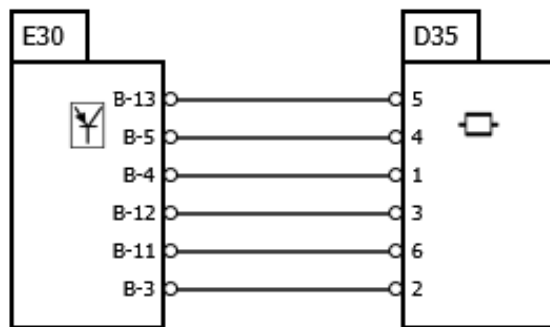


YS2R6X400E9183544 / COO, Coordinator / E 30, COO control unit / COO7 / D, Diodes, resistors and potentiometers / D35, Accelerator pedal sensor



D35, Accelerator pedal sensor

## D35, Accelerator pedal sensor

The task of the accelerator pedal sensor is to indicate the accelerator pedal position to the coordinator.

The two magnetic sensors on the accelerator pedal sensor transmit two separate output signals to the coordinator. The voltage value of one signal is around twice as high as that of the other signal, and both values change linearly in relation to the accelerator pedal movements. The electric power supply and grounding for the Hall effect sensors are separate. If the circuit to the accelerator pedal sensor is broken, the limp home function will be activated.

The voltage supply for the two Hall-effect sensors of the accelerator pedal sensor should be 5 V  $\pm$  5%. The voltage level for output signal 1 should be approx. 0.75-4 V, linearly in relation to the pedal position and with a starting point of 0.75 V. The level for output signal 2 should be approx. 0.37-2 V, linearly in relation to the pedal position and with a starting point of 0.37 V.

### Accelerator pedal sensor 2, voltage value

The voltage level is measured on coordinator pin B11 and it applies to accelerator pedal sensor output signal 2, the redundant output signal. When short circuited to ground: 0 V. When short circuited to a current carrying circuit: 24 V. When there is an interruption: 0 V.

### Accelerator pedal sensor 1, voltage value

The voltage level is measured on coordinator pin B5 and it applies to accelerator pedal sensor output signal 1, the normal output signal. When short circuited to ground: 0 V. When short circuited to a current carrying circuit: 24 V. When there is an interruption: 0 V.

### Accelerator pedal depression, common to sensors 1 and 2

The accelerator pedal position is calculated with respect to the voltage level on coordinator pins B5 and B11.

## Accelerator pedal sensor, kick-down position

The status is calculated with respect to the accelerator pedal position and voltage level on coordinator pin B5. Active during kick-down.

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