



Service Manual

Dear Danfoss partner,

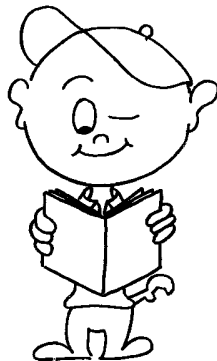
In the field of components for burners and boilers, Danfoss offers a complete range for most oil burners on the market, right from the smallest domestic burners to the largest industrial burners. The construction of burners available today varies widely; therefore a high degree of adaptability is demanded from the individual components.

An example: The series of BFP service pumps from Danfoss give the greatest possible flexibility where the range of functions and connections is concerned. These pumps are therefore ideal as replacement units for both older Danfoss pumps and pumps from other makers. If you would like precise details of how pump replacement can be simplified - please read on.

Danfoss will of course be pleased to help with the conversions outlined in this service manual and make the work of finding an alternative easier. In other words, we will make it as easy as possible for you to find the most suitable components and service from the comprehensive Danfoss range.

The service manual is intended as an aid in the daily routine. We therefore hope that the manual will make your work with Danfoss burner components easier so that we will be able to look forward to your continued custom.

Your Danfoss Team



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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:

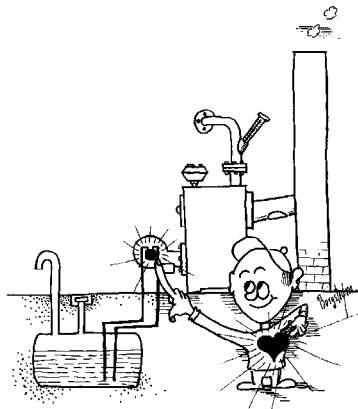
When changing over from pumps with hydraulic shut-off valve (RSL and MSLC) to BFP with electric shut-off valve (BFP 11, 21 and 41) a cable must be ordered for connection to the motor terminals in the oil burner control.

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., 110-120 V a.c. and 24 V a.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 ill. on page 42-55).

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.



Oil pumps – Danfoss RS

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	070-5370	
RS 28	070L5300	1	➡	RSA 28	070L5370	
RS 28	070-5302	2	➡	RSA 28	070-5372	
RS 28	070L5302	2	➡	RSA 28	070L5372	
RS 28	070-5310	1	➡	RSA 28	070-5380	
RS 28	070L5310	1	➡	RSA 28	070L5380	
RS 28	070-5312	2	➡	RSA 28	070-5382	
RS 28	070L5312	2	➡	RSA 28	070L5382	
RS 28	070-5322	2	➡	RSA 28	070-5332	
RS 28	070L5322	2	➡	RSA 28	070L5332	
RS 40	070-3200	1	➡	RSA 40	070-3230	
RS 40	070L3200	1	➡	RSA 40	070L3230	
RS 40	070-3202	2	➡	RSA 40	070-3232	
RS 40	070L3202	2	➡	RSA 40	070L3232	
RS 40	070-3210	1	➡	RSA 40	070-3240	
RS 40	070L3210	1	➡	RSA 40	070L3240	
RS 40	070-3212	2	➡	RSA 40	070-3242	
RS 40	070L3212	2	➡	RSA 40	070L3242	
RS 40	070-3222	2	➡	RSA 40	070-3249	
RS 40	070L3222	2	➡	RSA 40	070L3249	
RS 60	070-3300	1	➡	RSA 60	070-3350	
RS 60	070L3300	1	➡	RSA 60	070L3350	
RS 60	070-3302	2	➡	RSA 60	070-3352	
RS 60	070L3302	2	➡	RSA 60	070L3352	

Oil pumps – Danfoss RS

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	070L3360	
RS 60	070-3312	2	➡	RSA 60	070-3362	
RS 60	070L3312	2	➡	RSA 60	070L3362	

Oil pumps – Danfoss RSL

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	071N0157 ¹⁾	+ cable, L = 710 mm: 071G0204
RSL 028	070L4330	1	➡	BFP 21 L3	071N0156 ¹⁾	
RSL 028	070-4332	2	➡	BFP 21 R3	071N0171 ^{1) 5)}	
RSL 028	070L4332	2	➡	BFP 21 L3	071N0170 ^{1) 5)}	
RSL 028	070-4340	1	➡	BFP 21 R3	071N0157 ¹⁾	+ cable, L = 710 mm: 071G0204 + bush Ø54: 071B0011
RSL 028	070L4340	1	➡	BFP 21 L3	071N0156 ¹⁾	
RSL 028	070-4342	2	➡	BFP 21 R3	071N0171 ^{1) 5)}	
RSL 028	070L4342	2	➡	BFP 21 L3	071N0170 ^{1) 5)}	
RSL 050	070-3130	1	➡	BFP 21 R5	071N0173 ¹⁾	+ cable, L = 710 mm: 071G0204
RSL 050	070L3130	1	➡	BFP 21 L5	071N0172 ¹⁾	
RSL 050	070-3132	2	➡	BFP 21 R5	071N0173 ¹⁾	
RSL 050	070L3132	2	➡	BFP 21 L5	071N0172 ¹⁾	
RSL 050	070-3140	1	➡	BFP 21 R5	071N0173 ¹⁾	+ cable, L = 710 mm: 071G0204 + bush Ø54: 071B0011
RSL 050	070L3140	1	➡	RFP 21 L5	071N0172 ¹⁾	
RSL 050	070-3142	2	➡	BFP 21 R5	071N0173 ¹⁾	
RSL 050	070L3142	2	➡	BFP 21 L5	071N0172 ¹⁾	

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

5) If a 1-pipe pump is needed, 071N0156 can be delivered instead of 071N0170 and 071N0157 instead of 071N0171.

Oil pumps – Danfoss RSLB

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	071N0169	
RSLB 028	070L4030	1	➡	BFP 20 L3	071N0168	
RSLB 028	070-4032	2	➡	BFP 20 R3	071N0169	
RSLB 028	070L4032	2	➡	BFP 20 L3	071N0168	
RSLB 028	070-4040	1	➡	BFP 20 R3	071N0169	+ bush Ø54: 071B0011
RSLB 028	070L4040	1	➡	BFP 20 L3	071N0168	
RSLB 028	070-4042	2	➡	BFP 20 R3	071N0169	
RSLB 028	070L4042	2	➡	BFP 20 L3	071N0168	
RSLB 050	070-4130	1	➡	BFP 20 R5	071N0129	
RSLB 050	070L4130	1	➡	BFP 20 L5	071N0126	
RSLB 050	070-4132	2	➡	BFP 20 R5	071N0129	
RSLB 050	070L4132	2	➡	BFP 20 L5	071N0126	
RSLB 050	070-4140	1	➡	BFP 20 R5	071N0129	+ bush Ø54: 071B0011
RSLB 050	070L4140	1	➡	BFP 20 L5	071N0126	
RSLB 050	070-4142	2	➡	BFP 20 R5	071N0129	
RSLB 050	070L4142	2	➡	BFP 20 L5	071N0126	

Oil pumps – Danfoss MSLA

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	071N0157	+ cable, L = 710 mm: 071G0204
MSLA 032	071B0102	2	➔	BFP 21 R3	071N0171 ⁵⁾	
MSLA 032	071B0103	1	➔	BFP 21 R3	071N0157	
MSLA 032	071B0104	2	➔	BFP 21 R3	071N0171 ⁵⁾	
MSLA 032	071B0105	1	➔	BFP 21 R3	071N0157	
MSLA 032	071B0108	2	➔	BFP 21 R3	071N0171	
MSLA 032	071B0112	2	➔	BFP 21 R3	071N0171 ⁵⁾	
MSLA 032	071B0113	1	➔	BFP 21 R3	071N0157	
MSLA 032	071B0132	2	➔	BFP 21 R3	071N0171 ⁵⁾	
MSLA 032	071B1101	1	➔	BFP 21 L3	071N0156	
MSLA 032	071B1102	2	➔	BFP 21 L3	071N0170 ⁵⁾	
MSLA 032	071B1103	1	➔	BFP 21 L3	071N0156	
MSLA 032	071B1104	2	➔	BFP 21 L3	071N0170 ⁵⁾	
MSLA 032	071B1105	1	➔	BFP 21 L3	071N0156	
MSLA 032	071B1111	1	➔	BFP 21 L3	071N0156	
MSLA 032	071B1112	2	➔	BFP 21 L3	071N0170 ⁵⁾	
MSLA 032	071B1114	2	➔	BFP 21 L3	071N0170 ⁵⁾	
MSLA 032	071B1118	2	➔	BFP 21 L3	071N0170 ⁵⁾	
MSLA 032	071B1120	2	➔	BFP 21 L3	071N0170 ⁵⁾	
MSLA 032	071B1126	2	➔	BFP 21 L3	071N0170 ⁵⁾	
MSLA 032	071B1128	2	➔	BFP 21 L3	071N0170 ⁵⁾	
MSLA 032	071B1132	2	➔	BFP 21 L3	071N0170 ⁵⁾	
MSLA 032	071B1134	2	➔	BFP 21 L3	071N0170 ⁵⁾	
MSLA 032	071B1136	2	➔	BFP 21 L3	071N0170 ⁵⁾	
MSLA 032	071B1138	2	➔	BFP 21 L3	071N0170 ⁵⁾	

5) If a 1-pipe pump is needed, 071N0156 can be delivered instead of 071N0170 and 071N0157 instead of 071N0171.

Oil pumps – Danfoss MSLA/MSLB

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	071N0173	+ cable, L = 710 mm, 071G0204
MSLA 050	071B0202	2	➔	BFP 21 R5	071N0173	
MSLA 050	071B0203	1	➔	BFP 21 R5	071N0173	
MSLA 050	071B0204	2	➔	BFP 21 R5	071N0173	
MSLA 050	071B0205	1	➔	BFP 21 R5	071N0173	
MSLA 050	071B0208	2	➔	BFP 21 R5	071N0173	
MSLA 050	071B1201	1	➔	BFP 21 L5	071N0172	
MSLA 050	071B1202	2	➔	BFP 21 L5	071N0172	
MSLA 050	071B1203	1	➔	BFP 21 L5	071N0172	
MSLA 050	071B1204	2	➔	BFP 21 L5	071N0172	
MSLB 032	071B2101	1	➔	BFP 20 R3	071N0169	
MSLB 032	071B3101	1	➔	BFP 20 L3	071N0168	
MSLB 032	071B2102	2	➔	BFP 20 R3	071N0169	
MSLB 032	071B2104	2	➔	BFP 20 R3	071N0169	
MSLB 032	071B3102	2	➔	BFP 20 L3	071N0168	
MSLB 050	071B2201	1	➔	BFP 20 R5	071N0129	
MSLB 050	071B3201	1	➔	BFP 20 L5	071N0126	
MSLB 050	071B2202	2	➔	BFP 20 R5	071N0129	
MSLB 050	071B2203	1	➔	BFP 20 R5	071N0129	
MSLB 050	071B3202	2	➔	BFP 20 L5	071N0126	

Oil pumps – MSLC/MSLD

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	071N0157 ¹⁾	+ cable, L = 710 mm: 071G0204
MSLC 032	071B5101	1	➡	BFP 21 L3	071N0156 ¹⁾	
MSLC 032	071B4102	2	➡	BFP 21 R3	071N0171 ^{1) 5)}	+ cable, L = 710 mm: 071G0204
MSLC 032	071B5102	2	➡	BFP 21 L3	071N0170 ^{1) 5)}	
MSLC 032	071B4103	1	➡	BFP 21 R3	071N0171 ¹⁾	
MSLC 032	071B4105	1	➡	BFP 21 R3	071N0157 ¹⁾	
MSLC 050	071B4201	1	➡	BFP 21 R5	071N0173 ¹⁾	
MSLC 050	071B5201	1	➡	BFP 21 L5	071N0172 ¹⁾	
MSLC 050	071B4202	2	➡	BFP 21 R5	071N0173 ¹⁾	
MSLC 050	071B5202	2	➡	BFP 21 L5	071N0172 ¹⁾	
MSLD 032	071B6101	1	➡	BFP 20 R3	071N0169	
MSLD 032	071B6102	2	➡	BFP 20 R3	071N0169	
MSLD 032	071B7101	1	➡	BFP 20 L3	071N0168	
MSLD 032	071B7102	2	➡	BFP 20 L3	071N0168	
MSLD 032	071B6201	1	➡	BFP 20 R5	071N0129	
MSLD 050	071B6202	2	➡	BFP 20 R5	071N0129	
MSLD 050	071B7201	1	➡	BFP 20 L5	071N0126	
MSLD 050	071B7202	2	➡	BFP 20 L5	071N0126	

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

5) If a 1-pipe pump is needed, 071N0156 can be delivered instead of 071N0170 and 071N0157 instead of 071N0171.

Oil pumps – Danfoss MS

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	071R0168	
MS 10 R3	071G0123	1 + 2	➔	BFP 20 R3	071R0169	
MS 10 L3	071G0153	1 + 2	➔		No repl.	Bentone Viscomin
MS 10 R3	071G0175	1 + 2	➔	BFP 20 R3	071N0169	
MS 10 R5	071G0176	1 + 2	➔	BFP 20 R5	071N0129	
MS 10 L5	071G0128	1 + 2	➔	BFP 20 L5	071N0126	
MS 10 R5	071G0124	1 + 2	➔	BFP 20 R5	071N0129	
MS 11 L3	071G0117	1 + 2	➔	BFP 21 L3	071N0170 ⁵⁾	
MS 11 R3	071G0118	1 + 2	➔	BFP 21 R3	071N0171 ⁵⁾	
MS 11 L3	071G0121	1 + 2	➔	BFP 21 L3	071N0170 ⁵⁾	
MS 11 L3	071G0134	1 + 2	➔	BFP 21 L3	071N0170 ⁵⁾	
MS 11 L3	071G0137	1 + 2	➔	BFP 21 L3	071N0170 ⁵⁾	
MS 11 L3	071G0139	1 + 2	➔	BFP 21 L3	071N0170 ⁵⁾	
MS 11 L3	071G0154	1 + 2	➔	BFP 21 L3	071N0170 ⁵⁾	+ coupling with single flat in hole (D-shaped)
MS 11 L3	071G0156	1 + 2	➔	BFP 21 L3	071N0170 ⁵⁾	+ coil 24 V a.c.: 071N0062
MS 11 L3	071G0158	1 + 2	➔	BFP 21 L3	071N0170 ⁵⁾	
MS 11 R3	071G0160	1 + 2	➔	BFP 21 R3	071N0171 ⁵⁾	+ coil 24 V a.c.: 071N0062
MS 11 L3	071G0162	1 + 2	➔	BFP 11 L3	071N0156	
MS 11 L3	071G0163	1 + 2	➔	BFP 11 L3	071N0156	+ coil 24 V a.c.: 071N0062
MS 11 L3	071G0165	1	➔	BFP 21 L3	071N0156	
MS 11 R3	071G0173	1 + 2	➔	BFP 21 R3	071N0171 ⁵⁾	
MS 11 R5	071G0174	1 + 2	➔	BFP 21 R5	071N0173	
MS 11 R3	071G0177	1 + 2	➔	BFP 21 R3	071N0171 ⁵⁾	
MS 11 L3	071G0178	1 + 2	➔	BFP 21 L3	071N0170	

5) If a 1-pipe pump is needed, 071N0156 can be delivered instead of 071N0170 and 071N0157 instead of 071N0171.

Oil pumps – Danfoss MS

Danfoss oil pumps - older series			➡	Relevant Danfoss types		
Type	Code no.	1-2 pipe	➡	Type	Code no.	Comments/accessories
MS 11 L3	071G0179	1 + 2	➡	BFP 21 L3	071N0170 ⁵⁾	Any hydraulic cylinder must be connected to the pressure gauge port on the front.
MS 11 L5	071G0127	1 + 2	➡	BFP 21 L5	071N0172	
MS 11 R5	071G0126	1 + 2	➡	BFP 21 R5	071N0173	
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	071N2201	
MS 12E R3	071G0129	1 + 2	➡	BFP 52E R3	071N2203	
MS 12E L5	071G0120	1 + 2	➡	BFP 52E L5	071N2202	
MS 12E R5	071G0119	1 + 2	➡	BFP 52E R5	071N2204	
MS 12E L3	071G0140	1 + 2	➡	BFP 52E L3	071N2201	
MS 12E L5	071G0181	1 + 2	➡	BFP 52E L5	071N2202	
MS 21 L3	071G0157	1 + 2	➡	BFP 21 L3	071N0170 ⁵⁾	
MS 21 R3	071G0167	1 + 2	➡	BFP 21 R3	071N0171 ⁵⁾	

5) If a 1-pipe pump is needed, 071N0156 can be delivered instead of 071N0170 and 071N0157 instead of 071N0171.

Oil pumps – Danfoss BFP

BFP			➔	BFP-Service pumps		
Type	Code no.	1-2 pipe	➔	Type	Code no.	Comments/accessories
BFP 11 L3	071N0101	2	➔	BFP 11 L3	071N0141 ^{3) 7)}	
BFP 21 L3	071N0102	2	➔	BFP 21 L3	071N0170 ³⁾	
BFP 11 L3	071N0103	2	➔	BFP 21 L3	071N0170 ³⁾	
BFP 21 L3	071N0104	2	➔	BFP 21 L3	071N0170 ³⁾	
BFP 11 L5	071N0105	2	➔	BFP 21 L5	071N0172	
BFP 21 L3	071N0107	2	➔	BFP 21 L3	071N0170 ³⁾	
BFP 20 L3	071N0108	1	➔	BFP 20 L3	071N0168	
BFP 21 R3	071N0109	2	➔	BFP 21 R3	071N0171 ³⁾	Any hydraulic cylinder must be connected to the pressure gauge port on the front.
BFP 21 L3	071N0111	2	➔	BFP 21 L3	071N0170 ³⁾	
BFP 21 R3	071N0112	2	➔	BFP 21 R3	071N0171 ³⁾	
BFP 21 L3	071N0113	2	➔	BFP 21 L3	071N0170 ³⁾	
BFP 11 L3	071N0114	2	➔	BFP 21 L3	071N0170 ³⁾	+ coupling with single flat (D-shaped)
BFP 31 L3	071N0115	2	➔	BFP 21 L3	071N0170 ³⁾	
BFP 21 L5	071N0116	2	➔	BFP 21 L5	071N0172	Any hydraulic cylinder must be connected to the pressure gauge port on the front.
BFP 20 R3	071N0118	1	➔	BFP 20 R3	071N0169	
BFP 21 L3	071N0119	2	➔	BFP 21 L3	071N0170 ³⁾	
BFP 21 R5	071N0120	1	➔	BFP 21 R5	071N0173	
BFP 21 L3	071N0122	1	➔	BFP 21 L3	071N0156	
BFP 21 L3	071N0123	2	➔	BFP 21 L3	071N0170 ³⁾	+ coil 110 V: 071N0061
BFP 20 L3	071N0125	2	➔	BFP 20 L3	071N0168	
BFP 20 L5	071N0126	2	➔	BFP 20 L5	071N0126	
BFP 20 L3	071N0127	1	➔	BFP 20 L3	071N0168	
BFP 20 R3	071N0128	1	➔	BFP 20 L3	071N0169	

3) A screw for 2-pipe operation is fitted under the cover of these pumps. Without horseshoe washer:

Pump set for 2-pipe operation. With horseshoe washer: Pump set for 1-pipe operation (see page 52)

5) If a 1-pipe pump is needed, 071N0156 can be delivered instead of 071N0170 and 071N0157 instead of 071N0171. 7) Supplied as a 1-pipe only.

Oil pumps – Danfoss BFP

BFP			➡	BFP-Service pumps		
Type	Code no.	1-2 pipe	➡	Type	Code no.	Comments/accessories
BFP 20 R5	071N0129	2	➡	BFP 20 R5	071N0129	
BFP 21 L3	071N0130	2	➡	BFP 21 L3	071N0170 ³⁾	
BFP 21 L3	071N0132	1	➡	BFP 21 L3	071N0156	
BFP 31 L3	071N0133	2	➡	BFP 21 L3	071N0170 ³⁾	+ coupling with single flat (D-shaped)
BFP 41 L3	071N0135	2	➡	BFP 41 L3	071N0174	
BFP 21 R3	071N0136	1	➡	BFP 21 R3	071N0157	
BFP 41 R3	071N0137	2	➡	BFP 21 R3	071N0157	
BFP 11 L3	071N0141	1	➡	BFP 11 L3	071N0141 ³⁾	
BFP 11 L3	071N0142	1	➡	BFP 11 L3	071N0141 ³⁾	
BFP 11 R3	071N0143	1	➡	BFP 11 R3	071N0155 ³⁾	
BFP 11 L3	071N0144	2	➡	BFP 11 L3	071N0141 ³⁾	
BFP 11 R3	071N0145	2	➡	BFP 21 R3	071N0155 ³⁾	
BFP 11 L3	071N0146	2	➡	BFP 11 L3	071N0141 ³⁾	Old coil might be usable
BFP 21 L3	071N0147	2	➡	BFP 21 L3	071N0170 ³⁾	
BFP 21 L3	071N0148	2	➡	BFP 21 L3	071N0170 ³⁾	
BFP 31 L3	071N0149	2	➡	BFP 21 L3	071N0170 ³⁾	
BFP 21 L3	071N0150	2	➡	BFP 21 L3	071N0170 ³⁾	
BFP 21 L3	071N0151	2	➡	BFP 21 L3	071N0170 ³⁾	
BFP 11 L3	071N0152	2	➡	BFP 21 L3	071N0170 ³⁾	
BFP 11 L3	071N0153	2	➡	BFP 21 L3	071N0170 ³⁾	+ coil 24 V a.c.: 071N0062
BFP 21 R3	071N0154	1	➡	BFP 21 R3	071N0157	
BFP 11 R3	071N0155	1	➡	BFP 21 R3	071N0155 ³⁾	
BFP 21 L3	071N0156	1	➡	BFP 21 L3	071N0156	
BFP 21 R3	071N0157	1	➡	BFP 21 R3	071N0157	
BFP 21 L5	071N0158	1	➡	BFP 21 L5	071N0172	

3) A screw for 2-pipe operation is fitted under the cover of these pumps. Without horseshoe washer:

Pump set for 2-pipe operation. With horseshoe washer: Pump set for 1-pipe operation (see page 52).

5) If a 1-pipe pump is needed, 071N0156 can be delivered instead of 071N0170 and 071N0157 instead of 071N0171.

Oil pumps – Danfoss BFP

BFP			➔	BFP-Service pumps		
Type	Code no.	1-2 pipe	➔	Type	Code no.	Comments/accessories
BFP 21 R5	071N0159	1	➔	BFP 21 R5	071N0173	
BFP 41 L3	071N0160	1	➔	BFP 41 L3	071N0160	
BFP 20 L3	071N0161	1	➔	BFP 20 L3	071N0168	
BFP 20 R3	071N0162	1	➔	BFP 20 R3	071N0169	
BFP 11 R5	071N0163	2	➔	BFP 21 R5	071N0173	
BFP 21 L3	071N0164	2	➔	BFP 21 L3	071N0170 ³⁾	
BFP 11 R5	071N0165	2	➔	BFP 21 R5	071N0173	
BFP 10 R5	071N0166	2	➔	BFP 20 R5	071N0129	
BFP 21 R3	071N0167	2	➔	BFP 21 R3	071N0171 ³⁾	
BFP 20 L3	071N0168	2	➔	BFP 20 L3	071N0168	
BFP 20 R3	071N0169	2	➔	BFP 20 R3	071N0169	
BFP 21 L3	071N0170	2	➔	BFP 21 L3	071N0170 ³⁾	
BFP 21 R3	071N0171	2	➔	BFP 21 R3	071N0171 ³⁾	
BFP 21 L5	071N0172	2	➔	BFP 21 L5	071N0172	
BFP 21 R5	071N0173	2	➔	BFP 21 R5	071N0173	
BFP 41 L3	071N0174	2	➔	BFP 41 L3	071N0174	
BFP 21 L3	071N0175	1	➔	BFP 21 L3	071N0156	
BFP 21 L3	071N0176	1	➔	BFP 21 L3	071N0156	+ coil: 071N0061
BFP 10 R3	071N0177	2	➔	BFP 20 R3	071N0169	
BFP 11 L5	071N0178	2	➔	BFP 21 L5	071N0172	
BFP 21 L3	071N0179	2	➔	BFP 21 L3	071N0170 ³⁾	
BFP 20 R5	071N0180	2	➔	BFP 20 R5	071N0129	
BFP 11 R3	071N0181	2	➔	BFP 11 R3	071N0155 ³⁾	
BFP 21 L3	071N0182	2	➔	BFP 21 L3	071N0170 ³⁾	
BFP 11 R3	071N0183	2	➔	BFP 11 R3	071N0155 ³⁾	

3) A screw for 2-pipe operation is fitted under the cover of these pumps.

Without horseshoe washer: Pump set for 2-pipe operation. With horseshoe washer: Pump set for 1-pipe operation (see page 52).

5) If a 1-pipe pump is needed, 071N0156 can be delivered instead of 071N0170 and 071N0157 instead of 071N0171.

Oil pumps – Danfoss BFP

BFP			→	BFP-Service pumps		
Type	Code no.	1-2 pipe	→	Type	Code no.	Comments/accessories
BFP 11 L3	071N0184	2	→	BFP 11 L3	071N0141 ³⁾	
BFP 21 L3	071N0185	2	→	BFP 21 L3	071N0170 ³⁾	
BFP 41 L3	071N0188	2	→	BFP 41 L3	071N1213	
BFP 21 L3	071N0189	2	→	BFP 21 L3	071N0170 ³⁾	+ coil: 071N0062
BFP 31 L3	071N0190	2	→	BFP 11 L3	071N0170	
BFP 31 L3	071N0191	2	→	BFP 11 R3	071N0155	
BFP 31 L3	071N0192	1	→	BFP 11 L3	071N0170	
BFP 21 L3	071N0193	1	→	BFP 21 L3	071N0156	
BFP 21 L5	071N0194	1	→	BFP 21 L5	071N0172	
BFP 21 R5	071N0195	1	→	BFP 21 R5	071N0173	
BFP 41 R3	071N0196	1	→	BFP 21 R3	071N0157	
BFP 21 L3	071N0197	2	→	BFP 21 L3	071N0170 ³⁾	
BFP 21 R3	071N0198	1	→	BFP 21 R3	071N0157	
BFP 21 L5	071N0202	2	→	BFP 21 L5	071N0172	
BFP 21 L3	071N0204	2	→	BFP 21 L3	071N0170 ³⁾	
BFP 21 R5	071N0207	2	→	BFP 21 R5	071N0173	
BFP 21 R3	071N0208	2	→	BFP 21 R3	071N0171 ³⁾	
BFP 21 L3	071N0209	2	→	BFP 21 L3	071N0170	
BFP 11 L3	071N0210 ³⁾	1	→	BFP 11 L3	071N0141 ³⁾	
BFP 20 L3	071N0212	2	→	BFP 20 L3	071N0168	+ coupling with single flat (D-shaped)
BFP 11 L3	071N0213 ³⁾	1	→	BFP 11 L3	071N0141 ³⁾	
BFP 21 R3	071N0214	1	→	BFP 21 R3	071N0171 ³⁾	
BFP 21 R3	071N0215	2	→	BFP 21 R3	071N0171 ³⁾	071N0215 has G 1/8 in S+R
BFP 21 L3	071N0217	2	→	BFP 21 L3	071N0170 ³⁾	

3) A screw for 2-pipe operation is fitted under the cover of these pumps.

Without horseshoe washer: Pump set for 2-pipe operation. With horseshoe washer: Pump set for 1-pipe operation (see page 52).

5) If a 1-pipe pump is needed, 071N0156 can be delivered instead of 071N0170 and 071N0157 instead of 071N0171.

Oil pumps – Danfoss BFP

BFP			➡	Danfoss service pumps		
Type	Code no.	1-2 pipe	➡	Type	Code no.	Comments/accessories
BFP 41 L3	071N0224	2	➡	BFP 41 L3	071N1213	
BFP 41 L3	071N0225	2	➡	BFP 41 L3	071N0174	
BFP 21 L3	071N0226	2	➡	BFP 21 L3	071N0170	
BFP 21 L5	071N0227	2	➡	BFP 21 L5	071N0172	+ coupling with 2 flats
BFP 21 L3	071N0228	2	➡	BFP 21 L3	071N0170	
BFP 20 R3	071N0229	2	➡	BFP 20 R3	071N0169	
BFP 21 R3	071N0231	1	➡	BFP 21 R3	071N0157	
BFP 41 R3	071N0235	2	➡	BFP 41 R3	071N0137	
BFPC 21 L5	071N0237	2	➡	BFP 21 L5	071N0172	
BFPC 21 L3	071N0238	2	➡	BFP 21 L3	071N0170	
BFPC 21 L3	071N0240	1	➡	BFP 21 L3	071N0156	
BFPC 21 L3	071N0241	1	➡	BFP 21 L3	071N0156	+ 24 V a.c. coil 071N0062
BFPC 21 L3	071N0242	2	➡	BFP 21 L3	071N0170	
BFPC 21 L3	071N0243	2	➡	BFP 21 L3	071N0170	+ 24 V a.c. coil 071N0062
BFPC 21 R3	071N0245	2	➡	BFP 21 R3	071N0171	
BFPC 21 R5	071N0248	2	➡	BFP 21 R5	071N0173	
BFP 20 L3	071N0267	2	➡	BFP 20 L3	071N0168	
BFP 11 L6	071N0270	2	➡	BFP 21 L5	071N0172	
BFP 11 R6	071N0271	2	➡	BRP 21 R5	071N0173	
BFP 10 L6	071N0272	2	➡	BRP 20 L5	071N0126	
BFP 10 R6	071N0273	2	➡	BRP 20 R5	071N0129	
BFP 11 L6	071N0274	1	➡	BRP 21 L5	071N0172	
BFP 11 R6	071N0275	1	➡	BRP 21 R5	071N0173	
BFPC 21 R3	071N0279	1	➡	BFPC 21 R3	071N0157 ⁷⁾	+ 24 V a.c. coil 071N0062
BFPC 21 R3	071N0280	2	➡	BFPC 21 R3	071N0156 ⁷⁾	071N0280/0156 are suitable for Kerosene

3) A screw for 2-pipe operation is fitted under the cover of these pumps.

Without horseshoe washer: Pump set for 2-pipe operation. With horseshoe washer: Pump set for 1-pipe operation (see page 52).

7) This pump is delivered for 1-pipe operation. A changeover of the pump to 2-pipe operation is possible, see details on page 53.

Oil pumps – BFP

BFP			→	Danfoss service pumps		
Type	Code no.	1-2 pipe	→	Type	Code no.	Comments/accessories
BFPC 21 R5	071N0281	2	→	BFPC 21 R5	071N0173	071N0281 is suitable for Kerosene
BFPC 21 L3	071N0282	1	→	BFPC 21 L3	071N0156 ⁷⁾	Old coil might be usable
BFPC 21 R3	071N0283	1	→	BFPC 21 R3	071N0157 ⁷⁾	Old coil might be usable
BFPC 21 L3	071N0284	2	→	BFP 21 L3	071N0170	Old coil might be usable
BFPC 21 R3	071N0285	2	→	BFC 21 R3	071N0171	+ 24 V a.c. coil 071N0062
BFPC 21 R3	071N0286	2	→	BFP 21 R3	071N0157 ⁷⁾	+ 24 V a.c. coil 071N0062 071N0286 and 071N0157 are suitable for Kerosene
BFPC 21 R3	071N0287	2	→	BFP 21 R3	071N0171	+ 24 V a.c. coil 071N0062
BFP 10 R3	071N0288	1	→	BFP 20 R3	071N0169	This pump is not suitable for Kerosene
BFPC 21 L3	071N0289	1	→	BFP 21 L3	071N0156 ⁷⁾	Old coil might be usable
BFP 21 L5	071N0292	2	→	BFP 21 L5	071N0172	+ coupling with 2 flats
BFP 21 L3	071N0295	2	→	BFP 21 L3	071N0170	
BFP 20 R3	071N0298	1	→	BFP20 R3	071N0169	
BFP 31 L3	071N1201	2	→		No repl.	
BFP 31 L3	071N1203	2	→	BFP 21 L3	071N0170	
BFP 21 L3	071N1217	2	→	BFP 21 L3	071N0170	+ coupling with 2 flats
BFP 21 L3	071N1219	2	→	BFP 21 L3	071N0170	+ coupling with 2 flats
BFP 21 L3-LE	071N2103	2	→	BFP 21 L3 LE	071N2119	
BFP 21 L3-LE	071N2104	2	→	BFP 21 L3 LE	071N2113	
BFP 21 R3-LE	071N2107	2	→	BFP 21 R3 LE	071N2107	
BFP 21 L3-LE	071N2108	2	→	BFP 21 L3 LE	071N2119	
BFP 31 L3-LE	071N2109	2	→	BFP 21 L3 LE	071N2113	
BFP 21 L3-LE	071N2110	2	→	BFP 21 L3 LE	071N2118	
BFP 21 L3-LE	071N2112	2	→	BFP 21 L3 LE	071N2113	
BFP 21 L3-LE	071N2113	2	→	BFP 21 L3 LE	071N2113	
BFP 21 L3-LE	071N2114	2	→	BFP 21 L3 LE	071N2113	

7) This pump is delivered for 1-pipe operation. A changeover of the pump to 2-pipe operation is possible, see details on page 53.

Oil pumps – Danfoss BFP

BFP			➡	Danfoss service pumps		
Type	Code no.	1-2 pipe	➡	Type	Code no.	Comments/accessories
BFP 21 L3-LE-S	071N2116	2	➡	BFP 21 L3 LE	071N2118	
BFP 21 L2	071N2123	2	➡	BFP 21 L2	071N0156	
BFP 52E L3	071N2201	2	➡	BFP 52E L3	071N2201	
BFP 52E L5	071N2202	2	➡	BFP 52E L5	071N2202	
BFP 52E R3	071N2203	2	➡	BFP 52E R3	071N2203	
BFP 52E R5	071N2204	2	➡	BFP 52E R5	071N2204	
BFP 52E L5	071N2205	2	➡	BFP 52E L5	071N2202	
BFP 52E R5	071N2206	2	➡	BFP 52E R5	071N2204	+ coupling with single flat (D-shaped)
BFP 52K R5	071N2207	2	➡		No. repl.	
BFP 52E L3	071N2209	2	➡	BFP 52E L3	071N2201	
BFP 52E L3	071N2211	2	➡	BFP 52E L3	071N2201	+ coupling with single flat (D-shaped)
BFP 52E L5	071N2212	2	➡	BFP 52E L5	071N2202	+ coupling with single flat (D-shaped)
BFP 52E L3	071N2213	2	➡	BFP 52E L3	071N2201	
BFP 52E L5	071N2217	1	➡	BFP 52E L5	071N2202	
BFP 52E L5	071N2220	2	➡	BFP 52E L5	071N2202	+ coupling with 2 flats
BFP 52E L3	071N2264	2	➡	BFP 52E L3	071N2201	
BFP 52E L5	071N2265	2	➡	BFP 52E L5	071N2202	
BFP 21 L3-LE	071N4105	2	➡	BFP 21 L3-LE	071N2118	+ coupling with 2 flats
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.	

Oil pumps – BFP

BFP			→	Danfoss Service pumps		
Type	Code no.	1-2 pipe	→	Type	Code no.	Comments/accessories
BFP 10 L11	071N6107	2	→		No. repl.	
BFP 10 R11	071N6108	2	→		No. repl.	
BFP 11 L8	071N6109	2	→	BFP 21 L5	071N0172	
BFP 11 R8	071N6110	2	→	BFP 21 R5	071N0173	
BFP 10 L8	071N6111	2	→	BFP 20 L5	071N0126	
BFP 10 R8	071N6112	2	→	BFP 20 R5	071N0129	
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 52E L5	071N2202	Max. 40 l/h at 10 bar
BFP 52 L8	071N6207	2	→	BFP 52E L5	071N2202	
BFP 52 R8	071N6208	2	→	BFP 52E R5	071N2204	
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.	

Oil pumps – Danfoss BFP

BFP			➡	Danfoss service pumps		
Type	Code no.	1-2 pipe	➡	Type	Code no.	Comments/accessories
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 52E R5	071N2204	Max. 40 l/h at 10 bar
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.	

Oil pumps – Suntec

Suntec			➔	Danfoss oil pumps		
Type	Code no.	1-2 pipe	➔	Type	Code no.	Comments/accessories
AN47A	13261 P	2	➔	BFP 20 R3	071N0169	
AN47D	13391 P	2	➔	BFP 20 L3	071N0168	
AN47C	13421 P	2	➔	BFP 20 L3	071N0168	
AN47B	13951 P	2	➔	BFP 20 R3	071N0169	
AN47A	72163 P	2	➔	BFP 20 R3	071N0169	+ flange and bush Ø54: 071N0047
AN47B	72173 P	2	➔	BFP 20 R3	071N0169	
AN47C	72183 P	2	➔	BFP 20 L3	071N0168	
AN47D	72193 P	2	➔	BFP 20 L3	071N0168	
AN47A	72263 P	2	➔	BFP 20 R3	071N0169	
AN47B	72273 P	2	➔	BFP 20 R3	071N0169	
AN47C	72283 P	2	➔	BFP 20 L3	071N0168	
AN47D	72293 P	2	➔	BFP 20 L3	071N0168	
AN47C	72473 M	1	➔	BFP 20 L3	071N0168	+ flange and bush Ø54: 071N0047, possible changeover to 1-pipe operation
AN47A	72832 M	1	➔	BFP 20 R3	071N0169	
AN47A	73263 P	2	➔	BFP 20 R3	071N0169	
AN47B	73273 P	2	➔	BFP 20 R3	071N0169	
AN47C	73283 P	2	➔	BFP 20 L3	071N0168	
AN47A	73443 P	2	➔	BFP 20 R3	071N0169	
AN57B	13301 P	2	➔	BFP 20 R5	071N0129	
AN57A	72433 P	2	➔	BFP 20 R5	071N0129	
AN57C	72823 P	2	➔	BFP 20 L5	071N0126	+ flange and bush Ø54: 071N0047 Suntec: 60 l/h, BFP: 40 l/h at 12 bar
AN57C	7882 3E6	2	➔	BFP 20 L5	071N0126	
AN67B	13351 P	2	➔	BFP 20 R5	071N0129	Suntec: 80 l/h, BFP: 40 l/h at 10 bar
AN67C	13361 P	2	➔	BFP 20 L5	071N0126	
AN67D	13571 P	2	➔	BFP 20 L5	071N0126	
AN67C	13381 P	2	➔	BFP 20 L5	071N0126	

Oil pumps – Suntec

Suntec			➔	Danfoss oil pumps		
Type	Code no.	1-2 pipe	➔	Type	Code no.	Comments/accessories
AN67C	84102 E1	2	➔	BFP 20 L5	071N0126	+ flange and bush Ø54: 071N0047
AN67C	72333 P	2	➔	BFP 20 L5	070L0126	
AN67A	72383 P	2	➔	BFP 20R5	071N0129 ³⁾	
AN67C	72423 P	2	➔	BFP 20 L5	070N0126 ³⁾	
AN67B	72513 P	2	➔	RSA 40	070-3249	+ flange: 070-0211
AN67D	72523 P	2	➔	BFP 20 L5	071N0126	+ flange and bush Ø54: 071N0047 Suntec: 80 l/h, BFP: 40 l/h at 12 bar
AN67B	73353 P	2	➔	BFP 20 R5	071N0129	Suntec: 80 l/h, BFP: 40 l/h at 12 bar
AN67A	73453 P	2	➔	BFP 20 R5	071N0129 ³⁾	
AL35B	95202 P0200	2	➔	BFP 21 R3	071N0171 ⁵⁾	+ 24 V a.c. coil: 071N0062
AL35B	95202 P0500	2	➔	BFP 21 R3	071N0171 ⁵⁾	
AL35C	95212 P0500	2	➔	BFP 21 L3	071N0170 ⁵⁾	
AL35C	95242 M0500	1	➔	BFP 21 L3	071N0156	
AL35A	95262 P0500	2	➔	BFP 21 R3	071N0171 ⁵⁾	
AL35C	95282 P0500	2	➔	BFP 21 L3	071N0170 ⁵⁾	
AL35D	95292 P0200	2	➔	BFP 21 L3	071N0170 ⁵⁾	+ 24 V a.c. coil: 071N0062
AL35C	95402 P0500	2	➔	BFP 21 L3	071N0170 ⁵⁾	Suntec: G 1/8 in S+R
AL35C	95652 M0500	1	➔	BFP 21 L3	071N0156	
AL35A	95702 P0500	2	➔	BFP 21 R3	071N0171 ⁵⁾	
AL35C	95782 P0500	2	➔	BFP 21 L3	071N0170 ⁵⁾	
AL35B	95802 P0500	2	➔	BFP 21 R3	071N0171 ⁵⁾	
AL35C	95402 P0500R	2	➔	BFP 21 L3	071N0170 ⁵⁾	

3) A screw for 2-pipe operation is fitted under the cover of these pumps. Without horseshoe washer: Pump set for 2-pipe operation.

With horseshoe washer: Pump set for 1-pipe operation (see page 50).

5) If a 1-pipe pump is needed, 071N0156 can be delivered instead of 071N0170 and 071N0157 instead of 071N0171.

Oil pumps – Suntec

Suntec			➡	Danfoss Oil pumps		
Type	Code no.	1-2 pipe	➡	Type	Code no.	Comments/accessories
AL55B	95312 P0500	2	➡	BFP 21 R5	071N0173	
AL65C	-	2	➡	BFP 21 L5	071N0172	Suntec: 80 l/h, BFP: 40 l/h at 12 bar + flange and bush
ALE 35C	93242 P0500	2	➡	BFP 21 L3-LE	071N2119	Ø54: 071N0047
AS47A	15361 P0500	2	➡	BFP 21 R3	071N0171 ⁵⁾	
AS47B	15371 P0500	2	➡	BFP 21 R3	071N0171 ⁵⁾	
AS47C	15381 P0500	2	➡	BFP 21 L3	071N0170 ⁵⁾	
AS47D	15391 P0500	2	➡	BFP 21 L3	071N0170 ⁵⁾	
AS47D	15501 P0500	2	➡	BFP 21 L3	071N0170 ⁵⁾	
AS47B	15511 P0500	2	➡	BFP 21 R3	071N0171 ⁵⁾	
AS47C	15541 P0500	2	➡	BFP 21 L3	071N0170 ⁵⁾	
AS47D	15571 P0500	2	➡	BFP 21 L3	071N0170 ⁵⁾	+ coupling with single flat (D-shaped)
AS47D	15621 P0500	2	➡	BFP 21 L3	071N0170 ⁵⁾	
AS47D	15681 P0500	2	➡	BFP 21 L3	071N0170 ⁵⁾	
AS47C	15691 P0500	2	➡	BFP 21 L3	071N0170 ⁵⁾	
AS47D	15721 P0500	2	➡	BFP 21 L3	071N0170 ⁵⁾	
AS47D	15801 P0500	2	➡	BFP 21 L3	071N0170 ⁵⁾	
AS47A	74323 P0500	2	➡	BFP 21 R3	071N0171 ⁵⁾	+ flange and bush Ø54: 071N0047
AS47C	74343 P0500	2	➡	BFP 21 L3	071N0170 ⁵⁾	
AS47D	74353 P0500	2	➡	BFP 21 L3	071N0170 ⁵⁾	
AS47A	74363 P0500	2	➡	BFP 21 R3	071N0171 ⁵⁾	
AS47C	74383 P0500	2	➡	BFP 21 L3	071N0170 ⁵⁾	
AS47D	74393 P0500	2	➡	BFP 21 L3	071N0170 ⁵⁾	
AS47C	74443 P0500	2	➡	BFP 21 L3	071N0170 ⁵⁾	
AS47B	74453 P0500	2	➡	BFP 21 R3	071N0171 ⁵⁾	
AS47C	74513 M0500	1	➡	BFP 21 L3	071N0156	

5) If a 1-pipe pump is needed, 071N0156 can be delivered instead of 071N0170 and 071N0157 instead of 071N0171.

Oil pumps – Suntec

Suntec			➡	Danfoss oil pumps		
Type	Code no.	1-2 pipe	➡	Type	Code no.	Comments/accessories
AS47C	74613 P0500	2	➡	BFP 21 L3	071N0170 ⁵⁾	+ flange and bush Ø54: 071N0047
AS47C	75543 P0500	2	➡	BFP 21 L3	071N0170 ⁵⁾	
AS47D	75623 P0500	2	➡	BFP 21 L3	071N0170 ⁵⁾	
AS47A	75643 P0500	2	➡	BFP 21 R3	071N0171 ⁵⁾	
AS57C	15441 P0500	2	➡	BFP 21 L5	071N0172	
AS57C	74413 P0500	2	➡	BFP 21 L5	071N0172	+ flange and bush Ø54: 071N0047
AS57B	74423 P0500	2	➡	BFP 21 R5	071N0173	
AS57C	75443 P0500	2	➡	BFP 21 L5	071N0172	
AS67C	-		➡	BFP 21 L5	071N0172	Suntec: 80 l/h, BFP: 40 l/h at 12 bar
AE47C	13601 P	2	➡	BFP 20 L5	071N0126	
AE47C	13701 M	1	➡	BFP 20 L5	071N0126	Possible changeover to 1-pipe operation Suntec: 1/8 NPTF in nozzle outlet
AE47B	13661 P	2	➡	BFP 20 R5	071N0129	
AE47D	13781 M	1	➡	BFP 20 L5	071N0126	Possible changeover to 1-pipe operation
AE47A	13841 M	1	➡	BFP 20 R5	071N0129	
AE47D	13851 P	2	➡	BFP 20 L5	071N0126	
AE47C	13861 P	2	➡	BFP 20 L5	071N0126	
AE47C	13871 P	2	➡	BFP 20 L5	071N0126	
AE47B	72673 P	2	➡	BFP 20 R5	071N0129	+ flange and bush Ø54: 071N0047
AE47C	72743 M	1	➡	BFP 20 L5	071N0126	+ flange and bush Ø54: 071N0047, Possible changeover to 1-pipe operation
AE47C	73683 P	2	➡	BFP 20 L5	071N0126	
AE57B	13641 M	1	➡	BFP 20 R5	071N0129	Possible changeover to 1-pipe operation
AE57C	73733 P	2	➡	BFP 20 L5	071N0126	
AE67D	72783 P	2	➡	BFP 20 L5	071N0126	+ flange and bush Ø54: 071N0047 Suntec: 80 l/h, BFP: 40 l/h at 12 bar

5) If a 1-pipe pump is needed, 071N0156 can be delivered instead of 071N0170 and 071N0157 instead of 071N0171.

Oil pumps – Suntec

Suntec			➔	Danfoss oil pumps		
Type	Code no.	1-2 pipe	➔	Type	Code no.	Comments/accessories
AE67C	73613 P	2	➔	BFP 20 L5	071N0126	Suntec: 80 l/h, BFP: 40 l/h at 12 bar
AE77C	72702 P	2	➔	RSA 60	071N3347	+ flange 070-0211
AE77C	73802 P	2	➔	BFP 20 L5	071N0126	Suntec: 80 l/h, BFP: 40 l/h at 12 bar
AP47A	75553 P0500	2	➔		No repl.	Suntec: nozzle outlet to the right
AP47C	75563 P0500	2	➔	BFP 52E L5	071N2202 ⁴⁾	
AP47B	75613 P0500	2	➔	BFP 52E R5	071N2204 ⁴⁾	
AP47C	74603 P0500	2	➔	BFP 52E L5	071N2202 ⁴⁾	+ flange and bush Ø54: 071N0047
AP57C	74433 P0500	2	➔	BFP 52E L5	071N2202 ⁴⁾	
AP57C	75453 P0500	2	➔	BFP 52E L5	071N2202 ⁴⁾	Suntec: 35 l/h, BFP: 26 l/h at 22 bar + 071N0047
AP57A	75493 P0500	2	➔	BFP 52E R5	071N2202 ⁴⁾	
AP67C	74583 P0500	2	➔	BFP 52E L5	071N2202 ⁴⁾	Suntec: 58 l/h, BFP: 26 l/h at 22 bar + 071N0047
AP67C	75593 P0500	2	➔	BFP 52E L5	071N2202 ⁴⁾	Suntec: 58 l/h, BFP: 26 l/h at 22 bar
AP245C	95541 P0500	2	➔	BFP 52E L5	071N2202 ⁴⁾	
AP245C	95601 P0500	2	➔	BFP 52E L5	071N6204	
AP265C	95111 P0500	2	➔	BFP 52E L5	071N6222	Suntec: 68 l/h, BFP: 26 l/h at 22 bar
AP345C	95101 P0500	2	➔		No repl.	
AT245C	95412 P0500	2	➔	BFP 52E L5	071N2202	
AT245D	95442 P0500	2	➔		No repl.	
AT245A	95472 P0500	2	➔		No repl.	Suntec: Nozzle outlet to the right
AT245D	95482 M0500	1	➔		No repl.	
AT255C	95492 P0500	2	➔	BFP 52E L5	071N2202 ⁴⁾	Suntec: 47 l/h, BFP: 26 l/h at 22 bar
AT255A	95522 P0500	2	➔		No repl.	Suntec: Nozzle outlet to the right

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

Oil pumps – Suntec

Suntec			➡	Danfoss oil pumps		
Type	Code no.	1-2 pipe	➡	Type	Code no.	Comments/accessories
AT275C	95832 P0500	2	➡		No repl.	
AT355D	95642 P0500	2	➡		No repl.	Suntec: Nozzle outlet to the right
AT345C	955582 P0560	2	➡		No repl.	
AT355C	9550	2	➡		No repl.	
A2L95D	9702 2P 0500	2	➡		No repl.	

Oil pumps – Eckerle

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	071N0168	Eckerle: G 1/8 in S+R
UNI 1.2 L1 L64-50	UNI 2.12 L1 L64	➡	BFP 21 L3	071N0170 ⁵⁾	
UNI 1.2 L5 L14	UNI 2.12 L1 L14	➡	BFP 21 L3	071N0170 ⁵⁾	
UNI 1.2 L5 L64-M1	UNI-E 2.1 L1 L64-21	➡	BFP 21 L3	071N0170 ⁵⁾	Eckerle: G 1/8 in S+R
UNI 1.2 L5 L64-50	UNI 2.12 L1 L64	➡	BFP 21 L3	071N0170 ⁵⁾	
UNI 1.2 L5 M14-50	UNI 2.12 L1 M14	➡	BFP 21 L3	071N0170 ⁵⁾	
UNI 1.2 L5 M64-50-W	UNI 2.12 L1 M64-65	➡	BFP 21 L3	071N0170 ⁵⁾	Eckerle: G 1/8 in S+R
UNI 1.2 L62 M14-01-W	UNI 2.12 L6 M14-65	➡	BFP 21 L5	071N0170 ⁵⁾	Eckerle: Max.. 75 l/h, BFP: Max. 40 l/h at 12 bar
UNI 1.2 L62 L14W		➡	BFP 21 L5	071N0172	
UNI 1.42 L5 A64-W	UNI 2.42 L5 L64-65	➡	BFP 52E L5	071N2202	Eckerle: G 1/8 in S+R
UNI 1.42 L5 L64W		➡	BFP 52E L5	071N2202	
UNI 1.42 L6 L64W		➡	BFP 20 L3	071N2202	
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	071N0168	+ coupling with single flat (D-shaped)
UNI 2.1 L1 L44	UNI-E 2.1 L1 L14	➡	BFP 20 L3	071N0168	
UNI 2.1 L1 L44H	UNI-E 2.1 L14	➡	BFP 20 L3	071N0168	
UNI 2.1 R1 L40	UNI-E 2.1 R1 L10	➡	BFP 20 R3	071N0169	+ coupling with single flat (D-shaped)
UNI 2.1 R1 L44-21	UNI-E 2.1 R1 L14	➡	BFP 20 R3	071N0169	
UNI 2.1 L5 L40-21	UNI-E 2.1 L5 L10	➡	BFP 20 L5	071N0126	+ coupling with single flat (D-shaped)
UNI 2.1 L5 L42	UNI-E 2.1 L5 L12	➡	BFP 20 L5	071N0126	+ coupling with single flat + 071B0011
UNI 2.1 L5 L44	UNI-E 2.1 L5 L14 (-13)	➡	BFP 20 L5	071N0126	
UNI 2.1 L5 L50	UNI-E 2.1 L5 L10	➡	BFP 20 L5	071N0126	Eckerle: 10-25 bar, BFP Max.. 20 bar + coupling with single flat (D-shaped)
UNI 2.1 L5 R44	UNI-E 2.1 L5 R14 (-13)	➡	BFP 20 L5	071N0126	
UNI 2.1 L5 R94	UNI-E 2.1 L5 R74	➡	BFP 20 L5	071N0126	Eckerle: G 1/8 in S+R
UNI 2.1 R5 L42-UI-21	UNI-E 2.1 R5 L12-80	➡	BFP 20 R5	071N0129	+ coupling with single flat (D-shaped)

5) If a 1-pipe pump is needed, 071N0156 can be delivered instead of 071N0170 and 071N0157 instead of 071N0171.

Oil pumps – Eckerle

Eckerle		➡	Danfoss Oil pumps		
Old designation	New designation	➡	Type	Code no.	Comments/accessories
UNI 2.1 R5 L43-UI-21	UNI-E 2.1 R5 L13-80	➡	BFP 20 R5	071N0129	+ flange: 071N0047
UNI 2.1 R5 L43		➡	BFP 20 R5	071N0129	
UNI 2.1 R5 L44	UNI-E 2.1 R5 L14	➡	BFP 20 R5	071N0129	
UNI 2.1 R5 L54	UNI-E 2.1 R5 L24	➡	BFP 20 R5	071N0129	Eckerle: Max. 25 bar
UNI 2.1 R5 R42		➡	BFP 20 R5	071N0129	
UNI 2.1 R5 R44	UNI-E 2.1 R5 R14	➡	BFP 20 R5	071N0129	
UNI 2.1 R5 R45-21	UNI-E 2.1 R5 R15	➡	BFP 20 R5	071N0129	+ bush: 071B0011
	UNI-E 2.1 R5 R60	➡	BFP 20 R5	071N0129	G 1/8 in S+R + coupling with single flat
UNI 2.1 R5 R80	UNI-E 2.1 R5 R40	➡	BFP 20 R5	071N0129	+ coupling with single flat (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.	
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.	
UNI 2.1 L7 L55	UNI-E 2.1 L7 L15	➡	RSA 60	070-3352	
UNI 2.1 L7 L55-05	UNI-E 2.1 L7 L25	➡	RSA 60	070L3352	+ bush 071B0011
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	071N0168	+ coupling with single flat (D-shaped)
	UNI-E 2.1 L1 L64 (-21)	➡	BFP 20 L3	071N0168	G 1/8 in S+R
	UNI-E 2.1 L5 R74	➡	BFP 20 L5	071N0172	
UNI 2.1 G41-21 L1 L10	UNI-E 2.1 G41	➡	BFP 20 L3	071N0168	
	UNI-E 2.1 G41-13	➡	BFP 20 L3	071N0168	+ coupling with single flat (D-shaped)
	UNI-E 2.2 L1 L10	➡	BFP 21 L3	071N0170 ⁵⁾	
UNI 2.2 L1 L14	UNI-E 2.2 L1 L14	➡	BFP 21 L3	071N0170 ⁵⁾	
UNI 2.2 L1 L16W	UNI-E 2.2 L1 L16-10	➡	BFP 21 L3	071N0170 ⁵⁾	+ flange: 071N0047
UNI 2.2 L1 L44	UNI-E 2.2 L1 L14	➡	BFP 21 L3	071N0170 ⁵⁾	

5) If a 1-pipe pump is needed, 071N0156 can be delivered instead of 071N0170 and 071N0157 instead of 071N0171.

Oil pumps – Eckerle

Eckerle		➡	Danfoss Oil pumps		
Old designation	New designation	➡	Type	Code no.	Comments/accessories
UNI 2.2 L1 R14	UNI-E 2.2 L1 R14-12	➡	BFP 21 L3	071N0170 ⁵⁾	
UNI 2.2 R1 L40	UNI-E 2.2 R1 L10	➡	BFP 21 R3	071N0171 ⁵⁾	+ coupling with single flat (D-shaped)
UNI 2.2 R1 M14	UNI-E 2.2 R1 M14	➡	BFP 21 R3	071N0171 ⁵⁾	
UNI 2.2 R1 R24	UNI-E 2.2 R1 R24	➡	BFP 21 R3	071N0171 ⁵⁾	Eckerle: Max. 25 bar
	UNI-E 2.2 R1 S14	➡	BFP 21 R3	071N0171 ⁵⁾	
UNI 2.2 L5 L14	UNI-E 2.2 L5 L14-92	➡	BFP 21 L5	071N0172	Eckerle: G 1/8 in S+R Eckerle: 10-25 bar, BFP: Max.. 20 bar
UNI 2.2 L5 L15-21-05	UNI-E 2.2 L5 L15	➡	BFP 21 L5	071N0172	+ bush: 071B0011
UNI 2.2 L5 L40-X	UNI-E 2.2 L5 L10-50	➡	BFP 21 L5	071N0172	+ coupling with single flat (D-shaped)
UNI 2.2 L5 L42	UNI-E 2.2 L5 L12	➡	BFP 21 L5	071N0172	+ bush: 071B0011 + coupling with single flat (D-shaped)
UNI 2.2 L5 L60		➡	BFP 21 L5	071N0172	+ coupling with single flat (D-shaped)
	UNI-E 2.2 L5 L60	➡	BFP 21 L5	071N0172	Eckerle: G 1/8 in S+R + coupling with single flat (D-shaped)
UNI 2.2 L5 L62		➡	BFP 21 L5	071N0172	
UNI 2.2 L5 M14-C1	UNI-E 2.2 L5 M14-12	➡	BFP 21 L5	071N0172	
UNI 2.2 L5 S20	UNI-E 2.2 L5 S20	➡	BFP 21 L5	071N0172	Eckerle: 10-25 bar, BFP: Max.. 20 bar + coupling with single flat (D-shaped)
UNI 2.2 L5 S20-21-BUD	UNI-E 2.2 L5 S20 BUD	➡	BFP 21 L5	071N0172	Eckerle: Max. 25 bar, BFP: Max.. 20 bar + coupling with single flat (D-shaped)
UNI 2.2 L5 S74	UNI-E 2.2 L5 L14	➡	BFP 21 L5	071N0172	Eckerle: 10-25 bar, BFP: Max.. 20 bar + coupling with single flat (D-shaped)
	UNI-E 2.2 L5 S74	➡	BFP 21 L5	071N0172	G 1/8 in S+R. Eckerle: Max. 25 bar
UNI 2.2 R5 L14	UNI-E 2.2 R5 L14	➡	BFP 21 R5	071N0173	
	UNI-E 2.2 R5 M14	➡	BFP 21 R5	071N0173	
UNI 2.2 R5 M45	UNI-E 2.2 R5 M15	➡	BFP 21 R5	071N0173	+ bush: 071B0011

5) If a 1-pipe pump is needed, 071N0156 can be delivered instead of 071N0170 and 071N0157 instead of 071N0171.

Oil pumps – Eckerle

Eckerle		➡	Danfoss Oil pumps		
Old designation	New designation	➡	Type	Code no.	Comments/accessories
UNI 2.2 R5 R14	UNI-E 2.2 R5 R14	➡	BFP 21 R5	071N0173	
UNI 2.2 R5 R60-21	UNI-E 2.2 R5 R60	➡	BFP 21 R5	071N0173	Eckerle: G 1/8 in S+R
UNI 2.2 R5 R80B	UNI-E 2.2 R5 R60	➡	BFP 21 R5	071N0173	+ coupling with single flat (D-shaped)
	UNI-E 2.2 R5 S14	➡	BFP 21 R5	071N0173	
UNI 2.2 R5 S60	UNI-E 2.2 R5 S60	➡	BFP 21 R5	071N0173	
	UNI-E 2.2 L6 L14	➡	BFP 21 L5	071N0172	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	071N6109	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	071N6109	Eckerle: 75 l/h, BFP: 40 l/h at 12 bar
	UNI-E 2.2 L6 LR14-81	➡	BFP 21 L5	071N0172	
UNI 2.2 R6 M24	UNI-E 2.2 R6 M24	➡	BFP 21 R5	071N0173	
UNI 2.2 R6 S24-ET	UNI-E 2.2 R6 S24 (-40)	➡	BFP 21 R5	071N0173	
UNI 2.2 R6 S24 ET(R1)	UNI-E 2.2 R6 S24-40	➡	BFP 21 R5	071N0173	
UNI 2.3 L1 L56 (W-1-05)	UNI-E 2.3 L1 L26-80	➡	BFP 20 L3	071N0168	Eckerle: 10-25 bar BFP: Max.. 20 bar + flange and bush Ø54: 071N0047
UNI 2.3 L1 R54	UNI-E 2.3 L1 R24-13	➡	BFP 20 L3	071N0168	Eckerle: 10-25 bar, BFP: Max. 20 bar
UNI 2.3 L5 L54	UNI-E 2.3 L5 L24-13	➡	BFP 20 L5	071N0126	
UNI 2.3 L5 L56-I (W-06)	UNI-E 2.3 L5 L26-80	➡	BFP 20 L5	071N0126	Eckerle: 10-25 bar, BFP: Max. 20 bar + flange and bush Ø54: 071N0047
	UNI-E 2.3 L5 L64	➡	BFP 20 L5	071N0126	Eckerle: G 1/8 in S+R
UNI 2.3 L5 R54-S	UNI-E 2.3 L5 R24-13	➡	BFP 20 L5	071N0126	Eckerle: Max. 25 bar, BFP: Max. 20 bar
UNI 2.3 R5 L54-05	UNI-E 2.3 R5 L24	➡	BFP 20 R5	071N0129	
	UNI-E 2.3 R5 R24-13	➡	BFP 20 R5	071N0129	
UNI 2.3 R5 R54		➡	BFP 20 R5	071N0129	Eckerle: 10-25 bar, BFP: Max. 20 bar
UNI 2.3 R5 R64-I	UNI-E 2.3 R5 R24-93	➡	BFP 20 R5	071N0129	Eckerle: Max. 25 bar, BFP: Max. 20 bar
UNI 2.3 R6 L55-05	UNI-E 2.3 R6 L25	➡	BFP 20 R5	071N0129	+ bush 071B0011
UNI 2.4 L1 M10-VO	UNI-E 2.4 L1 M10-22	➡	BFP 52E L3	071N2201 ⁴⁾	+ coupling with single flat (D-shaped)

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

Oil pumps – Eckerle

Eckerle		➡	Danfoss oil pumps		
Old designation	New designation	➡	Type	Code no.	Comments/accessories
UNI 2.4 L1 M14-C1	UNI-E 2.4 L1 M14-12	➡	BFP 52E L3	071N2201 ⁴⁾	
UNI 2.4 L1 R14-C		➡		No repl.	Righthand nozzle outlet on Eckerle
UNI 2.4 L1 R14-V1-21	UNI-E 2.4 L1 R14-12	➡		No repl.	
UNI 2.4 L1 R44	UNI-E 2.4 L1 R14	➡		No repl.	
	UNI-E 2.4 L5 L20	➡	BFP 52E L5	071N2202 ⁴⁾	+ coupling with single flat (D-shaped)
UNI 2.4 L5 L24	UNI-E 2.4 L5 L24	➡	BFP 52E L5	071N2202 ⁴⁾	
	UNI-E 2.4 L5 M20	➡	BFP 52E L5	071N2202 ⁴⁾	+ coupling with single flat (D-shaped)
UNI 2.4 L5 M24		➡	BFP 52E L5	071N2202 ⁴⁾	
UNI 2.4 L5 M20-21	UNI-E 2.4 L5 M20	➡	BFP 52E L5	071N2202 ⁴⁾	+ coupling with single flat (D-shaped)
UNI 2.4 L5 R24		➡		No repl.	Righthand nozzle outlet on Eckerle
UNI 2.4 L5 R24		➡		No repl.	
UNI 2.4 L5 S24	UNI-E 2.4 L5 S24	➡		No repl.	
UNI 2.4 R5 L24		➡	BFP 52E R5	071N2204 ⁴⁾	
UNI 2.4 R5 L24-05	UNI-E 2.4 R5 L24	➡	BFP 52E R5	071N2204 ⁴⁾	
UNI 2.4 R5 R24	UNI-E 2.4 R5 R24	➡		No repl.	Righthand nozzle output 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	071N2204	+ coupling with single flat (D-shaped) + bush: 071B0011 Eckerle: Max. 75 l/h, BFP: Max. 40 at 12 bar
UNI 2.4 L6 L24		➡	BFP 52E L5	071N2204	Eckerle: Max. 75 l/h, BFP: Max. 40 at 12 bar
UNI 2.4 L6 L24-05	UNI-E 2.4 L6 L24	➡	BFP 52E L5	071N2204	
UNI 2.4 L6 M24-C1	UNI-E 2.4 L6 M24-12	➡	BFP 52E L5	071N2204	
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.	

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

Oil pumps – Eckerle

Eckerle		➡	Danfoss oil pumps		
Old designation	New designation	➡	Type	Code no.	Comments/accessories
	UNI-E 2.42 L5 L64-65	➡	BFP 52E L5	071N2202	Eckerle: G 1/8 in S+R
	UNI-E 2.6 L5 L14	➡	BFP 20 L5	071N0126	
UNI 2.6 L5 L44		➡	BFP 20 L5	071N0126	Possible changeover to 1-pipe operation
	UNI-E 2.6 L6 L14	➡	BFP 20 L5	071N0126	
UNI 2.6 L6 L44	UNI-E 2.6 L6 L14	➡	BFP 20 L5	071N0126	Eckerle: 75 l/h, BFP: Max. 40 at 12 bar
UNI 2.6 Stage 6		➡		No repl.	
UNI 2.6 Stage 7		➡		No repl.	
UNI 2.7 L5 L44		➡	BFP 20 L5	071N0126	
UNI 2.7 R5 R44	UNI-E 2.7 R5 R14	➡	BFP 20 R5	071N0129	
UNI 2.8 L5 L16		➡	BFP 21 L5	071N0172	BFP without remote setting + flange: 071N0047
UNI 2.91 L5 L44	UNI-E 2.91 L5 L14	➡		No repl.	
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	071N0170 ⁵⁾	
UNI 2.12 L1 L64		➡	BFP 21 L3	071N0170 ⁵⁾	Eckerle: G 1/8 in S+R
UNI 2.12 L1 M14		➡	BFP 21 L3	071N0170 ⁵⁾	
UNI 2.12 L1 M64		➡	BFP 21 L3	071N0170 ⁵⁾	Eckerle: G 1/8 in S+R
UNI 2.12 L1 M64-65		➡	BFP 21 L3	071N0170 ⁵⁾	
UNI 2.12 L6 M14		➡	BFP 21 L5	071N0172	

5) If a 1-pipe pump is needed, 071N0156 can be delivered instead of 071N0170 and 071N0157 instead of 071N0171.

Oil pumps – Eckerle

Eckerle		➡	Danfoss oil pumps		
Old designation	New designation	➡	Type	Code no.	Comments/accessories
UNI 2.12 L6 M14-65		➡	BFP 21 L5	071N0172	
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	071N0168	
BPC	BPC-40 1.1 LL 21	➡	BFP 20 L3	071N0168	Eckerle: G 1/8 in S+R
BPC	BPC-40 1.1 LR 11	➡	BFP 20 L3	071N0168	
BPC	BPC-40 1.1 LR 21	➡	BFP 20 L3	071N0168	Eckerle: G 1/8 in S+R
BPC	BPC-40 1.1 RL 11	➡	BFP 20 R3	071N0169	
BPC	BPC-40 1.1 RL 21	➡	BFP 20 R3	071N0169	Eckerle: G 1/8 in S+R
BPC	BPC-40 1.1 RR 11	➡	BFP 20 R3	071N0169	
BPC	BPC-40 1.1 RR 21	➡	BFP 20 R3	071N0169	Eckerle: G 1/8 in S+R
BPC	BPC-40 1.1 RR 11(+)	➡	BFP 20 R3	071N0169	+ flange and bush Ø54: 071N0047
BPC	BPC-40 2.1 LL 11	➡	BFP 21 L3	071N0170	
BPC	BPC-40 2.1 LL 21	➡	BFP 21 L3	071N0170	Eckerle: G 1/8 in S+R
BPC	BPC-40 2.1 RL 11	➡	BFP 21 R3	071N0171	
BPC	BPC-40 2.1 RR 11	➡	BFP 21 R3	071N0171	
BPC	BPC-40 2.1 RR 21	➡	BFP 21 R3	071N0171	Eckerle: G 1/8 in S+R
BPC	BPC-40 2.1 LL 11(+)	➡	BFP 21 L3	071N0170	+ flange and bush Ø54: 071N0047
BPC	BPC-40 2.1 LR 11	➡	BFP 21 L3	071N0170	
BPC	BPC-40 2.1 LR 21	➡	BFP 21 L3	071N0170	Eckerle: G 1/8 in S+R
BPC	BPC-40 2.1 RL 21	➡	BFP 21 R3	071N0171	Eckerle: G 1/8 in S+R
BPC	BPC-40 2.3 LL 11	➡	BFP 52E L3	071N2201	The pump NC-valve must be connected in parallel to the NC-valve in the nozzleline
BPC	BPC-40 2.3 LR 11	➡		No repl.	Righthand nozzle outlet on Eckerle
BPC	BPC-40 2.3 RL 11	➡	BFP 52E R3	071N2203	The pump NC-valve must be connected in parallel to the NC-valve in the nozzleline
BPC	BPC-40 2.3 RR 21	➡		No rep.	Righthand nozzle outlet on Eckerle

Oil pumps – Delta

Delta			➡	Danfoss oil pumps		
Type	Code no.	1-2 pipe	➡	Type	Code no.	Comments/accessories
V	V1LR2 4 (or 5)	2	➡	BFP 20 L3	071N0168	
V	V1LR1 4 (or 5)	1	➡	BFP 20 L3	071N0168 ²⁾	
V	V1LL2 4 (or 5)	2	➡	BFP 20 L3	071N0168	
V	V1LL1 4 (or 5)	1	➡	BFP 20 L3	071N0168 ²⁾	
V	V1RL2 4 (or 5)	2	➡	BFP 20 R3	071N0169	
V	V1RL1 4 (or 5)	1	➡	BFP 20 R3	071N0169 ²⁾	
V	V1RR2 4 (or 5)	2	➡	BFP 20 R3	071N0169	
V	V1RR1 4 (or 5)	1	➡	BFP 20 R3	071N0169 ²⁾	
V	V2LR2 4 (or 5)	2	➡	BFP 20 L5	071N0126	Delta: 57 l/h; BFP: 40 l/h at 10 bar
V	V2LR1 4 (or 5)	1	➡	BFP 20 L5	071N0126	
V	V2LL2 4 (or 5)	2	➡	BFP 20 L5	071N0126	
V	V2LL1 4 (or 5)	1	➡	BFP 20 L5	071N0126 ²⁾	
V	V2RL2 4 (or 5)	2	➡	BFP 20 R5	071N0273	
V	V2RL1 4 (or 5)	1	➡	BFP 20 R5	071N0277	
V	V2RR2 4 (or 5)	2	➡	BFP 20 R5	071N0129	
V	V2RR1 4 (or 5)	1	➡	BFP 20 R5	071N0129 ²⁾	
VU	VU3LR 1 4 (or 5)	1	➡	BFP 20 L5	071N0126	Delta: 80 l/h; BFP: 40 l/h at 10 bar
VU	VU3LR 2 4 (or 5)	2	➡	BFP 20 L5	071N0126	
VU	VU3RL 1 4 (or 5)	1	➡	BFP 20 R5	071N0129	
VU	VU3RL 2 4 (or 5)	2	➡	BFP 20 R5	071N0129	
VD	VD1LR2 4 (or 5)	2	➡	BFP 20 L3	071N0168	
VD	VD1LR 1 4 (or 5)	1	➡	BFP 20 L3	071N0168 ²⁾	
VD	VD1LL 2 4 (or 5)	2	➡	BFP 20 L3	071N0168	
VD	VD1LL 1 4 (or 5)	1	➡	BFP 20 L3	071N0168 ²⁾	

2) Important: These pumps are delivered for 2-pipe operation. If the pumps are mounted on a 1-pipe system, the changeover screw must be removed (fig. page 53) and the return port must be stopped with a metal plug.

Oil pumps – Delta

Delta			→	Danfoss oil pumps		
Type	Code no.	1-2 pipe	→	Type	Code no.	Comments/accessories
VD	VD1RL 2 4 (or 5)	2	→	BFP 20 R3	071N0169	
VD	VD1RL 1 4 (or 5)	1	→	BFP 20 R3	071N0169 ²⁾	
VD	VD1RR 2 4 (or 5)	2	→	BFP 20 R3	071N0169	
VD	VD1RR 1 4 (or 5)	1	→	BFP 20 R3	071N0169 ²⁾	
VD	VD2LR 2 4 (or 5)	2	→	BFP 20 L5	071N0126	Delta: 57 l/h; BFP: 40 l/h at 10 bar
VD	VD2LR 1 4 (or 5)	1	→	BFP 20 L5	071N0126	
VD	VD2LL 2 4 (or 5)	2	→	BFP 20 L5	071N0126	
VD	VD2LL 1 4 (or 5)	1	→	BFP 20 L5	071N0126 ²⁾	
VD	VD2RL 2 4 (or 5)	2	→	BFP 20 R5	071N0129	
VD	VD2RL 1 4 (or 5)	1	→	BFP 20 R5	071N0129	
VD	VD2RR 2 4 (or 5)	2	→	BFP 20 R5	071N0129	
VD	VD2RR 1 4 (or 5)	1	→	BFP 20 R5	071N0129 ²⁾	
VD	VD3LR 1 4 (or 5)	1	→	BFP 20 L5	071N0126	Delta: 80 l/h; BFP: 40 l/h at 10 bar
VD	VD3LR 2 4 (or 5)	2	→	BFP 20 L5	071N0126	
VD	VD3RL 1 4 (or 5)	1	→	BFP 20 R5	071N0129	
VD	VD3RL 2 4 (or 5)	2	→	BFP 20 R5	071N0129	
VM	VM1LR2 4 (or 5) F84-220	2	→	BFP 21 L3	071N0170	F84-220: Indicates coil with loose cable and for 220 V, 50 Hz. If using other voltages the following must be ordered extra: Coil no. 071N0061 for 110/120 V a.c. or Coil no. 071N0062 for 24 V a.c.
VM	VM1LR1 4 (or 5) F84-220	1	→	BFP 21 L3	071N0156	
VM	VM1LL2 4 (or 5) F84-220	2	→	BFP 21 L3	071N0170	
VM	VM1LL1 4 (or 5) F84-220	1	→	BFP 21 L3	071N0156	
VM	VM1RL2 4 (or 5) F84-220	2	→	BFP 21 R3	071N0171	
VM	VM1RL1 4 (or 5) F84-220	1	→	BFP 21 R3	071N0157	
VM	VD1RR2 4 (or 5) F84-220	2	→	BFP 21 R3	071N0171	
VM	VM1RR1 4 (or 5) F84-220	1	→	BFP 21 R3	071N0157	

2) Important: These pumps are delivered for 2-pipe operation. If the pumps are mounted on a one-pipe system, the changeover screw must be removed (fig. page 53) and the return port must be stopped with a metal plug.

Oil pumps – Delta

Delta			➡	Danfoss oil pumps		
Type	Code no.	1-2 pipe	➡	Type	Code no.	Comments/accessories
VM	VM2LR2 4 (or 5) F84-220	2	➡	BFP 21 L5	071N0172	Delta: 57 l/h; BFP: 40 l/h at 10 bar
VM	VM2LR1 4 (or 5) F84-220	1	➡	BFP 21 L5	071N0172	
VM	VM2LL2 4 (or 5) F84-220	2	➡	BFP 21 L5	071N0172	
VM	VM2LL1 4 (or 5) F84-220	1	➡	BFP 21 L5	071N0172 ²⁾	
VM	VM2RL2 4 (or 5) F84-220	2	➡	BFP 21 R5	071N0173	
VM	VM2RL1 4 (or 5) F84-220	1	➡	BFP 21 R5	071N0173	
VM	VM2RR2 4 (or 5) F84-220	2	➡	BFP 21 R5	071N0173	
VM	VM2RR1 4 (or 5) F84-220	1	➡	BFP 21 R5	071N0173 ²⁾	
VM	VM3LR1 4 (or 5) F84-220	1	➡	BFP 21 L5	071N0172	Delta: 80 l/h; BFP: 40 l/h at 10 bar
VM	VM3LR2 4 (or 5) F84-220	2	➡	BFP 21 L5	071N0172	
VM	VM3RL1 4 (or 5) F84-220	1	➡	BFP 21 R5	071N0173	
VM	VM3RL2 4 (or 5) F84-220	2	➡	BFP 21 R5	071N0173	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	VM1LR2 4 (or 5) M8-220	2	➡	BFP 21 L3	071N0170	
VM	VM1LR1 4 (or 5) M8-220	1	➡	BFP 21 L3	071N0156	
VM	VM1LL2 4 (or 5) M8-220	2	➡	BFP 21 L3	071N0170	
VM	VM1LL1 4 (or 5) M8-220	1	➡	BFP 21 L3	071N0156	
VM	VM1RL2 4 (or 5) M8-220	2	➡	BFP 21 R3	071N0171	
VM	VM1RL1 4 (or 5) M8-220	1	➡	BFP 21 R3	071N0157	
VM	VD1RR2 4 (or 5) M8-220	2	➡	BFP 21 R3	071N0171	
VM	VM1RR1 4 (or 5) M8-220	1	➡	BFP 21 R3	071N0157	
VM	VM2LR2 4 (or 5) M8-220	2	➡	BFP 20 L5	071N0172*	
VM	VM2LR1 4 (or 5) M8-220	1	➡	BFP 20 L5	071N0172*	

2) Important: These pumps are delivered for 2-pipe operation. If the pumps are mounted on a 1-pipe system, the changeover screw must be removed (fig. page 53) and the return port must be stopped with a metal plug.

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

Oil pumps – Delta

Delta			➡	Danfoss oil pumps		
Type	Code no.	1-2 pipe	➡	Type	Code no.	Comments/accessories
VM	VM2LL2 4 (or 5) M8-220	2	➡	BFP 21 L5	071N0172*	M8-220: See page 38
VM	VM2LL1 4 (or 5) M8-220	1	➡	BFP 21 L5	071N0172 ^{2)*}	
VM	VM2RL2 4 (or 5) M8-220	2	➡	BFP 20 R5	071N0173*	
VM	VM2RL1 4 (or 5) M8-220	1	➡	BFP 20 R5	071N0173*	
VM	VM2RR2 4 (or 5) M8-220	2	➡	BFP 21 R5	071N0173*	
VM	VM2RR1 4 (or 5) M8-220	1	➡	BFP 21 R5	071N0173 ²⁾	
VM	VM3LR1 4 (or 5) M8-220	1	➡	BFP 20 L5	071N0172 ³⁾	Delta: 80 l/h, BFP: 40 l/h at 10 bar
VM	VM3LR2 4 (or 5) M8-220	2	➡	BFP 20 L5	071N0172	
VM	VM3RL1 4 (or 5) M8-220	1	➡	BFP 20 R5	071N0173 ³⁾	
VM	VM3RL2 4 (or 5) M8-220	2	➡	BFP 20 R5	071N0173	F84-220: Indicates coil with loose cable and for 220 V, 50 Hz Delta has outlet to the right
VMK	VMK1LR2 4-6 / F84-220	2	➡	BFP 52E L3	071N02201 ⁴⁾	
VMK	VMK1LR1 4-6 / F84-220	1	➡	BFP 52E L3	071N02201 ²⁾⁴⁾	
VMK	VMK1LL2 4-6 / F84-220	2	➡		No repl.	
VMK	VMK1LL1 4-6 / F84-220	1	➡		No repl.	
VMK	VMK1RL2 4-6 / F84-220	2	➡		No repl.	
VMK	VMK1RL1 4-6 / F84-220	1	➡		No repl.	
VMK	VMK1RR2 4-6 / F84-220	2	➡	BFP 52E R3	071N2203 ⁴⁾	
VMK	VMK1RR1 4-6 / F84-220	1	➡	BFP 52E R3	071N2203 ⁴⁾	BFP 52E is not delivered for other voltages.

2) Important: These pumps are delivered for 2-pipe operation. If the pumps are mounted on a 1-pipe system, the changeover screw must be removed (fig. page 53) and the return port must be stopped with a metal plug.

3) A screw for 2-pipe operation is fitted under the cover of these pumps. Without horseshoe washer: Pump set for 2-pipe operation. With horseshoe washer: Pump set for 1-pipe operation (see page 53).

4) The pump NC valve must be connected in parallel with the burner motor.

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

Oil pumps – Delta

Delta			➡	Danfoss oil pumps		
Type	Code no.	1-2 pipe	➡	Type	Code no.	Comments/accessories
VMK	VMK2LR2 4-6 / F84-220	2	➡	BFP 52E L5	071N2202	Delta: 57 l/h, BFP: 40 l/h at 10 bar
VMK	VMK2LR1 4-6 / F84-220	1	➡	BFP 52E L5	071N2202 ^{2) 4)}	
VMK	VMK2LL2 4-6 / F84-220	2	➡		No repl.*	F84-220: See page 39
VMK	VMK2LL1 4-6 / F84-220	1	➡		No repl.*	
VMK	VMK2RL2 4-6 / F84-220	2	➡		No repl.*	
VMK	VMK2RL1 4-6 / F84-220	1	➡		No repl.*	
VMK	VMK2RR2 4-6 / F84-220	2	➡	BFP 52E R5	071N2204	
VMK	VMK2RR1 4-6 / F84-220	1	➡	BFP 52E R5	071N2204 ²⁾	Delta: 68 l/h, BFP: 40 l/h at 10 bar
VMK	VMK3LR1 4 (or 5) M8-220	1	➡	BFP 52E L5	071N2202 ³⁾	
VMK	VMK3LR2 4 (odr 5) M8-220	2	➡	BFP 52E L5	071N2202	
VMK	VMK3RR1 4 (or 5) M8-220	1	➡	BFP 52E R5	071N2204 ³⁾	
VMK	VMK3RR2 4 (oder 5) M8-220	2	➡	BFP 52E R5	071N2204	
VMK	VMK1LR2 4-6 / M8-220	2	➡	BFP 52E L3	071N02201 ⁴⁾	M8-220: Indicates coil with fixed cable and for 220 V, 50 Hz. Generally the following cable should be ordered here: For NC: Cable no. 071G0200 L = 500 mm, or Cable no. 071G0202 L = 280 mm, or Cable no. 071G0204 L = 710 mm
VMK	VMK1LR1 4-6 / M8-220	1	➡	BFP 52E L3	071N02201 ^{2) 4)}	
VMK	VMK1LL2 4-6 / M8-220	2	➡		No repl.*	
VMK	VMK1LL1 4-6 / M8-220	1	➡		No repl.*	
VMK	VMK1RL2 4-6 / M8-220	2	➡		No repl.*	
VMK	VMK1RL1 4-6 / M8-220	1	➡		No repl.*	
VMK	VMK1RR2 4-6 / M8-220	2	➡	BFP 52E R3	071N2203 ⁴⁾	
VMK	VMK1RR1 4-6 / M8-220	1	➡	BFP 52E R3	071N2203 ⁴⁾	
VMK	VMK2LR2 4-6 / M8-220	2	➡	BFP 52E L5	071N2202 ^{2) 4)}	
VMK	2LR1 4-6 / M8-220	1	➡	BFP 52E L5	071N2202 ^{2) 4)}	

2) Important: These pumps are delivered for 2-pipe operation. If the pumps are mounted on a 1-pipe system, the changeover screw must be removed (fig. page 53) and the return port must be stopped with a metal plug.

3) A screw for 2-pipe operation is fitted under the cover of these pumps.

Without horseshoe washer: Pump set for 2-pipe operation. With horseshoe washer: Pump set for 1-pipe operation (se page 53).

4) The pump NC valve must be connected in parallel with the burner motor.

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

Oil pumps – Delta

Delta			➡	Danfoss oil pumps		
Type	Code no.	1-2 pipe	➡	Type	Code no.	Comments/accessories
VMK	VMK2LL2 4-6 / M8-220	2	➡		No repl.*	For NO: Cable no. 071G0201 L = 500 mm, or Cable no. 071G0203 L = 280 mm, or Cable no. 071G0205 L = 710 mm BFP 52E are not delivered for other voltages.
VMK	VMK2LL1 4-6 / M8-220	1	➡		No repl.*	
VMK	VMK2RL2 4-6 / M8-220	2	➡		No repl.*	
VMK	VMK2RL1 4-6 / M8-220	1	➡		No repl.*	
VMK	VMK2RR2 4-6 / M8-220	2	➡	BFP 52E R5	071N2204 ⁴⁾	Delta: 57 l/h, BFP: 40 l/h at 10 bar
VMK	VMK2RR1 4-6 / M8-220	1	➡	BFP 52E R5	071N2204 ⁴⁾	
VMK	VMK3LR1 4 (or 5) M8-220	1	➡	BFP 52E L5	071N2202 ³⁾ 4)	M8-220: See page 40
VMK	VMK3LR2 4 (or 5) M8-220	2	➡	BFP 52E L5	071N2202 ²⁾ 4)	
VMK	VMK3RR1 4 (or 5) M8-220	1	➡	BFP 52E R5	071N2204 ³⁾ 4)	
VMK	VMK3RR2 4 (or 5) M8-220	2	➡	BFP 52E R5	071N2204 ⁴⁾	

2) Important: These pumps are delivered for 2-pipe operation. If the pumps are mounted on a 1-pipe system, the changeover screw must be removed (fig. page 53 and the return port must be stopped with a metal plug.

3) A screw for 2-pipe operation is fitted under the cover of these pumps.

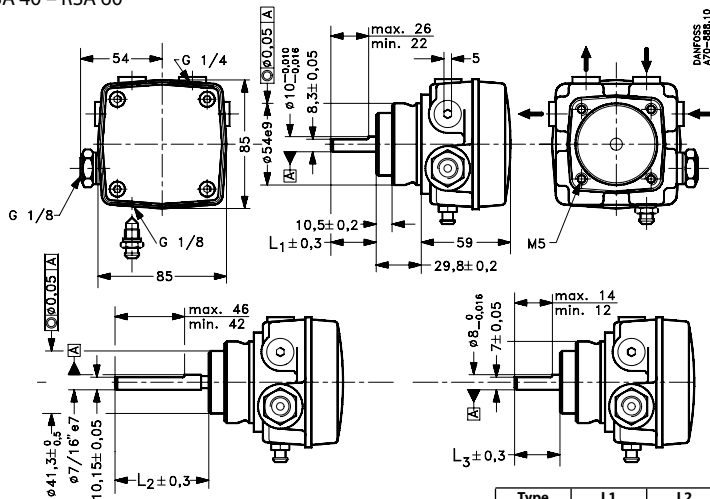
Without horseshoe washer: Pump set for 2-pipe operation. With horseshoe washer: Pump set for 1-pipe operation (see page 53).

4) The pump NC valve must be connected in parallel with the burner motor.

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

Dimensions – RSA

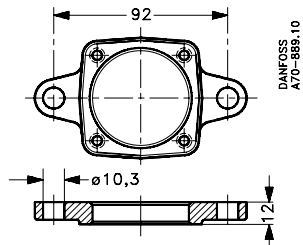
RSA 28 – RSA 40 – RSA 60




Type	L1	L2	L3
RSA 28	30.0	62.0	11.4
RSA 40	28.8	60.8	10.2
RSA 60	26.8	58.8	-

Spare parts and accessories – RSA/RSH

RSA 28 – RSA 40 – RSA 60
Flange 070-0211

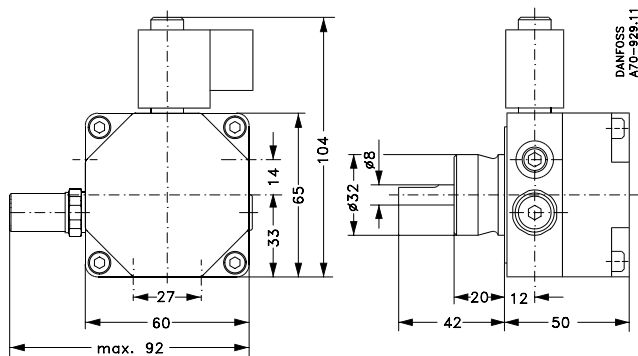


Spare Parts and Accessories RSA/RSH

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	070-0034	Filter, diaphragm, gasket
		RSH 63/95/125	070-0035	Filter, diaphragm, gasket
O-ring	O-ring set for	RSA 28/40/60, RSH 32/63	070-0036	3 O-rings
		RSA 95/125, RSH 95/125	070-0037	3 O-rings
Gear set 	Gear set 28	RSA 28, RH-rotation	070-0062	Complete gear set and plates
		RSA 28, LH-rotation	070-0063	Complete gear set and plates
	Gear set 32 and 40	RSA 40, RSH 32, RH-rotation	070-0064	Complete gear set and plates
		RSA 40, RSH 32, LH-rotation	070L0065	Complete gear set and plates
	Gear set 60 and 63	RSA 60, RSH 63, RH-rotation	070-0066	Complete gear set and plates
		RSA 60, RSH 63, LH-rotation	070L0067	Complete gear set and plates
	Gear set 95	RSA 95, RSH 95, RH-rotation	070-0068	Complete gear set and plates
		RSA 95, RSH 95, LH-rotation	070L0069	Complete gear set and plates
	Gear set 125	RSA 125, RSH 125, RH-rotation	070-0070	Complete gear set and plates
		RSA 125, RSH 125, LH-rotation	070L0071	Complete gear set and plates
Valve set	Valve set for RSA	RSA 28/40/60/95	070-0038	Piston, nippel and Cu ring
	Valve set for RSA, RSH	RSA 125 and RSH 32/63/95/125	070-0044	Piston, nippel and Cu ring
	Valve set special. No closing function	RSA 125	070-0041	Piston, nippel and Cu ring
Shaft seal	Shaft seal set	RSA, RSH, RH-rotation	070-2050	Complete shaft seal
		RSA, RSH, LH-rotation	070L2051	Complete shaft seal
Spring	Spring.1-5 bar	RSA	070-0030	Low pressure spring 1-5 bar
Flange	Flange	RSA and RSH	070-0211	Flange and screw

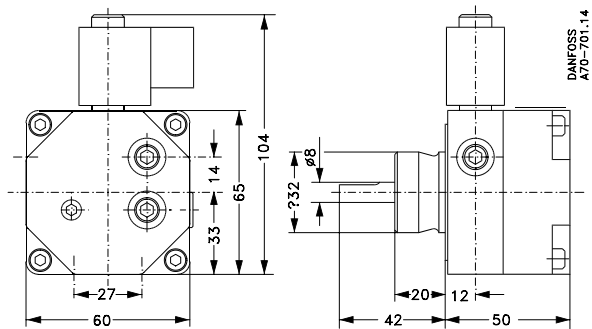
Dimensions – BFP 10/11

Type 3, 5



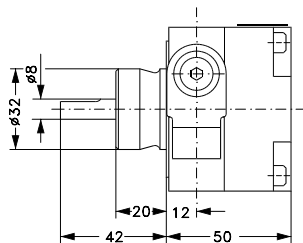
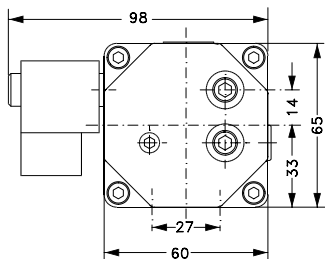
Dimensions – BFP 20/21

Type 3 and 5



Dimensions – BFP 41

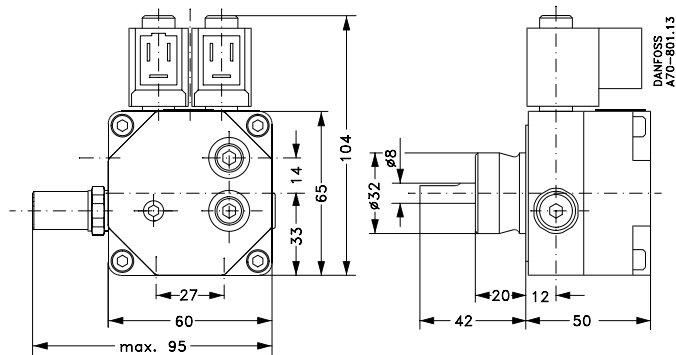
Type 3 and 5



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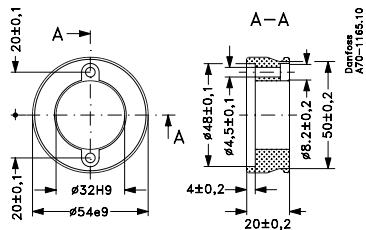
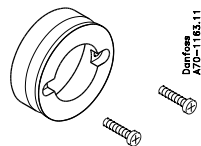
Dimensions – BFP 52 E

Type 3 and 5

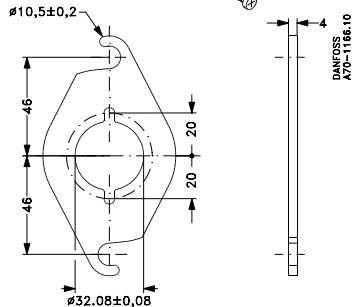
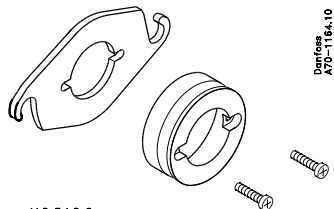


Accessories – BFP


Bush and screws
Code no. 071B0011



Bush, screws and flange
Code no. 071N0047



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
	RIng	BFP 10, 11, 12, 51, 52 and 53. Size 4 - 6 - 8 - 11 - 13	071N0653	Filter, spring and Viton O-ring
O-ring	O-ring 54 mm for cover	All	071N1033	O-ring
Coils	Description on coil			
	NC 071N0051 220/240 V a.c.	BFPC - BFA - BFP 11, 21, 31, 41 and 52E. Size 2 - 3 - 4 - 5 - 6	071N0010	Coil, nut and washer
	NC 071N0052 110/120 V a.c.	BFPC - BFPS - BFP 21 and 52E. Size 3 - 5	071N0061	Coil, nut and washer
	NC 071N0053 24 V a.c.	BFA - BFPC - BFPS - BFP 11 and 21. Size 3	071N0062	Coil, nut and washer
	NC 071N0631 230 V a.c.	BFP 11, 12, 51, 52 and 53. Size 4 - 6 - 8 - 11 - 13	071N0640	Coil, nut and washer
	NC 071N0802 24 V d.c.	BFA - BFP 21. Size 3	071N0008	Coil, nut and washer
	NO 071N0054 220/240 V a.c.	BFP 52E. Size 3 - 5	071N0601	Coil, nut and washer
Valves	NC for NC and NO coil	BFA - BFPC - BFPS - BFP 11, 21, 31, 41 and 52E. Size 3 - 4 - 5	071N0050	Valve, nut and washer
	NC for 24 V coil	BFA - BFPS - BFP 21. Size 3	071N0007	Valve, nut and washer
	NC	BFP 11, 12, 52 and 53. Size 11 - 13	071N0654	Valve, nut and washer
	NC	BFP 11, 12 and 52. Size 4-6-8	071N0641	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
Shaft seal 	Shaft seal			
	LH-rotation	All	071N0070	Complete shaft seal
	RH-rotation	All	071N0071	Complete shaft seal
Plugs	Plug (steel) for cartridge filter	BFP 20, 21, 31, 41 and 52E	071N0074	Plug and O-ring
	Plug 1/8" (brass) for P and V port	All	071N0604	Plug and O-ring
	Plug M10 (brass) for NC valve	All	071N0065	Plug
	Plug 1/4" (brass) for 1/4" conection	All	071N1055	Plug and O-ring
Change	Change over set, 1-pipe operation	BFP Size 8 - 11 - 13	071N0655	Washer and 1/4" plug and O-ring
Spring	For low pressure operation	BFP 10, 11. Size 8 - 11 - 13	071N0656	Low pressure spring

Spare parts and accessories – BFP (MS) (continued)

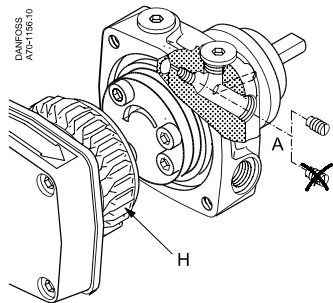
Description		Pump type/size	Code No.	Content
Busch/ flange	Bush 32 - 54 mm and flange	All	071N0047	Bush, flange and screws
	Bush 32 - 54 mm	All	071B0011	Bush and screws
	Bush 32 - 54 mm and flange	BFPH	071B0012	As long as stock are available
MS filter	Ring	MS	071G0028	Filter and O-ring
MSL filter	Ring	MSL	071B0090	Filter and O-ring

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.

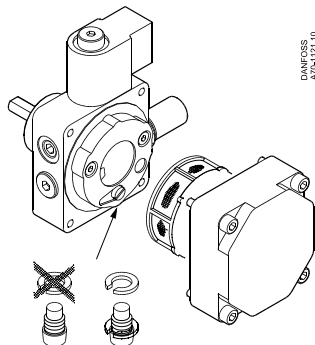
RSA



2-pipe operation:
Screw (A) fitted

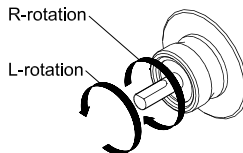
1-pipe operation:
Without screw (A)

BFP 10/11 type 3, 5



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

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

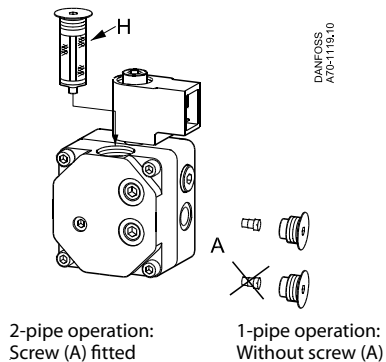


Changeover between 1- and 2-pipe operation, Filter replacement (H)

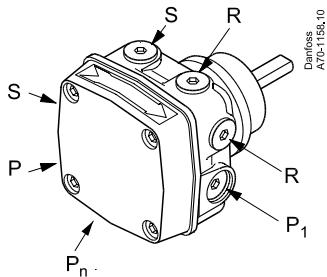
BFP 20/21 type 3, 5

BFP 41 type 3, 5

BFP 52E type 3, 5



Connections – RSA



P₁ Pressure adjustment

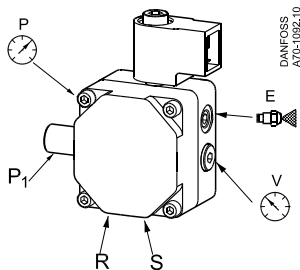
S Suction inlet G 1/4

R Return outlet G 1/4

P Pressure outlet G 1/8

P_n Pressure gauge port G 1/8

Type 3 and 5



P₁ Pressure adjustment

S Suction inlet G 1/4

R Return outlet G 1/4

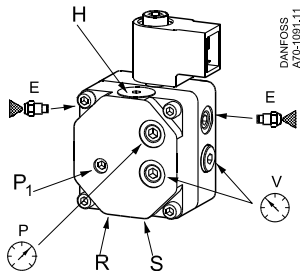
E Nozzle outlet G 1/8

P Pressure gauge port G 1/8

V Vacuum gauge port G 1/8

Connections – BFP 20/21

Type 3 and 5



P₁ Pressure adjustment

S Suction inlet G 1/4

R Return outlet G 1/4

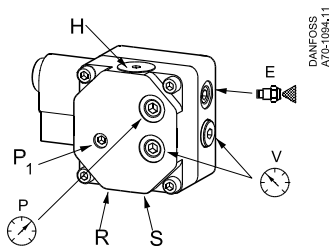
E Nozzle outlet G 1/8

P Pressure gauge port G 1/8

V Vacuum gauge port G 1/8

H Filter

Type 3 and 5



P₁ Pressure adjustment

S Suction inlet G 1/4

R Return outlet G 1/4

E Nozzle outlet G 1/8

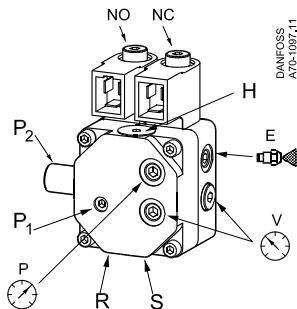
P Pressure gauge port G 1/8

V Vacuum gauge port G 1/8

H Filter

Connections – BFP 52E

Type 3 and 5

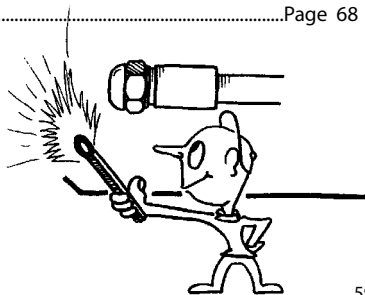


- P₁** Pressure adjustment stage 1
- P₂** Pressure adjustment, stage 2
- S** Suction inlet G 1/4
- R** Return outlet G 1/4
- E** Nozzle outlet G 1/8
- P** Pressure gauge port G 1/8
- V** Vacuum gauge port G 1/8
- H** Filter

2. Oil burner controls

Contents

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Conversion	BHO, older series → BHO 70 series.....	Page 62
Conversion	BHO 1 WLE and BHO 4 WLE → BHO 70 series.....	Page 62
Conversion	BHO 21/25 and BHOV 22 → BHO 70 series	Page 63
Conversion	LOA → BHO 70 series	Page 64
Conversion	BHO → BHO 70 series.....	Page 65
Dimensions	BHO 70 series.....	Page 66
Photo units	Page 67
Service pack	Page 68

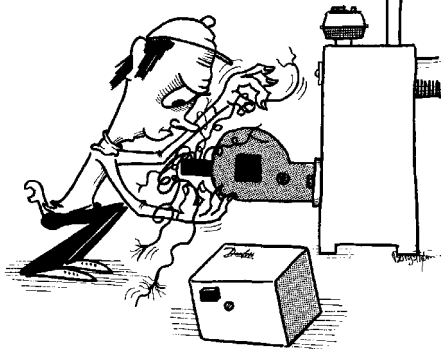


Oil burner controls

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 230: 2005, oil burner controls must in future have undervoltage protection. BHO 70 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.

Oil burner controls

Older Danfoss series		➡	Relevant Danfoss oil burner controls		
Type	Code no.	➡	Type	Code no.	Comments/Accessories
57F1	057F0001	➡	BHO 72.10	057H6102	+ 057H7224
57F3	057F0003	➡	BHO 72.10	057H6102	
57H1	057H0062	➡	BHO 72.10	057H6102	
57H1	057H0072	➡	BHO 72.10	057H6102	
57H1	057H1002	➡		No repl.	
57H3	057H1003	➡	BHO 72.10	057H6102	
57H1 WLE	057H0042	➡	BHO 74.10	057H6105	
57H1	057H0052	➡	BHO 72.10	057H6102	
57H2	057H0053	➡	BHO 72.10	057H6102	
57H2	057H0063	➡	BHO 72.10	057H6102	
57H3	057H1005	➡		No repl.	120 V
57H3	057H0054	➡	BHO 72.10	057H6102	+ 057H7224
57H3	057H0064	➡	BHO 72.10	057H6102	
57H5	057H0045	➡	BHO 74.10	057H6105	
57H5	057H0055	➡	BHO 72.10	057H6102	
57H5	057H0065	➡	BHO 72.10	057H6102	
57H6	057H0032	➡		No repl.	
57L 1	057L0001	➡	BHO 72.10	057H6102	+ 057H7224 Use motor starter on 380 V
57L 1d	057L0002	➡	BHO 72.10	057H6102	
57L 3	057L0003	➡	BHO 72.10	057H6102	
57L 3d	057L0004	➡	BHO 72.10	057H6102	
BCG 1d	057L1001	➡		No repl.	
BCG 1d	057L1002	➡		No repl.	
BCG 1d	057L1003	➡		No repl.	
BCG 3,3d	057L1004	➡		No repl.	

Oil burner controls

Oil burner controls

Older Danfoss series		➔	Relevant Danfoss oil burner controls		
Type	Code no.	➔	Type	Code no.	Comments/Accessories
BCG 3.5d	057L1005	➔		No repl.	
BHO 1A	057H3013	➔	BHO 72.10	057H6102	+ 057H7224
BHO 1B	057H3014	➔	BHO 72.10	057H6102	
BHO 1	057H3011	➔	BHO 72.10	057H6102	
BHO 1 WLE	057H3010	➔	BHO 74.10	057H6105	
BHO 1 WLE	057H3054	➔	BHO 74.10	057H6105	
BHO 3B	057H3018	➔	BHO 72.11	057H6103	
BHO 3B	057H3020	➔	BHO 72.11	057H6103	
BHO 4	057H4104	➔	BHO 72.10	057H6102	
BHO 4B	057H4144	➔	BHO 72.10	057H6102	
BHO 4 WLE	057H4110	➔	BHO 74.10	057H6105	
BHO 4.1	057H3012	➔	BHO 72.10	057H6102	
BHO 4.1B	057H3039	➔	BHO 72.10	057H6102	
BHO 4.1B	057H3044	➔	BHO 72.10	057H6102	
BHO 5	057H4105	➔	BHO 72.10	057H6102	
BHO 5.1	057H3015	➔	BHO 72.10	057H6102	
BHO 6	057H3032	➔		No repl.	
BHO 11	057H2011	➔	BHO 72.10	057H6102	+ 057H7224
BHO 11.1	057H2011	➔	BHO 72.10	057H6102	
BHO 11.1	057H2013	➔	BHO 72.10	057H6102	
BHO 11.1	057H2014	➔	BHO 72.10	057H6102	
BHO 12	057H2031	➔	BHO 72.10	057H6102	
BHO 12	057H2012	➔	BHO 72.10	057H6102	
BHO 12.1	057H2005	➔	BHO 72.10	057H6102	
BHO 12.1	057H2012	➔	BHO 72.10	057H6102	

Oil burner controls

Older Danfoss series		➡	Relevant Danfoss oil burner controls		
Type	Code no.	➡	Type	Code no.	Comments/Accessories
BHO 15	057H2015	➡	BHO 72.10	057H6102	+ 057H7224
BHO 21	057H2042	➡	BHO 74.10	057H6105	
BHO 25	057H2045	➡	BHO 74.10	057H6105	
BHOV 1	057H3016	➡	BHO 72.10	057H6102	
BHOV 4	057H3030	➡	BHO 72.10	057H6102	
BHOV 4A	057H3033	➡	BHO 72.10	057H6102	
BHOV 4B	057H3034	➡	BHO 72.10	057H6102	
BHOV 12.2	057H2030	➡	BHO 72.10	057H6102	
BHOV 12.2	057H2033	➡	BHO 72.10	057H6102	
BHOV 12.2	057H2034	➡	BHO 72.10	057H6102	
BHOV 22	057H2054	➡	BHO 74.10	057H6105	
FRA	086B0090	➡	LAE 10 LFE 10	Landis & Stäfa ¹⁾	Not supplied by Danfoss
FRU	086B0091	➡	LFE	Landis & Stäfa	Not supplied by Danfoss

¹⁾ Ionisation

Oil burner controls

Landis & Stäfa		Relevant Danfoss oil burner controls		
Type	➔	Type	Code no.	Comments/accessories
LOA 21.171B27	➔	BHO 72.10	057H6102	
LOA 21.171B17	➔		No repl.	110 V
LOA 21.173A27	➔	BHO 73.10	057H6104	
LOA 22.171B27	➔	BHO 72.10	057H6102	
LOA 22"DF"	➔	BHO 72.10	057H6102	
LOA 24.171B27	➔	BHO 72.10	057H6102	
LOA 24.571C27	➔	BHO 71.11	057H6103	
LOA 44.252A27	➔	BHO 74.10	057H6105	
LMO 14.111B2	➔	BHO 71.10	057H6101	
LMO 24.111B2	➔	BHO 72.10	057H6102	
LMO 24.011B2	➔	BHO 72.11	057H6103	
LMO 24.113B2	➔	BHO 73.10	057H6104	
LMO 44.255C2	➔	BHO 74.10	057H6105	



Oil burner controls

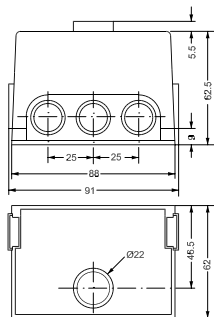
BHO			➡	BHO		
Type	Code no.	Comments/accessories	➡	Type	Code no.	Comments/accessories
BHO 61A	057H7031		➡	BHO 73.10	057H6104	
BHO 61	057H7032		➡	BHO 72.10	057H6102	
BHO 62	057H7034		➡	BHO 72.10	057H6102	
BHO 62D	057H7035		➡	BHO 72.10	057H6102	
BHO 61	057H7033	110 V	➡		No repl.	
BHO 64	057H7036		➡	BHO 72.10	057H6102	
BHO 64A	057H7030		➡	BHO 73.10	057H6104	
BHO 64.1	057H7037		➡	BHO 72.11	057H6103	

Defective components	Replacement components
Older oil burner controls	BHO 70 series + photo unit
BHO 60-Series	BHO 70 series only
Old LD/LDS 057H0020 etc. 057H2000 series	BHO 70 series + photo unit
New LD/LDS 057H7000 series	Photo unit only

In burners without solenoid valve the motor must be connected 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



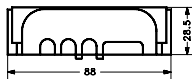
Oil burner control with
base
Cable entry 057H7211

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AS7-555.12



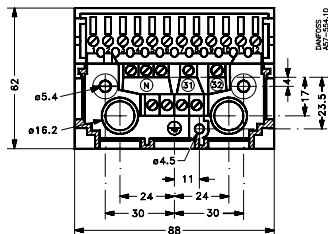
Cable entry 057H7211

DANFOSS
AS7-572.10



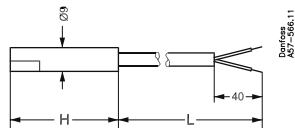
Cable entry 57H7212

DANFOSS
AS7-566.11



Base 057H7210.
The cross-hatched part
can be replaced.

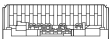


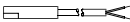



Photo units

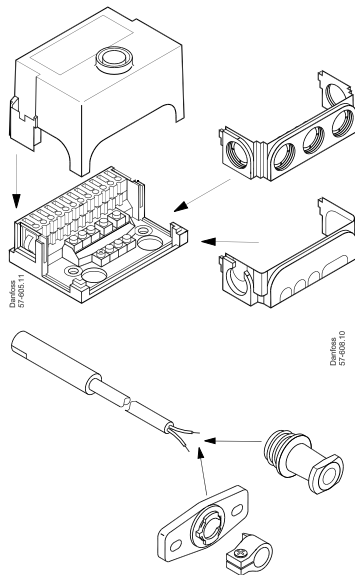


Type	Colour	H	L	Code no.
LD	Black	65.5	2000	057H7278
LD	Black	65.5	780	057H7279
LD	Black	50	500	057H7281
LDS	Red	50	500	057H7285
LDS	Red	65.5	520	057H7287
LDS	Red	105	350	057H7291
LDS	Red	65.5	800	057H7292
LDS	Light blue	50	500	057H7293
LDS	Light blue	65.5	600	057H7294

Service pack

Content 057H7224

	057H7010
	057H7011
	057H7012
	057H7087
	057H7071
	057H7072
	-



3. Ignition units

Contents

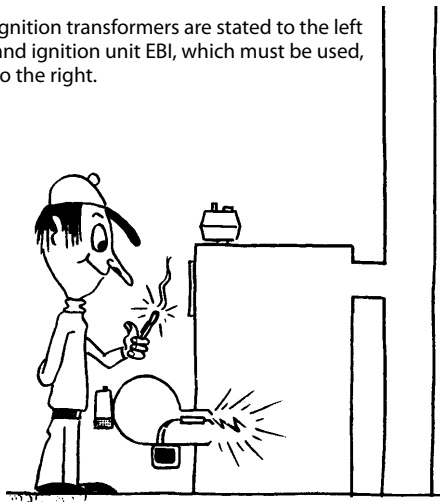
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Ordering	Page 72
Conversion	52L -> EBI.....	Page 73
Dimensions	EBI	Page 75
Accessories	Page 78

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 chosen (ED = cutting in time).

Danfoss' electronic ignition units*

EBI4 Series

Electronic ignition units for oil burners

- ED 33% at 60°C
- 1 or 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

EBI5 Series

Compact and highly effective electronic ignition units

- ED 33% at 70°C ED 50% at 60°C
- 1 or 2 pole ignition
- Complies with the RoHs and WEEE directives



*Danfoss electronic ignition units from the EBI4 series will be introduced into the service market during 2009.

Ordering

EBI Series				
Type	Code no.	➡	Type	Code no.
EBI	052F0030	➡	EBI	052F0030
EBI	052F0036	➡	EBI	052F0036
EBI	052F0037	➡	EBI	052F0030
EBI	052F0052	➡	EBI	052F0052
EBI 1P	052F0040	➡	EBI 1P	052F0040
EBI 1P	052F0043	➡	EBI 1P	052F0040
EBI 1P	052F0045	➡	EBI	052F0045
EBI 1P (120 V)	052F0057	➡	EBI 1P (120V)	052F0057
EBI M	052F0033	➡	EBI M	052F0033
EBI M	052F0039	➡	EBI M	052F0033
EBIM	052F0050	➡	EBI M	052F0033
EBI M (120 V)	052F0055	➡	EBI M (120V)	052F0055

EBI C Series				
Type	Code no.	➡	Type	Code no.
EBI C 1P	052F0079	➡	EBI C 1P	052F0079
EBI CM	052F0077	➡	EBI CM	052F0077
EBI CM	052F0078	➡	EBI CM	052F0078

EBI HP Series				
Type	Code no.	➡	Type	Code no.
EBI HP1P	052F0084	➡	EBI HP 1P	052F0084
EBI HPM	052F0075	➡	EBI HPM	052F0075
EBI HPM	052F0076	➡	EBI HPM	052F0076

EBI5 Series				
Type	Code no.	➡	Type	Code no.
EBI5	052F0085	➡	EBI5	052F0085
EBI5 1P	052F0087	➡	EBI5 1P	052F0087
EBI5 M	052F0086	➡	EBI5 M	052F0086

Ignition units

52L		➡	EBI		
Type	Code no.	➡	Type	Code no.	Comments/accessories
52L	052L0000-03	➡	EBI	052F0030	Primary cable 052F0102 and accessory 052F0061
52L	052L0005	➡	EBI	052F0030	
52L	052L0007-09	➡	EBI	052F0030	
52L	052L0014-15	➡	EBI	052F0030	
52L	052L0017	➡	EBI	052F0030	
52L	052L0019-20	➡	EBI	052F0030	
52L	052L0023	➡	EBI	052F0030	
52L	052L0028	➡	EBI	052F0030	
52L	052L0034	➡	EBI	052F0030	
52L	052L0036-39	➡	EBI	052F0030	
52L	052L0041-42	➡	EBI	052F0030	
52L	052L0045-48	➡	EBI	052F0030	
52L	052L0050-56	➡	EBI	052F0030	
52L	052L0058-61	➡	EBI	052F0030	
52L	052L0063-64	➡	EBI	052F0030	
52L	052L0066-79	➡	EBI	052F0030	
52L	052L0082	➡	EBI	052F0030	
52L	052L0086-87	➡	EBI	052F0030	
52L	052L0089-93	➡	EBI	052F0030	
52L	052L0095-98	➡	EBI	052F0030	
52L	052L1011	➡	EBI	052F0030	
52L	052L1033	➡	EBI	052F0030	
52L	052L1050-51	➡	EBI	052F0030	
52L	052L1054-57	➡	EBI	052F0030	

Ignition units

Ignition units

52L		➡	EBI		
Type	Code no.	➡	Type	Code no.	Comments/accessories
52L	052L1075-76	➡	EBI	052F0030	Primary cable 052F0102 and accessory 052F0061
52L	052L1080	➡	EBI	052F0030	
52L	052L1085	➡	EBI	052F0030	
52L	052L0018	➡	EBI 1P	052F0040	
52L	052L0026	➡	EBI 1P	052F0040	
52L	052L0030	➡	EBI 1P	052F0040	
52L	052L0040	➡	EBI 1P	052F0040	
52L	052L0049	➡	EBI 1P	052F0040	
52L	052L0065	➡	EBI 1P	052F0040	
52L	052L0088	➡	EBI 1P	052F0040	
52L	052L1058	➡	EBI 1P	052F0040	
52L	052L0006	➡	EBI	052F0055	
52L	052L0013	➡	EBI	052F0055	
52L	052L0016	➡	EBI	052F0055	
52L	052L0021	➡	EBI	052F0055	
52L	052L0044	➡	EBI	052F0055	
52L	052L0062	➡	EBI	052F0055	
52L	052L0099-1002	➡	No repl.		
52L	052L1007-08	➡	No repl.		
52L	052L1010	➡	No repl.		
52L	052L1019	➡	No repl.		
52L	052L1021-22	➡	No repl.		
52L	052L0010	➡	No repl.		
52L	052L0027	➡	No repl.		

EBI	EBI M, EBI CM, EBI HPM	EBI 1P, EBI C1P, EBI HP1P	a: Lefthand secondary connection b: Righthand secondary connection c: Earth terminal
a + b	a + b + c	b + c	

Secondary front connection

DAWP05
ABE-100.14

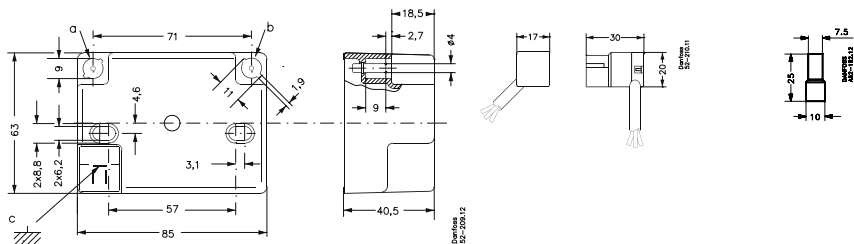
DAWP05
ABE-100.12

DAWP05
ABE-100.12

Dimensions

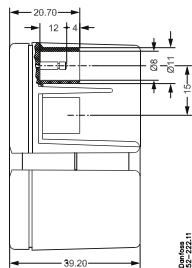
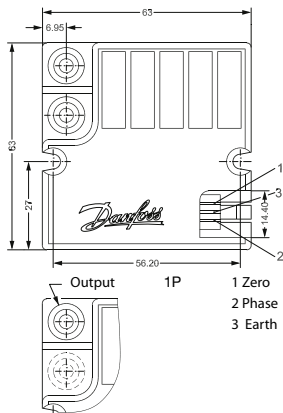
EBI	EBI CM, EBI HPM	EBI 1P	a: Lefthand secondary connection b: Righthand secondary connection c: Earth terminal
a + b	a + b + c	b + c	

Secondary top connection

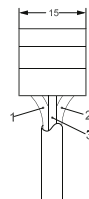


Dimensions

EBI 5

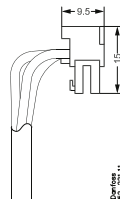


Part No.
52-222.11



Primarily cable with standard connection

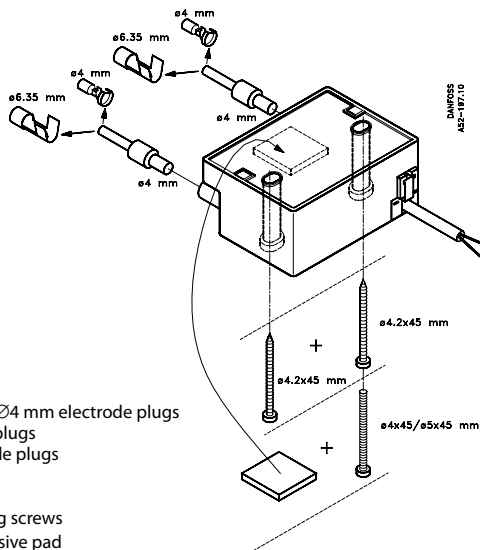
- 1 Brown
- 2 Blue
- 3 Yellow/Green



Part No.
52-222.11

Accessories

EBI service packs
Code no. 052F0061



The EBI accessory set 052F0061 is used, for example, when replacing a Danfoss type 52L ignition transformer or another make.

In addition to the high-voltage cables and electrode plugs, the accessory set also contains an assortment of screws. When fitting EBI only one screw and the double-sided adhesive pad are necessary. EBI can thus be used in most existing installations without it being necessary to drill new holes in the burner.

EBI accessory set

- 2 ignition cables with Ø4 mm electrode plugs
- 2 x Ø4 mm electrode plugs
- 2 x Ø6.35 mm electrode plugs
- 2 x M4 screws
- 2 x M5 screws
- 2 x 4.2 mm self-tapping screws
- 1 x double-sided adhesive pad

4. Oil nozzles - conversion

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Type OD – oil nozzles for virtually all burner types in the market.

- Capacities from 0.3 to 35 USgal/h
- EN standardised from 1.46 to 6.55 kg/h
- 30°/45°/60°/80° spray angles
- H/S/B spray patterns
- Sinter bronze filter up to 1.75 USgal/Monel mesh filter up to 12 USgal/h. Larger capacities without filter.



Hollow Spray Pattern

The hollow spray pattern is, represented in six nozzle types: OD-H, HR, LE, EH, AH, KH.



Solid Spray Pattern

The solid spray pattern is represented within the following nozzle types: OD-S, SR, LE, ES, AS.



Semi-Solid Spray Pattern

The semi-solid spray pattern is found in types: OD-B and AB.



Special Hollow Spray Pattern

This special hollow spray pattern, with slightly larger droplets in the middle, is only found in types LN and LN-LE.

Types HR and SR – round-head oil nozzles, identical to type OD as regards specifications.

- Capacities from 0.3 to 2.50 USgal/h
- EN standardised from 1.46 to 6.55 kg/h
- 45°/60°/80° spray angles
- H/S spray patterns
- Sinter bronze filter

Oil nozzles OD-H/-S/-B and HR/SR

USgal/h	30°	45°	60°	80°	EN kg/h
0.30			H S HR SR	H S HR SR	1.15
0.35			H S HR SR	H S HR SR	1.35
0.40		S SR	S SR	H S HR SR	1.46
0.45		S SR	H S HR SR	H S HR SR	1.66
0.50	H S	H S HR SR	H S HR SR	H S HR SR	1.87
0.55	H S	H S HR SR	H S HR SR	H S HR SR	2.11
0.60	H S	H S HR SR	H S B HR SR	H S B HR SR	2.37
0.65	H S B	H S B HR SR	H S B HR SR	H S B HR SR	2.67
0.75	H S B	H S B HR SR	H S B HR SR	H S B HR SR	2.94
0.85	H S B	H S B HR SR	H S B HR SR	H S B HR SR	3.31
1.00	H S B	H S B HR SR	H S B HR SR	H S B HR SR	3.72
1.10	H S	H S HR SR	H S HR SR	H S HR SR	4.24
1.20	H S	H S HR SR	H S HR SR	H S HR SR	4.45
1.25	H S B	H S B HR SR	H S B HR SR	H S B HR SR	4.71
1.35	H S B	H S B HR SR	H S B HR SR	H S B HR SR	5.17
1.50	H S B	H S B HR SR	H S B HR SR	H S B HR SR	5.84
1.65	H S	H S HR SR	H S HR SR	H S HR SR	6.08
1.75	H S	H S HR SR	H S HR SR	H S HR SR	6.55
2.00	H S B	H S B	H S B SR	H S B	7.42
2.25	H S B	H S B	H S B SR	H S B	8.35
2.50	H S B	H S B	H S B SR	H S B	9.29
2.75	H S B	H S B	H S B	H S B	10.5
3.00	H S B	H S B	H S B	H S B	11.6

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

USgal/h	30°	45°	60°	80°	kg/h
3.50	S	S	S	S	12.9
3.75	B	S B	B	B	13.8
4.00		S	S	S	14.2
4.50		S B	S B	S B	16.1
5.00		S B	S B	S B	18.5
5.50		S B	S B	S B	20.9
6.00		S B	S B	S B	23.4
6.50		B	B	B	26.1
7.00			S		27.9
7.50		B	B	B	29.8
8.00			S		31.5
8.50		B	B	B	33.1
9.00			S		35.4
10.00		B	B	B	37.7
11.00		B	B	B	42.5
12.00		B	B	B	47.7
13.50		B	B	B	54.3
15.00		B	B	B	60.4
17.00			B	B	67.4
19.50			B	B	76.2
22.00			B	B	86.4
25.00			B	B	96.7
28.00			B	B	109.5
31.50		B	B	B	122.5
35.00		B			133.5

Stainless steel nozzles from Danfoss

Oil Nozzles type HFD/HD and SFD/SD

Danfoss has extended its well-known range of oil nozzles with a programme of simplex nozzles in stainless steel.

The oil nozzles, type HFD/HD with hollow spray pattern and SFD/SD with solid spray pattern, also comply with European standard specifications, and are considered to be an attractive alternative to other nozzle makes with the same characteristics, shape and performance.

The steel nozzles are available with capacities from 0.30 to 2.50 USgal/h and with spray angles 45°, 60° and 80°.

Each oil nozzle produced by Danfoss is tested 100 percent electronically and visually for function and uniformity.



HFD/HD und SFD/SD oil nozzle programme

	USgal/h	45°	60°	80°	kg/h
HFD	0.40	030H4004	030H6004	030H8004	1.50
	0.45	030H4006	030H6006	030H8006	1.68
	0.50	030H4008	030H6008	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
HD	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

	USgal/h	45°	60°	80°	kg/h	
SFD	0.30	030F4002	030F6002	030F8002	1.12	
	0.35	030F4003	030F6003	030F8003	1.31	
	0.40	030F4004	030F6004	030F8004	1.50	
	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	
SD	1.65	030F4029	030F6029	030F8029	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	

Danfoss oil nozzles can be used to replace the following nozzles of other makes:

Conversion to Danfoss oil nozzles (European Market)		Danfoss
Delavan A	➡	H
Delavan B	➡	S
Delavan W	➡	B
Fluidics SF	➡	SFD/S
Fluidics HF	➡	HFD/S
Fluidics S	➡	SD/S
Fluidics H	➡	HD/H
Monarch PL	➡	HFD/HD/H
Monarch NS	➡	HFD/HD/H
Monarch PLP	➡	B
Monarch AR	➡	SFD/SD/S
Monarch R	➡	SFD/SD/S
Steinen PH	➡	H
Steinen H, HT	➡	HFD/HD/H
Steinen SS	➡	B
Steinen Q	➡	SFD/SD/S
Steinen S, ST	➡	SFD/SD/S

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

Danfoss Hago oil nozzles can be used to replace the following nozzles of other makes:

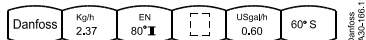
Conversion to Danfoss Hago oil nozzles (Worldwide except Europe)		Danfoss Hago
Delavan A	➡	H
Delavan B	➡	B
Delavan W	➡	SS/W
Fluidics SF	➡	B/DFN-B
Fluidics HF	➡	H/DFN-H
Fluidics S	➡	B
Fluidics H	➡	H
Monarch PL	➡	SS
Monarch NS	➡	H
Monarch PLP	➡	B
Monarch AR	➡	SS
Monarch R	➡	B
Steinen PH	➡	H
Steinen H, HT	➡	H/DFN-H
Steinen SS	➡	W/SS
Steinen Q	➡	W/SS
Steinen S, ST	➡	B/P/ES/DFN-B

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

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

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

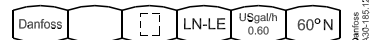
Marking of the SR/HR-nozzles

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

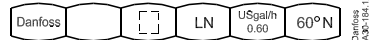
Marking of the LE-nozzles

**H LE-nozzle, green lid, white lettering****LN and LN LE-nozzle, light blue lid, white lettering**

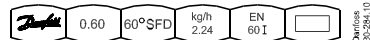
Marking LN LE-nozzles



Marking LN-nozzles

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

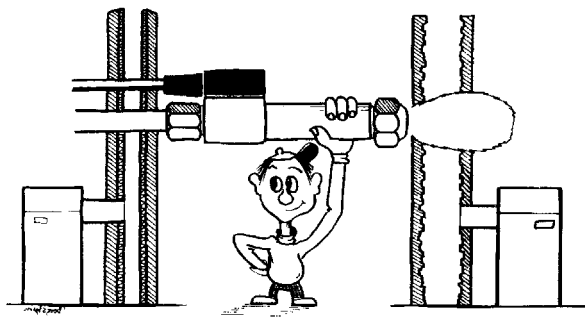
Marking SFD/SD, HFD/HD-nozzles

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

5. Oil preheaters

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Dimensions FPHB 10	Page	90
Dimensions FPHB LE	Page	91



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 or from Danfoss

Danfoss Standard Types

Marked on product Code no.	Multi pack Code no.	Type	Connection	PTC (°C)	Thermostat	Neck diameter
030N2302	030N6302	FPHB 3	G 1/8	1 x 90	60/32	18.5
030N1201	030N6201	FPHB 5	M8 x 1	1 x 70	60/32	18.5
030N1202	030N6202	FPHB 5	G 1/8	1 x 70	60/32	18.5
030N1218	030N6218	FPHB 5	G 1/8	1 x 70	60/32	18.2
030N1223	030N6223	FPHB 5	M16 x 1	1 x 120	60/32	18.5
030N2057	030N6057	FPHB 3	G 1/8	1 x 50	60/32	18.5
030N1220	030N6220	FPHB 10	G 1/8	1 x 120	60/32	18.5
030N1224	030N6224	FPHB 10	M8 x 1	1 x 120	60/32	18.2
030N4101	030N6101	FPHB LE	G 1/8	1 x 70	60/32	18.5

LE valve	Description/Application
030N4013	For FPHB LE and nozzle holder for build-in LE valve

MAX. 7

92

49

10

10

9/16-24 UNEF

32

22

24

M 16x1

Ø16

9.5

A

0.3

A-A

16

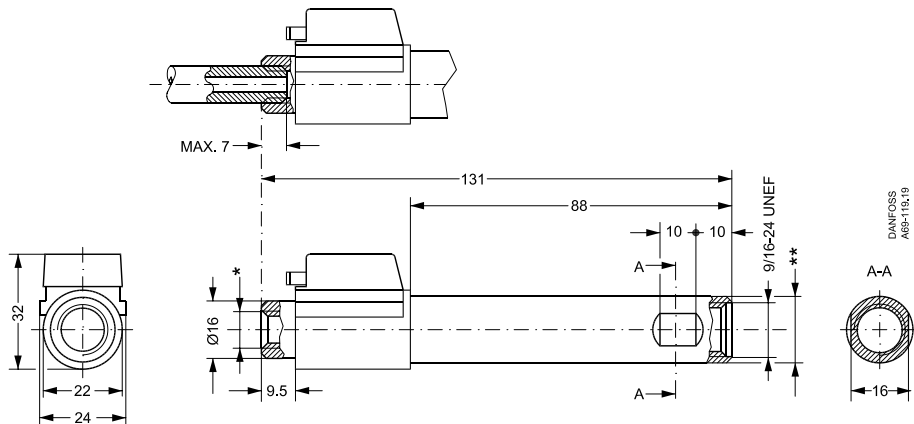
DANFOSS
A69-118,18

* Thread (see code no.)

** Neck diameter (see code no.)

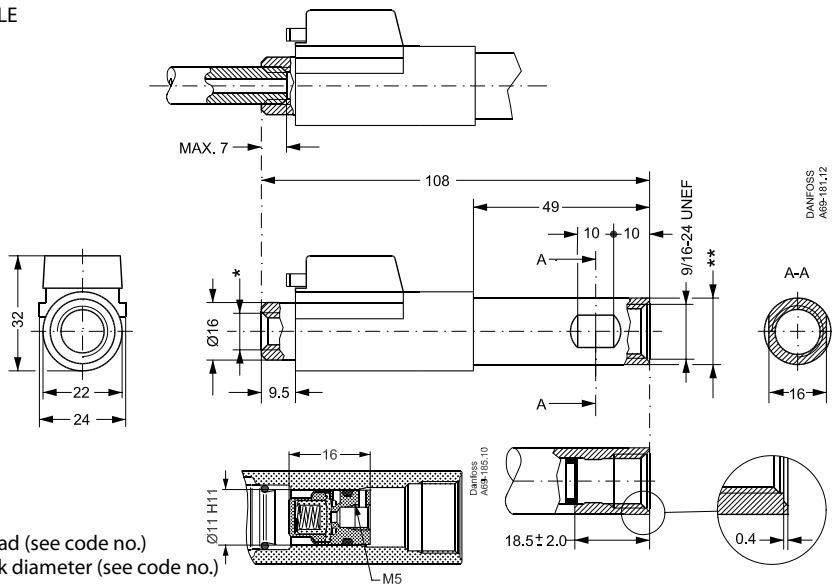
Dimensions

FPHB 10



Dimensions

FPHB LE





Danfoss is a leading global manufacturer of components for combustible liquid burners used in domestic, commercial and industrial applications. This position has been achieved by exceeding the expectations of our customers; responding quickly to their requirements; providing high quality in all respects and offering competitive prices – all with due consideration for the environment.

Our product range for oil burners and boilers comprises: oil pumps, oil nozzles, preheaters, ignition units, burner controls and thermostats.



The Heart of Heating