

# DATAEAGLE Condition Monitoring System

IoT ready-to-use: Condition Monitoring for Motors and Machines

The **DATAEAGLE Condition Monitoring System** is optimally suited for the monitoring of motors and machines in the industry. The aim is to provide remote condition monitoring that is easy and fast to implement in the sense of Industry 4.0. The system consists of a small multi-sensor (CISS) suitable for harsh industrial environments, a global IoT-Gateway (DATAEAGLE 2730) with integrated eSIM-card and a cloud dashboard (DATAEAGLE portal). The robust CISS sensor from Bosch can be mounted directly onto the engine or the machine and transmits the data via Bluetooth Low Energy to the central IoT Gateway DATAEAGLE 2730. There, the values from up to 8 sensors can be received simultaneously. These are then pre-processed and transferred to a cloud portal at intervals. The data is then stored in the DATAEAGLE Portal in order to display the sensor values and analyse long-term effects. The transmission interval of the sensor values to the cloud depends on the operating mode and is optionally also alarm-controlled.

## The DATAEAGLE Condition Monitoring System at a glance



Bluetooth Low Energy

**CISS SENSOR**  
Robust acceleration, vibration and condition detector is attached directly to the machine



3G/4G

**DATAEAGLE 2730**  
Transmits the measured values of up to 8 CISS sensors into the device cloud



**DATAEAGLE PORTAL**  
Visualization of the condition monitoring [portal.dataeagle.de](http://portal.dataeagle.de)



acceleration



gyroscope



pressure



digital light



humidity



temperature



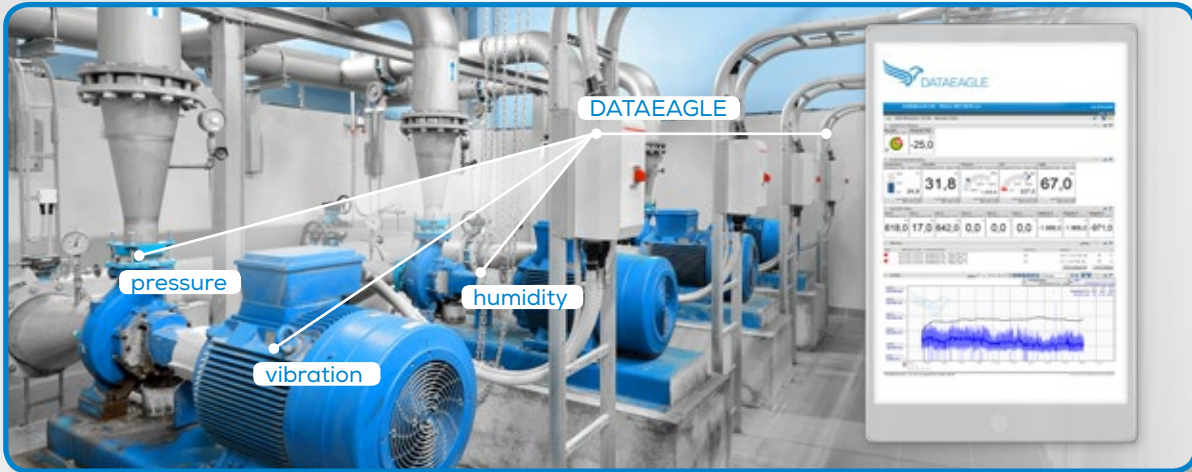
magnetometer



microphone

**Applications:**

The **DATAEAGLE Condition Monitoring System** can be used as original equipment or as a retrofit solution for existing plants. Thereby the following inertial and environmental sensors are used: acceleration, gyroscope, magnetometer, digital light, pressure, microphone, temperature and humidity. The values are transferred periodically into the cloud. Optionally, alarms can be set for individual sensors.



**DATAEAGLE Condition Monitoring System - IoT ready-to-use**  
Operation mode selectable depending on the transmission interval:

- ✓ Ready-to-use condition monitoring system, for motors, pumps, machines etc.
- ✓ Operational Worldwide with integrated eSIM card and 3G-radio
- ✓ Can be flexibly switched off and reactivated at any time
- ✓ Visualisation of the sensor values in the DATAEAGLE portal
- ✓ Historical data to monitor the long-term condition of the systems
- ✓ Annual billing, no automatic renewal

**MONITORING-SET 1**  
**1 HOUR**

- Transfer of the sensor values to the cloud once per hour
- Recording interval every minute

**MONITORING-SET 2**  
**4 HOURS**

- Transfer of the sensor values to the cloud every 4 hours
- Recording interval every 15 minutes

**MONITORING-SET 3**  
**DAY**

- Transfer of the sensor values to the cloud once per day
- Recording interval every 15 minutes

**MONITORING-SET 4**  
**ALERT**

- Transfer of the sensor values to the cloud weekly and at alarm value
- Recording interval every 15 minutes