



Pumps

BFPM 52



Description

The BFPM range is a series of Danfoss oil pumps in combination with a highly efficient permanent magnet motor. The BFPM Electronic Controller must be used for controlling BFPM motor pumps (see separate data sheet for BFPM Electronic Controller). BFPM 52 is designed for small domestic oil burners up to 24 l/h.

Features & Benefits

- Light oil and kerosene
- 1- or 2-pipe operation
- 2-stage
- Two built-in pressure regulators
- Solenoid valve cut-off
- Cartridge filter

Applications

- Small domestic oil burners up to 24 l/h.

Ordering

Product code numbers

Product Type	Nozzle/pressure outlet	ROTATION	1 or 2 stage	Capacity [l/h]	Biofuel blend	Code number
BFPM 52	L	L	2	24.00	10	071N4103

Identification

Example:
BFPM 52 L 3 L

BFPM	
5	5: two stages, two pressure regulators
2	2: two solenoid valves
L	L: left hand rotation
3	3: capacity 24 l/h
L	L: left hand nozzle outlet

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



Accessories code numbers



071N4208
MOTOR CABLE, MP
MOTOR CABLE, MP

Related products

071N4103



071N4210
TRANSDUCER CABLE
TRANSDUCER CABLE

Related products

071N4103



071N4052
**COMPLETE CONTROL FOR
BFPM VIESSMANN**
COMPLETE CONTROL FOR BFPM
VIESSMANN

Related products

071N4103



071N4053
**COMPLETE CONTROL FOR
BFPM**
COMPLETE CONTROL FOR BFPM

Related products

071N4103



071N4203
SIGNALCABLE
SIGNALCABLE

Related products

071N4103



071N4211
**MOTOR CABLE BFPM
(255MM)**
MOTOR CABLE BFPM (255MM)

Related products

071N4103



071N4202
**POWER CABLE BFPM
WITHOUT FERRITE)**
POWER CABLE BFPM WITHOUT
FERRITE)

Related products

071N4103



071N4206
**TRANSDUCER SIGNALCABLE
MP**
TRANSDUCER SIGNALCABLE MP

Related products

071N4103



071N4055

**COMPLETE CONTROL FOR
BFPM**

COMPLETE CONTROL FOR BFPM

Related products

071N4103



071N4054

**COMPLETE CONTROL FOR
BFPM**

COMPLETE CONTROL FOR BFPM

Related products

071N4103

Functions

Operation

From the suction inlet (S) oil is drawn through the filter (H) to the gear set, where the pressure is increased. By means of the diaphragm (D) in the pressure regulator for stage 1 (T1), the pressure is kept constant at the value set on adjustment screw (P1).

When voltage is applied to the NC-valve, it opens and releases oil to the nozzle outlet.

When voltage is applied to the NO-valve, it closes and puts the pressure regulator (T1) out of function.

The pressure now rises to the value for stage 2 set on adjustment screw (P2).

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 screw (A) removed, the oil is returned internally to the gear set (see figure).

Cut-off function, solenoid valve

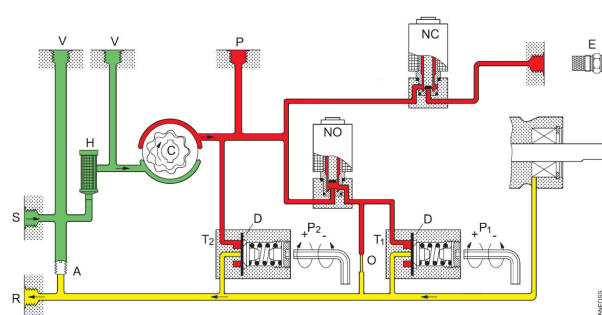
When the burner stops, the voltage to the solenoid valves is cut off.

The NO-valve opens and the NC-valve closes and cuts off the oil flow to the nozzle outlet immediately.

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).



Red = Pressure
Green = Suction
Yellow = Return

**Note:**

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



Product details

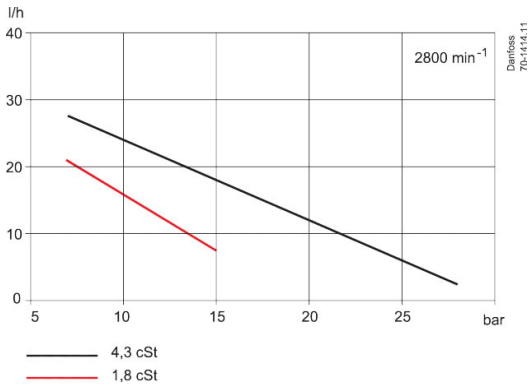
General data

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 ² /s)
Filter area/mesh	11 cm ² /200 µm
Pressure range ¹⁾	7 to 15 bar (stage 1) 10 to 25 bar (stage 2)
Default setting	10 ±1 bar (stage 1) 13 ±1 bar (stage 2)
Max. pressure in suction inlet/return outlet	2 bar
Speed	400 to 3400 min ⁻¹
Ambient/transport temperature	-20 to +70° C
Temperature of medium	0 to +70° C
Power supply/drive BFPM motor ²⁾	230 V switched from controller
Coil power consumption	9 W
Coil rated voltage	230 V, 50/60 Hz
Coil enclosure	IP 40

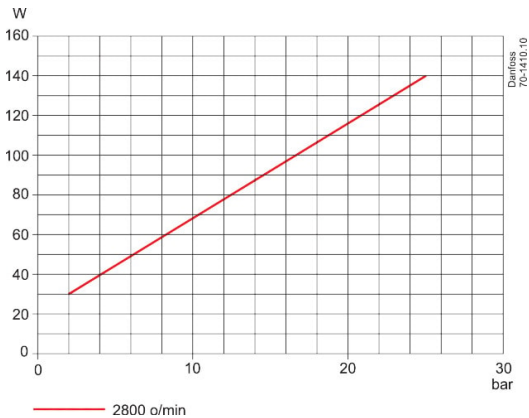
1) Max. 12 bar at 1.3 cSt., max. 15 bar at 1.8 cSt.
2) Warning: Do not connect BFPM motor directly to 230 V/50 Hz power supply!

Capacity

Nozzle capacity [l/h]



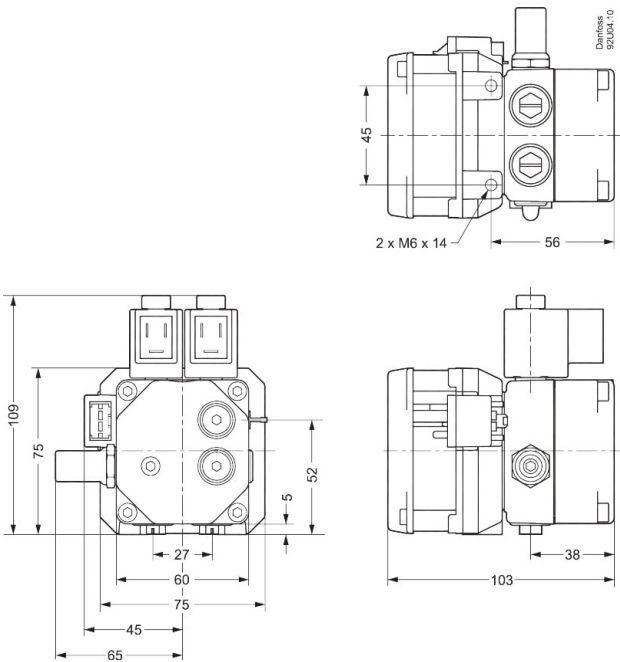
Power consumption [W]





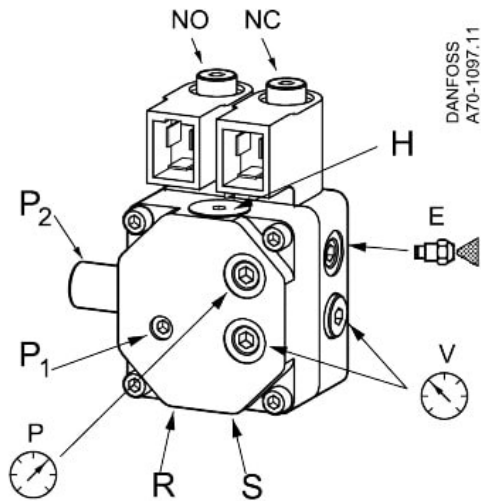
Dimensions & weights

Weight	Oil Motor Pump type BFPM 52	
	Gross weight	2.06 kg
	Net weight	2.06 kg
	Volumne	1.971 Liter



Connections

- P₁: Pressure adjustment stage 1
- P₂: Pressure adjustment stage 2
- 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
- H: Filter

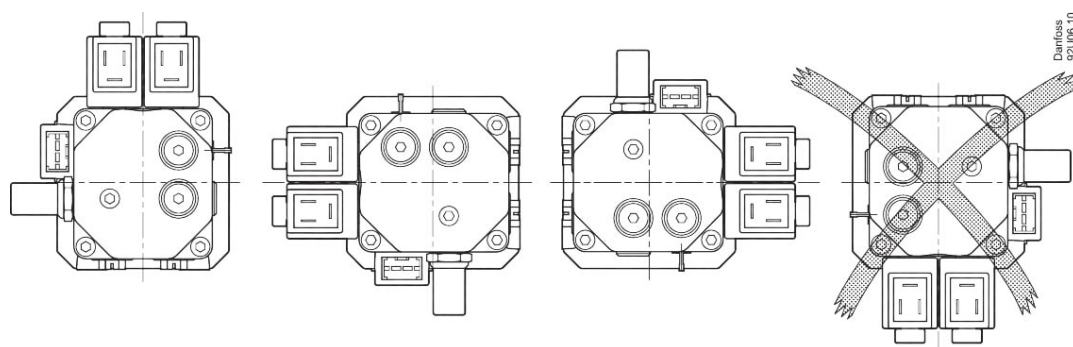


Warnings

Warranty

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

Installation



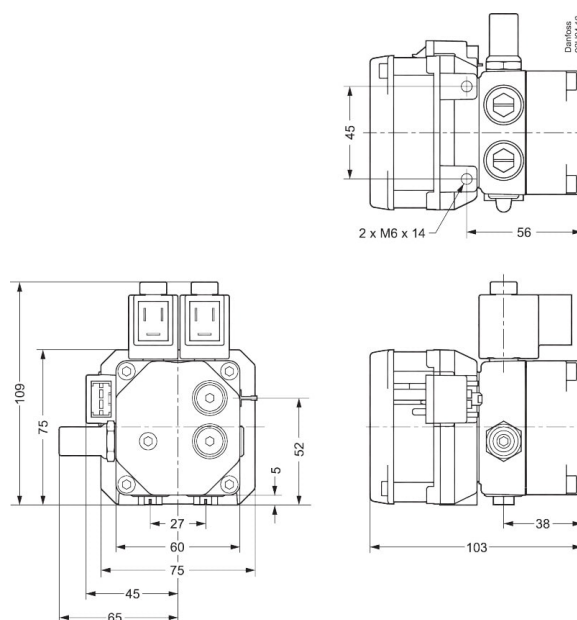
Service

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
Export Control Declaration	Oil pumps BFP/BFA/BFM	Danfoss	
EU-UK Declaration	Danfoss EU-UK 071NPM.06	Danfoss	LVD
Electrical Safety Certificate	SEMKO SE-S-2101293R3	Intertek Semko	
Manufacturer's Declaration	Danfoss MA-UK 071NPM.05	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.



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