

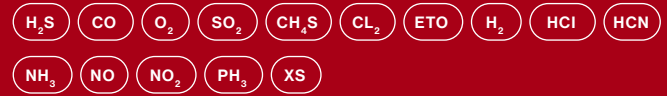


SST1
Micro sensor

SST1E
Mini sensor

SST1 & SST1E Serviceable

SINGLE GAS WITH IOELV, STEL & TWA



RTR COMPATIBLE

Applications

- Oil and gas upstream
- Oil and gas downstream
- Contractors
- Site maintenance
- Turnarounds and shut-downs
- Boiler rooms
- Steel plants
- Laboratories
- Shipping
- Power generation
- Mining

Features and benefits



Easy Setup

With NFC built in as standard, the SST1 unlocks a wide range of possibilities tailored to your needs. Simply pair the device with the WatchGas Device Link App to manage your fleet, perform bump tests, calibrate, assign devices, or download event logs. For more details, see the Tap&Go application note highlighting the full benefits of NFC.



Sensor

Using the latest unique micro technology or traditional mini electrochemical sensors offer stability and reliability over extreme temperatures and conditions. With its smaller form factor as an alternative to traditional 4 Series electrolyte sensors, it allows for a new standard in the single gas market.



IOELV

The SST1 is the only product in its category that delivers seamless access to critical data via NFC Tap & Go. Instant extraction of IOELV values, alarm events, and device status provides safety managers with a complete overview of exposure levels, enabling proactive safety measures and helping to reduce business interruptions.



Rugged

Designed with the harshest environments in mind the SST1 offers an Ingress Protection rating of IP65/68. The casing is a double shot housing that gives extra robustness while not compromising on quality. The screen protectors located on either side of the display are designed to protect the LCD from scratching and are required due to the smaller sensor profile.



Alert

As a safety device it is essential that the device clearly notifies users of the presence of gas. The SST1 has a 95dB alarm audible at 30 centimeters which is the industry standard and is required in loud industrial environments. With the largest display in the category and high and low alarms, SST1 provides best-in-class early warnings.



Serviceable

The SST1 serviceable is a cost-efficient solution for users with IOELV, STEL, and TWA requirements. SST1 real-time allows users to replace the battery and sensors to maximize the lifetime of the unit. Press and hold the button for 10 seconds to reset the STEL and TWA for a worker shift change.

The SST1 Serviceable offers one of the most cost-effective solutions on the market. With its replaceable battery and unique sensor technology, the SST1 provides a compact and modular design without compromising on ruggedness. The SST1 Serviceable can be configured to your needs with a simple tap of the NFC to pair it with the WatchGas Device Link App. The SST1 monitors Low, High, STEL, and TWA levels, indicating both immediate risks and long-term exposure to toxic gases.

Configurable options:

- Configuration of Low, High, STEL and TWA alarm set points using SST Dock or the WatchGas Device Link App
- Real-time gas reading
- User-settable bump test and calibration reminder
- Compliance check

SST1 & SST1E Serviceable Specifications

| | | | | |
|-------------------------------------|--|---|------------------|------------------|
| Size | SST1: 83 x 49 x 20 mm / 3.3 x 1.9 x 0.8 in SST1E: 83 x 49 x 24 mm / 3.3 x 1.9 x 0.9 in | | | |
| Weight | SST1: 88 g / 3.1 oz SST1E: 90 g / 3.2 oz | | | |
| Operating temperature | H ₂ S, CO, O ₂ , SO ₂ : -40 ~ +60 °C / -40 ~ +140 °F Others: -20 ~ +50 °C / -4 ~ +122 °F | | | |
| Humidity | 5 ~ 95% r.h. (non-condensing) | | | |
| Response time T90 | SST1 | T90 (sec) | SST1E | T90 (sec) |
| | H ₂ S | < 10 | H ₂ S | < 20 |
| | CO | < 10 | CO | < 20 |
| | O ₂ | < 10 | O ₂ | < 20 |
| | SO ₂ | < 55 | SO ₂ | < 45 |
| | CH ₂ S | < 10 | Cl ₂ | < 40 |
| | H ₂ (low) | < 10 | ETO | < 150 |
| | H ₂ (high) | < 55 | HCl | < 75 |
| | NH ₃ | < 130 | HCN | < 70 |
| | PH ₃ | < 10 | HCN F | < 120 |
| | | | NH ₃ | < 60 |
| | | | NO ₂ | < 15 |
| | | | NO | < 30 |
| | | | XS | < 60 |
| Battery life | O ₂ : 2 years* H ₂ S, CO, SO ₂ , NH ₃ , H ₂ , PH ₃ , CH ₂ S: up to 3 years* * = dependent on gas alarms | | | |
| Event logging | Last 100 events | | | |
| IP | 65/68 | | | |
| Communication | NFC | | | |
| Shelf life | 1 year | | | |
| Certifications and approvals | | ATEX, IECEx, UKEX : II 1 G Ex ia IIC T4 Ga I M1 Ex ia I Ma | | |
| | | North America: Int.Safe: Cl I Dv 1, Gr A,B,C,D T4 Cl I Zn 0, AEx ia IIC T4 Ga UL 61010-1, CAN/CSA-C22.2 NO. 61010-1-12/A1:18, UL 60079-0, UL 60079-11, CSA 60079-0, CSA 60079-11 | | |
| | | EMC Directive 2014/30/EU | | |
| | | (PESO) Ex ia IIC T4 Ga | | |
| | | (Korea) Ex ia IIC T4 | | |
| | | (Brazil) Ex ia I Ma Ex ia IIC T4 Ga | | |
| | | (ABS Type Approved) 24-00T2542343-1-PDA | | |
| Warranty | Instrument: 3 years Battery: 2 years (based on 2 min of alarm per day) Sensors: H ₂ S, CO, O ₂ , SO ₂ , H ₂ Low and High Range: 2 years Others: 1 year | | | |

Note: Battery lifetime is based on normal mode, depending on settings and alarm functions lifetime may be reduced.

For more information

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WatchGas SST1 & SST1E Serviceable DS EN V2.0 C4F © 2026 WatchGas B.V.

WatchGas is dedicated to continuously improving its products. Therefore, the specifications and features mentioned in this datasheet are subject to change without prior notice.

Sensor Specifications

| Sensor type | Gas measuring range | Low alarm level | High alarm level | STEL | TWA | Resolution |
|---------------------------|---------------------|-----------------|------------------|---------|---------|------------|
| Micro Sensors | | | | | | |
| H ₂ S | 0 - 500 ppm | 10 ppm | 15 ppm | 15 ppm | 10 ppm | 0.1 ppm |
| CO | 0 - 2000 ppm | 35 ppm | 200 ppm | 100 ppm | 20 ppm | 1 ppm |
| O ₂ | 0 - 25% Vol | 19.5% Vol | 23.5% Vol | N/A | N/A | 0.1% Vol |
| SO ₂ | 0 - 100 ppm | 5 ppm | 10 ppm | 5 ppm | 2 ppm | 0.1 ppm |
| CH ₂ S | 0 - 100 ppm | 2 ppm | 5 ppm | 1 ppm | 0.5 ppm | 0.01 ppm |
| H ₂ | 0 - 1000 ppm | 100 ppm | 400 ppm | N/A | N/A | 1 ppm |
| H ₂ high range | 0 - 20000 ppm | 4000 ppm | 8000 ppm | N/A | N/A | 100 ppm |
| NH ₃ | 0 - 100 ppm | 25 ppm | 50 ppm | 35 ppm | 25 ppm | 0.5 ppm |
| PH ₃ | 0 - 20 ppm | 1 ppm | 2 ppm | 1 ppm | 0.3 ppm | 0.01 ppm |
| Mini Sensors | | | | | | |
| H ₂ S | 0 - 300 ppm | 10 ppm | 15 ppm | 15 ppm | 10 ppm | 0.1 ppm |
| CO | 0 - 1500 ppm | 35 ppm | 200 ppm | 100 ppm | 20 ppm | 1 ppm |
| O ₂ | 0 - 25% Vol | 19.5% Vol | 23.5% Vol | N/A | N/A | 0.1% Vol |
| SO ₂ | 0 - 40 ppm | 5 ppm | 10 ppm | 5 ppm | 2 ppm | 0.1 ppm |
| Cl ₂ | 0 - 50 ppm | 0.5 ppm | 1 ppm | 1 ppm | 0.5 ppm | 0.1 ppm |
| ETO | 0 - 100 ppm | 2 ppm | 5 ppm | 2 ppm | 1 ppm | 0.5 ppm |
| HCl | 0 - 50 ppm | 2 ppm | 5 ppm | 5 ppm | 1 ppm | 0.2 ppm |
| HCN (unfiltered) | 0 - 50 ppm | 5 ppm | 10 ppm | 4 ppm | 4 ppm | 0.1 ppm |
| HCN F* | 0 - 50 ppm | 5 ppm | 10 ppm | 4 ppm | 4 ppm | 0.1 ppm |
| NH ₃ | 0 - 100 ppm | 5 ppm | 50 ppm | 35 ppm | 25 ppm | 0.1 ppm |
| NO | 0 - 100 ppm | 25 ppm | 50 ppm | 50 ppm | 25 ppm | 0.2 ppm |
| NO ₂ | 0 - 20 ppm | 2 ppm | 5 ppm | 5 ppm | 3 ppm | 0.1 ppm |
| XS** | 0 - 100 ppm | 25 ppm | 50 ppm | 50 ppm | 25 ppm | 0.5 ppm |

All alarm levels can be set using the WatchGas Device Link App or SST Dock
* Hydrogen Cyanide sensor with an integrated H₂S filter to eliminate cross interference.
** High-stability broad-band sensor for certain organic gases and vapors.

Accessories

SST Dock
SST-DOCK

WatchGas RTR Web Reporting Software
SST-SOFTWARE

SST1/E External Filters
SST1-XF-10 (pack of 10)
SST1-XF-100 (pack of 100)

WatchGas SST1/E leather pouch/case
7189120

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