NDIR REFRIGERANT SENSOR
FOR REFRIGERATION AND AIR CONDITIONING TECHNOLOGY

blue performance
NDIR-SENSORS –
HIGH TECHNOLOGY FOR YOUR APPLICATION

All smartGAS sensors are based on the NDIR principle (non-dispersive infrared technology). They feature excellent long-term stability and high selectivity over other gases. This guarantees absolutely reliable operation with accurate readings also in demanding environments.

As opposed to sensor technologies that are based on chemical reactions, our optical NDIR sensors require very little maintenance.

We deliver our NDIR gas sensors fully calibrated and temperature compensated, and also pressure compensated on request. The convenient plug & play interface facilitates connection to your hardware.
Refrigerants such as R134a, R125, R404a and many others used in refrigerants are combustible and extremely harmful to the environment. In accordance with the EU F-Gas Directive, refrigerating systems must therefore not only fulfil stringent leakage control requirements, but must also be equipped with a leak detection system for HHC refrigerants. Early detection of leaks is the only way to protect human beings and the environment by preventing the accidental release of coolants and refrigerants. Continuous measurement of refrigerants in the ambient air also prevents the system from running dry, minimising downtimes and subsequent costs.

With a measuring range of 1000 ppm or 2000 ppm, low-maintenance NDIR sensors from smartGAS detect even minute refrigerant quantities – selectively and reliably. Their use in air conditioning technology can be a decisive competitive advantage.

No matter what concentration has to be measured under what conditions – smartGAS offers the suitable NDIR sensor.
SMARTGAS – SMART SOLUTIONS FOR GAS MEASUREMENT

The smartGAS Mikrosensorik GmbH is a dynamic company specialized in the development, the production and the marketing of innovative gas sensors and gas analyzing solutions. smartGAS develops, produces and sells both OEM and customized sensor systems. All products are based on infrared absorption (NDIR) which allows selective detection of a gas and accurate determination of its concentration. Recent developments have seen not only significant reduction in size but also an increase in the number of detectable gases. The sensors are used in applications such as fruit ripening and storage, high voltage, emission monitoring, process control, refrigeration analyzers and monitoring, analytical appliances and process control.

The goal of smartGAS is to simplify the handling of gases using the innovative IR technology to protect the environment and to advance the safety for humans and equipment. Therefore we offer our standard products and customized solutions and provide support and assistance for the design in.