Technical Data Sheet

SEWERIN
Protecting Water, Gas and Life.

# Multitec® 520

## Series

| | |
|---|---|
| Type/model | 066 01 |

## 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, H2S, CO<br>• II 2G Ex db eb ib IIC T4 Gb<br>basic device with leather bag for:<br>◦ CH4, C3H8, C4H10, C9H20, H2S, CO, H2<br>BVS 09 ATEX G 001 X, PFG 08 G 002 X<br>• valid for CH4, C3H8, C9H20, CO2, O2, CO, H2S |

## Device data

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



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## 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 |
| Controls | • ON/OFF key<br>• 3 function keys<br>• jog dial |
| Sensors | • IR for flammable gases (CH4, C3H8, C4H10, C9H20)<br>• IR for CO2<br>optional:<br>• EC for O2, H2S, CO, NH3 |

## Operating conditions*

| | |
|---|---|
| Operating temperature | -20 – 40 °C (-4 to 104 °F) |
| Humidity | 5 – 90% r.h., non-condensing |
| Atmospheric pressure | 900 – 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 sensors |

## 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 °F – 95 °F) |
| Charging voltage | 12 V DC (max. 1 A) |

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### Data transmission

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

### Gas types

| | |
|---|---|
| Default | CH4 |
| Optional | • C3H8<br>• C4H10<br>• C9H20 |

## Sensors

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

### Methane CH4, propane C3H8, butane C4H10, nonane C9H20

| | | |
|---|---|---|
| Type | infrared sensor | |
| Measuring range | 0 – 100% LEL | |
| Resolution | • CH4:<br>• C3H8, C4H10, C9H20: | 0,05 Vol.-%<br>0,02 Vol.-% |
| Response times | • CH4:<br>• C3H8, C4H10:<br>• C9H20: | t50 < 8 s t90 < 14 s<br>t50 < 9 s t90 < 17 s<br>t50 < 16 s t90 < 120 s |
| Warm-up time | < 30 s | |
| Temperature range | -20 – 40 °C | |
| Measuring error | as per EN 60079-29-1<br>• CH4:<br><br>• C3H8:<br><br>• C9H20: | <br>±1% LEL (short-term stability)<br>±4% LEL (long-term stability)<br>±1% LEL (short-term stability)<br>±1% LEL (long-term stability)<br>±5% LEL |
| Interference, known | all hydrocarbons CxHy | |
| Lifetime, expected | 5 years | |
| Adjustment | test gas concentration:<br>• zero point:<br>• CH4:<br>• C3H8:<br>• C4H10:<br>• C9H20: | <br>hydrocarbon-free, clean air<br>2.20% vol., utilisable 1.00 – 4.00% vol.<br>1.00% vol., utilisable 0.85 – 1.50% vol.<br>1.00% vol., utilisable 0.50 – 1.30% vol.<br>0.22% vol. (substitute test gas: 0.3% vol. C3H8) |

## Carbon dioxide CO2

| | |
|---|---|
| Type | infrared sensor |
| Measuring range | 0 – 5% vol.<br>• lower limit: 0.02% vol. |
| Resolution | 0.02% vol. |
| Response times | t90 < 20 s |
| Decay times | t10 < 14 s |
| Warm-up time | < 30 s |
| Temperature range | -20 – 40 °C (-4 to 104 °F) |
| Measuring error | as per EN 45544<br>• ±0.04% vol. (long-term stability) |
| Zero point deviation | 0.04% vol. |
| Interference, known | none |
| Humidity | 5 – 90% r.h., non-condensing<br>• short term: 0% r.h |
| Lifetime, expected | 5 years |
| Adjustment | test gas concentration:<br>• zero point: carbon dioxide-free, clean air<br>• CO2: 2.00% vol., utilisable 2.00 – 5.00% vol. |

## Oxygen O2

| | |
|---|---|
| Type | electrochemical sensor |
| Measuring range | 0 – 25% vol. |
| Resolution | 0.1% vol. |
| Response times | t90 < 15 s |
| Warm-up time | up to 90 s |
| Temperature range | -20 – 40 °C (-4 to 104 °F) |
| Measuring error | ±3 %, minimum ±0.3 % vol. (±3 digit) |
| Drift | < 2% within 3 months |
| Interference, known | none |
| Humidity | 5 – 90% r.h., non-condensing<br>• short term: 0% r.h |
| Lifetime, expected | 3 years |
| Adjustment | test gas concentration:<br>• zero point:<br>◦ oxygen-free air<br>◦ 100% vol. N2<br>◦ 100% vol. CH4<br>• O2: 20.9% vol., e.g. clean air |

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## Carbon monoxide CO

| | | |
|---|---|---|
| Type | electrochemical sensor | |
| Measuring range | 0 – 500 ppm<br>• lower limit:<br>◦ 0 – 100 ppm:<br>◦ >100 ppm: | <br><br>4 ppm<br>11 ppm |
| Resolution | 1 ppm | |
| Response times | t90 < 30 s | |
| Decay times | t10 ≤ 25 s | |
| Warm-up time | up to 90 s | |
| Temperature range | -20 – 40 °C (-4 to 104 °F) | |
| Measuring error | • ±3 %, minimum ±3 ppm (±3 digit)<br>• long-term stability as per EN 45544<br>◦ test gas:<br>◦ zero point (fresh air): | <br><br>≤ 4% of measured value<br>≤ 1 ppm |
| Drift | < 10% within 6 months | |
| Zero point deviation | • 0 – 100 ppm:<br>• >100 ppm: | 3 ppm<br>13 ppm |
| Interference, known | at 20°C (68 °F)<br>• C2H2 100 ppm:<br>• C2H4 100 ppm:<br>• Cl2 15 ppm:<br>• H2 200 ppm:<br>• H2S 50 ppm:<br>• NH3 50 ppm:<br>• NO 50 ppm:<br>• SO2 20 ppm: | <br>approx. 90 ppm CO<br>approx. 96 ppm CO<br>approx. 1 ppm CO<br>approx. 30 ppm CO<br>approx. 1 ppm CO<br>approx. 0 ppm CO<br>approx. 15 ppm CO<br>approx. 0 ppm CO |
| Humidity | 15 – 90% r.h., non-condensing<br>• short term: 0% r.h | |
| Lifetime, expected | 3 years | |
| Adjustment | test gas concentration:<br>• zero point:<br>• CO: | <br>clean air<br>40 ppm, utilisable 10 – 150 ppm |

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## Hydrogen sulphide H2S

| | |
|---|---|
| Type | electrochemical sensor |
| Measuring range | 0 – 100 ppm<br>• lower limit: 1 ppm |
| Resolution | 1 ppm |
| Response times | t90 < 30 s |
| Decay times | t10 < 27 s |
| Warm-up time | up to 120 s |
| Temperature range | -20 – 40 °C (-4 to 104 °F) |
| Measuring error | • ±3 %, minimum ±3 ppm (±3 digit)<br>• long-term stability as per EN 45544<br>◦ Test gas: ≤ 12% of measured value<br>◦ zero point (fresh air): ≤ 1 ppm |
| Drift | < 10% within 6 months |
| Zero point deviation | 2 ppm |
| Interference, known | at 20°C (68 °F)<br>• CO 200 ppm: approx. 5 ppm H2S<br>• H2 100 ppm: approx. -2 ppm H2S<br>• NO 50 ppm: approx. 10 ppm H2S<br>• NO2 200 ppm: approx. -3 ppm H2S<br>• SO2 20 ppm: approx. 3 ppm H2S |
| Humidity | 15 – 90% r.h., non-condensing<br>• short term: 0% r.h |
| Lifetime, expected | > 3 years |
| Adjustment | test gas concentration:<br>• zero point: clean air<br>• H2S: 40 ppm, utilisable 10 – 100 ppm |

## Ammonia NH3

| | |
|---|---|
| Type | Electrochemical sensor |
| Measuring range | 0 – 100 ppm |
| Resolution | 1 ppm |
| Response times | t90 < 60 s |
| Warm-up time | up to 90 s |
| Temperature range | -20 – 40 °C (-4 to 104 °F) |
| Measuring error | ±3 %, minimum ±3 ppm (±3 digit) |
| Drift | < 5% within 6 months |
| Interference, known | at 20°C (68 °F)<br>• H2 20 ppm: approx. 1 ppm NH3 |
| Humidity | 15 – 90% r.h., non-condensing<br>• short term: 0% r.h |
| Lifetime, expected | > 2 years |
| Adjustment | test gas concentration:<br>• zero point: clean air<br>• NH3: 50 ppm in N2, utilisable 10 – 50 ppm |

# Diensten van EURO-INDEX

**EURO-INDEX is fabrikant van BLAUWE LIJN en importeur/distributeur van diverse A-merken test- en meetinstrumenten. Wij leveren naast instrumenten ook de diensten om het gebruik hiervan in uw bedrijfsvoering te optimaliseren. Dit omvat uiteraard onderhoud, reparatie en kalibratie van instrumenten, maar ook kennisdeling via de EURO-INDEX Academy en verhuur van meetinstrumenten.**

### Geautoriseerd Service Centrum

EURO-INDEX is van de meeste merken in ons assortiment een Geautoriseerd Service Centrum. Dit betekent dat uw instrumenten worden behandeld door technici die zijn opgeleid door de fabrikant en beschikken over de juiste gereedschappen en software. Er worden uitsluitend originele onderdelen toegepast en de garantie van uw instrument blijft intact, net als de certificering (ATEX, EN50379, etc.).

### Kalibratielaboratorium

Ons moderne service- en kalibratielaboratorium beschikt over een RvA accreditatie naar NEN-EN-ISO/IEC 17025. Deze accreditatie geldt voor grootheden, zoals gespecificeerd in de scope bij accreditatienummer K105.

Meer info

**Kijk voor een overzicht van al onze diensten op euro-index.nl/diensten**

### KWS®

KWS® is een unieke kalibratieformule voor uw test- en meetinstrumenten met periodiek onderhoud en kalibratie tegen vaste, lage kosten.
Uw kalibratiecertificaten zijn digitaal beschikbaar via Mijn KWS (gratis webportaal en app) en door de QR-code te scannen van de kalibratiesticker op het instrument.

Meer info

### Verhuur van meetinstrumenten

Er zijn diverse situaties waarbij huren handig is:

- U heeft tijdelijk extra toestellen nodig.
- Uw eigen meetinstrument wordt onderhouden en/of gekalibreerd.
- U moet een eenmalige meting verrichten.

Meer info

### EURO-INDEX Academy

- Trainingen (individueel en klassikaal)
- Cursussen, infosessies en workshops
- Demonstratie- en instructievideo's
- Whitepapers

Meer info

Servicebalie

Onderhoud, reparatie en kalibratie

Cursussen en workshops

Kalibratielaboratorium

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