



Pumps

BFP 20/21

- size 3 and 5

Description

BFP 20/21 fuel pumps - size 3 and 5 are designed for small/medium-sized domestic fuel burners up to 42 l/h.

Features & Benefits

- Light oil, kerosene and biofuel blends hereof
- 1 or 2-pipe operation
- 1-stage
- Built-in pressure regulator
- Solenoid valve cut-off (BFP 21)
- Cartridge filter
- Bio compatible pressure and solenoid valve (Bio100 - version)

Applications

- Small/medium-sized domestic fuel burners up to 42 l/h.



Compatible with heating oil up to 100% biodiesel (FAME and UCOME)

Ordering

Product code numbers

This datasheet may not represent the complete product range. Please contact Danfoss for further information and availability.

Product Type	Nozzle/pressure outlet	ROTATION	1 or 2 stage	Capacity [l/h]	Biofuel blend	Code number
BFP 21	R	L	1	16.00	100	071N2306
BFP 21	R	L	1	16.00	10	071N2304
BFP 21	R	L	1	16.00	10	071N1177
BFP 21	R	R	1	16.00	10	071N1176
BFP 20	L + R	R	1	24.00	10	071N0200
BFP 21	R	R	1	24.00	10	071N0109
BFP 20	L	L	1	24.00	10	071N0125
BFP 21	L + R	R	1	24.00	10	071N7157
BFP 21	R	L	1	24.00	10	071N0185
BFP 21	L + R	R	1	24.00	10	071N1297
BFP 21	L	L	1	24.00	30	071N2140
BFP 21	L + R	L	1	24.00	100	071N7170
BFP 21	L	R	1	24.00	10	071N1109
BFP 21	R	R	1	24.00	10	071N0255
BFP 21	L	L	1	24.00	10	071N1250
BFP 21	R	R	1	24.00	10	071N0231
BFP 20	L + R	R	1	24.00	10	071N7169
BFP 21	L	L	1	24.00	10	071N4107
BFP 21	R	R	1	24.00	10	071N2336
BFP 21	L	R	1	24.00	10	071N1254
BFP 21	R	L	1	24.00	10	071N1175
BFP 21	L	R	1	24.00	10	071N1256
BFP 21	R	L	1	24.00	10	071N1251
BFP 21	L	L	1	24.00	10	071N0107
BFP 21	L + R	L	1	24.00	10	071N7156
BFP 21	L	R	1	24.00	10	071N0167
BFP 20	L + R	L	1	24.00	10	071N7168



BFP 21	R	R	1	24.00	10	071N2117
BFP 21	L	L	1	24.00	10	071N1200
BFP 21	L	L	1	24.00	10	071N0250
BFP 21	R	R	1	24.00	10	071N1248
BFP 21	R	R	1	42.00	10	071N2335
BFP 21	L	L	1	42.00	10	071N0292
BFP 20	L	R	1	42.00	10	071N1281
BFP 21	L + R	R	1	42.00	10	071N7173
BFP 20	L + R	R	1	42.00	10	071N7129
BFP 21	L + R	R	1	42.00	10	071N0260
BFP 20	L + R	L	1	42.00	10	071N7126
BFP 21	L	L	1	42.00	10	071N0299
BFP 21	L + R	L	1	42.00	10	071N7172
BFP 21	L	L	1	42.00	10	071N1266
BFP 21	L + R	R	1	42.00	10	071N0207
BFP 21	L + R	L	1	42.00	10	071N0258
BFP 21	L + R	L	1	42.00	10	071N0268

Nozzle capacity at 4.3 cSt., 10 bar, 2800 min⁻¹

Rotation and nozzle/pressure outlet are always determined viewing from the shaft end of the pump.

Identification

Example:

BFP **B 21 L 5 L**

BFP	
B	B: biofuel ready for up to 100%
2	2: cartridge filter, pressure adjustment on front
1	0: without solenoid valve 1: with one solenoid valve
L	R: clockwise rotation L: counter-clockwise rotation
5	3: capacity 24 l/h 5: capacity 42 l/h
L	R: right hand nozzle outlet L: left hand nozzle outlet

Nozzle capacity at 4.3 cSt., 10 bar, 2800 min⁻¹


Accessories code numbers



071G0200
CABLE FOR NC VALVE, 500 mm OEM
CABLE FOR NC VALVE, 500 mm OEM

Related products


071N0226 071N0251 071N1194



071G0204
CABLE FOR NC VALVE, 710 mm OEM
CABLE FOR NC VALVE, 710 mm OEM

Related products


071N0226 071N0251 071N1194



071G0208
CABLE FOR NC VALVE, 630 mm OEM
CABLE FOR NC VALVE, 630 mm OEM

Related products

071N0226 071N1194



071N1055
PLUG FOR 1/4" CONNECTIONS
PLUG FOR 1/4" CONNECTIONS

Related products


071N0226 071N0251 071N1194



071G2245
CABLE FOR NC VALVE, 2100 mm
CABLE FOR NC VALVE, 2100 mm

Related products


071N0226 071N0251 071N1194



071N0601
NO COIL 220/240 V
NO COIL 220/240 V

Related products


071N0251



071B0011
BUSH 32 x 54 mm.
BUSH 32 x 54 mm.

Related products

071N0251



071N0604
PLUG 1/8" FOR P AND V PORTS.
PLUG 1/8" FOR P AND V PORTS.

Related products

071N0251



071N0010
COIL 220/240 V AC.
COIL 220/240 V AC.

Related products

071N0251



071N0007
NC SERVICE VALVE FOR 24 V DC
NC SERVICE VALVE FOR 24 V DC

Related products

071N0251



071N0062
Coil 24 V AC.
Coil 24 V AC.

Related products

071N0251



071N0064
CARTRIDGE STRAINER BFP
CARTRIDGE STRAINER BFP

Related products

071N0251



071N0074
PLUG FOR CARTRIDGE FILTER.
PLUG FOR CARTRIDGE FILTER.

Related products

071N0251



071N0061
COIL 110/120 V AC.
COIL 110/120 V AC.

Related products

071N0251



071N0047
BUSH 32 x 54 mm W. STD. FLANGE.
BUSH 32 x 54 mm W. STD. FLANGE.

Related products


071N0251



071N0050
NC VALVE
NC VALVE

Related products


071N0251



071G0202
CABLE FOR NC VALVE, 280 mm OEM
 CABLE FOR NC VALVE, 280 mm OEM

Related products


071N0251



071N1033
O-rings for cover (ø54) and regulator (ø9,75)
 O-rings for cover (ø54) and regulator (ø9,75)

Related products

071N0251




071N0065
PLUG M10 FOR NC VALVE.
 PLUG M10 FOR NC VALVE.

Related products

071N0251

Spare parts code numbers


If your product code is not listed as a related product for any accessories, please reach out to us for assistance.



071B0011
BUSH 32 x 54 mm.
 BUSH 32 x 54 mm.

Related products

071N0110	071N0203	071N0209	071N0211
071N0226	071N0291	071N0292	071N0299
071N1107	071N1109	071N1173	071N1175
071N1176	071N1177	071N1194	071N1195
071N1200	071N1217	071N1248	071N1250
071N1251	071N1254	071N1256	071N1266
071N1281	071N1297	071N2109	071N2111
071N2117	071N2130		



071N3011
NC LE-S SERVICE VALVE
 NC LE-S SERVICE VALVE

Related products

071N0110	071N0203	071N0209
071N0211	071N0226	071N0291
071N0292	071N0299	071N1107
071N1109	071N1173	071N1175
071N1176	071N1177	071N1194
071N1195	071N1200	071N1217
071N1248	071N1250	071N1251
071N1254	071N1256	071N1266
071N1297	071N2109	071N2111
071N2117	071N2130	071N2132



071N0074

PLUG FOR CARTRIDGE FILTER.

PLUG FOR CARTRIDGE FILTER.

Related products

- 071N0110
- 071N0203
- 071N0209
- 071N0211
- 071N0226
- 071N0291
- 071N0292
- 071N0299
- 071N1107
- 071N1109
- 071N1173
- 071N1175
- 071N1176
- 071N1177
- 071N1194
- 071N1195
- 071N1200
- 071N1217
- 071N1248
- 071N1250
- 071N1251
- 071N1254
- 071N1256
- 071N1266
- 071N1281
- 071N1297
- 071N2109
- 071N2111
- 071N2117
- 071N2130



071N0008

COIL 24 V DC.

COIL 24 V DC.

Related products

- 071N0110
- 071N0203
- 071N0209
- 071N0211
- 071N0226
- 071N0291
- 071N0292
- 071N0299
- 071N1107
- 071N1109
- 071N1173
- 071N1175
- 071N1176
- 071N1177
- 071N1194
- 071N1195
- 071N1200
- 071N1217
- 071N1248
- 071N1250
- 071N1251
- 071N1254
- 071N1256
- 071N1266
- 071N1297
- 071N2109
- 071N2111
- 071N2117
- 071N2130
- 071N2132



071N0050

NC VALVE

NC VALVE

Related products

- 071N0107
- 071N0110
- 071N0203
- 071N0209
- 071N0211
- 071N0226
- 071N0291
- 071N0292
- 071N0299
- 071N1107
- 071N1109
- 071N1173
- 071N1175
- 071N1176
- 071N1177
- 071N1194
- 071N1195
- 071N1200
- 071N1217
- 071N1248
- 071N1250
- 071N1251
- 071N1254
- 071N1256
- 071N1266
- 071N1297
- 071N2109
- 071N2111
- 071N2117
- 071N2130



071N1033

O-rings for cover (ø54) and regulator (ø9,75)

O-rings for cover (ø54) and regulator (ø9,75)

Related products

- 071N0107
- 071N0110
- 071N0203
- 071N0209
- 071N0211
- 071N0226
- 071N0291
- 071N0292
- 071N0299
- 071N1107
- 071N1109
- 071N1173
- 071N1175
- 071N1176
- 071N1177
- 071N1194
- 071N1195
- 071N1200
- 071N1217
- 071N1248
- 071N1250
- 071N1251
- 071N1254
- 071N1256
- 071N1266
- 071N1281
- 071N1297
- 071N2109
- 071N2111
- 071N2117



071N0064
CARTRIDGE STRAINER BFP
 CARTRIDGE STRAINER BFP

Related products

- 071N0107
- 071N0110
- 071N0203
- 071N0209
- 071N0211
- 071N0226
- 071N0291
- 071N0292
- 071N0299
- 071N1107
- 071N1109
- 071N1173
- 071N1175
- 071N1176
- 071N1177
- 071N1194
- 071N1195
- 071N1200
- 071N1217
- 071N1248
- 071N1250
- 071N1251
- 071N1254
- 071N1256
- 071N1266
- 071N1281
- 071N1297
- 071N2109
- 071N2111
- 071N2117



071N1006
COIL T85 230 V AC
 COIL T85 230 V AC

Related products

- 071N0110
- 071N0203
- 071N0209
- 071N0211
- 071N0226
- 071N0291
- 071N0292
- 071N0299
- 071N1107
- 071N1109
- 071N1173
- 071N1175
- 071N1176
- 071N1177
- 071N1194
- 071N1195
- 071N1200
- 071N1217
- 071N1248
- 071N1250
- 071N1251
- 071N1254
- 071N1256
- 071N1266
- 071N1297
- 071N2109
- 071N2111
- 071N2117
- 071N2130
- 071N2132



071N0062
Coil 24 V AC.
 Coil 24 V AC.

Related products

- 071N0107
- 071N0110
- 071N0203
- 071N0209
- 071N0211
- 071N0226
- 071N0291
- 071N0292
- 071N0299
- 071N1107
- 071N1109
- 071N1173
- 071N1175
- 071N1176
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- 071N1251
- 071N1254
- 071N1256
- 071N1266
- 071N1297
- 071N2109
- 071N2111
- 071N2117
- 071N2130



071N0604
PLUG 1/8" FOR P AND V PORTS.
 PLUG 1/8" FOR P AND V PORTS.

Related products

- 071N0107
- 071N0110
- 071N0203
- 071N0209
- 071N0211
- 071N0226
- 071N0291
- 071N0292
- 071N0299
- 071N1107
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- 071N1250
- 071N1251
- 071N1254
- 071N1256
- 071N1266
- 071N1281
- 071N1297
- 071N2109
- 071N2111
- 071N2117



071N0041

**CHANGE OVER SCREW 2-PIPE
OPERATION**

CHANGE OVER SCREW 2-PIPE
OPERATION

Related products

071N1281

071N2235

071N7126

071N7129

071N7168

071N7169



071N0061

COIL 110/120 V AC.

COIL 110/120 V AC.

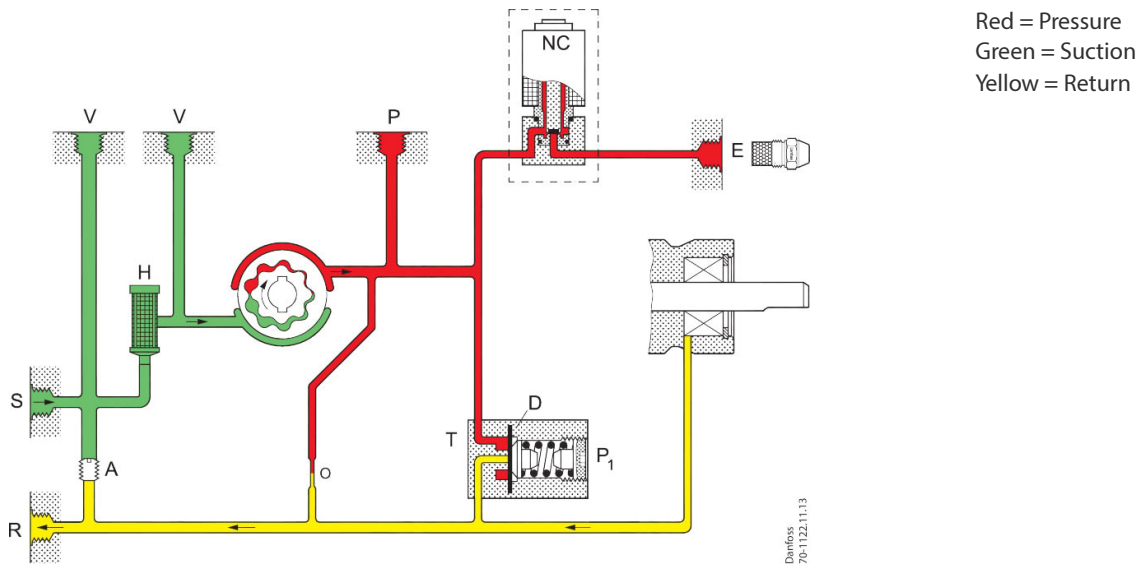
Related products

071N0107

If your product code is not listed as a related product for any accessories, please reach out to us for assistance.

Functions

Operation



From the suction inlet (S) fuel is drawn through the filter (H) to the gear set, where the pressure is increased. When voltage is applied to the NC-valve, it opens and releases fuel to the nozzle outlet.

By means of the diaphragm (D) in the pressure regulator (T), the pressure is kept constant at the value set on adjustment screw (P₁).

In 2-pipe systems the excess fuel is led back to the return outlet (R) and the tank.

In 1-pipe systems with plugged return outlet (R) and screw (A) removed, the fuel is returned internally to the gear set (see details in figure).

Cut-off function, solenoid valve (BFP 21)

When the burner stops, the voltage to the NC-valve is cut off and the fuel flow to the nozzle outlet is cut off immediately. BFP 20 has no solenoid valve. In systems using this pump, a separate cut-off valve must be fitted in the nozzle line.

Bleeding

In 2-pipe systems the pump is self-priming, i.e. bleeding is performed via the constriction (O) to the return outlet (R).

In 1-pipe systems with plugged return outlet (R), bleeding must be performed through the nozzle outlet (E) or the pressure gauge port (P).

Warranty

For pumps used outside the stated technical data and used with fuel containing abrasive particles Danfoss cannot give any warranty.

Note!

Do not mount the pump with the solenoid valve pointing downwards. The solenoid valve must be replaced after 250.000 operations or 10 years (approved life expectancy).

By changing the materials of the components within our pumps, in relation to the different types of fuels - we ensure all product components are 100% bio compatible.

Product details

General data

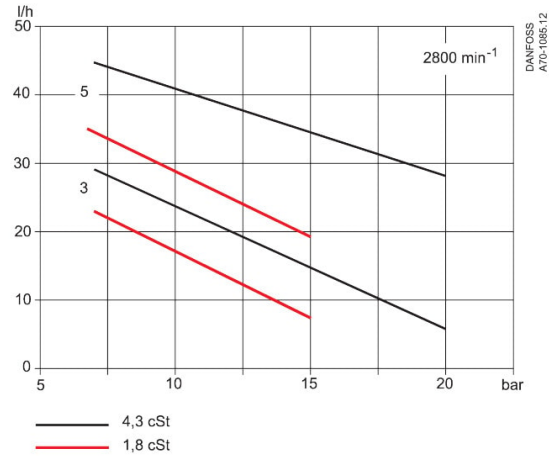
BFP 20/21	3	5
Fuel type	Standard fuel according to DIN EN 51603-1 and biofuel according to DIN EN 51603-6;-8 and EN14214	
Viscosity range (measured in suction inlet)	(1.3) 1.8 to 12.0 cSt. (mm ² /s)	
Filter area / mesh	11 cm ² /200 µm	
Pressure range ^{1) 2)}	7 to 20 bar	
Default setting	10 ±1 bar	
Max. pressure in suction inlet/return outlet	2 bar	
Speed	2400 to 3450 min ⁻¹	1400 to 3450 min ⁻¹
Max. starting torque	0.1 Nm	0.12 Nm
Ambient/transport temperature	-20 to +70° C	
Temperature of medium	0 to +70° C	
Coil power consumption	9 W	
Rated voltage (other voltages on request)	230 V, 50/60 Hz	
Coil enclosure	IP 40	
Shaft/neck	EN 225	

1) Max. 12 bar at 1.3 cSt., max. 15 bar at 1.8 cSt.

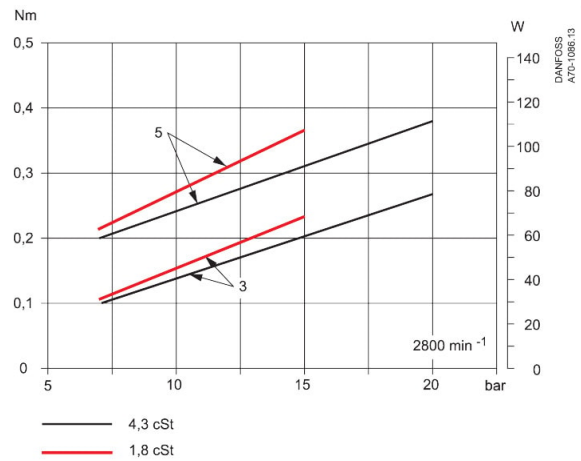
2) If blend oil used, technical data can be different

Capacity

Nozzle capacity

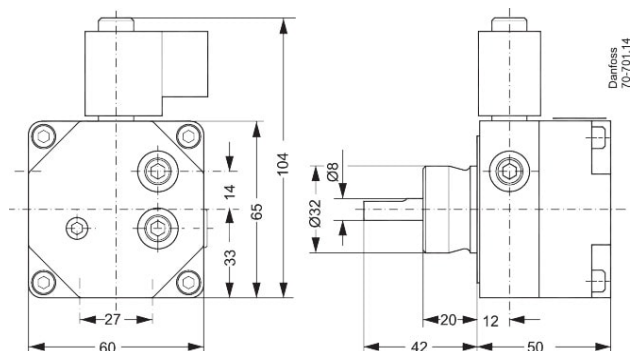


Operating torque
Power consumption



Dimensions & weights

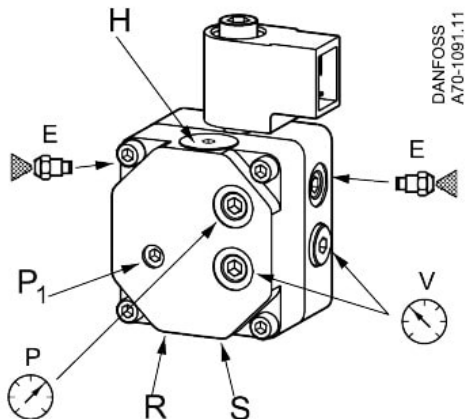
Weight	Fuel Pump type BFP 20/21 - size 3 and 5	
	Gross weight	1.8 kg
	Net weight	1.058 kg
	Volumne	561.6 Liter



Connections

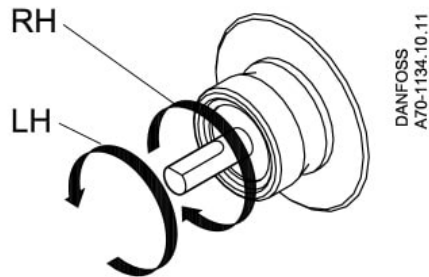
Example shows BFP 21 L5L

- P₁: Pressure adjustment
- S: Suction inlet G1/4
- R: Return outlet G1/4
- E: Nozzle outlet G 1/8
- P: Pressure gauge port G 1/8
- V: Vacuum gauge port G 1/8
- H: Filter



- RH: R-rotation
- LH: L-rotation

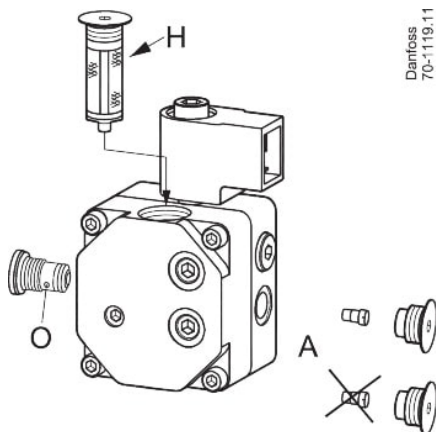
Note!
 Shaft rotation, location of nozzle outlet and other connections are seen from shaft end.



Service

Change-over and filter replacement

- H: Filter
- A: 2-pipe operation, with screw
- 1-pipe operation, without screw



Certificates, declarations and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

When you click on the link you will be directed to the latest version of the 'Declaration of Conformity'. Products developed and sold before this date of issue conform to the directives/standards in force at the time of their sale.

Approval type	Title	Certification body	Approval topic
Electrical Safety Certificate	DIN CERTCO 5S222	DIN CERTCO	
Export Control Declaration	Oil pumps BFP/BFA/BFM	Danfoss	
Manufacturer's Declaration	Danfoss MD 071NP05	Danfoss	EU RoHS
Electrical Safety Certificate	SEMKO SE-S-2101293R3	Intertek Semko	
EU-UK Declaration	Danfoss EU-UK 071NP05	Danfoss	LVD

Contact details

Online support

Danfoss offers a wide range of support along with our products, including digital information, software, mobile apps and expert guidance. See the possibilities below.



The Danfoss Design center

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Danfoss A/S

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