



# Pumps

## BFP 10/11

sizes 3, 5 & 6

## Description

BFP 10/11 sizes 3, 5 and 6 oil pumps are designed for small/medium-sized domestic oil burners up to 60 l/h.

## Features & Benefits

- Light oil and kerosene
- 1 or 2-pipe operation
- 1-stage
- Built-in pressure regulator
- Solenoid valve cut-off (BFP 11)
- Ring filter

## Applications

- Small/medium-sized domestic oil burners up to 60 l/h.

## Ordering

### Product code numbers

Product Type	Nozzle/pressure outlet	ROTATION	1 or 2 stage	Capacity [l/h]	Biofuel blend	Code number
BFP 11	R	R	1	24.00	10	071N0143
BFP 11	R	R	1	24.00	10	071N0145
BFP 11	R	R	1	24.00	10	071N1108
BFP 11	L	L	1	24.00	10	071N4141
BFP 11	R	R	1	24.00	10	071N4143
BFP 11	R	R	1	24.00	10	071N7155
BFP 10	R	R	1	24.00	10	071N7253

## Identification

Example:  
BFP 11 L 5 L

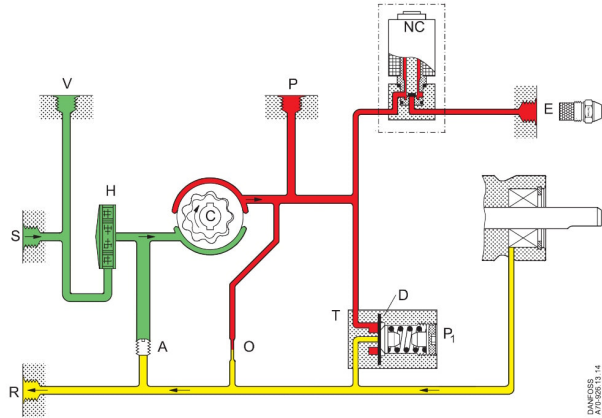
BFP	
<b>1</b>	ring filter, pressure adjustment on side
<b>1</b>	0: without solenoid valve 1: with one solenoid valve
<b>L</b>	L: left hand rotation R: right hand rotation
<b>5</b>	3: capacity 24 l/h 5: capacity 42 l/h 6: capacity 60 l/h
<b>L</b>	L: left hand nozzle outlet R: right hand nozzle outlet

Nozzle capacity at 4.3 cSt., 10 bar, 2800 min<sup>-1</sup>

## Functions

### Operation

Red = Pressure  
Green = Suction  
Yellow = Return



From the suction inlet (S) oil is drawn through the filter (H) to the gear set, where the pressure is increased. When voltage is applied to the NC-valve (normally closed), it opens and releases oil 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 (P<sub>1</sub>).

In 2-pipe systems the excess oil is led back to the return outlet (R) and the tank. In 1-pipe systems with plugged return outlet (R) and a bypass washer (horseshoe) mounted on screw (A), the oil is returned internally to the gear set (see figure).

#### Cut-off function, solenoid valve (BFP 11)

When the burner stops, the voltage to the NC-valve is cut off and the oil flow to the nozzle outlet is cut off immediately. BFP 10 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 oil containing abrasive particles Danfoss cannot give any warranty.

*Note! The solenoid valve must be replaced after 250.000 operations or 10 years (approved life expectancy).*

## Product details

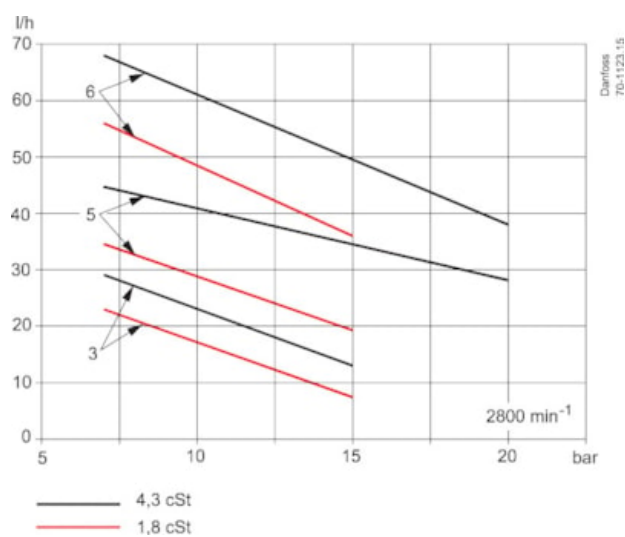
### General data

BFP 10/11	3	5	6
Oil types	Standard fuel gas oil and fuel gas oil acc. to DIN V 51603-6 EL A Bio-10 (max. 10% FAME)		
Viscosity range (measured in suction inlet)	(1.3) 1.8 to 12.0 cSt. (mm <sup>2</sup> /s)		
Filter area/size	13 cm <sup>2</sup> /200 µm		
Pressure range <sup>1)</sup>	7 to 15 bar	7 to 20 bar	7 to 20 bar
Factory setting	10 ± 1 bar		
Max. pressure in suction inlet/return outlet	2 bar		
Speed	2400 to 3450 min <sup>-1</sup>	1400 to 3450 min <sup>-1</sup>	1400 to 3450 min <sup>-1</sup>
Max. starting torque	0.10 Nm	0.12 Nm	0.14 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	EN225		

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

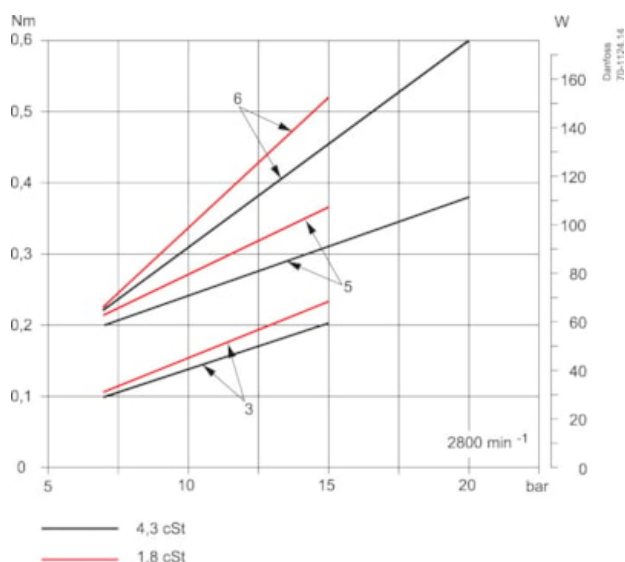
## Capacity

Nozzle capacity [l/h]



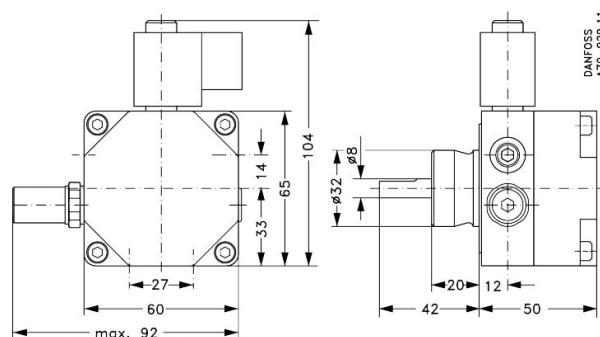
Operating torque [Nm]

Power consumption [W]



## Dimensions & weights

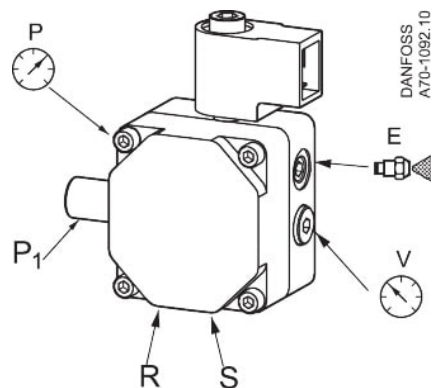
Weight	Oil Pump Type BFP 10/11 sizes 3, 5 & 6	
	Gross weight	1.885 kg
	Net weight	1.884 kg
	Volumne	1.935 Liter



## Connections

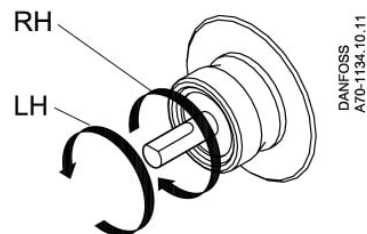
Example shows L-rotation pump with solenoid valve.

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



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

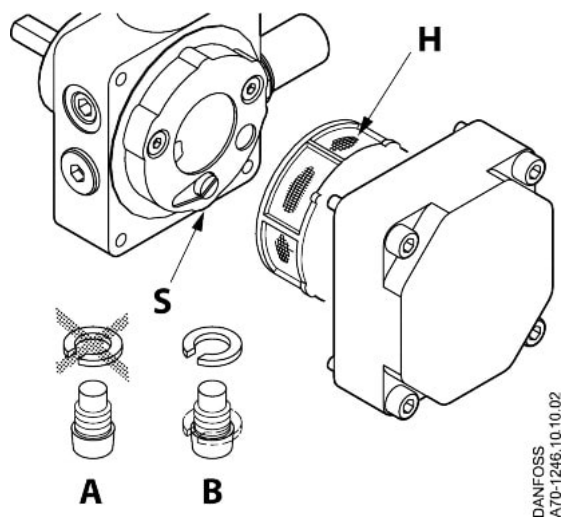
- RH: R-rotation
- LH: L-rotation



## Service

### Change-over and filter replacement

- A: 2-pipe operation, screw S without bypass washer
- B: 1-pipe operation, screw S with bypass washer
- H: Filter



## 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.

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EU-UK Declaration	<a href="#">Danfoss EU-UK 071NP.05</a>	Danfoss	LVD
Electrical Safety Certificate	<a href="#">DIN CERTCO 5S222</a>	DIN CERTCO	
Electrical Safety Certificate	<a href="#">SEMKO SE-S-2101293R3</a>	Intertek Semko	
Export Control Declaration	<a href="#">Oil pumps BFP/BFA/BFM</a>	Danfoss	

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