

Electro Optical Components, Inc.

5464 Skylane Boulevard, Suite D, Santa Rosa, CA 95403 Toll Free: 855-EOC-6300



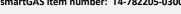
www.eoc-inc.com info@eoc-inc.com



blue performance®

TRANSMITTER EVO

Infrared gas detector R1234yf // REFRIGERANT // 2000 ppm smartGAS item number: T4-782205-03000



















- Ready to install
- For individual customized design only
- Optimized gas entrance
- Fast response time t90
- IP54 protection
- Easy to use calibration adapter available

APPLICATION EXAMPLE

HOTEL AIR CONDITIONING FOOD STORAGE ROOMS INDUSTRIAL REFRIGERATION FOOD TRANSPORT RESEARCH The TRANSMITTER^{EVO} series is designed to address the individual requirements of customers who are seeking their own branded product and technical solution. Based on the highly reliable NDIR BASIC^{EVO} technology the TRANSMITTER^{EVO} offers the opportunity for customer specific solutions at reasonable cost.

Non Dispersive Infrared (NDIR) gas sensor for ambient air monitoring using dual wavelength technology. The TRANSMITTER^{EVO} is especially designed for refrigeration leak detection in small concentration ranges (ppm range) for wall mounting. The TRANSMITTER^{EVO} can be utilised as a Freon detector in industrial refrigeration facilities but can also be used for ambient air monitoring in the field of air conditioning devices. Other scopes of applications comprise continuous gas monitoring in controlled environment chambers and food storage rooms as well as usage for various areas of scientific research.

Coloured LED lights indicate the device status at any time and the on board pressure compensation allows for precise gas measurement regardless of where the TRANSMITTER^{EVO} is installed. The TRANSMITTER^{EVO} offers IP54 protection as well as a fast gas exchange for reliable and safe operation. A robust design allows for operation even in dirty or challenging environments.



TRANSMITTER

Infrared gas detector R1234yf // REFRIGERANT // 2000 ppm

smartGAS item number: T4-782205-03000

General features

Measurement principle: Non Dispersive Infra-Red (NDIR), dual wavelength

Measurement range: 0 .. 2000 ppm Full Scale (FS)

Gas supply: by diffusion (atmospheric pressure)
Dimensions housing: 151 mm x 80 mm x 60 mm (L x W x H)

Warm-up time: < 2 minutes (start up time)

< 11 minutes (fade in finished)

< 30 minutes (full specification)

Measuring response *

Response time (t_{90}): appr. 60 s Digital resolution (@ zero): 1 ppm Detection limit (3 σ): \leq 10 ppm Repeatability: \leq \pm 20 ppm Linearity error (straight line deviation): \leq \pm 30 ppm

Long term stability (span): $\leq \pm 40$ ppm over 12 month period Long term stability (zero): $\leq \pm 30$ ppm over 12 month period

Influence of T and P *

Temp. dependence (zero): $\leq \pm 3$ ppm per °C Temp. dependence (span): $\leq \pm 6$ ppm per °C

Pressure dependence: ± 0.100 % of measurement value / hPa

Electrical inputs and outputs

Supply voltage: 12 V .. 28 V DC

Average power consumption: $\leq 1.5 \text{ W}$ (without load on pump supply)

Digital output signal: Modbus ASCII / RTU via RS 485, autobaud, autoframe Analogue output signal: 0(4) -20 mA, max $500 \Omega / 0-2 \text{ V} / 0-5 \text{ V} / 0-10 \text{ V}$ (DC)

Calibration: zero and span by software or push buttons

Pressure compensation: atmospheric

Climatic conditions

Operating temperature: $-20 ... + 40 \,^{\circ}\text{C}$ Storage temperature: $-20 ... + 60 \,^{\circ}\text{C}$ Air pressure: $800 ... 1150 \, \text{hPa}$

Ambient humidity: 0 .. 95 % relative humidity (not condensing)

* Typical values related to 1013 hPa and 22 °C for dry (not condensing) and clean sample gas. Stated values exclude calibration gas tolerance.

All rights reserved. Any logos and/or product names are trademarks of smartGAS. The reproduction, transfer, distribution or storage of information contained in this brochure in any form without the prior written consent of smartGAS is strictly prohibited. All specifications – technical included – are subject to change without notice. Depending on the application, the target gas and the measurement range the technical data may differ. No liability is accepted for any consequential losses, injury or damage resulting from the use of this document or from any omissions or errors herein. The data is given for guidance only. It does not constitute a specification or an offer for sale.

For more information, please visit $\underline{www.smartGAS.eu} \ \ or \ contact \ us \ at \\ \underline{sales@smartgas.eu}$

Please consult smartGAS sales for parts specified with other temperature and measurement ranges.

At first initiation and depending on application and ambient conditions recalibration is recommended. Recurring cycles of recalibration are recommended.