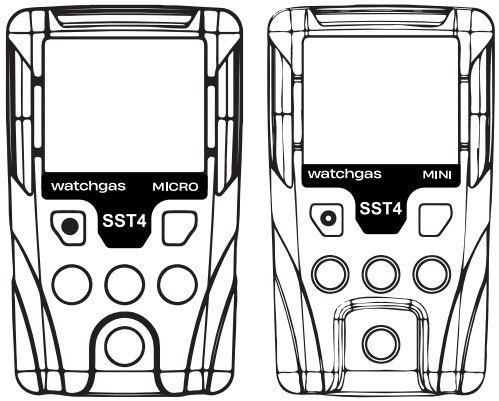
watchgas detection



QUICK START GUIDE
Multi-Gas Diffusion

SST RANGE™

QSG-SST4-Micro/Mini v1.6C2F
EN
27.04.2026

WARNINGS

1. Ensure the monitor is switched on and the sensor and audible port are unobstructed prior to use.
2. This detector is a personal safety device. It is your responsibility to respond properly to any alarm conditions.
3. Do not use the device if it appears to be damaged. Always inspect it before use and look for blocked filters and physical damage.
4. Periodically test the response of the sensors by exposing the detector to a target gas concentration that exceeds the alarm set point. Manually verify that the audible, vibration and visual alarms are activated.
5. For safety reasons, this equipment must be operated and serviced by qualified personnel only.
6. Do not attempt to replace the internal components. This will void the intrinsic safety rating and will void the warranty of the product. (Unless replaced by a WatchGas-approved service technician using original WatchGas parts.)
7. Deactivating the detector by removing the battery pack may cause improper operation and harm to the detector.
8. The Li-ion battery in this product presents a risk of fire, explosion, and chemical burn if misused. Do not disassemble, incinerate, or heat above 212°F (100°C). Batteries exposed to heat at 266°F (130°C) for 10 minutes can cause fire and explosion.
9. Batteries must only be charged in a safe area free of hazardous gas.
10. Only use WatchGas chargers. Using other Non-Approved chargers can lead to fire and/or explosion. (The Wireless charger used in conjunction with the equipment must be a suitably approved SELV/PELV supply with a maximum voltage not exceeding 5 V.)
11. This instrument contains a lithium polymer battery. Do not disassemble and do not dispose of in fire. Do not mix with the solid waste stream.
12. Used batteries must be disposed of by a qualified recycler or hazardous materials handler.
13. The internal battery is non-replaceable. The internals must not be accessed by the end-user by any means.
14. The equipment is intended for use in hazardous atmosphere in air with normal oxygen content not exceeding 21 % v/v (typical value).
15. The end-user shall contact the equipment manufacturer if the antistatic film applied is damaged.
16. The equipment shall only be charged wirelessly in non-explosive atmosphere.
17. Um for wireless charging ≤ 5 V.

CAUTIONS/SPECIAL CONDITIONS

1. All inspections should be performed in a clean and hazardous-free environment.
2. The detector can be cleaned with a soft damp cloth using a neutral cleaner (i.e. ACL Staticide). **NOTE:** Do not use solvents, soaps, or polishes.
3. This product is a gas detector, not a measuring device.
4. For optimal performance, periodically zero the sensor in a normal atmosphere (20.9% v/v O_2) that is free of hazardous gas.
5. This equipment is intended for use in hazardous atmosphere in air with normal oxygen content not exceeding 21 % v/v.
6. Before using the detector, refer to Sensor Poisons and Contaminants. (see SAFETY INFORMATION - READ BEFORE USE chapter).

AVERTISSEMENTS

1. Assurez-vous que le moniteur est allumé et que le capteur et le port sonore ne sont pas obstrués avant utilisation.
2. Ce détecteur est un dispositif de sécurité personnelle. Il est de votre responsabilité de réagir correctement à toute condition d'alarme.
3. N'utilisez pas l'appareil s'il semble endommagé. Inspectez-le toujours avant utilisation et recherchez les filtres obstrués et les dommages physiques.
4. Testez périodiquement la réponse des capteurs en exposant le détecteur à une concentration de gaz cible qui dépasse le point de réglage de l'alarme. Vérifiez manuellement que les alarmes sonores, vibrantes et visuelles sont activées.
5. Pour des raisons de sécurité, cet équipement doit être utilisé et entretenu uniquement par du personnel qualifié.
6. N'essayez pas de remplacer les composants internes. Cela annulera la cote de sécurité intrinsèque et annulera la garantie du produit. (Sauf remplacement par un technicien de service agréé WatchGas utilisant des pièces WatchGas d'origine.)
7. La désactivation du détecteur en retirant la batterie peut entraîner un mauvais fonctionnement et endommager le détecteur.
8. La batterie Li-ion de ce produit présente un risque d'incendie, d'explosion et de brûlure chimique en cas de mauvaise utilisation. Ne pas démonter, incinérer ou chauffer à plus de 212°F (100°C). Les batteries exposées à une chaleur de 266°F (130°C) pendant 10 minutes peuvent provoquer un incendie et une explosion.
9. Les batteries ne doivent être chargées que dans une zone sûre, exempte de gaz dangereux.
10. Utilisez uniquement des chargeurs WatchGas. L'utilisation d'autres chargeurs non approuvés peut provoquer un incendie et/ou une explosion. (Le chargeur sans fil utilisé avec l'équipement doit être une alimentation SELV/PELV dûment approuvée avec une tension maximale ne dépassant pas 5 V.)
11. Cet instrument contient une batterie au lithium polymère. Ne pas démonter et ne pas jeter au feu. Ne pas mélanger avec le flux de déchets solides.
12. Les batteries usagées doivent être éliminées par un recycleur qualifié ou un manutentionnaire de matières dangereuses.
13. La batterie interne n'est pas remplaçable. L'utilisateur final ne doit en aucun cas accéder aux composants internes.
14. L'équipement est destiné à être utilisé dans une atmosphère dangereuse dans un air dont la teneur normale en oxygène ne dépasse pas 21 % v/v (valeur typique).
15. L'utilisateur final doit contacter le fabricant de l'équipement si le film antistatique appliqué est endommagé.
16. L'équipement ne doit être chargé sans fil que dans une atmosphère non explosive.
17. Euh pour le chargement sans fil ≤ 5 V.

PRÉCAUTIONS/CONDITIONS PARTICULIÈRES

1. Toutes les inspections doivent être effectuées dans un environnement propre et sans danger.
2. Le détecteur peut être nettoyé avec un chiffon doux et humide en utilisant un nettoyant neutre (par exemple ACL Staticide). **REMARQUE :** N'utilisez pas de solvants, de savons ou de produits à polir.
3. Ce produit est un détecteur de gaz et non un appareil de mesure.
4. Pour des performances optimales, mettez périodiquement le capteur à zéro dans une atmosphère normale (20,9 % v/v O2) exempte de gaz dangereux.
5. Cet équipement est destiné à être utilisé dans une atmosphère dangereuse dans un air dont la teneur normale en oxygène ne dépasse pas 21 % v/v.
6. Si le film antistatique de l'écran LCD est endommagé, ne l'utilisez pas et contactez votre distributeur Watchgas agréé.
7. Avant d'utiliser le détecteur, reportez-vous à la section Poisons et contaminants du capteur.

AVISOS

1. Certifique-se de que o monitor esteja ligado e que o sensor e a porta sonora estejam desobstruídos antes do uso.
2. Este detector é um dispositivo de segurança pessoal. É sua responsabilidade responder adequadamente a quaisquer condições de alarme.
3. Não use o dispositivo se ele parecer danificado. Sempre inspecione-o antes de usar e procure por filtros bloqueados e danos físicos.
4. Teste periodicamente a resposta dos sensores expondo o detector a uma concentração de gás alvo que exceda o ponto de ajuste do alarme. Verifique manualmente se os alarmes sonoros, vibratórios e visuais estão ativados.
5. Por razões de segurança, este equipamento deve ser operado e reparado apenas por pessoal qualificado.
6. Não tente substituir os componentes internos. Isso anulará a classificação de segurança intrínseca e anulará a garantia do produto. (A menos que seja substituído por um técnico de serviço aprovado pela WatchGas usando peças originais da WatchGas.).
7. Desativar o detector removendo a bateria pode causar operação inadequada e danos ao detector.
8. A bateria de íons de lítio deste produto apresenta risco de incêndio, explosão e queimadura química se usada incorretamente. Não desmonte, incinere ou aqueça acima de 100°C (212°F). Baterias expostas ao calor a 130°C (266°F) por 10 minutos podem causar incêndio e explosão.
9. As baterias só devem ser carregadas em uma área segura e livre de gases perigosos.
10. Use apenas carregadores WatchGas. O uso de outros carregadores não aprovados pode causar incêndio e/ou explosão. (O carregador sem fio usado em conjunto com o equipamento deve ser uma fonte SELV/PELV devidamente aprovada com uma tensão máxima não superior a 5 V.).
11. Este instrumento contém uma bateria de polímero de lítio. Não desmonte e não descarte no fogo. Não misture com o fluxo de resíduos sólidos.
12. As baterias usadas devem ser descartadas por um reciclador qualificado ou por um manipulador de materiais perigosos.
13. A bateria interna não é substituível. Os componentes internos não devem ser acessados pelo usuário final por nenhum meio.
14. O equipamento destina-se ao uso em atmosferas perigosas em ar com teor normal de oxigênio não excedendo 21 % v/v (valor típico).
15. O usuário final deverá entrar em contato com o fabricante do equipamento se o filme antiestático aplicado estiver danificado.
16. O equipamento deve ser carregado apenas sem fio em atmosfera não explosiva.
17. Um para carregamento sem fio ≤ 5 V.

CUIDADOS/CONDIÇÕES ESPECIAIS

1. Todas as inspeções devem ser realizadas em um ambiente limpo e livre de perigos.
2. O detector pode ser limpo com um pano macio úmido e um limpador neutro (ou seja, ACL Staticide). **NOTA:** Não use solventes, sabões ou polidores.
3. Este produto é um detector de gás, não um dispositivo de medição.
4. Para um desempenho ideal, zere periodicamente o sensor em uma atmosfera normal (20,9% v/v O2) livre de gases perigosos.
5. Este equipamento destina-se ao uso em atmosferas perigosas em ar com teor normal de oxigênio não superior a 21% v/v.
6. Se o filme antiestático do display LCD estiver danificado, não o use e entre em contato com seu distribuidor autorizado Watchgas.
7. Antes de usar o detector, consulte Venenos e contaminantes do sensor.

SAFETY INFORMATION - READ BEFORE USE

Sensor contaminate

WatchGas recommends the catalytic combustible sensor be checked with a known concentration of calibration gas after any known exposure to catalyst contaminants/poisons (sulfur compounds, silicon vapors, halogenated compounds, etc).
The catalytic combustible sensor is factory calibrated to 50% LEL methane. If monitoring a different combustible gas in the % LEL range, calibrate the sensor using the appropriate gas.

Do not test the combustible sensor's response with a butane cigarette lighter; doing so will damage the catalytic LEL sensor.

WARNING: Overrange readings may indicate an explosive concentration.

Any rapid up-scaling reading followed by a declining or erratic reading may indicate a gas concentration beyond upper scale limit, which may be hazardous.

Extended exposure of the detector to certain concentrations of combustible gases and air may stress a detector element that can seriously affect its performance. If an alarm occurs due to high concentration of combustible gases, calibrate the detector.
If necessary, replace the sensor.

Do not expose the detector to electrical shock and/or severe continuous mechanical shock.

PRODUCT IDENTIFICATION

Serial number 10 digit:
digit 1-2: Product code
digit 3: Model
digit 4: Hardware Revision
digit 5: year of manufacturing
digit 6: month of manufacturing
digits 7-10: running serial number
e.g.: XXXX3CXXXX = 2023/Dec.

INTRINSIC SAFETY:
with CAT LEL.
II 1 G Ex ia IIC T4 Ga
I M1 Ex ia I Ma

With IR Sensor installed:
II 1G Ex ia op is IIC T4 Ga
I M1 Ex ia op is I Ma,

IECExEXV 23.0045X ExVeritas 23ATEX1686X
ExVeritas 23UKEX1687X
Int.Safe: Cl I Dv 1, Gr A,B,C,D T4
SST4 Micro SST4 Mini
-40 °C ≤ Tamb ≤ +60 °C
EU conformity www.watchgas.com
RoHS compliant

Standard
IEC 60079-11:2011
IEC 60079-0:2017
IEC 60079-28:2015
EN IEC 60079-0:2018
EN 60079-11:2012
EN 60079-28:2015
EN 50270:2015/AC:2016-08

Inmetro:
CPEx 24.1870X
ABNT NBR IEC 60079-11:2011
ABNT NBR IEC 60079-0:2017
ABNT NBR IEC 60079-28:2015

KTL:
적용규격: 방호장치 안전인증 고시 2021-22호
설치에 관한 모든 사항은 KS C IEC 60079-14를 따라야 한다.

PESO:
Approval No : A/P/HQ/MH/104/8564 (P639849)

North America:
UL 60079-0 7th Edition
UL 60079-11 6th Edition
UL 60079-28:2015
UL 60079-29 6th
CSA C22.2 NO. 60079-0:19
CAN/CSA C22.2 NO. 60079-11:14
UL 61010-1 Safety Requirements
CAN/CSA-C22.2 NO. 61010-1-12/A1:18

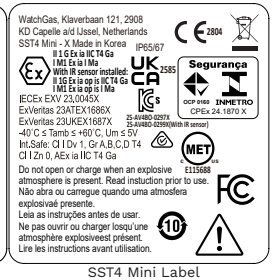
APPROVED BATTERY:
Approved batteries for the SST4 Micro, SST4 Mini, and SST5:
SST4-MIC-MIN-BAT
BATTERY CHARGER
INDUCTION CHARGER FOR SST RANGE: SST-IND-S
INDUCTION DISK CHARGER FOR SST RANGE (COMES WITH UNIT AS STANDARD): SST-DISK-CHR

WARNING

Charge only in a safe area that is free of hazardous gas and within temperatures of 0°C to 45°C (32°F to 113°F).
First-time charge: 3 hours.
Normal charge:
SST4 Micro, SST4 Mini: 2–3 Hours
Indication Error LEL:± 5% FS



SST4 Micro Label



SST4 Mini Label

PREPARE FOR USE

The list below provides the standard items included with the detector. If the detector is damaged or parts are missing, contact the place of purchase immediately.

- Sensors: H_2S, SO_2, CO, O_2 , and combustible (LEL) (LPC, CAT, or IR) as ordered
- Calibration cap and hose
- Printed Quick Start Guide
- Calibration/QC Card

Configuration Application: The detector can be configured using the WatchGas Device Link App. To download the app, scan the QR code on the next page.

ALARM SET POINTS

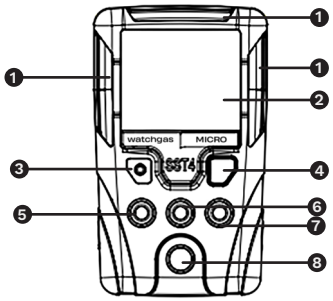
Default factory alarm set points

Gas	Low	High	STEL	TWA
LEL	10 % LEL	20 % LEL	N/A	N/A
H_2S	10 ppm	15 ppm	15 ppm	10 ppm
CO	35 ppm	200 ppm	100 ppm	20 ppm
SO_2	5 ppm	10 ppm	5 ppm	2 ppm
O_2	19,5 % Vol	23,5 % Vol	N/A	N/A

These set points can be changed using the WatchGas Device Link App. To display the detector alarm set points, press the button on the front of the detector.

GETTING STARTED

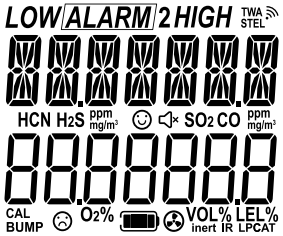
To activate the detector press and hold the button and a 3 sec countdown starts.
To deactivate the detector, press and hold the button until the OFF countdown is complete and the LCD deactivates.
To view the TWA, STEL, and peak (maximum) readings, press the button twice. To clear the readings, press the button when the LCD displays CLR.
To activate NFC, press the button for 1.5 second until you hear a single beep and the NFC Icon is active.
To activate the backlight in normal operation, press the button.
To acknowledge latched alarms, press the button.



1. Visual Alarm
2. Display
3. Audio Alarm
4. Button
5. Oxygen Sensor
6. Toxic Sensor
7. Toxic Sensor
8. LEL Sensor

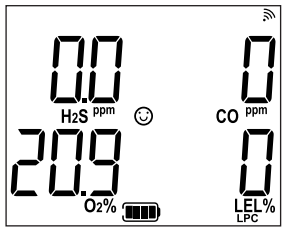
DISPLAY

When the Device is powered on or off the full display will light up as below showing all segments, allowing the user to fully verify the correct function.
A self-test can be performed by holding the button for 3 seconds, after which the detector will alarm and light up the display as well as perform an internal sensor test.



ALARM	
ALARM	Alarm Notification
LOW	Low Alarm
HIGH	High Alarm
STEL	Short Term Exposure Alarm
TWA	Time Weighted Average Alarm
2	Indicate LOW LOW or HIGH HIGH alarm. 3rd alarm level
SENSORS	
H_2S	Hydrogen sulfide sensor
SO_2	Sulfur dioxide sensor
CO	Carbon monoxide sensor
O_2	Oxygen sensor
IR	NDIR LEL
LPC	Low Power Catalytic
CAT	Catalytic bead LEL sensor
INFORMATION	
☺	Product Compliant
☹	Product Non-Compliant
CAL	Calibration Required
BUMP	Bump Required
	NFC in Communication
	Battery Level
	Mute
UNIT OF MEASURE	
ppm	Parts Per Million
mg/m³	Milligrams per Cubic Meter
LEL%	Percentage LEL
O_2%	Percent VOL

NORMAL OPERATION



In normal operation the installed sensors are displayed and a Smiley Face indicates no attention is needed.
Press the button for 1.5 sec until you hear a beep and the NFC icon flashes.

Use the WatchGas Device Link App, or an SST Dock to configure the unit. Details are in the manual.
The SST Range products are shipped with following features deactivated:
Latched Alarm, Heart beat, Silent Mode, Alarm mute, Low Alarm Acknowledgement, Scan Protect, Compliance Interval, Enable Expiry, Zero Cal, Safe Mode, High High, and Low Low alarms.

MENU

Press the button twice and the settings of the unit will be displayed.
Short button press to move to next screen

1. STEL Press and hold button to reset
2. TWA Press and hold button to reset
3. PEAK Press and hold button to reset
4. Days to Calibrate (Only if configured)
5. Days to Bump (Only if configured)
6. LEL correction factor
7. Language
8. Date
9. Time
10. User ID
11. Site ID

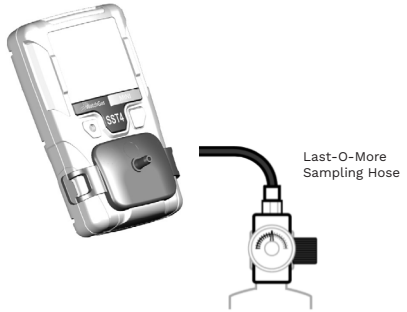
Screenshots are available in the full manual.

CALIBRATION

The SST Range products can only be calibrated with the WatchGas Device Link App or an SST Dock. Download the free iOS and Android app by scanning the QR code below.



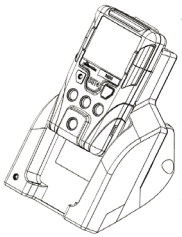
CONNECT GAS



SPECIFICATION

MEASUREMENTS
SST4 Micro: 103,9 x 62,4 x 26,1 mm (4 x 2,4 x 0,9 in.)
SST4 Mini: 107,9 x 62,4 x 26,1 mm (4,2 x 2,4 x 1,1 in.)
(Measured without clip)
WEIGHT:
SST4 Micro: 184 g (6,5 oz.)
SST4 Mini: 188 g (6,7 oz.)
STORAGE TEMPERATURE: -20 °C to +50 °C (-4 °F to +122 °F)
OPERATING TEMPERATURE: -40 °C to +60 °C (-40 °F to +140 °F)
OPERATING HUMIDITY: 0 to 95 % relative humidity (non-condensing)
ALARM SETPOINTS: may vary by region and are user-defined.
All setpoints automatically display during the startup self-test.
DETECTION RANGE:
H_2S: 0–500 ppm (1/0,1 ppm increments)
CO: 0–2000 ppm (1 ppm increments)
O_2: 0–30 % Vol. (0,1 % Vol. increments)
SO_2: 0–100 ppm (1/0,1 ppm increments)
Combustible (LEL): 0 to 100 % LEL (1% LEL increments)
ALARM CONDITIONS: TWA Alarm, STEL Alarm, Low Alarm, High Alarm, Over Limit (OL) Alarm, Low Battery Alarm, Low Low and High High alarm. Compliance Check.
AUDIABLE ALARM: 95 dB at 30 cm (1 ft.) (100 dB typical) multi tone
VIBRATION ALARM: 0,8 G
VISUAL ALARM: Red light-emitting diodes (LED)
DISPLAY: Alphanumeric liquid crystal display (LCD)
DATALOGGING:
BACKLIGHT: activates when the pushbutton is pressed and deactivates after 5 seconds; also activates during an alarm condition.

CHARGING THE SST RANGE



The SST Range of products can be charged in the WatchGas SST Cradle Charger.

Connect the power adapter into the USB-C port of the charger.

Then, insert the power adapter into a main power source using the correct regional plug.

The LED light on the charger will now blink red-green-red to indicate correct function.

While charging, the LED will be red.

When fully charged, the LED will change to green.

LIMITED WARRANTY

Where a product within the warranty period has a defect or a quality issue, WatchGas provides the buyer with a repair or a replacement free of charge direct from WatchGas, or through an authorized Partner / Service Center. This warranty is only applicable to the original purchaser of the product. Also, this warranty is valid only if the detector is activated by the date on the package.

This warranty does not include:

1. fuses, disposable batteries, or routine replacement of parts due to the normal wear and tear of the product arising from use.
2. any product which, in WatchGas's opinion, has been misused, altered, neglected or damaged by accident or abnormal conditions of operation, handling, or use.
3. any damage or defects attributable to repair of the product by any person other than an authorized dealer, or the installation of unapproved parts on the product.

The obligations specified this warranty are conditional on:

1. proper storage, installation, calibration, use, maintenance and compliance with the product manual instructions and any other applicable recommendations of WatchGas;
2. the purchaser promptly notifying WatchGas of any defect. No products shall be returned to WatchGas until receipt by the purchaser of shipping instructions from WatchGas; and
3. the right of WatchGas to require that the purchaser provide proof of purchase such as the original invoice, bill of sale or packing slip to establish that the product is within the warranty period.

In no event shall WatchGas liability hereunder exceed the purchase price actually paid by the buyer for the product.

The buyer agrees that this warranty is the buyer's sole and exclusive remedy and is in lieu of all other warranties, expressed or implied, including but not limited to any implied warranty or merchantability or fitness for a particular purpose. WatchGas shall not be liable for any special, indirect, incidental, or consequential damages or losses, including loss of data, whether arising from breach of warranty or based on contract, tort, or reliance on any other theory. Some countries or states do not allow limitation of the term of an applied warranty, or exclusion or limitation of incidental or consequential damages, the limitations and exclusions of this warranty may not apply to every buyer. If any provision of this warranty is held invalid or unenforceable by a court of competent jurisdiction, such holding will not affect the validity or enforceability of any other provision.

FOR MORE INFORMATION

EMEA
Klaverbaan 121
2908 KD Capelle a/d IJssel
The Netherlands
info@watchgas.com
www.watchgas.com

APAC
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#11-71, Singapur 737715
info@watchgas.com
www.watchgas.com

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Red Oak, TX 75154, USA
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Victoria 3074 Australia
aus@watchgas.com