GIEBEL Sense

Section 1: Information on the manufacturer

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Section 2: Product overview

Versions (prototypes)	
GIEBEL Sense Modbus RTU	**GS-RTU**
GIEBEL Sense Modbus analog	**GS-A**

Materials used

PA, NBR, Stainless steel

REACH Notice

No ingredients to be named according to Regulation (EC) No 1907/2006.

Section 3: Structure and materials

Use	Monitor Adsorber status through Modbus RTU or analog connection
Housing material	PA
Sealing material	NBR
Operating temperature	-40°C - +80°C
Connection	M12 A-coding 4 pin male plug

Section 4: Technical data

	GS-RTU	GS-A
Total weight [kg]	0,6	0,6
Length [mm]	70	70
Width [mm]	60	60
Height [mm]	30	30
Connection	M12 A-coding 4 pin male	M12 A-coding 4 pin male

Section 5: Storage

This product can be stored for up to **two years** in dark and dry environments. The temperatures for storage should be between -10° and 30°C.

Section 5: Installation and commissioning

1. Remove the plug that closes the 8mm hole on the GIEBEL Sense adapter of the Adsorber
2. Place the small tube of the sensor into the 8mm hole all the way to the seal.
3. Screw the Sensor tightly onto the adapter with the help of the four M3 screws
4. Attach the system's cable onto the M12 plug
5. See the respective datasheet of the sensor for instructions about setting up the Modbus RTU or analog connection with the system

Section 8: Disposal

Disposal

At the end of its service life, the device must be disposed of in accordance with the relevant legal regulations.

Section 9: Risk and hazard analysis

1. Humid air flows into the system

Porous seals

Moist air can flow into the adsorber or into the system at the porous points. This means that complete drying is not possible and moist air enters the system. The sensor will not show the accurate loading.

Loose screws

If the screws aren't tight sufficiently, moist air can enter between the sensor and the adsorber

2. Sensor is damaged

Material resistance

The ambient and operating conditions should be taken into account. An aggressive environment or liquid in the vessel can damage the sensor and/or the electrical parts.

Temperature range

The ambient and operating temperatures should not exceed or fall below the specified range, otherwise the sensor may be damaged.

Improper handling

Incorrect or improper handling can damage the sensor. The recommended installation must be observed.

Strong vibrations

Strong vibrations of the system can damage the sensor.

Pressure range of the system

The adsorber should not be exposed to overpressure or underpressure of more than 0.5 bar, otherwise the sensor may be damaged.

Cleaning of the sensor

For cleaning the housing, the use of a mild soap in combination with water is recommended. The use of brake cleaner might cause damages to the housing and seal. In any case, the humidity sensor inside the tube should not get exposed directly to water or other media.

Sensor readings malfunction

The PTFE membrane inside the Adsorber tube should not be removed, or it might impact the accuracy of the humidity sensor.

Furthermore the sensor can be reset if it is unplugged and replugged.

Section 10: Maintenance Plan

1. Check seals for wear

Check The O-ring installed on the sensor must be checked for perfect condition. That means in shouldn't show signs of brittleness.

Cycle Semi-annual

Measures In case of existing damages, a new seal should be used.

2. Check PTFE membrane

Check The PTFE membrane inside the Adsorber must be checked for perfect condition. That means it shouldn't be too dirty nor damaged.

Cycle Semi-annual

Measures In case of existing damages, a new PTFE membrane should be used.

3. Visual inspection of the sensor

Check The sensor, incl. connection must be visually checked for damage. Damage can occur due to various environmental or operating conditions.

Cycle Annual

Measures If the sensor is damaged, it must be completely replaced to ensure full functionality.