

MHS2413 24V fuel heater product sheet

Installation Instructions for Diesel Fuel Heater

1. Function description

Diesel fuel and biofuels gel at temperatures below freezing. Paraffin crystals form in the fuel, making it gelly-like and flaky. As these suspended flakes pass through the filter, they gum up its microporous surface. Within a short period of time, the fuel will no longer flow through the filter to the injection system. The results: the engine loses power and stops running.

Adding gasoline or additives to prevent fuel gelling offers no real solution but only seem to help on a limited basis. They can have a negative effect on the engine's performance and life cycle, not to mention, they must already be added before it turns cold.

"Winter diesel" (formulated especially for winter usage) does not guarantee a smooth-running engine. Winter diesel is laboratory tested to -20 °C / -4 °F. At still lower temperatures and freezing winds, it is unclear whether the engine will even run. In any case, the engine works irregularly, resulting in a greater amount of fuel being consumed.

Once the fuel filter is clogged, only the supply of warmth can solve the problem quickly. By heating, the engine is protected when running on any fuel at any temperature and prevents greater fuel consumption.



Micfil-Therm prevents the filter's pores from clogging up at very low temperatures by warming the fuel with a small heating system, which is mounted in front of the filter. In a matter of seconds, the energy rich paraffin crystals will dissolve and the fuel passes through the filter as if it would be summer. By controlled preheating of the fuel temperature-related operating problems will be effectively eliminated from the critical part of the fuel system and fuel additives are not required anymore. To prevent cold problems or a loss of power due to a plugged fuel filter **Micfil-Therm** is activated by the operator with a On-/Off-switch. The heating process is displayed by a pilot lamp and automatically regulated by a thermostat. The heating of the fuel remains as long as the heating device is deactivated over the switch.

2. Application area

The diesel fuel heater is suitable for diesel engines with operating voltage 12 V (type DH12V/DHS12V) or 24 V (type DH24V/DHS24V).

3. Important information before installation

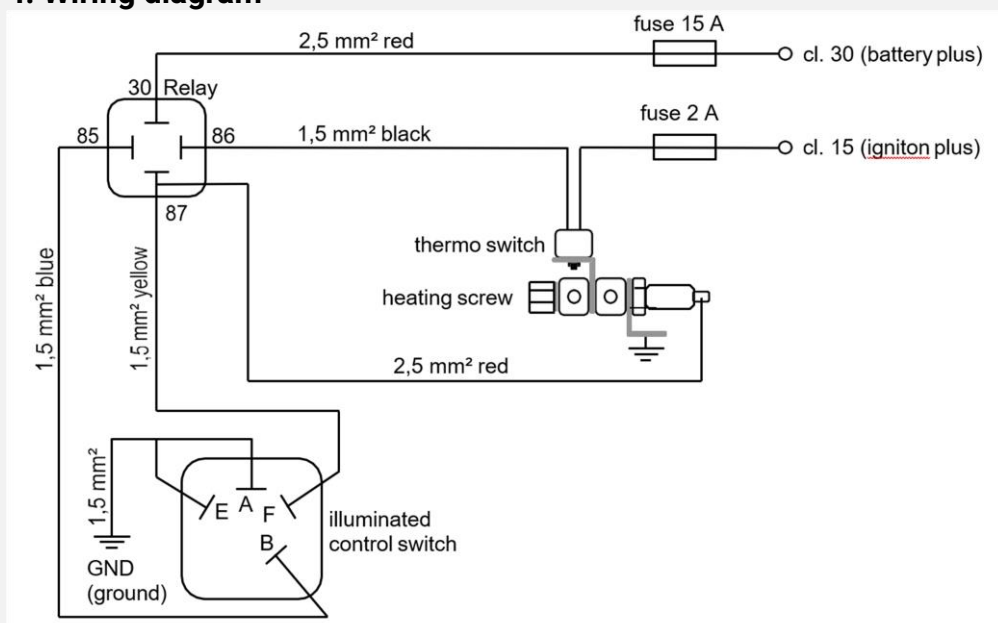
Please pay special attention to the following points before the installation of **Micfil-Therm**:

- ☐ Please check the local regulations in your country for any changes or installation of additional parts on engines/vehicles.
- ☐ We only assume guarantee for the components supplied by us. We do not assume any guarantee for engines and vehicle parts of the engine/vehicle manufacturer. The terms of guarantee of the engine/vehicle manufacturer have to be observed.
- ☐ During all works on the engine the regulation of accident prevention have to be observed!
- ☐ The installation takes craftsmanship and technical understanding for diesel engines for granted and has to be made by a qualified skilled labour (e.g. motor mechanic).
- ☐ The connection parts have to be mounted impermeably to air and fuel.
- ☐ Fuel lines for the connection of the diesel fuel heater have to be heat resistant to at least 80 °C/ 175°F and suitable for the pressure of the injection system.
- ☐ Electrical wires have to be laid scrub free and with enough distance to hot engine parts.
- ☐ The illuminated control switch labeled “Diesel-Heater” has to be located within the operator’s range of vision and to be mounted without endangering the internal safety of the engine/vehicle.

Following regulations have to be considered:

- Activate **Micfil-Therm** only if the engine runs or shortly before engine start!
- Do not add any petrol to the diesel fuel!
- Do not allow fuel system to become entirely empty!

4. Wiring diagram



5. Function control

Start the ignition and switch control switch "Diesel-heater" clockwise to position "1". The indicator light of the control switch should now light and the heating screw warms up noticeably.

The system will switch automatically off after reaching the heating temperature. In this case the indicator light will go off, even if **Micfil-Therm** is still switched on.

Micfil-Therm is a maintenance-free system.

