Technisches Datenblatt

SEWERIN
Protecting Water, Gas and Life.

# VARIOTEC® EGA

## Series

| | |
|---|---|
| Type/model | 065 12 |

## Certificates

| | |
|---|---|
| Certificate | TÜV 07 ATEX 553353 X<br>• II 2G Ex db eb ib IIB T4 Gb<br>basic device without leather bag for:<br>◦ CH4, C3H8, C4H10, C9H20, CO<br>• II 2G Ex db eb ib IIC T4 Gb<br>basic device with leather bag for:<br>◦ CH4, C3H8, C4H10, C9H20, CO, H2 |

## Device data

| | |
|---|---|
| Dimensions (W x D x H) | • approx. 148 x 57 x 205 mm (5.83 x 2.24 x 8.07 in)<br>• approx. 148 x 57 x 253 mm (5.83 x 2.24 x 9.96 in) with supporting bracket |
| Weight | approx. 1000 g (35 oz), depending on equipment |

## Features

| | |
|---|---|
| Display | monochrome, 320 x 240 pixel |
| Buzzer | • frequency: 2.4 kHz<br>• volume: 80 dB (A) / 1 m (3.28 ft) |
| Signal light | red |
| Pump | • vacuum: > 250 mbar<br>• volume flow: typically 50 l/h ±20 l/h<br>• pump error (F100) depending on volume flow:<br>◦ ≤ 20 l/h F100 certain<br>◦ > 20 l/h – ≤ 35 l/h F100 possible |
| Interface | USB |
| Memory | 8 MB |
| Control | • ON/OFF key<br>• 3 function keys<br>• jog dial |
| Sensors | • TC<br>• SC |



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## Operating conditions*

| | |
|---|---|
| Operating temperature | -20 – 40 °C (-4 – 104 °F) |
| Humidity | 5 – 90% r.h., non-condensing |
| Atmospheric pressure | 800 – 1100 hPa |
| Pressure at gas inlet | max. 100 mbar |
| Protection rating | IP54 |
| Position of use | any |

*Optional sensors can affect the operating conditions of the device.

## Storage conditions

| | |
|---|---|
| Storage temperature | -25 – 60 °C (-13 °F – 140 °F)<br>temperatures above 40 °C (104 °F) reduce the service life of the batteries. |

## Power supply

| | |
|---|---|
| Power supply | 4 cells, type Mignon AA, optionally:<br>• rechargeable batteries: NiMH<br>• disposable batteries: Alkaline |
| Operating time, typical | at least 8 h |
| Charging time | approx. 3 h (complete charge), depending on capacity |
| Charging temperature | 0 – 35 °C (32 – 95 °F) |
| Charging voltage | 12 V DC (max. 1 A) |

## Data transmission

| | |
|---|---|
| Communication | USB |

## Gas types

| | |
|---|---|
| Default | CH4 |

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# Sensors

**Note:**
probes increase the stated response times.

## Methane CH4

| | | |
|---|---|---|
| Type | thermal conductivity sensor | |
| Measuring range | 0 – 100% vol. | |
| Resolution | • 0 – 9.9% vol.:<br>• 10 – 100% vol.: | 0.1% vol.<br>1% vol. |
| Response times | t50 < 9 s | t90 < 17 s |
| Warm-up time | up to 90 s | |
| Temperature range | -20 – 40 °C (-4 – 104 °F) | |
| Measuring error | according to EN 60079-29-1<br>• ±3% vol. | |
| Interference, known | all gases with a different thermal conductivity | |
| Lifetime, expected | 5 years | |
| Adjustment | test gas concentration:<br>• zero point:<br>• CH4: | <br>hydrocarbon-free, clean air<br>100% vol., utilisable 20 – 100% vol. |

## Methane CH4

| | | |
|---|---|---|
| Type | gas-sensitive semiconductor | |
| Measuring range | 0 – 10000 ppm | |
| Resolution | • 0 – 10 ppm:<br>• 10 – 100 ppm:<br>• 100 – 999 ppm:<br>• 0.10 – 1.0% vol.: | 1 ppm<br>2 ppm<br>20 ppm<br>0.02% vol. (200 ppm) |
| Response times | t90 < 7 s | |
| Warm-up time | approx. 1 min | |
| Measuring error | 30% | |
| Interference, known | all flammable gases | |
| Lifetime, expected | 5 years | |
| Adjustment | test gas concentration:<br>• zero point:<br>• CH4:<br>◦ 10 ppm<br>◦ 100 ppm<br>◦ 1000 ppm<br>◦ 1.0% vol. | <br>hydrocarbon-free, clean air |

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## Ethane detector

| | |
|---|---|
| Type | gas chromatograph |
| Gases, separable | CH4, C2H6, C3H8 |
| Sensor, used | gas-sensitive semiconductor |
| Measuring range | 0 – 12000 ppm |
| Separating capacity | 25 ppm |
| Resolution | 1 ppm |
| Measurement time | 4 min |
| Warm-up time | approx. 1 min |
| Measuring error | ±30% |
| Lifetime, expected | 5 years |
| Test gases | gas mixture: 1% vol. CH4 / 100 ppm C2H6 in synth. air |