

2005 Mercedes Benz Truck ML 350 (163.157) V6-3.7L (112.970)

Vehicle » Heating and Air Conditioning » Refrigerant Pressure Sensor / Switch » Description and Operation » GF83.40-P-2171-01GI Refrigerant Pressure and Temperature Sensor, Function

GF83.40-P-2171-01GI Refrigerant Pressure And Temperature Sensor, Function

- with CODE (580a) Automatic air conditioning

Detecting the refrigerant pressure

The refrigerant pressure and temperature sensor (B12/2) detects the refrigerant pressure and sends the determined value via the CAN- BUS to the AAC pushbutton control module (N22). This value is compared with a stored temperature/pressure curve.

The refrigerant pressure and temperature sensor (B12/2) operates in a pressure value range of from 0 to 35 bar.

Shutting of the refrigerant compressor

At the following values, the refrigerant compressor is switched off.

- refrigerant pressure < 1.75 bar = refrigerant compressor OFF
- refrigerant pressure > 30 bar = refrigerant compressor OFF

Switching on the refrigerant compressor

The refrigerant compressor is switched on at the following value

- refrigerant pressure > 2.25 bar = refrigerant compressor ON

Detecting the refrigerant temperature

The refrigerant pressure and temperature sensor (B12/2) detects the temperature of the refrigerant and sends the determined value via the CAN-BUS to the AAC pushbutton control module (N22). This value is compared with a stored temperature/pressure curve and the refrigerant level is determined as a result.

With a refrigerant level that is too low, the refrigerant compressor is switched off by the AAC pushbutton control module (N22) via the CAN-BUS.

The AC OFF mode is activated and can no longer be quit. Only when the error has been eliminated and the diagnostic trouble code memory in the AAC pushbutton control module (N22) has been erased will the system be operational again.

The refrigerant pressure and temperature sensor (B12/2) operates in a temperature value range of from -10 degrees C to +90 degrees C.

Cut-in of electric suction-type fan for engine and AC with integrated control (M4/7)

At the following values the electric suction-type fan for engine and AC with integrated control (M4/7) is actuated:

- refrigerant pressure < 14 bar = fan OFF
- Refrigerant pressure > 20 bar = fan ON (100 %)
- refrigerant pressure 14 to 20 bar = Continuous linear increase in fan speed (20 -100 %)