Product specification

Senseair Go

Alcohol interlock for vehicles

1. General

Senseair Go is a touch free alcohol screening interlock. The device operates mouthpiece free, enabling easy and effortless breath alcohol testing for safer vehicle operation. The device is connected through its relay outputs to the vehicle allowing the driver to start the vehicle. Senseair Go is prepared for SafeStart cloud service.

The quick testing process is designed with fast screening and hygiene in mind, while maintaining accurate results. The self-calibrating sensor ensures minimal maintenance, and the mouthpiece free design minimizes plastic waste and long-term costs.

Senseair

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2. Key technical specification

2.1. Specification

Table 1: Key technical specification

Item	Senseair Go
Article number	008-15-0014
Measurement unit	BrAC, mg/L [1]
Measurement method	Contactless (mouthpiece-free)
Acceptable breath delivering distance to sensor inlet	0-40 cm
Operating principle	Non-dispersive infrared (NDIR)
Area of use	Designed for in-vehicle use
Operating range	-40–85 °C, 0–95% RH (non-condensing) [2]
Storage environment	0–0 °C, 0–95% RH (non-condensing), indoor
Protection rating	Handset: IP40 Access box: IP54 [3]
Measurement range, BrAC [4]	0–4.00 mg/L
Accuracy BrAC	±7.5% of reading or ±0.015 mg/L, whichever is larger [5]
Precision BrAC	5% of reading or 0.015 mg/L, whichever is larger [5]
Warm-up time @ +20 °C	<15 sec
Pressure dependence	Internally compensated in the range 80 kPa... 110 kPa
Power supply	12 V / 24 V, DC
Power consumption	Peak 120 W Steady state 6 W
Start test	Input signal, push button or identification by RFID reader
Relay output	3 x mechanical relays used for locking function
Input signal	3 x GPIO
IC Card standard	MIFARE Classic [6]
Dimensions (L x W x H) [7]	Handset: approx. 218 x 77 x 47 [mm] Access box: approx. 234 x 104 x 35 [mm]
Weight	Handset and cable: approx. 0.69 kg Access box: approx. 0.68 kg
Screen display	LCD Colour Display 2.4”
Compliance	SAE-J3214 (Compliance measurement performance) CE-mark RoHS Directive 2011/65/EU Reach regulation 1907/2006 Electrical and Electronic equipment Directive (WEEE) 2012/95/EG

Item	Senseair Go
Recommended service interval [8]	24 months
Consumables	Particle filter

Note 1: BrAC: Breath Alcohol Concentration (mg/L): This is the primary means of expressing the breath alcohol concentration. The mass concentration of ethanol, expressed in mg/L (milligram of ethanol per litre breath air)

Note 2: See detailed specifications on temperature and humidity range in section Temperature and humidity operating range.

Note 3: The access box is rated as IP40 in installations where the connectors are oriented upwards.

Note 4: Values above 4.00 mg/L of alcohol is never displayed. The displayed range is BrAC Masking to 4.00 mg/L.

Note 5: Accuracy and precision are defined according to chapter 10 of SAE J3214.

Note 6: Not in use for some variants, see section Specification per configuration. To fully meet MIFARE Classic, an external RFID reader may be required.

Note 7: See detailed figures in section Dimensions.

Note 8: The product indicates service when needed based on usage.

2.2. Specification per configuration

Senseair Go is available in different configurations, specified with additional part numbers. See

Table 2 for differences in specification.

540-00018 is factory default configurations. It is possible for the customer to change some settings with the web tool Senseair Alcohol Screener Configurator, found at: https://alcohol-screener-configurator.senseair.com/

Table 2: Key technical specification configurations

Part numbers	540-00018 Go	SafeStart [1]
Start test [2]	Input signal, RFID card, Button	Configurable
BrAC Limit [3]	0.1 mg/L	0.05 or 0.1 mg/L
BrAC Masking [4]	0.03 mg/L	0.02 - 0.05 mg/L
Language [2]	Swedish	English, Japanese or Swedish
Record keeping	No	Yes, results are sent to the web portal
Relay 1 and 2 closed at	Result below BrAC limit	Result below BrAC limit
Relay 3 closed at	Result equal to or above BrAC limit	Result equal to or above BrAC limit
Relay 2 and 3 closing time [2]	1.5 seconds	Configurable
Input 1[2]	Start test	Configurable
Input 2 [2]	Motors on	Configurable
Input 3 [2]	Log out	Configurable
First screen [2]	“Tryck på knappen för att starta”	Configurable
BrAC result on screen [2]	No	Configurable
Distinct fail [2]	Same sound for passed and failed results	Configurable
Result presentation time [2]	4 seconds	Configurable
Fleet control	No	Yes
Internet connection and web interface	No	Yes
User identification	No	RFID card or tag
Alert possibilities	No	e-mail, text messages and Live View
Green and block time settings	No	Yes
Integration to other systems	No	Yes
Tampering detection [2]	Off	Configurable
Freestart time	30 min[5]	No

Note 1: With SafeStart the system is set up according to your specific requests. Contact Senseair for configuration.

Note 2: Setting can be changed by the customer with Senseair Alcohol Screener Configurator.

Note 3: If alcohol is detected less than BrAC Limit, the Passed message will be displayed on the screen. If alcohol is detected above BrAC Limit the Failed message will be displayed on the screen.

Note 4: If no alcohol is detected or less than BrAC Masking BrAC is set to 0.00 mg/L.

Note 5: Freestart time is possible if power pin 3 (wake-up) is powered.

3. Temperature and humidity operating range

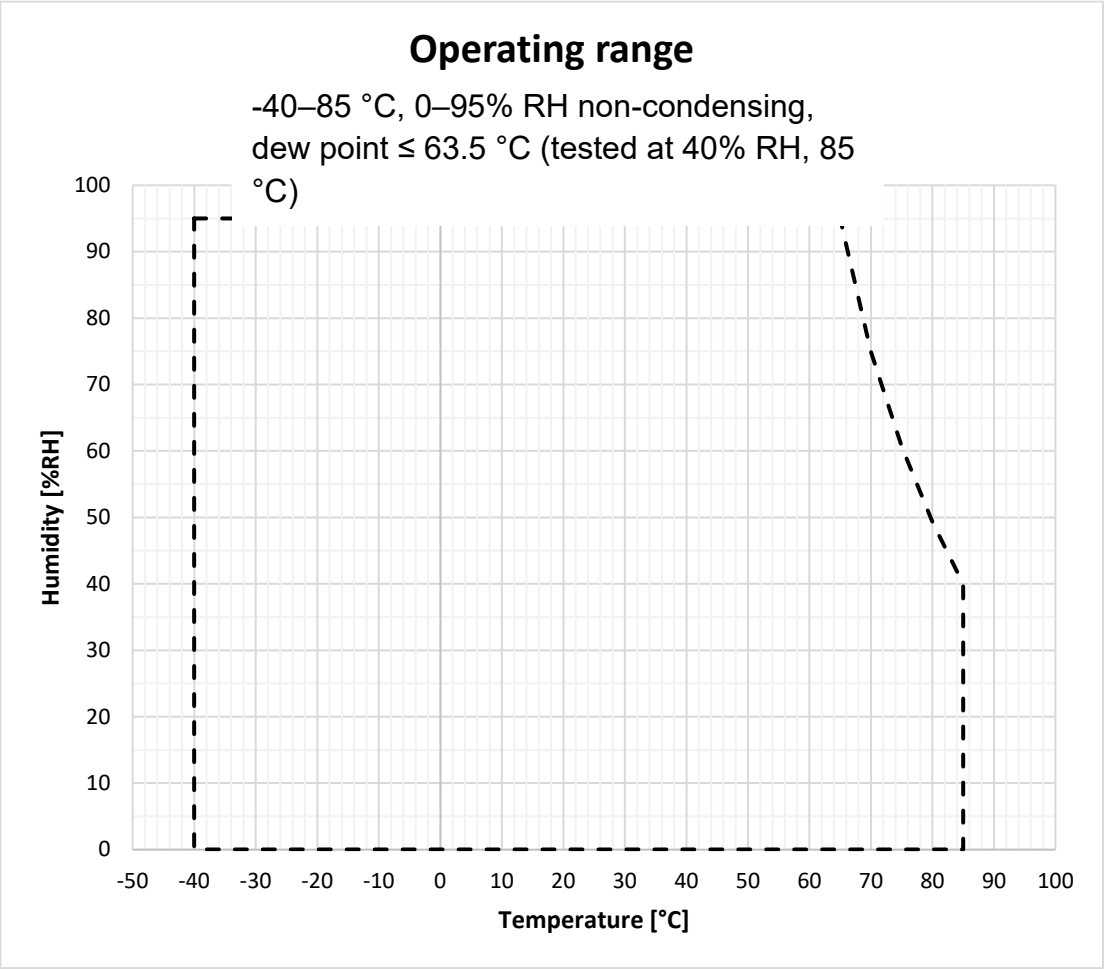

Figure 1: Operating temperature range with tested limit of dew point. Sensor MAY work at larger humidity at higher temperatures

4. Dimensions

4.1. Access box

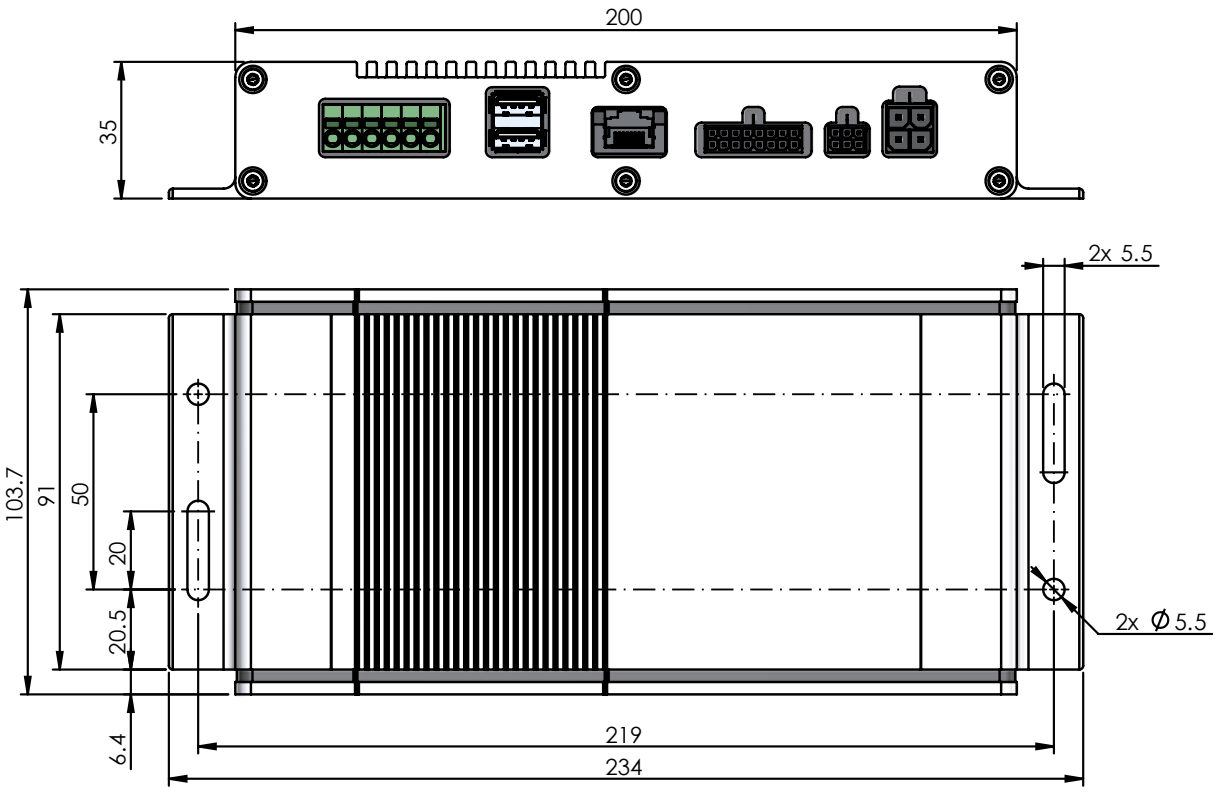

Figure 2: Access box physical dimensions [mm]

4.2. Handset and holder

Figure 3: Handset physical dimensions [mm]

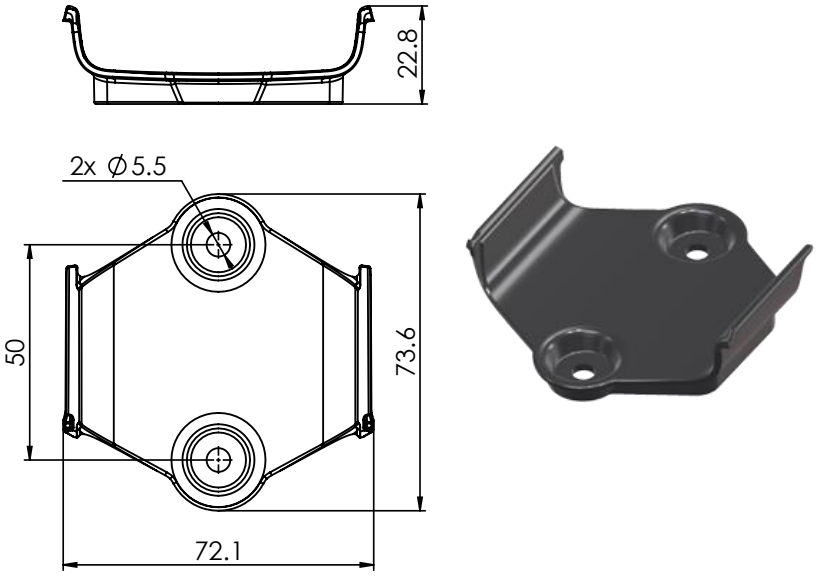

Figure 4: Handset holder physical dimensions [mm]

4.3. RFID reader and holder

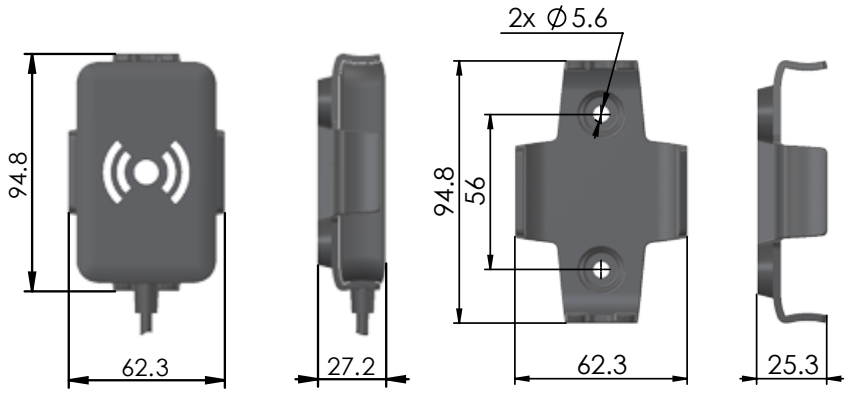

Figure 5: RFID reader with holder physical dimensions [mm]

5. Calibration free

Non-deteriorative due to NDIR technology. All Senseair sensors are calibration free in normal environments thanks to the built-in self-correcting ABC-algorithm. ABC stands for Automatic Baseline Correction, a Senseair self-calibration function for achieving calibration-free gas sensors. That means that the sensor in Senseair Go do not require any further calibration when used in normal air applications. The theoretical life length of the Senseair Go is approximately 7 years.

No limit on number of tests.

6. Related parts

Table 3: Related parts

Name	Part number	Description
Communication cable	840-00036	Optional add-on Length: 1.5 m ± 5 cm
Power cable	840-00035	Optional add-on Length: 1.5 m ± 5 cm
Relay cables	840-00037	Optional add-on Length: 1.5 m ± 5 cm
RFID reader	820-00045	Optional add-on External RFID reader (including holder) to fully meet MIFARE classic [1,2]
RFID Reader MIFARE	00-0-1061	Optional add-on RFID reader for desktop use to register cards and tags in Senseair Dashboard. [2]
RFID Reader EM	00-0-1060	Optional add-on RFID reader for desktop use register cards and tags in Senseair Dashboard. [2]
Handset	008-15-0012	Spare Part
Particle filter	415-00001	Consumable Dimension: 32x16 mm

Note 1: The operating temperature range for the external RFID reader is -25 to +70 °C.

Note 2: For SafeStart configuration.

7. Related documents

Product documents such as user manual and installation manual are found at www.senseair.com (search: Senseair Go).

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