

**GreaSens® GS 3000** - the new grease sensor system  
for bearing failure prevention, online and continuous!



Features

- Identification of increased wear
- Detection of grease degradation
- Works in all kind of greases
- Fully digitized solution
- Web based, decentralised monitoring

Applications

- Wind turbines
- Roller bearings wear detection
- Grease deterioration monitoring
- Grease condition monitoring solution

## Specification

### Ranges

Conductivity: 0.1 to 100,000 pS/m  
(optional, high range: 0.1 to 2.000.000 pS/m)  
Relative permittivity: 1 to 5

### Sensitivity

Conductivity: 0.1 pS/m  
Relative permittivity:  $1 \cdot 10^{-6}$

### Temperature and pressure

Max oil pressure: 60 barg at 20°C  
(870 psig at 68°F)  
Oil temperature: -10°C to +70°C  
(optional, high temperature: -10° to + 150°C)  
(optional, low temperature: -40° to + 65°C)  
Operating temperature: -20°C to +70°C

### Material:

Sensor material: Stainless steel  
(bowl and carrier) and aluminium (head)  
Cable: 3 metre, shielded  
(optional, different cable length)

### Connections:

¼" Swagelok® for 6mm o.d. tube  
(optional connectors available)

### Communication Interface:

Serial communication via RS232/RS232-USB  
(opt.: LAN, GSM, Profibus, Modbus, CAN,  
0..10V, 0/4..20mA)

### Electrical requirements:

115/230 VAC, 50/60 Hz (optional, +24 VDC)

## Weights and Dimensions

### Dimensions (mm):

Sensor: 103 (height) x 70 (diameter)  
Communication unit: 210 x 250 x 165  
Communication module: 87 x 110 x 30

### Weights net:

Sensor: 1.7 kg  
Communication unit: 4.45 kg  
Communication module: 0.25 kg

## cmc Instruments GmbH

Rudolf Diesel Strasse 12 A  
D-65760 Eschborn  
Germany  
Tel: +49 6173 320078  
Fax: +49 6173 65050  
info@cmc-instruments.de  
www.cmc-instruments.de

## Ordering Information

| Part No.                    | Description   |
|-----------------------------|---|
| GreaSens® GS 3000           | Consist of base sensor and communication unit with communication module, standard sensor cable length of 3 meter, serial communication via RS232 / RS232 to USB interface, 115/230 VAC, 50/60 Hz power supply |
| <b>Options</b>              |   |
| -HC                         | High Conductivity Range (0.1 to 2.000.000 pS/m)   |
| -HT                         | High Temperature Range (-10°C to + 150°C)   |
| -LT                         | Low Temperature Range (-40°C to +65°C)  |
| -LAN                        | LAN Interface, enables data transfer via TCP/IP   |
| -GSM                        | GSM Interface, enables mobile data transfer via 3G phone network (SIM card has to be provided by the customer, requires LAN interface)  |
| -PROFIBUS                   | PROFIBUS Interface<br>(replaces standard RS232 interface)   |
| -MODBUS                     | MODBUS Interface<br>(replaces standard RS232 interface)   |
| -CAN                        | CANBUS Interface<br>(replaces standard RS232 interface)   |
| -AO_XY                      | Analog Output: 0..10V or 0/4..20mA<br>(X = numbers of channels to be transmitted,<br>Y = V for voltage output or A for current output)  |
| -1Z                         | 1 inch connector block<br>(replaces the standard sensor connector block)  |
| -24VDC                      | +24 Volt DC power supply connector<br>(replaces the standard power supply using the more compact communication module for easy installation into existing electrical cabinets)                                |
| <b>Accessories</b>          |   |
| -PC                         | PLA Protection cap for the base sensor during transport   |
| <b>Service &amp; spares</b> |   |
| GS-OR-NBR                   | O-ring for base sensor, optimized for Diesel applications   |
| GS-OR-FKM                   | O-ring for base sensor, standard applications   |
| GS-FCC                      | Factory Calibration Certificate   |

Patent pending EP 2 163 887



v1\_2019-02-11