



# Guard Gear 200

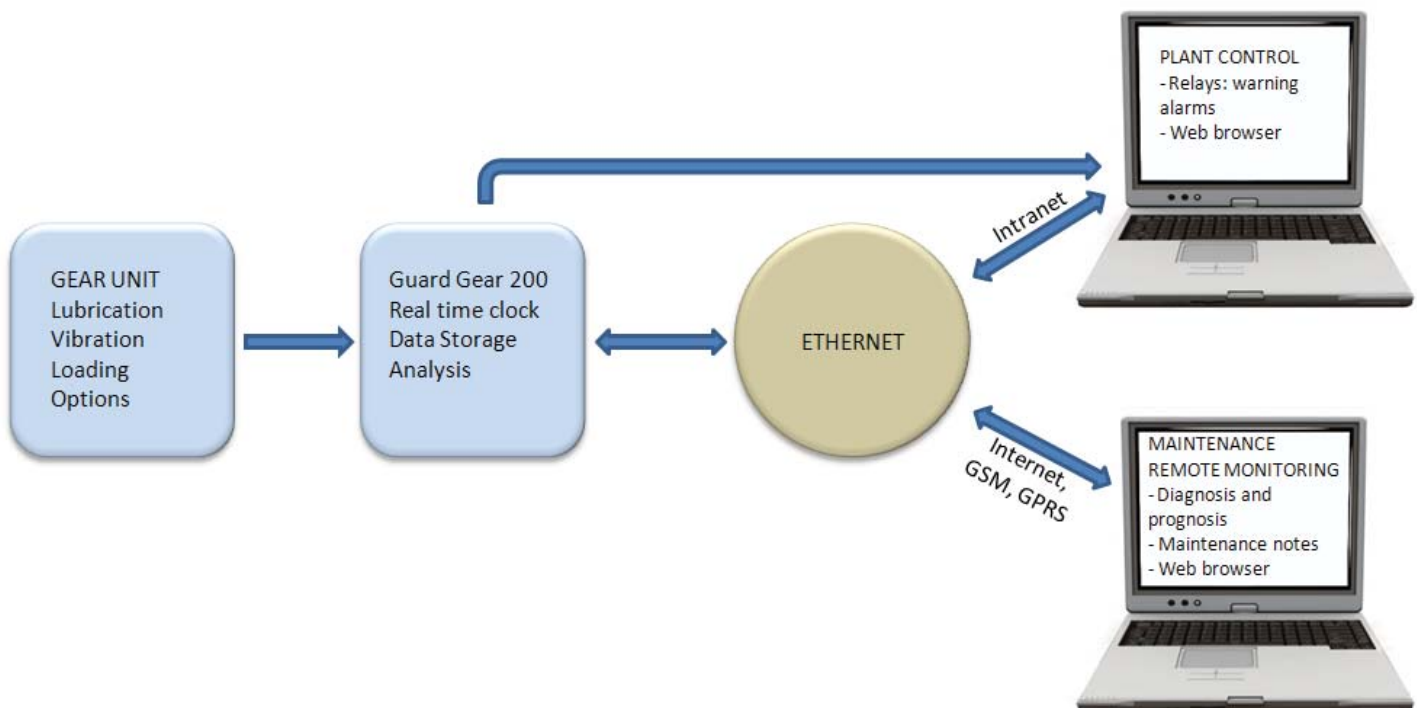
Technical Specification

# Condition-monitoring device for gear units

Guard Gear 200 unit is based on the measurements of the operation condition of the gear unit. The real time Guard Gear 200 monitors operation power, function of lubrication system and vibration of the gear unit.

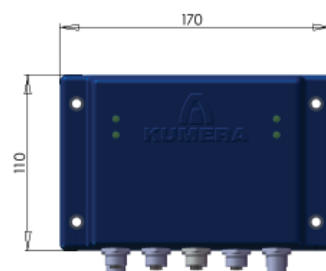
The standard sensors and freely selectable sensors can be connected to Guard Gear 200. Warning and alarm limits can be set to all measurements. When pre-set limits are exceeded, the information is available from unit's LED, warning and alarm relays, and from WEB user interface.

Ethernet bus enables Guard Gear 200 connection to Intranet or Internet. The connection can be wired or wireless.



## Mechanical properties

- Operating temperature -40...+80 °C
- Housing material ABS filled with silicone casting
- Housing mounting 4 x M 5 screws
- Protection class IP-66



# Connections

## Power supply:

- o +18...30 VDC 500 mA
- o 4-pin, male, M12-connector (connector included in delivery)

## Sensors:

### STANDARD DELIVERY SCOPE

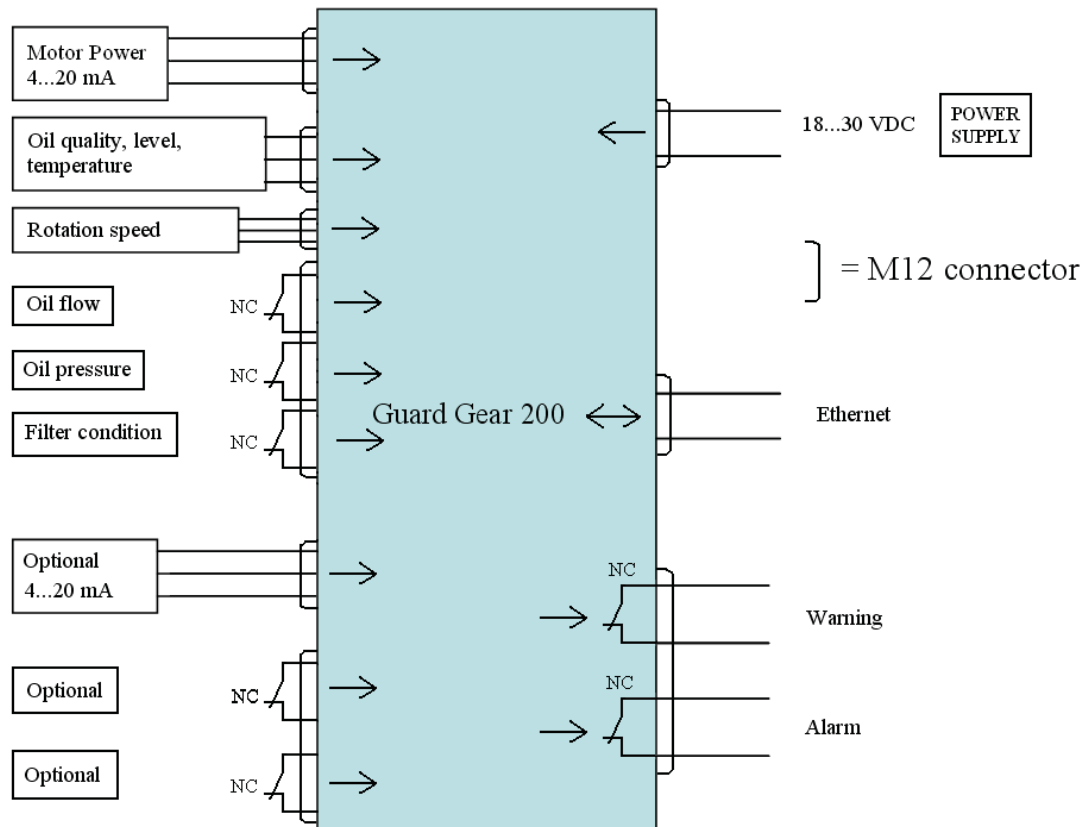
- o Internal two directional vibration measurement
  - Measurement range  $\pm 8$  g
  - Frequency bands 10-40 Hz, 40-400 Hz and 400-1000 Hz
- o Internal temperature measurement
  - $-40...+100^{\circ}\text{C}$
- o Rotation speed (inductive sensor)
- o Quality, level and temperature of lubrication oil
- o Motor current or power or torque
  - Measurement method must be determined with the customer

### OPTIONS

- o Flow of lubrication oil (relay input, NC)
- o Pressure of lubrication oil (relay input, NC)
- o Filter contamination indicator (relay input, NC)
- o Optional: 4- 20 mA current input, supply for sensor +18...+30VDC/30mA
- o Optional: relay input, NC, supply for sensor +18...+30VDC/30mA

## Outputs: (connectors included in delivery)

- o Warning: potential free relay +24VDC/100mA
  - 4-pin, male M12-connector, common with "Alarm" - output
- o Alarm: potential free relay +24VDC/100mA
  - 4-pin, male M12-connector, common with "Warning"- output
- o Bus: 10/100Mb Ethernet
  - 4-pin, female M12-connector



## User interface

The condition of the gear unit is monitored in real-time from the browser based user interface. Possible warnings and alarms are shown with comments and colors. Guard Gear 200 calculates estimated remaining lifetime of lubrication oil based on measurements.



All measurement results are saved into internal memory of Guard Gear 200. It is possible to save measurement results into the text-file for further processing. Measurement results are saved in accuracy of one minute from latest three hours, accuracy of one hour from last 30 days and older measurements during 2 years at accuracy of one day.

The real-time measurement with 10 Hz sampling rate from selectable sensor inputs will be made on-demand.

The customer information will be saved into internal memory of Guard Gear 200. The notes-field is also available for observations from the gear unit or surroundings.

### KUMERA POWER TRANSMISSION GROUP

**KUMERA DRIVES OY**  
Kumerankatu 2  
FI-11100 Riihimäki  
FINLAND  
Tel. +358 20 755 4200  
Fax: +358 20 755 4220  
E-mail: drives@kumera.com

**KUMERA AS**  
P.O. Box 2043  
N-3202 Sandefjord  
NORWAY  
Tel. +47 33 48 54 54  
Fax: +47 33 48 54 55  
E-mail: sales@kumera.no

**KUMERA ANTRIEBSTECHNIK GMBH**  
Raiffeisenstrasse 38 - 40  
A-8010 Graz  
AUSTRIA  
Tel. +43 316 471 524-0  
Fax: +43 316 462 550  
E-mail: kumera.graz@kumera.com

**KUMERA SHANGHAI REP. OFFICE**  
Room 715, Fortune Times  
1438 North Shanxi Road  
Shanghai, CHINA  
Tel. +86 21 5175 6305  
Fax: +86 21 5175 6306  
E-mail: KumeraChina@kumera.com



**誥鑫企業有限公司**  
**ARITH COMPANY LTD.**  
地址: 台北市復興北路427巷30號  
電話: (02)2717-5038  
傳真: (02)2717-5039  
e-mail: taipei@arith.com.tw  
網址: http://www.arith.com.tw