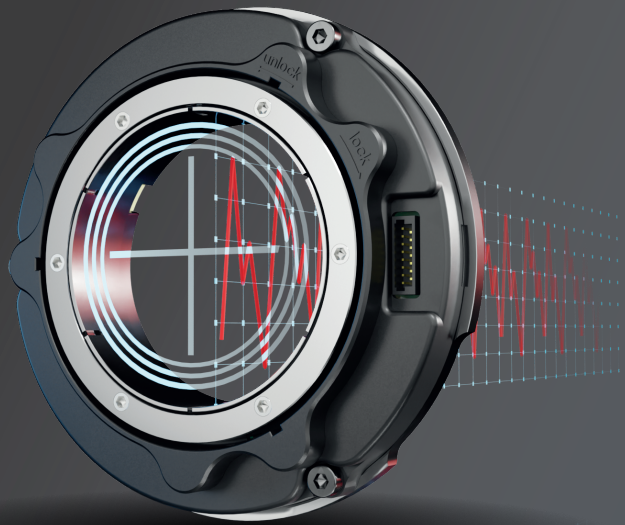


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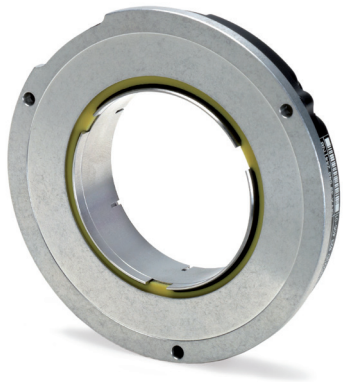
With predictive
condition monitoring



**ECI 123 *Plus* Rotary Encoder
with Accelerometer**

ECI 123 *Plus*

Rotary encoder with vibration analysis



Area of application

- Motion control and condition monitoring on rotating machine elements

Characteristics

- Vibration measurement on rotary axes
- Integrated 3-axis accelerometer with microcontroller for evaluation
- Order analysis with output of up to 64 orders

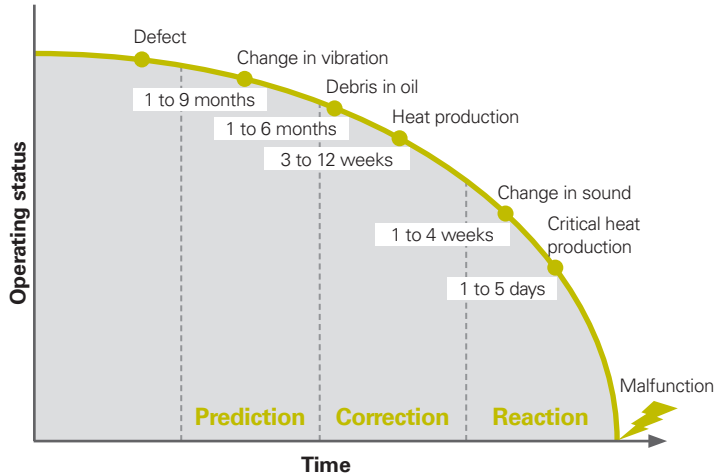
Specifications

- Position values per rev. 23 bits
- System accuracy $\pm 90''$
- Hollow shaft diameter 50 mm
- Permissible axial motion ± 0.3 mm
- MEMS acceleration sensor
 - For measurement ranges Up to ± 64 g
 - Bandwidth 5600 Hz (typ.)

Interface

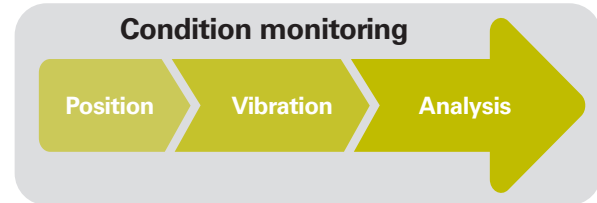
- EnDat 3

Predictive maintenance



The online condition monitoring of rotating machine elements enables:

- Minimal downtime
- Higher productivity
- Early detection of damage
- Exact failure analysis
- Reduction of servicing intervals
- Maintenance planning
- Remaining service life estimation



Vibration analysis

The ECI 123 *Plus* provides extensive and versatile analysis options:

- Tracking and processing of vibration signals by position
- Automatic analysis at switch-on or any time during operation
- Selectable measurement axes, speed range and trigger conditions
- Different types of analysis: time-synchronous FFT, angle-synchronous order analysis, etc.
- Individualized order selection (up to 64)
- State-of-the-art EnDat 3 interface technology
- Configuration by the user

Signal processing

Signal processing via integrated microprocessor:

- Acceleration signal
- With/without bandpass filter + envelope curve
- With/without transformation to angles
- Calculation of the spectrum
- Calculation of spectrum values



Alternative processing option:

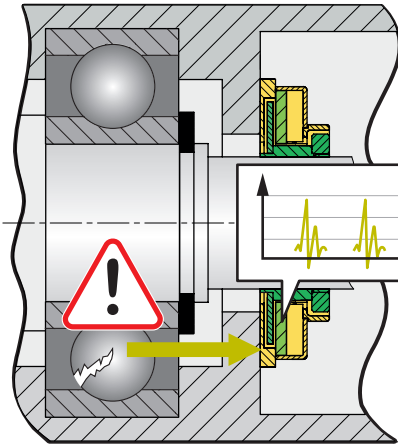
- Acceleration signal
- Calculation of signal values as times



ECI 123 Plus
on rotating machine element

EnDat 3
2-wire

Drive controller/NC
with EnDat 3 Master




EnDat 3


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