

Directory Data & Monitoring

SENSIT s.r.o.

New CO2 Sensor Product for Railway Vehicles – CO2 Sensors for Air Ducts

n addition to temperature, relative humidity and CO2 sensors for railway vehicle applications, the Czech sensor manufacturer SENSIT s.r.o. now also offers two sensors for measuring carbon dioxide concentration in air ducts.

CO2 sensors in air conditioning ducts help to ensure a comfortable climate for passengers in the vehicle throughout the journey. The air conditioning unit also controls the air based on the CO2 evaluation, thus saving energy and costs. This makes the entire control more efficient.

The new CO2 sensors consist of a plastic head and stem and are available with either a 4 to 20 mA output (KSC 520 sensor) or RS 485 / MODBUS (KSC 122 sensor). A modified version with CAN protocol output is also available. You can thus choose the variant that will be compatible with your control system. Their installation is easy thanks to the unique 'S head' design developed by SENSIT s.r.o. The CO2 measurement range is 400 to 5000 ppm and the measurement accuracy is ± 50 ppm (+3 % of the measured value).

Like the other temperature, relative humidity, CO2, atmospheric pressure and VOC sensors for railway vehicles that SENSIT s.r.o. develops and manufactures, this new product meets the requirements defined in the railway standards:

- Insulation test according to ČSN EN 50155
- Shock and vibration test according to ČSN EN 61373
- Electromagnetic compatibility according to ČSN EN 50121-3-2
- Fire resistance according to EN 45545





For CO2 measurement in railway vehicles, it is also possible to use combined interior sensors KSTHC 102 (with RS 485 output) and KSTHC 104 (with CAN protocol output), which, in addition to CO2 concentration, also sense temperature and relative humidity, making them effective, among other things, in de-fogging windows and walls of train sets. The KSTHCPV 102 is designed for the control of temperature, relative humidity, atmospheric pressure and air quality (by sensing CO2 and VOC concentrations) in the passenger compartments of train sets and carriages.

