| UNI 2.91 L5 L44 | UNI-E 2.91 L5 L14 | ➨ | | No repl. | Eckerle ∅32, RSA ∅54 neck diameter |
| UNI 2.91 L7 L44-05 | UNI-E 2.91 L7 L14 | ➨ | | No repl. | |
| UNI 2.91 R7 L44 | UNI-E 2.91 R7 L14 | ➨ | | No repl. | |
| UNI 2.93 L1 R44 | UNI-E 2.93 L1 R14 | ➨ | | No repl. | |
| UNI 2.96 L5 L44-05 | UNI-E 2.96 L5 L14 | ➨ | | No repl. | |
| UNI 2.96 L7 L44 | UNI-E 2.96 L7 L14 | ➨ | | No repl. | |
| UNI 2.10 L7 L56-S-W | UNI-E 2.10 L7 L26-11 | ➨ | RSA 60 | 070L3362 | |
| UNI 2.10 L7 L56-W1-05 | UNI-E 2.10 L7 L26-11 | ➨ | RSA 60 | 070L3362 | + flange: 070-0211 |
| UNI 2.10 L8 L56-S-W | UNI-E 2.10 L8 L26-11 | ➨ | RSA 95 | 070L3482 | |
| UNI 2.10 L8 L56-W1-05 | UNI-E 2.10 L8 L26-11 | ➨ | RSA 95 | 070L3482 | + flange: 070-0211 |
| UNI 2.12 L1 L14 | | ➨ | BFP 21 L3 | 071N7156 | |
| UNI 2.12 L1 L64 | | ➨ | BFP 21 L3 | 071N7156 | Eckerle: G 1/8 in S+R |
| UNI 2.12 L1 M14 | | ➨ | BFP 21 L3 | 071N7156 | |
| UNI 2.12 L1 M64 | | ➨ | BFP 21 L3 | 071N7156 | Eckerle: G 1/8 in S+R |
| UNI 2.12 L1 M64-65 | | ➨ | BFP 21 L3 | 071N7156 | |
| UNI 2.12 L6 M14 | | ➨ | BFP 21 L5 | 071N7172 | Eckerle: 75 l/h, BFP: 40 l/h at 12 bar |
| UNI 2.12 L6 M14-65 | | ➨ | BFP 21 L5 | 071N7172 | |
| UNI 2.13 L8 L56-S | UNI-E 2.13 L8 L26-11 | ➨ | | No repl. | |
| UNI 2.17 L6 M14-65 | | ➨ | | No repl. | |
| BPC | BPC-40 1.1 LL 11 | ➨ | BFP 20 L3 | 071N7168 | |
| BPC | BPC-40 1.1 LL 21 | ➨ | BFP 20 L3 | 071N7168 | Eckerle: G 1/8 in S+R |
| BPC | BPC-40 1.1 LR 11 | ➨ | BFP 20 L3 | 071N7168 | |

## Conversion Eckerle ➨ BFP Service

| Eckerle | | ➨ | Danfoss oil pumps | | |
|---|---|---|---|---|---|
| Old designation | New designation | ➨ | Type | Code no. | Comments/accessories |
| BPC | BPC-40 1.1 LR 21 | ➨ | BFP 20 L3 | 071N7168 | Eckerle: G 1/8 in S+R |
| BPC | BPC-40 1.1 RL 11 | ➨ | BFP 20 R3 | 071N7169 | |
| BPC | BPC-40 1.1 RL 21 | ➨ | BFP 20 R3 | 071N7169 | Eckerle: G 1/8 in S+R |
| BPC | BPC-40 1.1 RR 11 | ➨ | BFP 20 R3 | 071N7169 | |
| BPC | BPC-40 1.1 RR 21 | ➨ | BFP 20 R3 | 071N7169 | Eckerle: G 1/8 in S+R |
| BPC | BPC-40 1.1 RR 11(+) | ➨ | BFP 20 R3 | 071N7169 | + flange and bush 071N0047 |
| BPC | BPC-40 2.1 LL 11 | ➨ | BFP 21 L3 | 071N7156 | |
| BPC | BPC-40 2.1 LL 21 | ➨ | BFP 21 L3 | 071N7156 | Eckerle: G 1/8 in S+R |
| BPC | BPC-40 2.1 RL 11 | ➨ | BFP 21 R3 | 071N7157 | |
| BPC | BPC-40 2.1 RR 11 | ➨ | BFP 21 R3 | 071N7157 | |
| BPC | BPC-40 2.1 RR 21 | ➨ | BFP 21 R3 | 071N7157 | Eckerle: G 1/8 in S+R |
| BPC | BPC-40 2.1 LL 11(+) | ➨ | BFP 21 L3 | 071N7156 | + flange and bush 071N0047 |
| BPC | BPC-40 2.1 LR 11 | ➨ | BFP 21 L3 | 071N7156 | |
| BPC | BPC-40 2.1 LR 21 | ➨ | BFP 21 L3 | 071N7156 | Eckerle: G 1/8 in S+R |
| BPC | BPC-40 2.1 RL 21 | ➨ | BFP 21 R3 | 071N7157 | Eckerle: G 1/8 in S+R |
| BPC | BPC-40 2.3 LL 11 | ➨ | BFP 52E L3 | 071N3201 | The pump NC-valve must be connected in parallel to the NC-valve in the nozzleline |
| BPC | | | | | |
| BPC | BPC-40 2.3 LR 11 | ➨ | | No repl. | Righthand nozzle outlet on Eckerle |
| BPC | BPC-40 2.3 RL 11 | ➨ | BFP 52E R3 | 071N3203 | The pump NC-valve must be connected in parallel to the NC-valve in the nozzleline |
| BPC | BPC-40 2.3 RR 21 | ➨ | | No repl. | Righthand nozzle outlet on Eckerle |

## Conversion Delta ➨ BFP Service

| Delta | | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|---|
| Type | Code no. | | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| V | V1LR2 4 | (or 5) | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| V | V1LR1 4 | (or 5) | 1 | ➨ | BFP 20 L3 | 071N7168[2)] | |
| V | V1LL2 4 | (or 5) | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| V | V1LL1 4 | (or 5) | 1 | ➨ | BFP 20 L3 | 071N7168[2)] | |
| V | V1RL2 4 | (or 5) | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| V | V1RL1 4 | (or 5) | 1 | ➨ | BFP 20 R3 | 071N7169[2)] | |
| V | V1RR2 4 | (or 5) | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| V | V1RR1 4 | (or 5) | 1 | ➨ | BFP 20 R3 | 071N7169[2)] | |
| V | V2LR2 4 | (or 5) | 2 | ➨ | BFP 20 L5 | 071N7126 | |
| V | V2LR1 4 | (or 5) | 1 | ➨ | BFP 20 L5 | 071N7126[2)] | |
| V | V2LL2 4 | (or 5) | 2 | ➨ | BFP 20 L5 | 071N7126 | |
| V | 2LL1 4 | (or 5) | 1 | ➨ | BFP 20 L5 | 071N7126[2)] | Delta: 57 l/h: BFP: 40 l/h at 10 bar |
| V | V2RL2 4 | (or 5) | 2 | ➨ | BFP 20 R5 | 071N7129 | |
| V | V2RL1 4 | (or 5) | 1 | ➨ | BFP 20 R5 | 071N7129[2)] | |
| V | V2RR2 4 | (or 5) | 2 | ➨ | BFP 20 R5 | 071N7129 | |
| V | V2RR1 4 | (or 5) | 1 | ➨ | BFP 20 R5 | 071N7129[2)] | |
| VU | VU3LR 1 4 | (or 5) | 1 | ➨ | BFP 20 L5 | 071N7126[2)] | |
| VU | VU3LR 2 4 | (or 5) | 2 | ➨ | BFP 20 L5 | 071N7126 | Delta: 80 l/h: BFP: 40 l/h at 10 bar |
| VU | VU3RL 1 4 | (or 5) | 1 | ➨ | BFP 20 R5 | 071N7129[2)] | |
| VU | VU3RL 2 4 | (or 5) | 2 | ➨ | BFP 20 R5 | 071N7129 | |
| VD | VD1LR 2 4 | (or 5) | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| VD | VD1LR 1 4 | (or 5) | 1 | ➨ | BFP 20 L3 | 071N7168[2)] | |
| VD | VD1LL 2 4 | (or 5) | 2 | ➨ | BFP 20 L3 | 071N7168 | |
| VD | VD1LL 1 4 | (or 5) | 1 | ➨ | BFP 20 L3 | 071N7168[2)] | |
| VD | VD1RL 2 4 | (or 5) | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| VD | VD1RL 1 4 | (or 5) | 1 | ➨ | BFP 20 R3 | 071N7169[2)] | |
| VD | VD1RR 2 4 | (or 5) | 2 | ➨ | BFP 20 R3 | 071N7169 | |
| VD | VD1RR 1 4 | (or 5) | 1 | ➨ | BFP 20 R3 | 071N7169[2)] | |

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Delta ➨ BFP Service

| Delta | | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|---|
| Type | Code no. | | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| VD | VD2LR 2 4 | (or 5) | 2 | ➨ | BFP 20 L5 | 071N7126 | Delta: 57 l/h; BFP: 40 l/h at 10 bar |
| VD | VD2LR 1 4 | (or 5) | 1 | ➨ | BFP 20 L5 | 071N7126[2)] | |
| VD | VD2LL 2 4 | (or 5) | 2 | ➨ | BFP 20 L5 | 071N7126 | |
| VD | VD2LL 2 4 | (or 5) | 2 | ➨ | BFP 20 L5 | 071N7126[2)] | |
| VD | VD2RL 2 4 | (or 5) | 2 | ➨ | BFP 20 R5 | 071N7129 | |
| VD | VD2RL 1 4 | (or 5) | 1 | ➨ | BFP 20 R5 | 071N7129[2)] | |
| VD | VD2RR 2 4 | (or 5) | 2 | ➨ | BFP 20 R5 | 071N7129 | |
| VD | VD2RR 1 4 | (or 5) | 1 | ➨ | BFP 20 R5 | 071N7129[2)] | |
| VD | VD3LR 1 4 | (or 5) | 1 | ➨ | BFP 20 L5 | 071N7126[2)] | Delta: 80 l/h; BFP: 40 l/h at 10 bar |
| VD | VD3LR 2 4 | (or 5) | 2 | ➨ | BFP 20 L5 | 071N7126 | |
| VD | VD3RL 1 4 | (or 5) | 1 | ➨ | BFP 20 R5 | 071N7129[2)] | |
| VD | VD3RL 2 4 | (or 5) | 2 | ➨ | BFP 20 R5 | 071N7129 | |
| VM | VM1LR 2 4 | (or 5) F84-220 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | **F84-220:** Indicates coil with loose cable and for 220 V, 50 Hz. If using other voltages the following must be ordered extra: Coil Nr. 071N0061 for 110/120 V a.c. or Coil Nr. 071N0062 for 24 V a.c. |
| VM | VM1LR 1 4 | (or 5) F84-220 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| VM | VM1LL 2 4 | (or 5) F84-220 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| VM | VM1LL 1 4 | (or 5) F84-220 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| VM | VM1RL 2 4 | (or 5) F84-220 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| VM | VM1RL 1 4 | (or 5) F84-220 | 1 | ➨ | BFP 21 R3 | 071N7157 | |
| VM | VD1RR 2 4 | (or 5) F84-220 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| VM | VM1RR 1 4 | (or 5) F84-220 | 1 | ➨ | BFP 21 R3 | 071N7157 | |
| VM | VM2LR 2 4 | (or 5) F84-220 | 2 | ➨ | BFP 21 L5 | 071N7172 | Delta: 57 l/h; BFP: 40 l/h at 10 bar **F84-220:** See above |
| VM | VM2LR 1 4 | (or 5) F84-220 | 1 | ➨ | BFP 21 L5 | 071N7172[2)] | |
| VM | VM2LL 2 4 | (or 5) F84-220 | 2 | ➨ | BFP 21 L5 | 071N7172 | |
| VM | VM2LL 1 4 | (or 5) F84-220 | 1 | ➨ | BFP 21 L5 | 071N7172[2)] | |
| VM | VM2RL 2 4 | (or 5) F84-220 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| VM | VM2RL 1 4 | (or 5) F84-220 | 1 | ➨ | BFP 21 R5 | 071N7173[2)] | |
| VM | VM2RR 2 4 | (or 5) F84-220 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| VM | VM2RR 1 4 | (or 5) F84-220 | 1 | ➨ | BFP 21 R5 | 071N7173[2)] | |

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.
3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Delta ➨ BFP Service

| Delta | | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|---|
| Type | Code no. | | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| VM | VM3LR 1 4 | (or 5) F84-220 | 1 | ➨ | BFP 21 L5 | 071N7172[2)] | Delta: 80 l/h; BFP: 40 l/h at 10 bar **F84-220:** See previous page |
| VM | VM3LR 1 4 | (or 5) F84-220 | 1 | ➨ | BFP 21 L5 | 071N7172 | |
| VM | VM3LR 2 4 | (or 5) F84-220 | 2 | ➨ | BFP 21 L5 | 071N7172[2)] | |
| VM | VM3RL 1 4 | (or 5) F84-220 | 1 | ➨ | BFP 21 R5 | 071N7173 | |
| VM | VM3RL 2 4 | (or 5) F84-220 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| VM | VM1LR 2 4 | (or 5) M8-220 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | **M8-220:** Indicates coil with fixed cable and for 220 V, 50 Hz. Generally the following cable should be ordered here: Cable no. 071G0200 L = 500 mm, or Cable no. 071G0204 L = 710 mm Cable no. 071G0202 L = 280 mm If using other voltages the following must be ordered extra (only for BFP21): Coil no. 071N0061 for 110/120 V a.c. or Coil no. 071N0062 for 24 V a.c. |
| VM | VM1LR 1 4 | (or 5) M8-220 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| VM | VM1LL 2 4 | (or 5) M8-220 | 2 | ➨ | BFP 21 L3 | 071N7156[3)] | |
| VM | VM1LL 1 4 | (or 5) M8-220 | 1 | ➨ | BFP 21 L3 | 071N7156 | |
| VM | VM1RL 2 4 | (or 5) M8-220 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| VM | VM1RL 1 4 | (or 5) M8-220 | 1 | ➨ | BFP 21 R3 | 071N7157 | |
| VM | VD1RR 2 4 | (or 5) M8-220 | 2 | ➨ | BFP 21 R3 | 071N7157[3)] | |
| VM | VM1RR 1 4 | (or 5) M8-220 | 1 | ➨ | BFP 21 R3 | 071N7157 | |
| VM | VM2LR 2 4 | (or 5) M8-220 | 2 | ➨ | BFP 21 L5 | 071N7172*) | |
| VM | VM2LR 1 4 | (or 5) M8-220 | 1 | ➨ | BFP 21 L5 | 071N7172*) [2)] | |
| VM | VM2LL 2 4 | (or 5) M8-220 | 2 | ➨ | BFP 21 L5 | 071N7172*) | |
| VM | VM2LL 1 4 | (or 5) M8-220 | 1 | ➨ | BFP 21 L5 | 071N7172*) [2)] | |
| VM | VM2RL 2 4 | (or 5) M8-220 | 2 | ➨ | BFP 21 R5 | 071N7173*) | **M8-220:** See previous page |
| VM | VM2RL 1 4 | (or 5) M8-220 | 1 | ➨ | BFP 21 R5 | 071N7173[2)] | |
| VM | VM2RR 2 4 | (or 5) M8-220 | 2 | ➨ | BFP 21 R5 | 071N7173*) | |
| VM | VM2RR 1 4 | (or 5) M8-220 | 1 | ➨ | BFP 21 R5 | 071N7173[2)] | |
| VM | VM3LR 1 4 | (or 5) M8-220 | 1 | ➨ | BFP 21 L5 | 071N7172[2)] | Delta: 80 l/h; BFP: 40 l/h at 10 bar |
| VM | VM3LR 2 4 | (or 5) M8-220 | 2 | ➨ | BFP 21 L5 | 071N7172 | |
| VM | VM3RL 1 4 | (or 5) M8-220 | 1 | ➨ | BFP 21 R5 | 071N7173[2)] | |
| VM | VM3RL 2 4 | (or 5) M8-220 | 2 | ➨ | BFP 21 R5 | 071N7173 | |

*) Delta: 57 l/h; BFP: 40 l/h at 10 bar

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.

3) This pump is delivered for 1-pipe operation. A changeover to 2-pipe operation is possible, see Changeover 1 - 2 pipe.

## Conversion Delta ➨ BFP Service

| Delta | | | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|---|---|
| Type | Code no. | | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories |
| VM | VM2RL 2 4 | (or 5) M8-220 | 2 | ➨ | BFP 21 R5 | 071N7173*) | |
| VM | VM2RL 1 4 | (or 5) M8-220 | 1 | ➨ | BFP 21 R5 | 071N7173[2)] | **M8-220:** See previous page |
| VM | VM2RR 2 4 | (or 5) M8-220 | 2 | ➨ | BFP 21 R5 | 071N7173*) | |
| VM | VM2RR 1 4 | (or 5) M8-220 | 1 | ➨ | BFP 21 R5 | 071N7173[2)] | |
| VM | VM3LR 1 4 | (or 5) M8-220 | 1 | ➨ | BFP 21 L5 | 071N7172[2)] | |
| VM | VM3LR 2 4 | (or 5) M8-220 | 2 | ➨ | BFP 21 L5 | 071N7172 | Delta: 80 l/h; BFP: 40 l/h at 10 bar |
| VM | VM3RL 1 4 | (or 5) M8-220 | 1 | ➨ | BFP 21 R5 | 071N7173[2)] | |
| VM | VM3RL 2 4 | (or 5) M8-220 | 2 | ➨ | BFP 21 R5 | 071N7173 | |
| VMK | VMK1LR 2 4-6 / F84-220 | | 2 | ➨ | BFP 52E L3 | 071N3201[4)] | |
| VMK | VMK1LR 1 4-6 / F84-220 | | 1 | ➨ | BFP 52E L3 | 071N3201[2)] | |
| VMK | VMK1LL 2 4-6 / F84-220 | | 2 | ➨ | | No repl.** | **F84-220:** Indicates coil with loose cable and for 220 V, 50 Hz |
| VMK | VMK1LL 1 4-6 / F84-220 | | 1 | ➨ | | No repl.** | |
| VMK | VMK1RL 2 4-6 / F84-220 | | 2 | ➨ | | No repl.** | |
| VMK | VMK1RL 1 4-6 / F84-220 | | 1 | ➨ | | No repl.** | BFP 52E is not delivered for other voltages |
| VMK | VMK1RR 2 4-6 / F84-220 | | 2 | ➨ | BFP 52E R3 | 071N3203[4)] | |
| VMK | VMK1RR 1 4-6 / F84-220 | | 1 | ➨ | BFP 52E R3 | 071N3203[2)] | |
| VMK | VMK2LR 2 4-6 / F84-220 | | 2 | ➨ | BFP 52E L5 | 071N3202[4)] | Delta: 57 l/h; 40 l/h at 10 bar |
| VMK | VMK2LR 1 4-6 / F84-220 | | 1 | ➨ | BFP 52E L5 | 071N3202[2)] | |
| VMK | VMK2LL 2 4-6 / F84-220 | | 2 | ➨ | | No repl.** | |
| VMK | VMK2LL 1 4-6 / F84-220 | | 1 | ➨ | | No repl.** | |
| VMK | VMK2RL 2 4-6 / F84-220 | | 2 | ➨ | | No repl.** | |
| VMK | VMK2RL 1 4-6 / F84-220 | | 1 | ➨ | | No repl.** | |
| VMK | VMK2RR 2 4-6 / F84-220 | | 2 | ➨ | BFP 52E R5 | 071N3204[4)] | |
| VMK | VMK2RR 1 4-6 / F84-220 | | 1 | ➨ | BFP 52E R5 | 071N3204[2)] | |

*) Delta: 57 l/h; BFP: 40 l/h at 10 bar

** No repl. means: Delta has nozzle outlet to the right.

2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.

4) The pump NC-valve must be connected in parallel to the NC-valve in the nozzleline.

## Conversion Delta ➨ BFP Service

| Delta | | | ➨ | Relevant Danfoss types | | | |
|---|---|---|---|---|---|---|---|
| Type | Code no. | 1-2 pipe | ➨ | Type | Code no. | Comments/accessories | |
| VMK | VMK3LR 14 (or 5) M8-220 | 1 | ➨ | BFP 52E L5 | 071N3202[2) 4)] | Delta: 68 l/h; Danfoss: 40 l/h at 10 bar | **F84-220:** See previous page |
| VMK | VMK3LR 24 (or 5) M8-220 | 2 | ➨ | BFP 52E L5 | 071N3202[4)] | | |
| VMK | VMK3RR 14 (or 5) M8-220 | 1 | ➨ | BFP 52E R5 | 071N3204[2) 4)] | | |
| VMK | VMK3RR 24 (or 5) M8-220 | 2 | ➨ | BFP 52E R5 | 071N3204[4)] | | |
| VMK | VMK1LR 24-6 / M8-220 | 2 | ➨ | BFP 52E L3 | 071N3201[4)] | | |
| VMK | VMK1LR 14-6 / M8-220 | 1 | ➨ | BFP 52E L3 | 071N3201[2) 4)] | | |
| VMK | VMK1LL 24-6 / M8-220 | 2 | ➨ | | No repl.* | **M8-220:** Indicates coil with fixed cable and for 220 V, 50 Hz. The following must be ordered separately For NC: Cable Nr. 071G0200 L = 500 mm, or Cable Nr. 071G0202 L = 280 mm, or Cable Nr. 071G0204 L = 710 mm For NO: Cable Nr. 071G0201 L = 500 mm, or Cable Nr. 071G0203 L = 280 mm, or Cable Nr. 071G0205 L = 710 mm | |
| VMK | VMK1LL 14-6 / M8-220 | 1 | ➨ | | No repl.** | | |
| VMK | VMK1RL 24-6 / M8-220 | 2 | ➨ | | No repl.** | | |
| VMK | VMK1RL 14-6 / M8-220 | 1 | ➨ | | No repl.** | | |
| VMK | VMK1RR 24-6 / M8-220 | 2 | ➨ | BFP 52E R3 | 071N3203[4)] | | |
| VMK | VMK1RR 14-6 / M8-220 | 1 | ➨ | BFP 52E R3 | 071N3203[2) 4)] | | |
| VMK | VMK2LR 24-6 / M8-220 | 2 | ➨ | BFP 52E L5 | 071N3202[4)] | | |
| VMK | VMK 2LR 14-6 / M8-220 | 1 | ➨ | BFP 52E L5 | 071N3202[2) 4)] | | |
| VMK | VMK2LL 24-6 / M8-220 | 2 | ➨ | | No repl.* | | |
| VMK | VMK2LL 14-6 / M8-220 | 1 | ➨ | | No repl.** | | |
| VMK | VMK2RL 24-6 / M8-220 | 2 | ➨ | | No repl.** | | |
| VMK | VMK2RL 14-6 / M8-220 | 1 | ➨ | | No repl.** | | |
| VMK | VMK2RR 24-6 / M8-220 | 2 | ➨ | BFP 52E R5 | 071N3204[4)] | Delta: 57 l/h; Danfoss: 40 l/h at 10 bar | **M8-220:** See above. BFP 52E is only delivered for 220/240 V a.c. |
| VMK | VMK2RR 14-6 / M8-220 | 1 | ➨ | BFP 52E R5 | 071N3204[2) 4)] | | |
| VMK | VMK3LR 14 (or 5) M8-220 | 1 | ➨ | BFP 52E L5 | 071N3202[2) 4)] | | |
| VMK | VMK3LR 24 (or 5) M8-220 | 2 | ➨ | BFP 52E L5 | 071N3202[4)] | | |
| VMK | VMK3RR 14 (or 5) M8-220 | 1 | ➨ | BFP 52E R5 | 071N3204[2) 4)] | Delta: 68 l/h; Danfoss: 40 l/h at 10 bar | |
| VMK | VMK3RR 24 (or 5) M8-220 | 2 | ➨ | BFP 52E R5 | 071N3204[4)] | | |

*) Delta: 57 l/h; BFP: 40 l/h at 10 bar
** No repl. means: Delta has nozzle outlet to the right.
2) This pump is delivered for 2-pipe operation. A changeover to 1-pipe operation is possible, see Changeover 1 - 2 pipe.
4) The pump NC-valve must be connected in parallel to the NC-valve in the nozzleline.

## Spare Parts and Accessories RSA/RSH

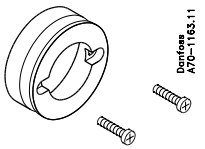
| Description | | Pump type/size | Code no. | Content |
|---|---|---|---|---|
| **Filter** | Filter RSA | RSA 28/40/60, RSL 050 | 070-0032 | Filter, diaphragm, gasket |
| | | RSA 95/125 | 070-0033 | Filter, diaphragm, gasket |
| | Filter RSH | RSH 32 | 070-0032 | Filter, diaphragm, gasket |
| | | RSH 63/95/125 | 070-0033 | Filter, diaphragm, gasket |
| **Spring** | Spring 1-5 bar | RSA | 070-0030 | Low pressure spring 1-5 bar |
| | Spring 15-30 bar | RSA | 070-0031 | High pressure spring 15-30 bar |
| **Flange** | Flange | RSA and RSH | 070-0211 | Flange and screw |
| **Screw** | 2-pipe screw | RSA and RSH | 070-0020 | Screw |
| **Adapter** | G 1/4" adapter | RSA | 070-0042 | G 1/4" adapter, cobber washer |

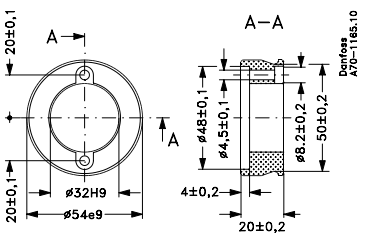
## Spare parts and accessories – BFP (MS)

| Description | | Pump type/size | Code No. | Content |
|---|---|---|---|---|
| **Filter** | Cartridge | BFP 20, 21, 31, 41 and 52E | 071N0064 | Filter and O-ring |
| | Ring | BFP 11 | 071N0063 | Filter and O-ring |
| **O-ring** | O-ring Ø54 and Ø9,75 for cover | All | 071N1033 | O-ring |
| **Coils** | Description on coil | | | |
| | NC 071N0051 220/240 V a.c. | BFPC - BFA - BFP 11, 21, 31, 41and 52E. Size 2 - 3 - 4 - 5 - 6 | 071N1006 | Coil, nut and washer |
| | NC 071N0052 110/120 V a.c. | BFPC - BFA - BFP 11, 21, 31, 41and 52E. Size 2 - 3 - 4 - 5 - 6 | 071N0061 | Coil, nut and washer |
| | NC 071N0805 110/120 V a.c. | BFPC - BFA - BFP 11, 21, 31, 41and 52E. Size 2 - 3 - 4 - 5 - 6 | 071N0061 | Coil, nut and washer |
| | NC 071N0053 24 V a.c./12 V d.c. | BFPC - BFA - BFP 11, 21, 31, 41and 52E. Size 2 - 3 - 4 - 5 - 6 | 071N0062 | Coil, nut and washer |
| | NC 071N0631 230 V a.c. | BFP 11, 12, 51, 52 and 53. Size 4 - 6 - 8 - 11 - 13 | 071N1006 | Coil, nut and washer |
| | NC 071N0802 24 V d.c. | BFPC - BFA - BFP 11, 21, 31, 41and 52E. Size 2 - 3 - 4 | 071N0008 | Coil, nut and washer |
| | NO 071N0054 220/240 V a.c. | BFP 52E. Size 3 - 5 | 071N1007 | Coil, nut and washer |
| | NC 071N0808 | BFPC-BFA-BFP 11, 12, 21, 31, 41, 51, 52E, 53 and BFPM size 2-3-4-5-6-8-11-12-13 | 071N1006 | Coil, nut and washer |
| | NO 071N0809 | BFP 51, 52E, 53 and BFPM52 size 3-4-5-6-8-11-12-13 | 071N1007 | Coil, nut and washer |
| | NC 071N0810 | BFP 11, 21, 41 and 52E, size 3-5 Diamond Service pumps | 071N1006 | Coil, nut and washer |
| | NO 071N0811 | BFP 11, 21, 41 and 52E, size 3-5 Diamond Service pumps | 071N1007 | Coil, nut and washer |
| **Valves** | NC | BFA - BFPC - BFP 11, 21, 31, 41 and 52E. Size 2 - 3 - 4 - 5 | 071N0050 | Valve, nut and washer |
| | NC for DC coil | BFA - BFPC - BFP 11, 21, 31, 41 and 52E. Size 2 - 3 - 4 | 071N0007 | Valve, nut and washer |
| | NC | LE-S | 071N3011 | Valve, nut and washer |
| | NO for NO coil only | BFP 52E. Size 3 - 5 | 071N3010 | Valve, nut and washer |
| | NO | BFP 51, 52, 52E and 53. Size 3 - 4 - 5 - 8. Special type | 071N0005 | Valve, nut and washer |
| **Plugs** | Plug for cartridge filter | BFP 20, 21, 31, 41 and 52E | 071N0074 | Plug and O-ring |
| | Plug 1/8" for P and V port | All | 071N0604 | Plug and O-ring |
| | Plug M10 for NC valve | All | 071N0065 | Plug |
| | Plug 1/4" for 1/4" conection | All | 071N1055 | Plug and O-ring |
| **Change** | Change over set, 1-pipe operation | BFP 10/11 Size 3-4-5-6 | 071N1092 | Washer, 1/4" plug and O-ring |
| | Change over set, 2-pipe operation | BFP 20, 21, 41, 52 Size 2-3-4-5 | 071N0041 | 2 pipe plug |
| **Busch/** | Bush 32 - 54 mm and flange | All | 071N0047 | Bush, flange and screws |
| **flange** | Bush 32 - 54 mm | All | 071B0011 | Bush and screws |

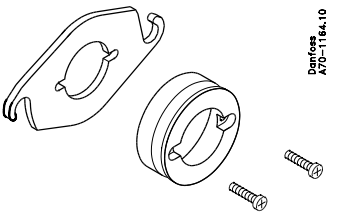
## Accessories – BFP

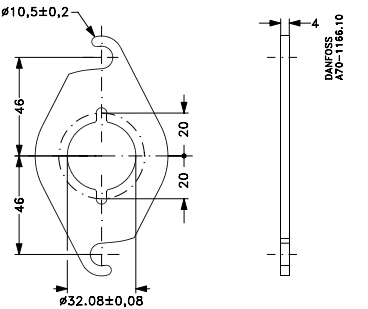
Bush and screws
Code no. 071B0011



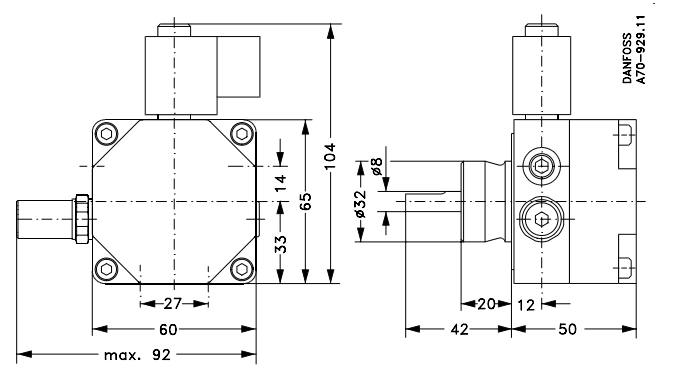

Bush, screws and flange
Code no. 071N0047



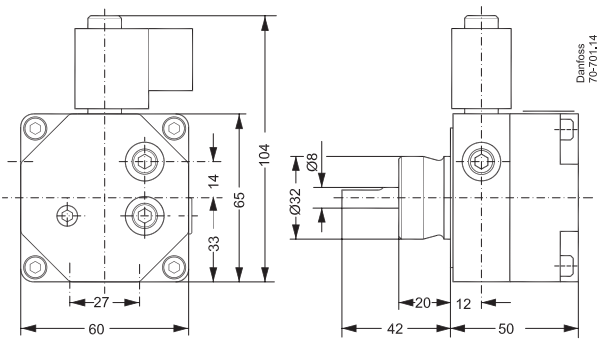
## Dimensions – BFP 10/11

Type 3, 5



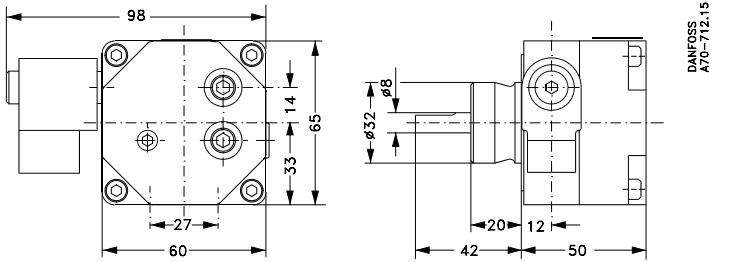
## Dimensions – BFP 20/21

Type 3 and 5



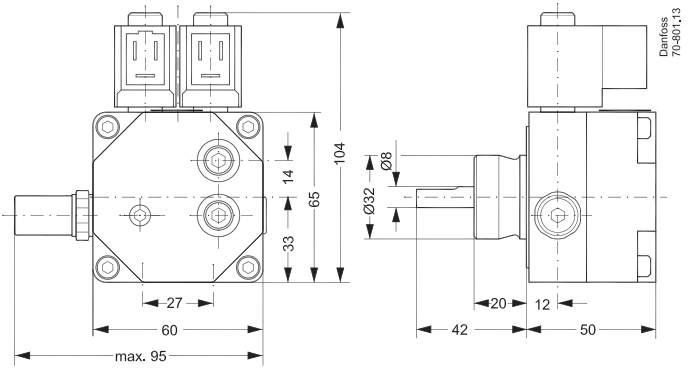
## Dimensions – BFP 41

Type 3 and 5



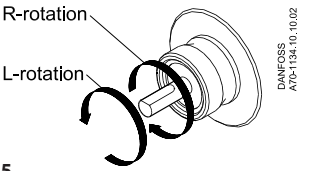
## Dimensions – BFP 52 E

Type 3 and 5

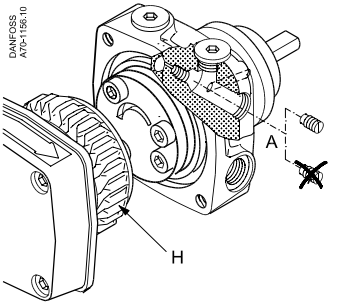


**Changeover between 1- and 2-pipe operation. Filter replacement (H)**

**Note !**
Shaft rotation, location of nozzle outlet and other connections are seen from shaft end.



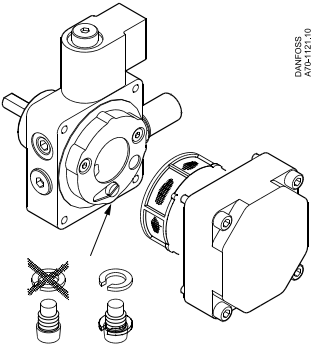

**RSA**




2-pipe operation:
Screw (A) fitted

1-pipe operation:
Without screw (A)

**BFP 10/11 type 3, 5**

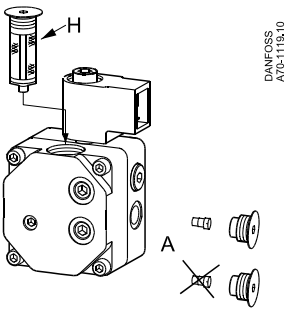



2-pipe operation:
Screw (A) without bypass washer

1-pipe operation:
bypass washer fitted on screw (A)

## Changeover between 1- and 2-pipe operation, Filter replacement (H)

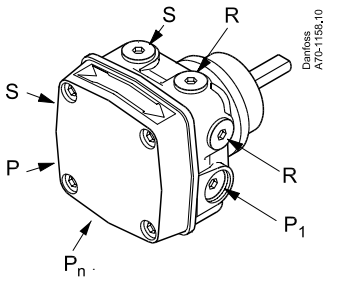
BFP 20/21 type 3, 5
BFP 41 type 3, 5
BFP 52E type 3, 5




2-pipe operation:
Screw (A) fitted

1-pipe operation:
Without screw (A)

## Connections – RSA




**$P_1$** Pressure adjustment

**S** Suction inlet G 1/4

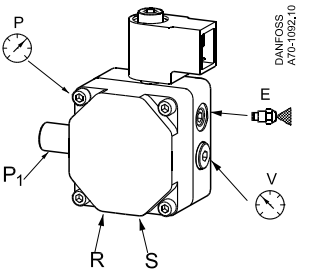
**R** Return outlet G 1/4

**P** Pressure outlet G 1/8

**$P_n$** Pressure gauge port G 1/8

## Connections – BFP 10/11

Type 3 and 5




**$P_1$** Pressure adjustment

**S** Suction inlet G 1/4

**R** Return outlet G 1/4

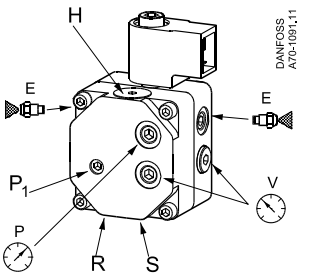
**E** Nozzle outlet G 1/8

**P** Pressure gauge port G 1/8

**V** Vacuum gauge port G 1/8

## Connections – BFP 20/21

Type 3 and 5
Servicepumpe




**$P_1$** Pressure adjustment

**S** Suction inlet G 1/4

**R** Return outlet G 1/4

**E** Nozzle outlet G 1/8

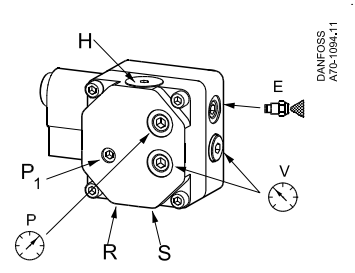
**P** Pressure gauge port G 1/8

**V** Vacuum gauge port G 1/8

**H** Filter

## Connections – BFP 41

Type 3 and 5




**$P_1$** Pressure adjustment

**S** Suction inlet G 1/4

**R** Return outlet G 1/4

**E** Nozzle outlet G 1/8

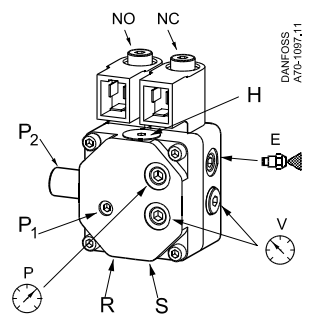
**P** Pressure gauge port G 1/8

**V** Vacuum gauge port G 1/8

**H** Filter

## Connections – BFP 52E

Type 3 and 5




**$P_1$** Pressure adjustment stage 1

**$P_2$** Pressure adjustment, stage 2

**S** Suction inlet G 1/4

**R** Return outlet G 1/4

**E** Nozzle outlet G 1/8

**P** Pressure gauge port G 1/8

**V** Vacuum gauge port G 1/8

**H** Filter

## 2. Oil nozzles

### Contents

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Brass nozzles OD and LE ..... Page 77
Steel nozzles HFD/HD and SFD/SD ..... Page 81
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Marking ..... Page 85

**Danfoss Oil Nozzles Programme**

- Capacities from 0.3 to 35 USgal/h
- EN standardised from 1.46 to 6.55 kg/h
- 30°/45°/60°/70°/80°spray angles
- H/S/B spray patterns
- HFD/HD and SFD/SD round headed nozzles in Stainless Steel

**Hollow Spray Pattern**
The hollow spray pattern is represented in the following nozzle types:
OD-H, LE, EH, AH, KH, HFD, HD, HR

**Solid Spray Pattern**
The solid spray pattern is represented within the following nozzle types:
OD-S, LE, ES, AS, SFD, SD, SR

**Semi-Solid Spray Pattern**
The semi-solid spray pattern is found in types:
OD-B and AB.

## EH and ES nozzles

### Introduction

Danfoss series of oil nozzles types EH and ES are developed for the optimum combustion of kerosene in domestic oil burners and are OFTEC certified.
The standard oil nozzles type OD can also be used for the atomizing and dosing of kerosene - however, these oil nozzles have been calibrated and defined for the operation of standard fuel oil (3.4 cSt, density 840 kg/m$^3$ and 10 bar).

Our existing oil nozzles e.g. 60°S and 80°H can directly be replaced by our 60°ES -80°EH.
If standard oil nozzles OD are used in media with essentially changed specifications
as e.g. kerosene, the tolerances of the oil nozzle will be increased. With the EH and ES nozzles the tolerance for throughput is improved to ±5% for kerosene.

### Reference Test Conditions

The EH and ES nozzles are tested under the following reference conditions:
Viscosity 1.65 sCt - density 790kg/m$^3$,
atomizing pressure 8 bar. Before leaving the production department, each nozzle is tested for:

- capacity
- spray angle
- atomizing characteristics and uniformity

## Ordering tables – EH nozzles – hollow spray pattern

| Marking USgal/h | 60° | 80° | kg/h | Nominal (rounded) l/h | Filter size µm | Filter type |
|---|---|---|---|---|---|---|
| 0.40 | | 030H8304 | 1.20 | 1.50 | 45 | Sinter |
| 0.45 | 030H6306 | 030H8306 | 1.35 | 1.70 | 45 | Sinter |
| 0.50 | 030H6308 | 030H8308 | 1.50 | 1.90 | 75 | Sinter |
| 0.55 | 030H6310 | 030H8310 | 1.65 | 2.10 | 75 | Sinter |
| 0.60 | 030H6312 | 030H8312 | 1.80 | 2.25 | 75 | Sinter |
| 0.65 | 030H6314 | 030H8314 | 1.95 | 2.45 | 75 | Sinter |
| 0.75 | 030H6316 | 030H8316 | 2.25 | 2.85 | 75 | Sinter |
| 0.85 | 030H6318 | 030H8318 | 2.55 | 3.20 | 75 | Sinter |
| 1.00 | 030H6320 | 030H8320 | 3.00 | 3.80 | 75 | Sinter |
| 1.10 | 030H6322 | 030H8322 | 3.30 | 4.15 | 75 | Sinter |
| 1.20 | 030H6323 | 030H8323 | 3.60 | 4.56 | 75 | Sinter |
| 1.25 | 030H6324 | 030H8324 | 3.75 | 4.75 | 75 | Sinter |
| 1.35 | 030H6326 | 030H8326 | 4.00 | 5.06 | 75 | Sinter |
| 1.50 | 030H6328 | 030H8328 | 4.50 | 5.70 | 75 | Sinter |
| 1.65 | 030H6329 | 030H8329 | 5.00 | 6.33 | 75 | Sinter |
| 1.75 | 030H6330 | 030H8330 | 5.25 | 6.65 | 75 | Sinter |
| 2.00 | 030H6332 | 030H8332 | 6.30 | 7.97 | 75 | Sinter |

Test specification (kg/h): 1.65 cST
790 kg/m³
8 bar (115 psi)

$$l/h - \frac{Kg/h}{0.79}$$

## Ordering tables – ES nozzles – solid spray pattern

| Marking USgal/h | 60° | 80° | kg/h | Nominal (rounded) l/h | Filter size µm | Filter type |
|---|---|---|---|---|---|---|
| 0.40 | 030F6304 | 030F8304 | 1.20 | 1.50 | 45 | Sinter |
| 0.45 | 030F6306 | 030F8306 | 1.35 | 1.70 | 45 | Sinter |
| 0.50 | 030F6308 | 030F8308 | 1.50 | 1.90 | 75 | Sinter |
| 0.55 | 030F6310 | 030F8310 | 1.65 | 2.10 | 75 | Sinter |
| 0.60 | 030F6312 | 030F8312 | 1.80 | 2.25 | 75 | Sinter |
| 0.65 | 030F6314 | 030F8314 | 1.95 | 2.45 | 75 | Sinter |
| 0.75 | 030F6316 | 030F8316 | 2.25 | 2.85 | 75 | Sinter |
| 0.85 | 030F6318 | 030F8318 | 2.55 | 3.20 | 75 | Sinter |
| 1.00 | 030F6320 | 030F8320 | 3.00 | 3.80 | 75 | Sinter |
| 1.10 | 030F6322 | 030F8322 | 3.30 | 4.15 | 75 | Sinter |
| 1.20 | 030F6323 | 030F8323 | 3.60 | 4.56 | 75 | Sinter |
| 1.25 | 030F6324 | 030F8324 | 3.75 | 4.75 | 75 | Sinter |
| 1.35 | 030F6326 | 030F8326 | 4.00 | 5.06 | 75 | Sinter |
| 1.50 | 030F6328 | 030F8328 | 4.50 | 5.70 | 75 | Sinter |
| 1.65 | 030F6329 | 030F8329 | 5.00 | 6.33 | 75 | Sinter |
| 1.75 | 030F6330 | 030F8330 | 5.25 | 6.65 | 75 | Sinter |
| 2.00 | 030F6332 | 030F8332 | 6.30 | 7.97 | 75 | Sinter |

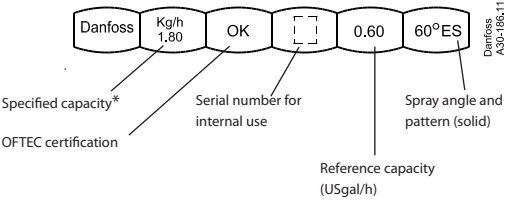
Test specification (kg/h): 1.65 cST
790 kg/m³
8 bar (115 psi)

$$l/h - \frac{Kg/h}{0.79}$$

## Marking and lid colour – EH and ES nozzles

**ES-nozzle, green lid, white lettering**

**EH-nozzle, green lid, white lettering**




** The nominal kg/h throughputs are at a test pressure of 8 bar with permisable tolerance of ± 5%*

## EH and ES nozzle capacities as function of pressure

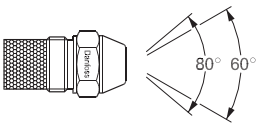
| Nozzle size | 6 bar GPH | 7 bar GPH | 8 bar GPH | 9 bar GPH | 10 bar GPH |
|---|---|---|---|---|---|
| 0.40 | 0.35 | 0.37 | **0.40** | 0.42 | 0.45 |
| 0.50 | 0.43 | 0.47 | **0.50** | 0.53 | 0.56 |
| 0.55 | 0.48 | 0.51 | **0.55** | 0.58 | 0.61 |
| 0.60 | 0.52 | 0.56 | **0.60** | 0.64 | 0.67 |
| 0.65 | 0.56 | 0.61 | **0.65** | 0.69 | 0.73 |
| 0.75 | 0.65 | 0.70 | **0.75** | 0.80 | 0.84 |
| 0.85 | 0.74 | 0.80 | **0.85** | 0.90 | 0.95 |
| 1.00 | 0.87 | 0.94 | **1.00** | 1.06 | 1.12 |
| 1.10 | 0.95 | 1.03 | **1.10** | 1.17 | 1.23 |
| 1.20 | 1.04 | 1.12 | **1.20** | 1.27 | 1.34 |
| 1.25 | 1.08 | 1.17 | **1.25** | 1.33 | 1.40 |
| 1.35 | 1.17 | 1.26 | **1.35** | 1.43 | 1.51 |
| 1.50 | 1.30 | 1.40 | **1.50** | 1.59 | 1.68 |
| 1.65 | 1.43 | 1.54 | **1.65** | 1.75 | 1.84 |
| 1.75 | 1.52 | 1.64 | **1.75** | 1.86 | 1.96 |
| 2.00 | 1.73 | 1.87 | **2.00** | 2.12 | 2.24 |

Nozzle Reference Test conditions

**OFTEC Reference Conditions**

Viscosity 1.65 cSt – density 790 kg/m³ atomizing pressure 8 bar

Capacity kg/h.

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A30-178.12

$$Q2 \sim Q1 \sqrt{\frac{P2}{P1}}$$

## EH and ES nozzles. Capacities, net calorific values*# (rounded figs.)

| Nozzle size | | 6 bar | | 7 bar | | 8 bar | | 9 bar | | 10bar | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| kg/h** | Usgal/h*** | kW | Btu's | kW | Btu's | kW | Btu's | kW | Btu's | kW | Btu's |
| 1.20 | 0.40 | 12.50 | 42500 | 13.50 | 46000 | 14.40 | 49250 | 15.30 | 52250 | 16.10 | 55000 |
| 1.35 | 0.45 | 14.00 | 48000 | 15.20 | 51750 | 16.20 | 55250 | 17.20 | 58750 | 18.15 | 62000 |
| 1.50 | 0.50 | 15.60 | 53250 | 16.85 | 57500 | 18.00 | 61500 | 19.10 | 65250 | 20.15 | 68750 |
| 1.65 | 0.55 | 17.15 | 58500 | 18.55 | 63300 | 19.80 | 67750 | 21.00 | 71750 | 22.15 | 75750 |
| 1.80 | 0.60 | 18.75 | 64000 | 20.25 | 69000 | 21.60 | 73750 | 22.95 | 78250 | 24.20 | 82500 |
| 1.95 | 0.65 | 20.30 | 69250 | 21.90 | 74800 | 23.45 | 80000 | 24.85 | 84750 | 26.20 | 89500 |
| 2.25 | 0.75 | 23.40 | 80000 | 25.30 | 86300 | 27.05 | 92250 | 28.65 | 97750 | 30.20 | 103250 |
| 2.55 | 0.85 | 26.55 | 90500 | 28.65 | 97800 | 30.65 | 104500 | 32.50 | 111000 | 34.25 | 117000 |
| 3.00 | 1.00 | 31.20 | 106500 | 33.70 | 115000 | 36.05 | 123000 | 38.25 | 130500 | 40.30 | 137500 |
| 3.30 | 1.10 | 34.35 | 117250 | 37.10 | 126500 | 39.65 | 135250 | 42.05 | 143500 | 44.30 | 151250 |
| 3.60 | 1.20 | 37.45 | 127750 | 40.45 | 138000 | 43.25 | 147500 | 45.85 | 156500 | 48.35 | 165000 |
| 3.75 | 1.25 | 39.00 | 133250 | 42.15 | 143750 | 45.05 | 153750 | 47.80 | 163000 | 50.35 | 172000 |
| 4.00 | 1.35 | 42.15 | 143750 | 45.50 | 155250 | 48.65 | 166000 | 51.60 | 176000 | 54.40 | 185750 |
| 4.50 | 1.50 | 46.80 | 159750 | 50.55 | 172500 | 54.06 | 184500 | 57.35 | 195750 | 60.45 | 206250 |
| 5.00 | 1.65 | 51.50 | 175750 | 55.60 | 189750 | 59.45 | 203000 | 63.05 | 215250 | 66.50 | 227000 |
| 5.25 | 1.75 | 54.60 | 186500 | 59.00 | 201250 | 63.05 | 215250 | 66.90 | 228250 | 70.50 | 240750 |
| 6.30 | 2.00 | 62.40 | 213000 | 67.40 | 230000 | 72.10 | 246000 | 76.45 | 261000 | 80.60 | 275000 |

* Nett value 43.30 MJ/kg

** Approx 12.00 kW/kg

*** Approx 123.000 Btu's/USgal/h

# For gross calorific values multiply by 1.069.

The above information gives a quick guide to nozzle output at different pump pressures.

Remember to take into account boiler efficiency.

Example: Boiler rating 19.00 kW (65000 Btu's) input req'd.

*Nozzle selection*: 1.80 kg/h (0.60 USgal/h) Nozzle at approx 8.54 bar

## Conversion oil burner nozzles of other makes -> Danfoss EH/ES nozzles

| Conversion to Danfoss EH/ES nozzles | | |
|---|---|---|
| Hago H.SS | ➨ | Danfoss EH |
| Hago P, ES | ➨ | Danfoss ES |
| Delavan A | ➨ | Danfoss EH |
| Delavan B, W | ➨ | Danfoss ES |
| Monarch NS | ➨ | Danfoss EH |
| Monarch PLP, AR, R | ➨ | Danfoss ES |
| Steinen H PH | ➨ | Danfoss EH |
| Steinen SS, Q | ➨ | Danfoss ES |
| Fluidics KSF | ➨ | Danfoss ES |
| Fluidics KHF | ➨ | Danfoss EH |

## Brass Nozzles
## – Type OD-H

### Hollow spray pattern

| USgal/h | Type OD (Hollow) | | | kg/h |
|---|---|---|---|---|
| | 45° | 60° | 80° | |
| 0.30 | | 030H6102 | 030H8102 | 1.15 |
| 0.35 | | 030H6103 | 030H8103 | 1.35 |
| 0.40 | | 030H6904 | 030H8904 | 1.46 |
| 0.45 | | 030H6906 | 030H8906 | 1.66 |
| 0.50 | 030H4908 | 030H6908 | 030H8908 | 1.87 |
| 0.55 | 030H4910 | 030H6910 | 030H8910 | 2.11 |
| 0.60 | 030H4912 | 030H6912 | 030H8912 | 2.37 |
| 0.65 | 030H4914 | 030H6914 | 030H8914 | 2.67 |
| 0.75 | 030H4916 | 030H6916 | 030H8916 | 2.94 |
| 0.85 | 030H4918 | 030H6918 | 030H8918 | 3.31 |
| 1.00 | 030H4920 | 030H6920 | 030H8920 | 3.72 |
| 1.10 | 030H4922 | 030H6922 | 030H8922 | 4.24 |
| 1.20 | 030H4923 | 030H6923 | 030H8923 | 4.45 |
| 1.25 | 030H4924 | 030H6924 | 030H8924 | 4.71 |
| 1.35 | 030H4926 | 030H6926 | 030H8926 | 5.17 |
| 1.50 | 030H4928 | 030H6928 | 030H8928 | 5.84 |
| 1.65 | 030H4929 | 030H6929 | 030H8929 | 6.08 |
| 1.75 | 030H4930 | 030H6930 | 030H8930 | 6.55 |
| 2.00 | 030H4132 | 030H6132 | 030H8132 | 7.42 |
| 2.25 | 030H4134 | 030H6134 | 030H8134 | 8.35 |
| 2.50 | 030H4136 | 030H6136 | 030H8136 | 9.29 |
| 2.75 | 030H4138 | 030H6138 | 030H8138 | 10.5 |
| 3.00 | 030H4140 | 030H6140 | 030H8140 | 11.6 |

These oil nozzles are manufactured in accordance with European standard EN 293

## Brass Nozzles – Type OD-S

### Solid spray pattern

| USgal/h | Type OD (Solid) | | | | kg/h |
|---|---|---|---|---|---|
| | 30° | 45° | 60° | 80° | |
| 0.20 | | | 030F7109 | | 0.76 |
| 0.25 | | | 030F7113 | | 0.95 |
| 0.30 | | | 030F6102 | 030F8102 | 1.15 |
| 0.35 | | | 030F6103 | 030F8103 | 1.35 |
| 0.40 | | 030F4904 | 030F6904 | 030F8904 | 1.46 |
| 0.45 | | 030F4906 | 030F6906 | 030F8906 | 1.66 |
| 0.50 | 030F3108 | 030F4908 | 030F6908 | 030F8908 | 1.87 |
| 0.55 | 030F3110 | 030F4910 | 030F6910 | 030F8910 | 2.11 |
| 0.60 | 030F3112 | 030F4912 | 030F6912 | 030F8912 | 2.37 |
| 0.65 | 030F3114 | 030F4914 | 030F6914 | 030F8914 | 2.67 |
| 0.75 | 030F3116 | 030F4916 | 030F6916 | 030F8916 | 2.94 |
| 0.85 | 030F3118 | 030F4918 | 030F6918 | 030F8918 | 3.31 |
| 1.00 | 030F3120 | 030F4920 | 030F6920 | 030F8920 | 3.72 |
| 1.10 | 030F3122 | 030F4922 | 030F6922 | 030F8922 | 4.24 |
| 1.20 | | 030F4923 | 030F6923 | 030F8923 | 4.45 |
| 1.25 | 030F3124 | 030F4924 | 030F6924 | 030F8924 | 4.71 |
| 1.35 | 030F3126 | 030F4926 | 030F6926 | 030F8926 | 5.17 |
| 1.50 | 030F3128 | 030F4928 | 030F6928 | 030F8928 | 5.84 |

These oil nozzles are manufactured in accordance with European standard EN 293

### Solid spray pattern

| USgal/h | Type OD (Solid) | | | | kg/h |
|---|---|---|---|---|---|
| | 30° | 45° | 60° | 80° | |
| 1.65 | 030F3129 | 030F4929 | 030F6929 | 030F8929 | 6.08 |
| 1.75 | 030F3130 | 030F4930 | 030F6930 | 030F8930 | 6.55 |
| 2.00 | 030F3132 | 030F4132 | 030F6132 | 030F8132 | 7.42 |
| 2.25 | 030F3134 | 030F4134 | 030F6134 | 030F8134 | 8.35 |
| 2.50 | 030F3136 | 030F4136 | 030F6136 | 030F8136 | 9.29 |
| 2.75 | 030F3138 | 030F4138 | 030F6138 | 030F8138 | 10.5 |
| 3.00 | 030F3140 | 030F4140 | 030F6140 | 030F8140 | 11.6 |
| 3.50 | | 030F4142 | 030F6142 | 030F8142 | 12.9 |
| 4.00 | | 030F4144 | 030F6144 | 030F8144 | 14.2 |
| 4.50 | | 030F4146 | 030F6146 | 030F8146 | 16.1 |
| 5.00 | | 030F4148 | 030F6148 | 030F8148 | 18.5 |
| 5.50 | | 030F4150 | 030F6150 | 030F8150 | 20.9 |
| 6.00 | | 030F4152 | 030F6152 | 030F8152 | 23.4 |
| 7.00 | | | 030F6154 | | 27.9 |
| 8.00 | | | 030F6156 | | 31.5 |
| 9.00 | | | 030F6158 | | 35.4 |

These oil nozzles are manufactured in accordance with European standard EN 293

## Brass Nozzles
## – Type OD-B

### Semi-Solid spray pattern

| USgal/h | Type OD (Semi-solid) | | | kg/h |
|---|---|---|---|---|
| | 45° | 60° | 80° | |
| 0.60 | | 030B0103 | 030B0203 | 2.37 |
| 0.65 | 030B0054 | 030B0104 | 030B0204 | 2.67 |
| 0.75 | 030B0055 | 030B0105 | 030B0205 | 2.94 |
| 0.85 | 030B0056 | 030B0106 | 030B0206 | 3.31 |
| 1.00 | 030B0057 | 030B0107 | 030B0207 | 3.72 |
| 1.25 | 030B0059 | 030B0109 | 030B0209 | 4.71 |
| 1.35 | 030B0060 | 030B0110 | 030B0210 | 5.17 |
| 1.50 | 030B0061 | 030B0111 | 030B0211 | 5.84 |
| 2.00 | 030B0063 | 030B0113 | 030B0213 | 7.42 |
| 2.25 | 030B0064 | 030B0114 | | 8.35 |
| 2.50 | 030B0065 | 030B0115 | 030B0215 | 9.29 |
| 2.75 | 030B0066 | 030B0116 | | 10.5 |
| 3.00 | 030B0067 | 030B0117 | 030B0217 | 11.6 |
| 3.75 | 030B0069 | 030B0119 | 030B0219 | 13.8 |
| 4.50 | 030B0071 | 030B0121 | 030B0221 | 16.1 |
| 5.00 | 030B0073 | 030B0123 | 030B0223 | 18.5 |
| 5.50 | 030B0075 | 030B0125 | 030B0225 | 20.9 |

These oil nozzles are manufactured in accordance with European standard EN 293

### Semi-Solid spray pattern

| USgal/h | Type OD (Semi-solid) | | | kg/h |
|---|---|---|---|---|
| | 45° | 60° | 80° | |
| 6.00 | 030B0077 | 030B0127 | 030B0227 | 23.4 |
| 6.50 | 030B0079 | 030B0129 | 030B0229 | 26.1 |
| 7.50 | 030B0081 | 030B0131 | 030B0231 | 29.8 |
| 8.50 | 030B0083 | 030B0133 | 030B0233 | 33.1 |
| 10.0 | 030B0085 | 030B0135 | 030B0235 | 37.7 |
| 11.0 | 030B0087 | 030B0137 | 030B0237 | 42.5 |
| 12.0 | 030B0089 | 030B0139 | 030B0239 | 47.7 |
| 13.5 | 030B0091 | 030B0141 | 030B0241 | 54.3 |
| 15.0 | 030B0093 | 030B0143 | 030B0243 | 60.4 |
| 17.0 | | 030B0145 | 030B0245 | 67.4 |
| 19.5 | | 030B0147 | 030B0247 | 76.2 |
| 22.0 | 030B0096 | 030B0149 | 030B0249 | 86.4 |
| 25.0 | | 030B0151 | | 96.7 |
| 28.0 | | 030B0153 | | 109.5 |
| 31.5 | 030B0099 | 030B0155 | 030B0255 | 122.5 |
| 35.0 | 030B0100 | | | 133.5 |

These oil nozzles are manufactured in accordance with European standard EN 293

## Brass Nozzles – Type LE

### Hollow spray pattern

| USgal/h | Type LE (Hollow) | | kg/h |
|---|---|---|---|
| | 60° | 80° | |
| 0.40 | 030H6704 | 030H8704 | 1.46 |
| 0.45 | 030H6706 | 030H8706 | 1.66 |
| 0.50 | 030H6708 | 030H8708 | 1.87 |
| 0.55 | 030H6710 | 030H8710 | 2.11 |
| 0.60 | 030H6712 | 030H8712 | 2.37 |
| 0.65 | 030H6714 | 030H8714 | 2.67 |
| 0.75 | 030H6716 | 030H8716 | 2.94 |
| 0.85 | 030H6718 | 030H8718 | 3.31 |
| 1.00 | 030H6720 | 030H8720 | 3.72 |
| 1.35 | | 030H8726 | 5.17 |
| 1.75 | | 030H8730 | 6.55 |

These oil nozzles are manufactured in accordance with European standard EN 293

### Solid spray pattern

| USgal/h | Type LE (Solid) | | | kg/h |
|---|---|---|---|---|
| | 45° | 60° | 80° | |
| 0.40 | | 030F6704 | 030F8704 | 1.46 |
| 0.45 | | 030F6706 | 030F8706 | 1.66 |
| 0.50 | 030F4708 | 030F6708 | 030F8708 | 1.87 |
| 0.55 | 030F4710 | 030F6710 | 030F8710 | 2.11 |
| 0.60 | 030F4712 | 030F6712 | 030F8712 | 2.37 |
| 0.65 | 030F4714 | 030F6714 | 030F8714 | 2.67 |
| 0.75 | 030F4716 | 030F6716 | 030F8716 | 2.94 |
| 0.85 | 030F4718 | 030F6718 | 030F8718 | 3.31 |
| 1.00 | 030F4720 | 030F6720 | 030F8720 | 3.72 |
| 1.10 | | | 030F8722 | 4.24 |
| 1.50 | 030F4728 | 030F6728 | | 5.84 |
| 1.75 | | 030F6730 | | 6.55 |

These oil nozzles are manufactured in accordance with European standard EN 293

## Steel nozzles
## – Type HFD/HD and SFD/SD

### Hollow spray pattern

| USgal/h | Type HFD/HD (Hollow) | | | | kg/h |
|---|---|---|---|---|---|
| | 45° | 60° | 70° | 80° | |
| 0.40 | 030H4004 | 030H6004 | 030H7004 | 030H8004 | 1.5 |
| 0.45 | 030H4006 | 030H6006 | | 030H8006 | 1.68 |
| 0.50 | 030H4008 | 030H6008 | 030H7008 | 030H8008 | 1.87 |
| 0.55 | 030H4010 | 030H6010 | | 030H8010 | 2.06 |
| 0.60 | 030H4012 | 030H6012 | | 030H8012 | 2.24 |
| 0.65 | 030H4014 | 030H6014 | | 030H8014 | 2.43 |
| 0.75 | 030H4016 | 030H6016 | | 030H8016 | 2.81 |
| 0.85 | 030H4018 | 030H6018 | | 030H8018 | 3.18 |
| 1.00 | 030H4020 | 030H6020 | | 030H8020 | 3.74 |
| 1.10 | 030H4022 | 030H6022 | | 030H8022 | 4.12 |
| 1.25 | 030H4024 | 030H6024 | | 030H8024 | 4.68 |
| 1.35 | 030H4026 | 030H6026 | | 030H8026 | 5.05 |
| 1.50 | 030H4028 | 030H6028 | | 030H8028 | 5.61 |
| 1.65 | 030H4029 | 030H6029 | | 030H8029 | 6.17 |
| 1.75 | 030H4030 | 030H6030 | | 030H8030 | 6.55 |
| 2.00 | 030H4032 | 030H6032 | | 030H8032 | 7.48 |
| 2.25 | 030H4034 | 030H6034 | | 030H8034 | 8.42 |
| 2.50 | 030H4036 | 030H6036 | | 030H8036 | 9.35 |

These oil nozzles are manufactured in accordance with European standard EN 293

### Solid spray pattern

| USgal/h | Type SFD/SD (Solid) | | | kg/h |
|---|---|---|---|---|
| | 45° | 60° | 80° | |
| 0.30 | 030F4002 | 030F6002 | 030F8002 | 1.12 |
| 0.35 | 030F4003 | 030F6003 | 030F8003 | 1.31 |
| 0.40 | 030F4004 | 030F6004 | 030F8004 | 1.5 |
| 0.45 | 030F4006 | 030F6006 | 030F8006 | 1.68 |
| 0.50 | 030F4008 | 030F6008 | 030F8008 | 1.87 |
| 0.55 | 030F4010 | 030F6010 | 030F8010 | 2.06 |
| 0.60 | 030F4012 | 030F6012 | 030F8012 | 2.24 |
| 0.65 | 030F4014 | 030F6014 | 030F8014 | 2.43 |
| 0.75 | 030F4016 | 030F6016 | 030F8016 | 2.81 |
| 0.85 | 030F4018 | 030F6018 | 030F8018 | 3.18 |
| 1.00 | 030F4020 | 030F6020 | 030F8020 | 3.74 |
| 1.10 | 030F4022 | 030F6022 | 030F8022 | 4.12 |
| 1.25 | 030F4024 | 030F6024 | 030F8024 | 4.68 |
| 1.35 | 030F4026 | 030F6026 | 030F8026 | 5.05 |
| 1.50 | 030F4028 | 030F6028 | 030F8028 | 5.61 |
| 1.65 | 030F4029 | 030F6029 | | 6.17 |
| 1.75 | 030F4030 | 030F6030 | 030F8030 | 6.55 |
| 2.00 | 030F4032 | 030F6032 | 030F8032 | 7.48 |
| 2.25 | 030F4034 | 030F6034 | 030F8034 | 8.42 |
| 2.50 | 030F4036 | 030F6036 | 030F8036 | 9.35 |

These oil nozzles are manufactured in accordance with European standard EN 293

## Conversion oil burner nozzles of other makes -> Danfoss oil burner nozzles

| Delavan | | Relevant Danfoss types | |
|---|---|---|---|
| Type | | 1. choice | 2. choice |
| A | ➨ | Danfoss H | Danfoss HFD/HD |
| B | ➨ | Danfoss S | Danfoss SFD/SD |
| W | ➨ | Danfoss B | – |

| Steinen | | Relevant Danfoss types | |
|---|---|---|---|
| Type | | 1. choice | 2. choice |
| Steinen PH | ➨ | Danfoss H/B | – |
| Steinen H, HT | ➨ | Danfoss HFD/HD | Danfoss H |
| Steinen SS | ➨ | Danfoss B | – |
| Steinen Q | ➨ | Danfoss SFD/SD | Danfoss B/S |
| Steinen S, ST | ➨ | Danfoss SFD/SD | Danfoss S |

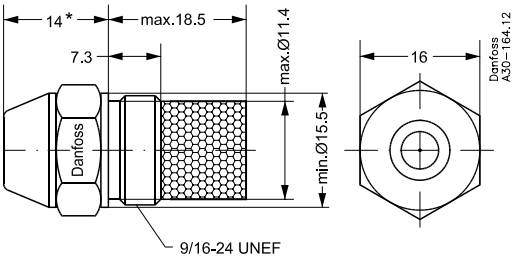
| Fluidics | | Relevant Danfoss types | |
|---|---|---|---|
| Type | | 1. choice | 2. choice |
| SF | ➨ | Danfoss SFD | Danfoss S |
| HF | ➨ | Danfoss HFD | Danfoss H |
| S | ➨ | Danfoss SD | Danfoss S |
| H | ➨ | Danfoss HD | Danfoss H |

| Monarch | | Relevant Danfoss types | |
|---|---|---|---|
| Type | | 1. choice | 2. choice |
| PL | ➨ | Danfoss H/B | – |
| NS | ➨ | Danfoss HFD | Danfoss H |
| PLP | ➨ | Danfoss B | – |
| AR | ➨ | Danfoss SFD/SD | Danfoss S |
| R | ➨ | Danfoss SFD/SD | Danfoss S |

This interchange is based on experience and should therefore only be considered as a guide

## Dimensions

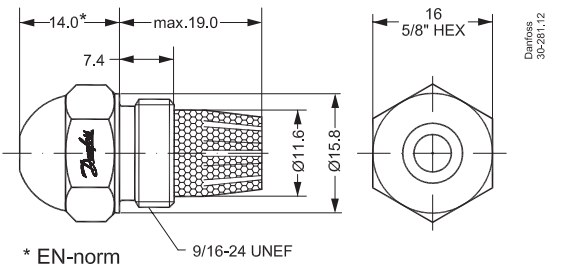
OD, LE, EH/ES




* EN standard

## Dimensions

HFD/HD, SFD/SD



## Marking and lid colour of the Danfoss oil nozzles

**S-nozzle, red lid, white lettering**

**H-nozzle, blue lid, white lettering**

**B-nozzle, transparent lid, black lettering**

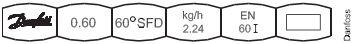
CEN Marking and the current marking

Marking of the standard nozzle

**SFD/SD-nozzle, black lid, white lettering**

**HFD/HD-nozzle, red lid, black lettering**

Marking SF, SD, HFD, HD-nozzles



**S LE-nozzle, green lid, white lettering**

**H LE-nozzle, green lid, white lettering**

Marking of the LE-nozzles

# 3. Oil burner controls

## Contents


| | | |
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## Oil burner controls

Oil burner control conversions are given in the tables below:

The following old Danfoss oil burner controls can be replaced: types 57F, 57H, 57L and BHO.

According to the European standard EN 298, oil burner controls must have undervoltage protection. OBC 80 serie does incorporate this protection.

Therefore it is this oil burner control that most often replaces the old Danfoss types.

The overview is built up as follows:

- Column 1 always gives the old oil burner control types that are to be replaced.
- Column 2 gives the code numbers of the oil burner controls that are to be replaced.
- Column 4 gives the new types of Danfoss oil burner controls.
- Column 5 gives the corresponding code numbers.
- The last column gives the code numbers of the corresponding accessories.

## OBC 80 series – Standard types

| Type | Code No. | Pre-purge/ Pre-ignition t1/t3* | Post-ignition t2n | Interval V1-V2 t4 | Safety time t2 maks. | Post-purge t8 | Remote alarm | Remote reset |
|---|---|---|---|---|---|---|---|---|
| OBC 81.10 | 057H8701 | 13 | 15 | - | 10 | - | - | - |
| OBC 81A.10 | 057H8708 | 13 | 15 | - | 10 | - | ✓ | ✓ |
| OBC 81A.12 | 057H8706 | 13 | 5 | - | 10 | - | ✓ | ✓ |
| OBC 82.10 | 057H8702 | 13 | 15 | 15 | 10 | - | ✓ | - |
| OBC 82.11 | 057H8703 | 6 | 20 | 20 | 10 | - | ✓ | - |
| OBC 82A.12 | 057H8707 | 13 | 5 | 15 | 10 | - | ✓ | ✓ |
| OBC 84.10 | 057H8705 | 25 | 2 | 5 | 5 | - | ✓ | ✓ |
| OBC 85B.10 | 057H8710 | 13 | 15 | 15 | 10 | 90 | ✓ | ✓ |

*) Due to the initialisation of the electronics, it may take up to two seconds before ignition is enabled

## Conversion Danfoss 057F/H/L/BHO ➨ OBC 80 series

| Older Danfoss series | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|
| Type | Code no. | ➨ | Type | Code no. | Comments/accessories |
| 57F1 | 057F0001 | ➨ | OBC 82.10 | 057H8702 | |
| 57F3 | 057F0003 | ➨ | OBC 82.10 | 057H8702 | |
| 57H1 | 057H0062 | ➨ | OBC 82.10 | 057H8702 | |
| 57H1 | 057H0072 | ➨ | OBC 82.10 | 057H8702 | |
| 57H1 | 057H1002 | ➨ | OBC 82.10 | 057H8702 | + 057H7224 |
| 57H3 | 057H1003 | ➨ | OBC 82.10 | 057H8702 | |
| 57H1 WLE | 057H0042 | ➨ | OBC 84.10 | 057H8705 | |
| 57H1 | 057H0052 | ➨ | OBC 82.10 | 057H8702 | |
| 57H2 | 057H0053 | ➨ | OBC 82.10 | 057H8702 | |
| 57H2 | 057H0063 | ➨ | OBC 82.10 | 057H8702 | |
| 57H3 | 057H1005 | ➨ | | No repl. | |
| 57H3 | 057H0054 | ➨ | OBC 82.10 | 057H8702 | |
| 57H3 | 057H0064 | ➨ | OBC 82.10 | 057H8702 | |
| 57H5 | 057H0045 | ➨ | OBC 84.10 | 057H8705 | + 057H7224 |
| 57H5 | 057H0055 | ➨ | OBC 82.10 | 057H8702 | |
| 57H5 | 057H0065 | ➨ | OBC 82.10 | 057H8702 | |
| 57H6 | 057H0032 | ➨ | | No repl. | |
| 57L 1 | 057L0001 | ➨ | OBC 82.10 | 057H8702 | |
| 57L 1d | 057L0002 | ➨ | OBC 82.10 | 057H8702 | + 057H7224 |
| 57L 3 | 057L0003 | ➨ | OBC 82.10 | 057H8702 | Use motor starter on 380 V |
| 57L 3d | 057L0004 | ➨ | OBC 82.10 | 057H8702 | |
| BCG 1d | 057L1001 | ➨ | | No repl. | |
| BCG 1d | 057L1002 | ➨ | | No repl. | |
| BCG 1d | 057L1003 | ➨ | | No repl. | |
| BCG 3,3d | 057L1004 | ➨ | | No repl. | |
| BCG 3.5d | 057L1005 | ➨ | | No repl. | |

## Conversion Danfoss 057F/H/L/BHO ➨ OBC 80 series

| Older Danfoss series | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|
| Type | Code no. | ➨ | Type | Code no. | Comments/accessories |
| BHO 1A | 057H3013 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 1B | 057H3014 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 1 | 057H3011 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 1 WLE | 057H3010 | ➨ | OBC 84.10 | 057H8705 | |
| BHO 1 WLE | 057H3054 | ➨ | OBC 84.10 | 057H8705 | |
| BHO 3B | 057H3018 | ➨ | OBC 82.11 | 057H8703 | |
| BHO 3B | 057H3020 | ➨ | OBC 82.11 | 057H8703 | |
| BHO 4 | 057H4104 | ➨ | OBC 82.10 | 057H8702 | + 057H7224 |
| BHO 4B | 057H4144 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 4 WLE | 057H4110 | ➨ | OBC 84.10 | 057H8705 | |
| BHO 4.1 | 057H3012 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 4.1B | 057H3039 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 4.1B | 057H3044 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 5 | 057H4105 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 5.1 | 057H3015 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 6 | 057H3032 | ➨ | | No repl. | |
| BHO 11 | 057H2011 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 11.1 | 057H2011 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 11.1 | 057H2013 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 11.1 | 057H2014 | ➨ | OBC 82.10 | 057H8702 | + 057H7224 |
| BHO 12 | 057H2031 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 12 | 057H2012 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 12.1 | 057H2005 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 12.1 | 057H2012 | ➨ | OBC 82.10 | 057H8702 | |

## Conversion Danfoss 057F/H/L/BHO ➨ OBC 80 series

| Older Danfoss series | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|
| Type | Code no. | ➨ | Type | Code no. | Comments/accessories |
| BHO 15 | 057H2015 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 21 | 057H2042 | ➨ | OBC 84.10 | 057H8705 | |
| BHO 25 | 057H2045 | ➨ | OBC 84.10 | 057H8705 | |
| BHOV 1 | 057H3016 | ➨ | OBC 82.10 | 057H8702 | |
| BHOV 4 | 057H3030 | ➨ | OBC 82.10 | 057H8702 | |
| BHOV 4A | 057H3033 | ➨ | OBC 82.10 | 057H8702 | + 057H7224 |
| BHOV 4B | 057H3034 | ➨ | OBC 82.10 | 057H8702 | |
| BHOV 12.2 | 057H2030 | ➨ | OBC 82.10 | 057H8702 | |
| BHOV 12.2 | 057H2033 | ➨ | OBC 82.10 | 057H8702 | |
| BHOV 12.2 | 057H2034 | ➨ | OBC 82.10 | 057H8702 | |
| BHOV 22 | 057H2054 | ➨ | OBC 84.10 | 057H8705 | |
| FRA | 086B0090 | ➨ | LAE 10<br>LFE 10 | Landis & Stäfa[1)] | Not supplied by Danfoss |
| FRU | 086B0091 | ➨ | LFE | Landis & Stäfa | Not supplied by Danfoss |

1) Ionisation

## Conversion Danfoss BHO 60/70 and OBC 80 series ➨ OBC 80 series

| BHO 60/70 and OC 80 series | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|
| Type | Code no. | ➨ | Type | Code no. | Comments/accessories |
| BHO 61A | 057H7031 | ➨ | OBC 82A.12 | 057H8707 | |
| BHO 61 | 057H7032 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 62 | 057H7034 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 62D | 057H7035 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 61 | 057H7033 | | No repl. | | 110 V |
| BHO 64 | 057H7036 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 64A | 057H7030 | ➨ | OBC 82A.12 | 057H8707 | |
| BHO64.1 | 057H7037 | ➨ | OBC 82.11 | 057H8703 | |
| BHO 71.10 | 057H6101 | ➨ | OBC 81.10 | 057H8701 | |
| BHO 71A.10 | 057H6108 | ➨ | OBC 81A.10 | 057H8708 | |
| BHO 72.10 | 057H6102 | ➨ | OBC 82.10 | 057H8702 | |
| BHO 72.11 | 057H6103 | ➨ | OBC 82.11 | 057H8703 | |
| BHO 73.10 | 057H6104 | ➨ | OBC 82A.12 | 057H8707 | |
| BHO 74.10 | 057H6105 | ➨ | OBC 84.10 | 057H8705 | |
| OBC 81.10 | 057H8101 | ➨ | OBC 81.10 | 057H8701 | |
| OBC 82.10 | 057H8102 | ➨ | OBC 82.10 | 057H8702 | |
| OBC 82.11 | 057H8103 | ➨ | OBC 82.11 | 057H8703 | |
| OBC 84.10 | 057H8105 | ➨ | OBC 84.10 | 057H8705 | |
| OBC 81A.12 | 057H8106 | ➨ | OBC 81A.12 | 057H8706 | |
| OBC 82A.12 | 057H8107 | ➨ | OBC 82A.12 | 057H8707 | |
| OBC 81A.10 | 057H8108 | ➨ | OBC 81A.10 | 057H8708 | |
| OBC 85B.10 | 057H8110 | ➨ | OBC 85B.10 | 057H8710 | |

Concerning controls of the BHO 60 series:
Please note:
If only the upper part is replaced, it must be ensured that the LD/LDS flame sensor is connected to the terminals 11 and 12 in the base part.

## Conversion controls other makes ➨ OBC 80 series

| Siemens/ Landis & Stäfa | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|
| Type | ➨ | Type | Code no | Comments |
| LOA 21.171B27 | ➨ | OBC 82.10 | 057H8702 | |
| LOA 21.173A27 | ➨ | OBC 82A.12 | 057H8707 | If terminal 6 is used for ignition use OBC 82.10 |
| LOA 22.171B27 | ➨ | OBC 82.10 | 057H8702 | |
| LOA 22"DF" | ➨ | OBC 82.10 | 057H8702 | |
| LOA 24.171B27 | ➨ | OBC 82.10 | 057H8702 | |
| LOA 24.173A27 | ➨ | OBC 82A.12 | 057H8707 | If terminal 6 is used for ignition use OBC 82.10 |
| LOA 24.174A27 | ➨ | OBC 82A.12 | 057H8707 | If terminal 6 is used for ignition use OBC 82.10 |
| LOA 24.571C27 | ➨ | OBC 82.11 | 057H8703 | |
| LOA 26.171B27 | ➨ | OBC 82A.12 | 057H8707 | OBC 82A.12 has short post ignition time |
| LOA 36.171A27 | ➨ | OBC 82A.12 | 057H8707 | OBC 82A.12 has short post ignition time |
| LOA 44.252A27 | ➨ | OBC 84.10 | 057H8705 | |
| LMO 14.111. (A2/B2/C2) | ➨ | OBC 81A.10 | 057H8708 | |
| LMO 14.113. (A2/B2/C2) | ➨ | OBC 81A.12 | 057H8706 | |
| LMO 24.111. (A2/B2/C2) | ➨ | OBC 82.10 | 057H8702 | If remote reset is needed OBC 82A.12 can be used |
| LMO 24.113. (A2/B2/C2) | ➨ | OBC 82A.12 | 057H8707 | |
| LMO 24.255. (A2/B2/C2) | ➨ | OBC 84.10 | 057H8705 | OBC 84.10 has 5 sec. interval from valve V1 to V2 |
| LMO 44.255. (A2/B2/C2) | ➨ | OBC 84.10 | 057H8705 | |
| LMO 64.311. (A2/B2/C2) | ➨ | OBC 85B.10 | 057H8710 | |

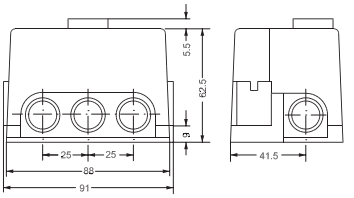
Please note:
If only the upper part is replaced, it must be ensured that the LD/LDS flame sensor is connected to the terminals 11 and 12 in the base part.

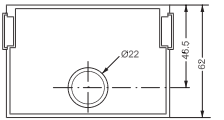
## Oil burner controls

| Defective components | Replacement components |
|---|---|
| Older oil burner controls | OBC 80 series + Service Kit 057H7224 |
| BHO 60 series or BHO 70 series | Only OBC 80 |
| Old LD/LDS<br>057H002x +<br>057H202x | OBC 80 series + Service Kit 057H7224 |
| LD/LDS<br>057H70xx | On OBC 70 and OBC 80 series: Photo unit only.<br>On OBC 60 series: OBC 80 series + new LD/LDS 057H71xx |

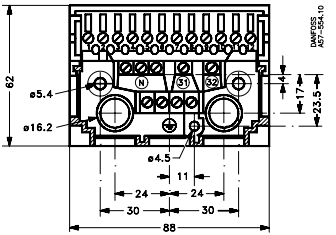
In burners without solenoid valve the motor must be connnected to the solenoid valve terminals so that instead of prepurge, only pre-ignition takes place.
E.g. during maintenance work on the burner, if the oil burner control or photo unit shows defects it must be noted that there are different series of these components.
In some circumstances both components must be replaced even though only one of them is defective. See table.

## Dimensions

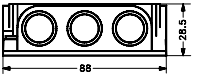


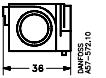




Oil burner control
with base
Cable entry
057H7211

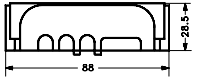


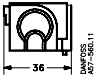

Base 057H7210




Cable entry
057H7211

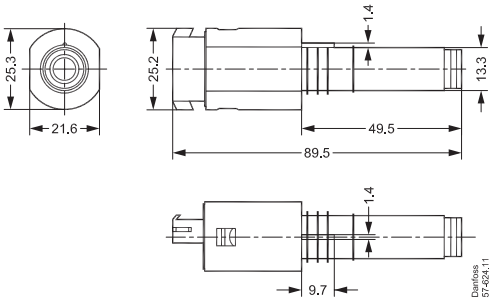



Cable entry
57H7212

## Flame sensors

### Ultraviolet flame sensor UV

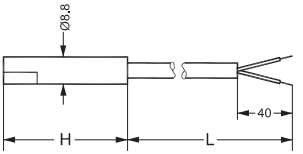


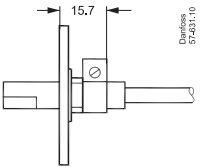

| | UV1 Normal sensitivity | Flange |
|---|---|---|
| Code no. | 057H7051 | 057H7061 |

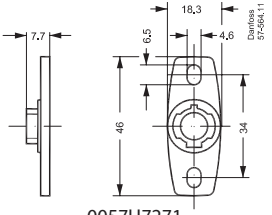
| | 300 mm cable | 400 mm cable | 500 mm cable |
|---|---|---|---|
| Code no. | 057H1040 | 057H1041 | 057H1042 |

## Flame sensors

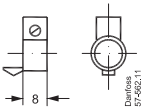
### Flame sensors LD/LDS




0057H7271



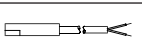

057H7272

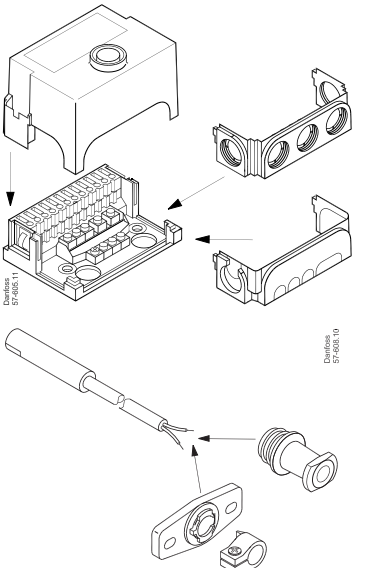
| Type | Old colour | Old code no. | | New Code no. | New colour | H | L |
|---|---|---|---|---|---|---|---|
| LD | Black | 057H7078 | ➡ | 057H7105 | Black | 65.5 | 2000 |
| LD | Black | 057H7079 | ➡ | 057H7106 | Black | 65.5 | 800[1)] |
| LD | Black | 057H7081 | ➡ | 057H7107 | Black | 50 | 500 |
| LDS | Red | 057H7085 | ➡ | 057H7108 | Blue | 50 | 500 |
| LDS | Red | 057H7087 | ➡ | 057H7109 | Blue | 65.5 | 600[2)] |
| LDS | Red | 057H7091 | ➡ | 057H7110 | Blue | 105 | 350 |
| LDS | Red | 057H7092 | ➡ | 057H7111 | Blue | 65.5 | 800 |
| LDS | Blue | 057H7093 | ➡ | 057H7108 | Blue | 50 | 500 |
| LDS | Blue | 057H7094 | ➡ | 057H7109 | Blue | 65.5 | 600 |
| LDS | Red | 057H7096 | ➡ | 057H7108 | Blue | 50 | 500[3)] |
| LDS | Blue | 057H7097 | ➡ | 057H7108 | Blue | 50 | 500[3)] |

1) Old cable length L: 780 mm
2) Old cable length L: 520 mm
3) Old cable length L: 230 mm

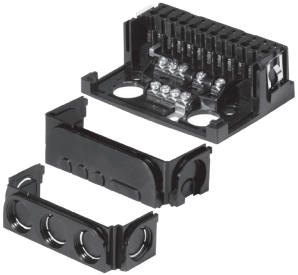
## Service

### Content Service kit 057H7224

| | |
|---|---|
| | 057H7210 |
| | 057H7211 |
| | 057H7212 |
|  | 057H7109 |
| | 057H7271 |
| | 057H7272 |
| | – |



## Accessories OBC/BHO



| Description | Code no. |
|---|---|
| Base BHB | 057H7210 |
| Front plate for BHB, 5 × PG 11 | 057H7211 |
| Front plate for BHB, 8 × knockouts | 057H7212 |

## Flash codes

*Flash codes*

| Event | Code |
|---|---|
| False light | 2 flashes |
| No flame when safety time elapses | 3 flashes |
| More than three restarts in the same cycle | 4 flashes |
| Max. waiting time on preheater overrun (10 min) | 5 flashes |
| Supply voltage above 264 V a.c. | 6 flashes |
| Under voltage | 8 flashes |
| Application failure (EMC) | Continuous flashes |

In the event of operating lockout, the cause of error can be read out as a flash code by holding down the reset button for at least 5 seconds and then releasing it.
Undervoltage will, however, be displayed automatically.
Reset can be performed directly in alarm mode (constant red light) or in flash code mode by pressing the reset button for at least 0.5 seconds but no more than 3 seconds.
In flash code mode it is possible to return to alarm mode by holding down the reset button again for at least 5 seconds.

## 3. Ignition units

### Contents


| | | |
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| Conversion | Danfoss EBI4 -> EBI4 Service | Page 105 |
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| Conversion | Satronic/Honeywell -> EBI4 Service | Page 108 |
| Conversion | COFI -> EBI4 Service | Page 108 |
| Conversion | Siemens -> EBI4 Service | Page 108 |
| Conversion | Beru -> EBI4 Service | Page 108 |
| Conversion | F.I.D.A. -> EBI4 Service | Page 109 |
| Conversion | Brahma -> EBI4 Service | Page 110 |
| Dimensions | | Page 111 |
| Service | | Page 113 |

## Ignition/units

### Introduction

When a Danfoss ignition transformer or an electronic ignition unit must be replaced, please proceed according to the following table.

Ignition transformers are stated to the left and ignition unit EBI, which must be used, to the right.

When replacing an ignition unit from a competitor, please take the below criterions into consideration:

In order to choose the right ignition unit, make sure that the ignition unit is designed for a supply voltage (primary voltage) of 220/230 V and that a ignition unit with higher or equal ED is choosen (ED = duty cycle).

## Danfoss' electronic ignition units

**EBI4 Series**
Electronic ignition units for oil burners
- ED 33% at 60°C
- 1or 2 pole ignition
- Complies with the RoHs and WEEE directives
- 230 V or 120 V

**EBI4 C Series**
Electronic ignition units for constant ignition
- ED 100% at 35°C
- 1 or 2 pole ignition
- Complies with the RoHs and WEEE directives

**EBI4 HP Series**
Electronic ignition units for large oil burners
- 50% stronger spark compared to other ignition units
- ED 33% at 60°C
- 1 or 2 pole ignition
- Complies with the RoHs and WEEE directives

## Conversion Danfoss EBI ➡ EBI4 Service

| EBI Series | | ➡ | Relevant Danfoss types | | |
|---|---|---|---|---|---|
| Type | Code no. | ➡ | Type | Code no. | Comments/accessories |
| EBI | 052F0030 | ➡ | EBI4 | 052F4064 | |
| EBI | 052F0036 | ➡ | EBI4 | 052F4031 | |
| EBI | 052F0037 | ➡ | EBI4 | 052F4064 | |
| EBI | 052F0052 | ➡ | EBI4 CM S | 052F4047 | |
| EBI | 052F0058 | ➡ | EBI4 | 052F4031 | |
| EBI 1P | 052F0040 | ➡ | EBI4 1P S | 052F4046 | |
| EBI 1P | 052F0043 | ➡ | EBI4 1P S | 052F4046 | |
| EBI 1P | 052F0044 | ➡ | EBI4 1P S | 052F4046 | |
| EBI 1P | 052F0045 | ➡ | EBI4 1P | 052F4044 | |
| EBI 1P (120 V) | 052F0054 | ➡ | EBI4 1P (120 V) | 052F4063 | + Primary cable 052F5052 |
| EBI 1P (120 V) | 052F0057 | ➡ | EBI4 1P (120 V) | 052F4063 | |
| EBI M | 052F0033 | ➡ | EBI4 M S | 052F4045 | |
| EBI M | 052F0034 | ➡ | EBI4 M S | 052F4045 | |
| EBI M | 052F0035 | ➡ | EBI4 M S | 052F4045 | |
| EBI M | 052F0039 | ➡ | EBI4 M S | 052F4045 | |
| EBI M | 052F0050 | ➡ | EBI4 M S | 052F4045 | |
| EBI M | 052F0074 | ➡ | EBI4 M S | 052F4045 | |
| EBI M (120 V) | 052F0053 | ➡ | EBI 4M (120 V) | 052F4062 | + Primary cable 052F5052 |
| EBI M (120 V) | 052F0055 | ➡ | EBI 4M (120 V) | 052F4062 | |
| EBI C | 052F0070 | ➡ | EBI4 CM S | 052F4047 | |
| EBI C | 052F0071 | ➡ | EBI4 CM S | 052F4047 | |
| EBI C1P | 052F0079 | ➡ | EBI4 C1P S | 052F4048 | |
| EBI CM | 052F0077 | ➡ | EBI4 CM S | 052F4047 | |
| EBI CM | 052F0078 | ➡ | EBI4 CM | 052F4035 | |
| EBI HP1P | 052F0084 | ➡ | EBI4 1P S | 052F4046 | |
| EBI HPM | 052F0075 | ➡ | EBI4 M S | 052F4045 | |
| EBI HPM | 052F0076 | ➡ | EBI4 HPM | 052F4033 | |

## Conversion Danfoss EBI4 ➨ EBI4 Service

| EBI4 Series | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|
| Type | Code no. | ➨ | Type | Code no. | Comments/accessories |
| EBI4 | 052F4030 | ➨ | EBI4 | 052F4064 | |
| EBI4 | 052F4031 | ➨ | EBI4 | 052F4031 | |
| EBI4 | 052F4041 | ➨ | EBI4 | 052F4064 | |
| EBI4 | 052F4037 | ➨ | EBI4 | 052F4064 | |
| EBI4 1P | 052F4040 | ➨ | EBI4 1P S | 052F4046 | |
| EBI4 1P | 052F4044 | ➨ | EBI4 1P | 052F4044 | |
| EBI4 1P | 052F4050 | ➨ | EBI4 1P S | 052F4046 | |
| EBI4 M | 052F4038 | ➨ | EBI4 M S | 052F4045 | |
| EBI4 M | 052F4043 | ➨ | EBI4 M S | 052F4045 | |
| EBI4 M | 052F4042 | ➨ | EBI4 M S | 052F4045 | |
| EBI4 M | 052F4055 | ➨ | EBI 4 M | 052F4035 | |
| EBI4 M | 052F4057 | ➨ | EBI4 M S | 052F4045 | |
| EBI4 M | 052F4059 | ➨ | EBI4 M S | 052F4045 | |
| EBI4 M | 052F4065 | ➨ | EBI4 M S | 052F4045 | |
| EBI4 C1P | 052F4036 | ➨ | EBI4 C1P S | 052F4048 | |
| EBI4 CM | 052F4034 | ➨ | EBI4 CM S | 052F4047 | |
| EBI4 CM | 052F4035 | ➨ | EBI4 CM | 052F4035 | |
| EBI4 HP1P | 052F4049 | ➨ | EBI4 1P S | 052F4046 | |
| EBI4 HPM | 052F4032 | ➨ | EBI4 M S | 052F4045 | |
| EBI4 HPM | 052F4033 | ➨ | EBI4 HPM | 052F4033 | |

## Conversion Danfoss transformers 052L series ➨ EBI4 Service

| 52L | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|
| Type | Code no. | ➨ | Type | Code no. | Comments/accessories |
| 52L | 052L0000-03 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L0005 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L0007-09 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L0014-15 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L0017 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L0019-20 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L0023 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L0028 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L0034 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L0036-39 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L0041-42 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L0045-48 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L0050-56 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L0058-61 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L0063-64 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L0066-79 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L0082 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L0086-87 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L0089-93 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L0095-98 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L1011 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L1033 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L1050-51 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L1054-57 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L1075-76 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L1080 | ➨ | EBI4 | 052F0063 | |
| 52L | 052L1085 | ➨ | EBI4 | 052F0063 | |

## Conversion Danfoss transformers 052L series ➨ EBI4 Service

| 52L | | ➨ | Relevant Danfoss types | | |
|---|---|---|---|---|---|
| Type | Code no. | ➨ | Type | Code no. | Comments/accessories |
| 52L | 052L0018 | ➨ | EBI4 1P S | 052F4046 | + Primary cable 052F5052 and accessory set 052F0061 |
| 52L | 052L0026 | ➨ | EBI4 1P S | 052F4046 | |
| 52L | 052L0030 | ➨ | EBI4 1P S | 052F4046 | |
| 52L | 052L0040 | ➨ | EBI4 1P S | 052F4046 | |
| 52L | 052L0049 | ➨ | EBI4 1P S | 052F4046 | |
| 52L | 052L0065 | ➨ | EBI4 1P S | 052F4046 | |
| 52L | 052L0088 | ➨ | EBI4 1P S | 052F4046 | |
| 52L | 052L1058 | ➨ | EBI4 1P S | 052F4046 | |
| 52L | 052L0006 | ➨ | EBI M (120 V) | 052F4062 | |
| 52L | 052L0013 | ➨ | EBI M (120 V) | 052F4062 | |
| 52L | 052L0016 | ➨ | EBI M (120 V) | 052F4062 | |
| 52L | 052L0021 | ➨ | EBI M (120 V) | 052F4062 | |
| 52L | 052L0044 | ➨ | EBI M (120 V) | 052F4062 | |
| 52L | 052L0062 | ➨ | EBI M (120 V) | 052F4062 | |
| 52L | 052L0099-1002 | ➨ | No repl. | | |
| 52L | 052L1007-08 | ➨ | No repl. | | |
| 52L | 052L1010 | ➨ | No repl. | | |
| 52L | 052L1012 | ➨ | No repl. | | |
| 52L | 052L1019 | ➨ | No repl. | | |
| 52L | 052L1021-22 | ➨ | No repl. | | |
| 52L | 052L0010 | ➨ | No repl. | | |
| 52L | 052L0027 | ➨ | No repl. | | |

## Conversion ignition units other makes ➨ EBI4 service

| Satronic/Honeywell | | Relevant Danfoss types | | |
|---|---|---|---|---|
| Type | ➨ | Type | Code no. | Comments/accessories |
| ZT 930, 2-pole | ➨ | EBI4 | 052F4031 | |
| ZT 801, 2-pole | ➨ | EBI4 | 052F4031 | |
| ZT 900, 2-pole | ➨ | EBI4 | 052F4031 | |
| ZT 931, 1-pole | ➨ | EBI4 1P | 052F4044 | |
| ZT 812, 1-pole | ➨ | EBI4 1P | 052F4044 | |
| ZT 812B, 1-pole | ➨ | EBI4 1P | 052F4044 | |

| COFI | | Relevant Danfoss types | | |
|---|---|---|---|---|
| Type | ➨ | Type | Code no. | Comments/accessories |
| TRK 1, 2-pole | ➨ | EBI4 CM | 052F4035 | |
| TRK 2, 2-pole | ➨ | EBI4 | 052F4031 | |
| TRK 2P, 1-pole | ➨ | EBI4 1P | 052F4044 | |
| TRK 1P, 1-pole | ➨ | EBI4 C1PS* | 052F4048 | + primary cable 052F5052 (* Do have secondary front connection) |
| TRAF 1, 2-pole | ➨ | EBI4 CM S | 052F4047 | |
| TRAF 2, 2-pole | ➨ | EBI4 M S | 052F0063 | |
| TRAF 1P, 1-pole | ➨ | EBI4 C1P S* | 052F4048 | + primary cable 052F5052 (* Do have secondary front connection) |

| Siemens | | Relevant Danfoss types | | |
|---|---|---|---|---|
| Type | ➨ | Type | Code no. | Comments/accessories |
| TQO 31 A 27 | ➨ | EBI4 M S | 052F4045 | |

| BERU | | Relevant Danfoss types | | |
|---|---|---|---|---|
| Type | ➨ | Type | Code no. | Comments/accessories |
| 0 096 600 017 | ➨ | EBI4 CM S | 052F4047 | |
| P 001 820 000 | ➨ | EBI4 | 052F4031 | |
| 0 096 600 009 | ➨ | EBI4 CM S | 052F4047 | |

## Conversion ignition units other makes ➨ EBI4 service

| F.I.D.A. | | Relevant Danfoss types | | |
|---|---|---|---|---|
| Type | ➨ | Type | Code no. | Comments/accessories |
| 26/30 IS | ➨ | EBI4 CM S | 052F4047 | |
| 26/30 CM | ➨ | EBI4 CM S | 052F4047 | |
| 26/30 PM | ➨ | EBI4 C1P S | 052F4048 | + primary cable 052F5052 |
| 26/35 IS | ➨ | EBI4 CM S | 052F4047 | |
| 26/40 PM | ➨ | EBI4 C1P S | 052F4048 | |

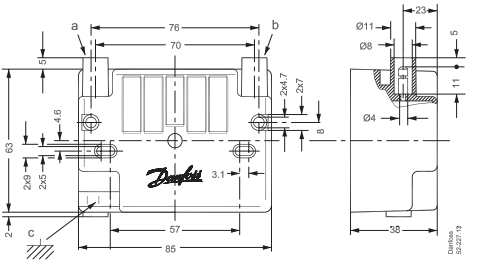
## Conversion ignition units other makes ➨ EBI4 service

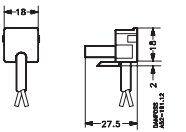
| Brahma | | Relevant Danfoss types | | |
|---|---|---|---|---|
| Type | ➨ | Type | Code no. | Comments/accessories |
| TCD1BA | ➨ | EBI4 1P | 052F4044 | + primary cable 052F5052 |
| TCD2BA | ➨ | EBI4 | 052F4031 | |
| TCD1BS | ➨ | EBI4 C1PS* | 052F4048 | + primary cable 052F5052 (* Do have secondary front connection) |
| TCD2BS | ➨ | EBI4 CM | 052F4035 | |
| TCD1FA | ➨ | EBI4 1P | 052F4044 | |
| TCD2FA | ➨ | EBI4 | 052F4031 | |
| TCD1FS | ➨ | EBI4 C1PS* | 052F4048 | + primary cable 052F5052 (* Do have secondary front connection) |
| TCD2FS | ➨ | EBI4 CM | 052F4035 | |
| TC1LTCA(F) | ➨ | EBI4 C1PS | 052F4048 | + primary cable 052F5052 |
| TC1LTPA(F) | ➨ | EBI4 C1PS | 052F4048 | + primary cable 052F5052 |
| TC2LTCA(F) | ➨ | EBI4 CM S | 052F4047 | + primary cable 052F5052 |
| TC2LTPA(F) | ➨ | EBI4 CM S | 052F4047 | + primary cable 052F5052 |
| TD1LTCA(F) | ➨ | EBI4 C1PS | 052F4048 | + primary cable 052F5052 (TD slightly smaller dimension) |
| TD1LTPA(F) | ➨ | EBI4 C1PS | 052F4048 | + primary cable 052F5052 (TD slightly smaller dimension) |
| TD2LTCA(F) | ➨ | EBI4 CM S | 052F4047 | + primary cable 052F5052 (TD slightly smaller dimension) |
| TD2LTPA(F) | ➨ | EBI4 CM S | 052F4047 | + primary cable 052F5052 (TD slightly smaller dimension) |
| TC1LTCS(F) | ➨ | EBI4 C1PS | 052F4048 | + primary cable 052F5052 |
| TC1LTPS(F) | ➨ | EBI4 C1PS | 052F4048 | + primary cable 052F5052 |
| TC2LTCS(F) | ➨ | EBI4 CM S | 052F4047 | + primary cable 052F5052 |
| TC2LTPS(F) | ➨ | EBI4 CM S | 052F4047 | + primary cable 052F5052 |
| TD1LTCS(F) | ➨ | EBI4 C1PS | 052F4048 | + primary cable 052F5052 (TD slightly smaller dimension) |
| TD1LTPS(F) | ➨ | EBI4 C1PS | 052F4048 | + primary cable 052F5052 (TD slightly smaller dimension) |
| TD2LTCS(F) | ➨ | EBI4 CM S | 052F4047 | + primary cable 052F5052 (TD slightly smaller dimension) |
| TD2LTPS(F) | ➨ | EBI4 CM S | 052F4047 | + primary cable 052F5052 (TD slightly smaller dimension) |

## Dimensions

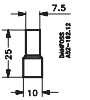
| EBI4 | EBI4 M, EBI4 CM, EBI4 HPM | EBI4 1P, EBI4 C1P, EBI4 HP1P | a: Lefthand secondary connection<br>b: Righthand secondary connection<br>c: Earth terminal |
|---|---|---|---|
| a + b+ c | a + b + c | b + c | |

Secondary front connection




Primary plug

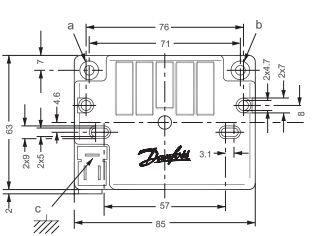


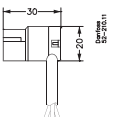

Bush, secondary

## Dimensions

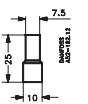
| EBI4 | EBI4 CM, EBI4 HPM | EBI4 1P | a: Lefthand secondary connection<br>b: Righthand secondary connection<br>c: Earth terminal |
|---|---|---|---|
| a + b + c | a + b + c | b + c | |

Secondary top connection





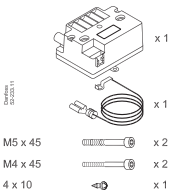

Primary plug



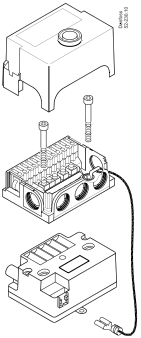

Bush, secondary

**EBI4 Service Kits**
The EBI4 Service Kits are used when replacing ignition units of the EBI Series.

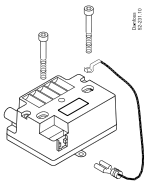
| Code no. | Service kits |
|---|---|
| 052F4045 | EBI4 M S |
| 052F4046 | EBI4 1P S |
| 052F4047 | EBI4 CM S |
| 052F4048 | EBI4 C1P S |



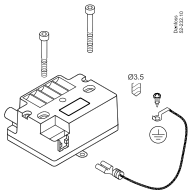

Example 1



Example 2

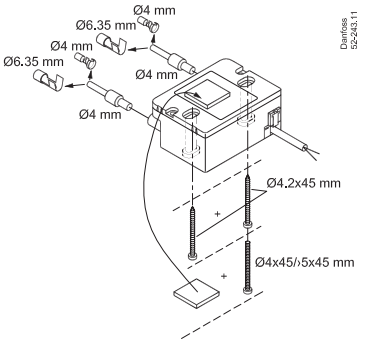


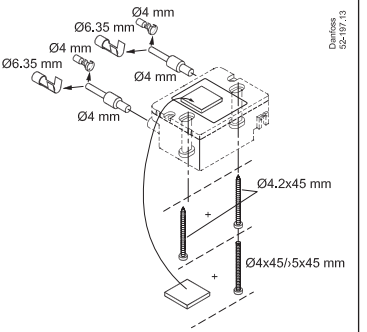
Example 3



## Service

The EBI4 sets 052F0061 and 052F0063 are used, for example, when replacing a Danfoss type 52L ignition transformer or another make.




| Content Service set 052F0063 | |
|---|---|
| 1 × | Service set 052F0061 |
| 1 × | Primary cable |
| 1 × | EBI4 |

| Content Accessory set 052F0061 | |
|---|---|
| 2 × | Ignition cables with ∅4 mm electrode plugs |
| 2 × | ∅4 mm electrode plugs |
| 2 × | ∅6.35 mm electrode plugs |
| 1 × | M4 screws |
| 1 × | M5 screws |
| 2 × | 4.2 mm self-tapping screws |
| 1 × | double-sided adhesive pad |

## 5. Oil preheaters

### Contents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Dimensions FPHE 10 ..... Page 118
Dimensions FPHE LE ..... Page 119

## Oil preheaters

If the preheater needs replacing, consult the burner manufacturer. If a standard preheater is involved, it can also be purchased from an oil burner stockist.

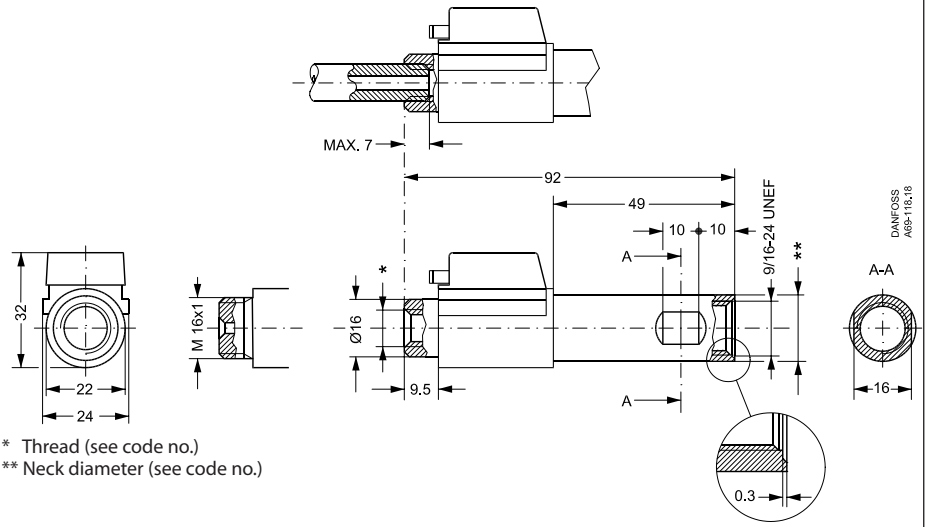
### Conversion FPHB/FPHE ➡ FPHE Service

| FPHB/FPHE preheaters | | ➡ | Relevant Danfoss types | | | | | |
|---|---|---|---|---|---|---|---|---|
| Type | Code no. | ➡ | Type | Code no. | Connection | PTC (°C) | Thermostat | Neck diameter |
| FPHB 3 | 030N2302 / 030N6302 | ➡ | FPHE 5 | 030N6004 | G 1/8 | 1x70 | 60/32 | 18,5 |
| FPHB 5 | 030N1201 / 030N6201 | ➡ | | No repl. | | | | |
| FPHB 5 | 030N1202 / 030N6202 | ➡ | FPHE 5 | 030N6004 | G 1/8 | 1x70 | 60/32 | 18,5 |
| FPHB 5 | 030N1218 / 030N6218 | ➡ | FPHE 5 | 030N6011 | G 1/8 | 1x70 | 60/32 | 18,2 |
| FPHB 5 | 030N1223 / 030N6223 | ➡ | FPHE 5 | 030N6013 | M16x1 | 1x120 | 60/32 | 18,5 |
| FPHB 5 | 030N2057 / 030N6057 | ➡ | FPHE 5 | 030N6004 | G 1/8 | 1x70 | 60/32 | 18,5 |
| FPHB 10 | 030N1220 / 030N6220 | ➡ | FPHE 10 | 030N6012 | G 1/8 | 2x120 | 60/32 | 18,5 |
| FPHB LE | 030N4101 / 030N6101 | ➡ | FPHE LE | 030N6123 | G 1/8 | 1x70 | 60/32 | 18,5 |
| FPHE 5 | 030N5089 | ➡ | FPHE 5 | 030N6004 | G 1/8 | 1x70 | 60/32 | 18,5 |
| FPHE 5 | 030N5004 | ➡ | FPHE 5 | 030N6004 | G 1/8 | 1x70 | 60/32 | 18,5 |
| FPHE 5 | 030N5011 | ➡ | FPHE 5 | 030N6011 | G 1/8 | 1x70 | 60/32 | 18,2 |
| FPHE 5 | 030N5013 | ➡ | FPHE 5 | 030N6013 | M16x1 | 1x120 | 60/32 | 18,5 |
| FPHE 5 | 030N5067 | ➡ | FPHE 5 | 030N6004 | G 1/8 | 1x70 | 60/32 | 18,5 |
| FPHE LE | 030N5123 | ➡ | FPHE LE | 030N6123 | G 1/8 | 1x70 | 60/32 | 18,5 |
| FPHE 10 | 030N5012 | ➡ | FPHE 10 | 030N6012 | G 1/8 | 2x120 | 60/32 | 18,5 |

| Spare parts | | ➡ | Relevant Danfoss type | | |
|---|---|---|---|---|---|
| Type | Code no. | ➡ | Type | Code no. | Description/Application |
| LE-Valve | 030N4013 | ➡ | LE-Valve | 030N4026 | Build-in LE valve for FPHB-LE, FPHE-LE and nozzle holder. |

## Dimensions

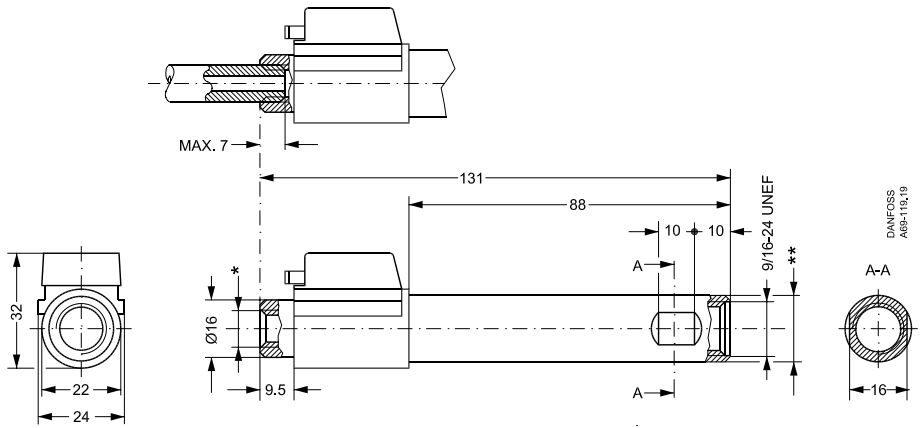
FPHE 3 and 5




* Thread (see code no.)
** Neck diameter (see code no.)

## Dimensions

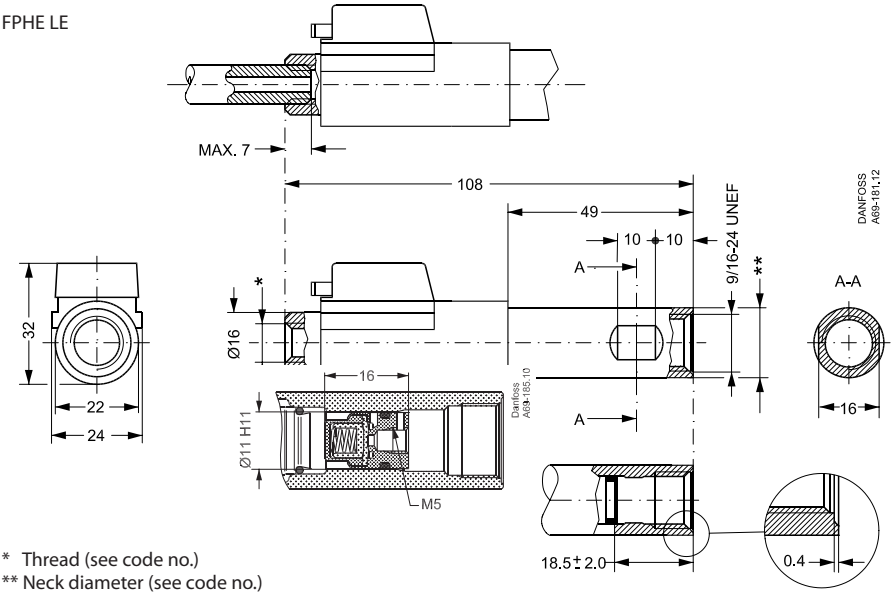
FPHE 10




* Thread (see code no.)
** Neck diameter (see code no.)

## Dimensions

FPHE LE




* Thread (see code no.)
** Neck diameter (see code no.)

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# The man in the van

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