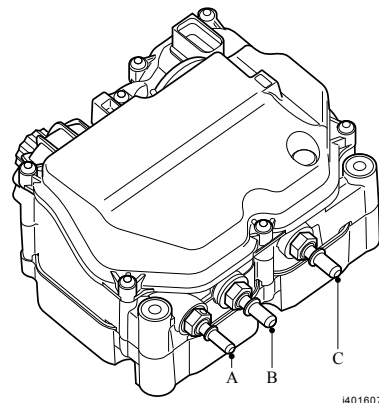


Pump module (L074)

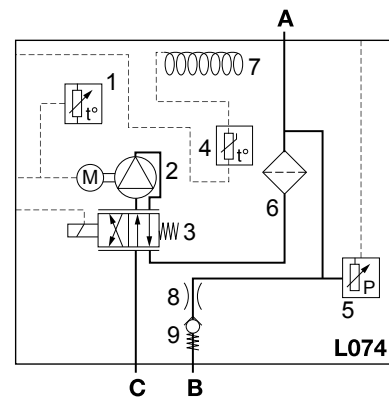
The following connections are mounted on the pump module:

- Pressure line (A)
- Return line (B)
- Inlet line (C)



The following components are mounted inside the pump module:

- Supply module temperature sensor (1)
- DEF pump motor (2)
- Reverting valve (3)
- Temperature sensor, filter housing, pump module (4)
- DEF pressure sensor (5)
- DEF filter (6)
- Heater element, pump module (7)
- Orifice (8)
- Check valve (9)



Supply module temperature sensor

The temperature sensor measures the temperature inside the supply module. The sensor signal is an input signal for the electronic unit. This value is used to determine whether the pump module must be started up or heated.

DEF pump motor

The DEF pump is a diaphragm pump that pumps the DEF to the dosing module under pressure. The pressure does not depend on the quantity of DEF to be injected. The DEF pump is controlled with a duty cycle. By controlling the duty cycle and therefore the pump speed, the DEF pressure is kept constant. The pump speed depends on the quantity of DEF to be injected.

Reverting valve

This valve is engaged during the purge cycle. The DEF inside the in line and pressure line is pumped back into the tank. The reverting valve is controlled by the electronic unit with a duty cycle.

Temperature sensor, filter housing, pump module

The temperature sensor measures the temperature of the heating element. The sensor signal is an input signal for the electronic unit. This value is used to control the heating elements in the pump module.

DEF pressure sensor

The pressure sensor measures the pressure of the DEF after the DEF filter. The sensor signal is an input signal for the electronic unit. Depending on the DEF pressure after the DEF filter, the DEF pump motor is controlled by the electronic unit.

DEF filter

The DEF is filtered before it is pumped to the dosing module.

Heater element, pump module

The pump module is heated by electrical heating elements. These heating elements prevent the DEF from freezing when the dosing module is in operation. The heating elements are placed in the filter, DEF pump motor, the reverting valve and the DEF pipes.

Orifice

The orifice in the return line assists the pump to maintain a pressure of 9 bar. The orifice also ensures that a constant quantity of DEF flows from the return line to the tank. The back flow of DEF occurs at low injected quantities and in situations where DEF is not injected.

Check valve

The check valve ensures an overpressure of the DEF in the supply module under all conditions when the supply module is filled with DEF. Depending on the configuration, it also prevents a back flow of DEF from the return line.



Refer to the OEM service manual for more information.

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