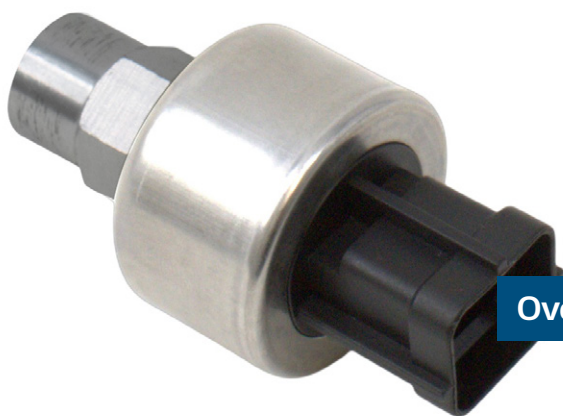


Meat&Doria **667011**  
Hoffer Products **667011**

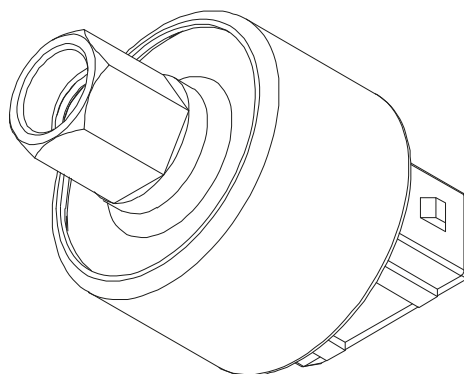
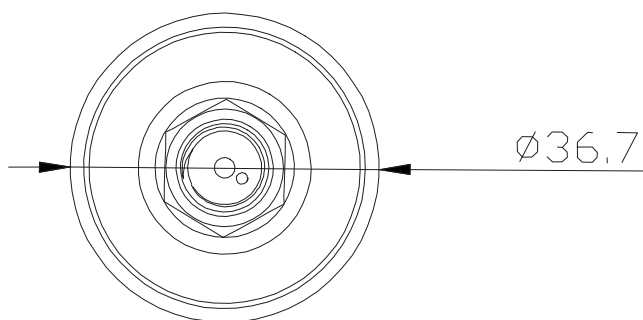


# FOCUS

## Pressure Switches



Over 110 Active References



### Our Premium Quality

**A superior quality range, guaranteed by direct control of the entire process.**

Design and production are supervised by the Group's engineers, in compliance with the original equipment specifications. Subsequently, each component undergoes end-of-line validation testing by the Quality team, with the aim of offering a product that always stands out for its quality, reliability, and durability.



FOCUS  
Pressure Switches



Design



Fleet Coverage



Testing



After-Sales Support





## What It Is

An air conditioning pressure switch is a control device used **to monitor and regulate the refrigerant pressure within the A/C system**.

Its main function is to protect the compressor and other components of the A/C circuit, ensuring safe and efficient operation of the system.

It is an electromechanical component that:

Detects the pressure of the refrigerant gas at a specific point in the circuit.

Is used to start or stop the compressor, or to trigger alarms in case of malfunction.

Opens or closes an electrical circuit based on a pre-set pressure threshold (high or low).

The air conditioning pressure switch is an essential component for the safety and efficiency of the system.

Despite being a relatively simple element, the A/C pressure switch plays a crucial role in refrigerant pressure control, **protecting the compressor and maintaining optimal system performance**.

## Operation

The operation of an A/C pressure switch is based on the device's ability to detect refrigerant gas pressure in the circuit and **activate or deactivate an electrical contact** when this pressure exceeds or falls below a predefined threshold.

### 1 Pressure Detection

- The pressure switch is physically connected to the refrigeration circuit (on the high or low pressure side).
- Inside, there is a diaphragm or piston that moves in response to refrigerant pressure.

### 2 Activation Threshold

- The device is calibrated to activate at a specific pressure level:
  - High-pressure switch (HP): triggers if the pressure is too high.
  - Low-pressure switch (LP): triggers if the pressure is too low.



- When pressure goes beyond (or below) the limit:
  - The diaphragm deforms.
  - This deformation actuates a switch (or electrical contact).
- The contact may open > breaks the circuit > turns off the compressor or signals a fault.
- The contact may close > activates a component, e.g., the compressor or a fan.

### 3 Return to Normal

- If pressure returns to normal limits:
  - The pressure switch may reactivate the circuit (if it's an automatic model).
  - Some switches are manual: once triggered, they require human intervention to reset.

## Preventive Maintenance

- Turn on the A/C at least once a month, even during winter.
- Check refrigerant pressure and gas level every 1–2 years.
- Clean air ducts regularly to prevent mold and unpleasant odors.



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## Recommended Checks

### 1 Electrical Check

- Use a multimeter to check circuit continuity.
- If the compressor doesn't start, the pressure switch might be faulty.

### 2 Visual Inspection

- Inspect electrical connectors for oxidation or damage.
- Check for gas leaks near the sensor.

### 3 Diagnostic Test

- If you are unsure, temporarily bypass the pressure switch to see if the compressor activates (for testing only—do not leave it bypassed).

### 4 Preventive Replacement

- If the pressure switch is over 8–10 years old or shows signs of malfunction, it's advisable to replace it.

## Malfunction Causes

DTC Code and Description	Symptoms	Causes
<b>P0530</b> - Control module detects fault in refrigerant pressure sensor circuit.	A/C not working, check engine light on, irregular cooling.	Faulty sensor, damaged wiring, low refrigerant pressure, faulty ECU.
<b>P0531</b> - Sensor signal out of expected range.	Unstable cooling, irregular compressor activation/deactivation.	Miscalibrated sensor, intermittent wiring, incorrect pressure.
<b>P0532</b> - Sensor electrical signal too low.	A/C doesn't turn on, compressor doesn't start, check engine light.	Faulty sensor, low refrigerant, broken wire, corroded connectors.
<b>P0533</b> - Sensor electrical signal too high.	Excessive cooling, compressor always on, temperature fluctuations.	Faulty sensor, excessive pressure, incorrect wiring.
<b>P2516</b> - Secondary sensor (circuit B) out of range.	A/C disabled, check engine light, reduced comfort.	Faulty sensor B, damaged wiring, refrigerant leaks.
<b>P1464</b> (Ford) - Specific to Ford, indicates fault in pressure switch or sensor.	A/C not cooling, warm air from vents, compressor not active.	Defective sensor, wiring issue, incorrect pressure.

## How To Proceed

Per DTC code:

- | Perform OBD2 scan using diagnostic tool.
- | Visually inspect sensor and wiring.
- | Perform electrical test with multimeter.
- | Check refrigerant pressure with a gauge.
- | Replace the sensor if faulty.
- | Clear/reset the DTC code.



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## Other Fault Codes

### B10AE – A/C Refrigerant Pressure Sensor

**Meaning:** Refrigerant pressure sensor: open circuit or short.

**System Affected:** Air Conditioning (A/C)

**Known Vehicles:** Seat Leon, Audi, Volkswagen, etc.

### Common Causes

Faulty pressure switch.

Blown or misplaced fuse.

Broken or shorted wiring.

Corroded or disconnected connectors.

Low refrigerant pressure.

## Symptoms

A/C not working.

Compressor not activating.

Warning light on.

No cooling.

## Solutions

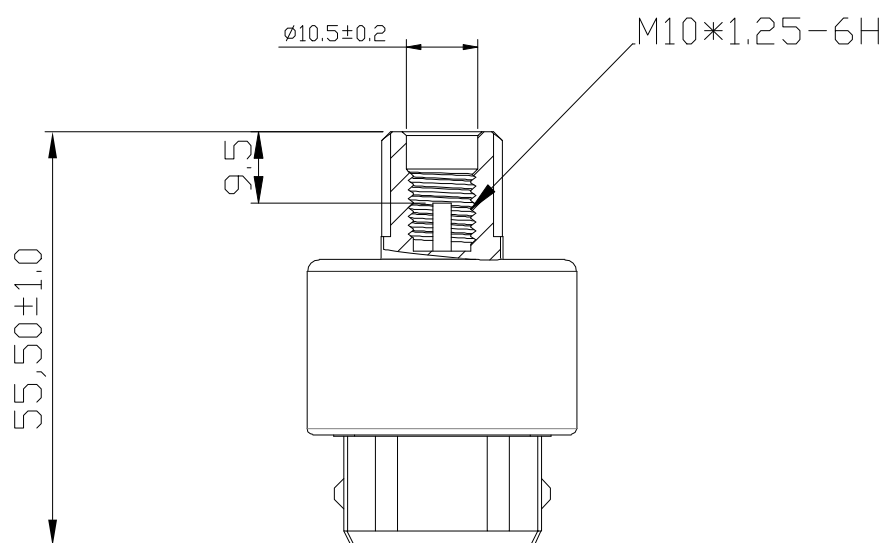
Check fuses (e.g., S520 on Volkswagen).

Perform pressure switch test with multimeter.

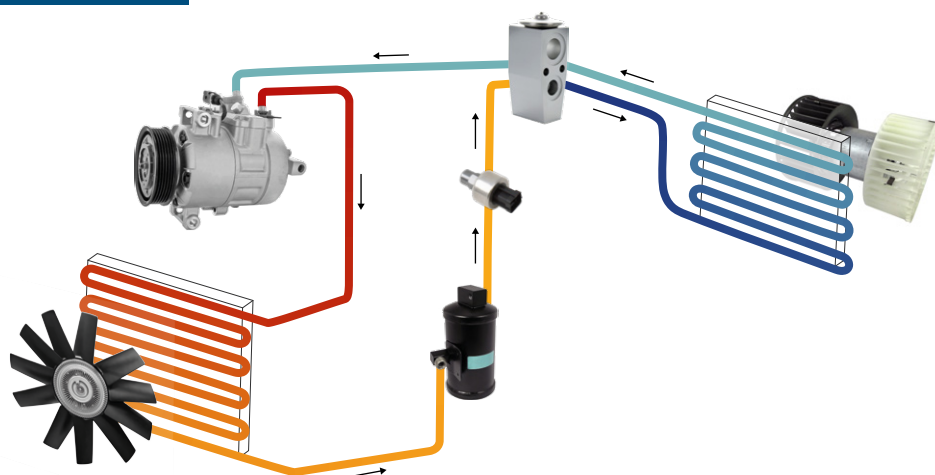
Replace faulty sensor.

Check for leaks and recharge refrigerant gas.

- **Do not install** the pressure switch on a **pressurized system**.
- Use only **spare parts compatible with the OE code**.
- If the system uses digital sensors, **check calibration using a diagnostic tool**.



## Location in the A/C System



## Related Products

### Compressors



Meat&Doria **K15512**  
Hoffer Products **K15512**

### Thermostats



Meat&Doria **92890**  
Hoffer Products **8192890**

### Expansion Valves



Meat&Doria **K42174**  
Hoffer Products **K42174**

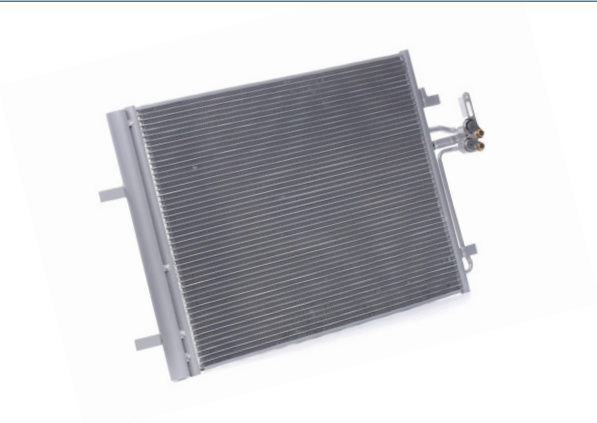
### Evaporators



Meat&Doria **997001**  
Hoffer Products **997001**

## Related Products

### Condensers



Meat&Doria **991034**  
Hoffer Products **991034**

### Cabin Fans



Meat&Doria **994041**  
Hoffer Products **994041**

### Receiver-Drier Filters



Meat&Doria **K132412**  
Hoffer Products **K132412**

### Pressure Sensors



Meat&Doria **98590**  
Hoffer Products **80298590**

### Pressure Switches Repair Kits



Meat&Doria **K26600**  
Hoffer Products **K26600**

