# ST450 EC $H_2S$ Gas Detector (0-30 ppm, Aluminium)

| Product reference | |
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| Part No. | 5150131-00A |
| Manufacturer | Buveco Gasdetection BV, Zuidpool 9, 2801 RW Gouda, The Netherlands |
| Model | ST450 EC-$H_2S$ |




## Product overview

Ordering SKU 5150131-00A, model ST450 EC-$H_2S$. The detector uses an electrochemical sensor (2 or 3 electrodes) and detects $H_2S$ over 0-30 ppm in a Aluminium enclosure. The source-assigned operating temperature is -20 °C to +50 °C and relative humidity is 5-90% RH (n.c.). Current certification validity is unknown. Accessories and replacement sensors are source-listed non-main items and are not expanded into new gas-detector products.

## Technical specifications

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| Manufacturer approvals / certifications | ATEX Directive 2014/34/EU; current validity unknown. | Mounting orientation | Mount the detector in a vertical position, with the sensor pointing downwards. |
| Manufacturer approvals / certifications | Electromagnetic Compatibility Directive 2014/30/EU; current validity unknown. | Sensor-exchange clearance | Leave at least 11 cm free space below the sensor head for splashguard removal and bump-test hose connection. |
| Manufacturer approvals / certifications | IECEx; current validity unknown. | Cable-gland wording | Aluminium housing: Brass / SS housing SS (thread M20x1.5) |
| Ordering SKU | 5150131-00A | Manufacturer (as printed) | Buveco Gasdetection BV, Zuidpool 9, 2801 RW Gouda, The Netherlands |
| Model | ST450 EC-$H_2S$ | Publisher/contact (as printed) | Consilium, Salsmästaregatan 21, SE-422 46 Gothenburg, spares.se@consiliumsafety.com |
| Detected gas | $H_2S$ | IP rating superscript note | IP66 plus superscript footnote 1; sensor IP6X; footnote wording retained separately. |
| Measuring range | 0-30 ppm | Maximum current certification note | Maximum 120 mA according to certification; current validity unknown; historical certification note retained separately. |
| Enclosure material | Aluminium | Pressure range conditions (family) | Toxic: Atmospheric ± 10%; Oxygen: 80 to 120 kPa |
| Operating temperature | -20 °C to +50 °C | Cable gland thread | M20 x 1.5 |
| Relative humidity | 5-90% RH (n.c.) | Cable gland material (aluminium housing) | Unknown — source wording does not resolve housing/material pairing: Aluminium housing: Brass / SS housing SS (thread M20x1.5). |
| Sensor type | Electrochemical sensor (2 or 3 electrodes) | Cable gland material (SS housing) | Unknown — source wording does not resolve housing/material pairing: Aluminium housing: Brass / SS housing SS (thread M20x1.5). |
| Display | Digital graphic display with backlight | Replaceable sensor | Replaceable electrochemical gas sensor for oxygen and toxic gases. |
| Status LED | Green: OK; Red: Alarm; Yellow: System failure | Display, status, and backlight | Standard graphic display shows the measured value and local status notifications; backlight supports use in dark areas. |
| Power supply | 18-30 V DC | Capacitive-key navigation | Capacitive-key control enables navigation through the user/calibration menu. |
| Power/current indication | < 2.4 mA = system error; 4-20 mA = normal operation; > 22 mA = overload | Password-secured menu | Password-secured user menu prevents unauthorized access; user/calibration control requires no additional tools, including magnets. |
| Outputs | 4-20 mA, RS485 Modbus RTU (half-duplex); 2 mA system failure, >20 mA over range | Zero calibration | The user menu provides different features, such as a zero and span calibration. |
| Signal cable | 2-wire shielded, 0.75 - 2.5 mm² | Span calibration | The user menu provides different features, such as a zero and span calibration. |
| Load impedance | Max. 300 Ω at 24 V DC | Alarm setpoints | Adjusting alarm set points. |

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| Ingress protection | Enclosure: IP66; Sensor: IP6X | Local alarm notifications | Local alarm indication through notifications on the display and bright colored LED. |
| IP rating note | IP ratings do not imply that the equipment will detect gas during and after exposure to those conditions. | Displayed setpoints and diagnostics | Showing set points and diagnostic information. |
| Enclosure construction | Aluminium with coating, optional SS | 4-20 mA output simulation | Simulation of the output signal (4-20 mA) for loop testing. |
| Dimensions | 179 × 189 × 107 mm (H × W × D) | Self-diagnostics | Self-diagnostics included |
| Enclosure gas-sensor material | SS 316 | Ex application zener-barrier note | The gas detector can be used in Ex applications (zone 1/2 and 21/22). without having a zener barrier. This reduces investment costs directly. |
| Weight | 1.5 kg ± 5% (Al) | Source applications | Wastewater plants; Refineries; Confined spaces; Food industry; Marine; Silo storage; Steel industry |
| Pressure range | Toxic: Atmospheric ± 10% | Splashguard | Splashguard included |
| Certification directives | ATEX Directive 2014/34/EU; Electromagnetic Compatibility Directive 2014/30/EU | Connection diagram | Manufacturer page 4 Connections diagram retained as the source figure; terminal, earth, and bonding context is read from that diagram. |
| ATEX marking | II 2G Ex db IIC T6 Gb; II 2D Ex tb IIIC T85°C Db | Dimensions diagram | Manufacturer page 4 Dimensions diagram retained as the source figure. |
| ATEX certificate number (as printed) | KIWA 16ATEX0008 X | Drawing dimensions | Page 4 drawing: overall 218 mm; lower segment 92 mm; lower width 127 mm; top width 189 mm; depth 107 mm; hole diameter 7 mm. |
| IECEx marking | Ex db IIC T6 Gb; Ex tb IIIC T85°C Db | Overall height normalization | Unknown — source table height 179 mm conflicts with drawing overall height 218 mm; both raw roles are retained. |
| IECEx certificate number (as printed) | IECEx KIWA 16.0003X | Optional accessories | 5150227-00A — Splash guard, Sensor protection against splash water; 5150228-00A — Inline flow adapter, Inline flow adapter for sample applications, connection 2×6 mm, SS; 5150226-00A — Protective hood, Protective hood SS, for optimal protection in “wet” protection areas, dim. 315×300×138 mm; 5150231-00A — Isolation set EMC/RFI, Isolation board, 160×160 mm; 5150225-00A — Protective bracket, SS bracket, extra protection for use in warehouses |
| Sensor datasheet note | More information can be found in the sensor datasheets. | Replacement sensors | 5150234-00A — BUSENS D, type $O_2$, $O_2$, 0-25 Vol.%, Oxygen sensor; 5150235-00A — BUSENS D, type $H_2S$, $H_2S$, 0-30 ppm, Hydrogen sulfide sensor; 5150236-00A — BUSENS D, type $H_2S$, $H_2S$, 0-50/100 ppm, Hydrogen sulfide sensor; 5150237-00A — BUSENS D, type CO, CO, 0-100/0-500 ppm, Carbon monoxide sensor; 5150238-00A — BUSENS D, type $H_2$, $H_2$, 0-1000 ppm, Hydrogen ppm sensor; 5150239-00A — BUSENS D, type $H_2$, $H_2$, 0-100 %LEL, Hydrogen LEL sensor; 5101163-00A — BUSENS D, type NO, NO, 0-100 ppm, Nitric oxide sensor; 5101164-00A — BUSENS D, type $NO_2$, $NO_2$, 0-20 ppm, Nitrogen dioxide sensor |
| Hazardous-area note | For use in hazardous areas see Consilium ST450 Manual. | Non-main row source note | Manufacturer page 3 row identities are retained; compatibility is not inferred across rows. |
| Allowed Ex zones | Allowed in Ex zones 1 and 21 | Dimension discrepancy | Unresolved source discrepancy: page 2 table gives height 179 mm; page 4 drawing gives overall height 218 mm. Both source roles are retained; no normalized overall height is asserted. |
| Applicable Ex zones | Ex applications (zone 1/2 and 21/22) | Image role | The only native product image in this ST450 EC source is shared by the family; it is not claimed as an exact SKU- or gas-specific photo. |
| Compatible systems | CGD50/500, CGS50/500 | | |