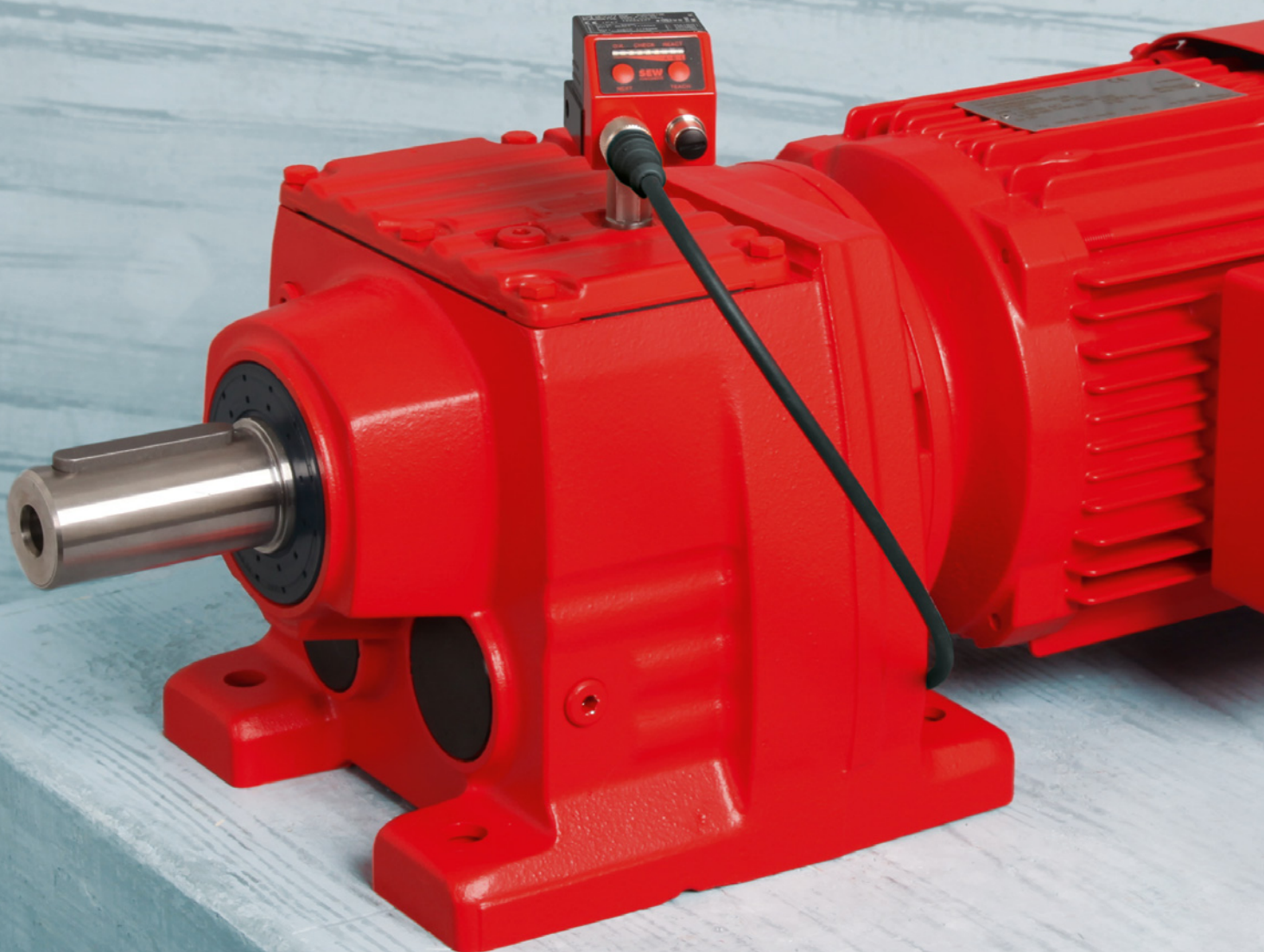


DUV Diagnostic Unit

Drive diagnostics through vibration analysis
for preventive maintenance

SERVICE



Avoiding downtimes – increasing system reliability

From an economic point of view, preventive maintenance is becoming increasingly important in many systems. The DUV diagnostic unit from SEW-EURODRIVE is a simple and reliable sensor, ideal for monitoring rolling bearings. The DUV diagnostic unit measures the structure-borne noise and uses it to calculate the frequency spectrum. The unit uses this frequency spectrum to constantly evaluate the condition of the rolling bearings. The structure-born noise sensor and evaluation electronics are fully integrated in the diagnostic unit.

DUV diagnostic unit – benefits at a glance

- Rolling bearings and gearing components are permanently monitored
- The condition of the rolling bearing and damage development can be easily detected and identified: The colors green, yellow and red indicate the damage development
- Monitoring options: Values can be read directly from the sensor or visualized externally via switch outputs (DUV can be linked to bus systems)
- Level monitor that monitors the entire vibration spectrum
- Permanent monitoring of five bearing locations or 20 individual frequencies (e.g. tooth meshing frequency, imbalance) with one sensor
- Parameters can also be set by the system operator via RS-232 interface
- Data is recorded, processed, and evaluated decentrally
- Vibration speed is monitored according to DIN ISO 10816-1
- Monitoring is also possible for ATEX zone 1/21 (special design)
- Maintenance intervals can be planned individually

Technical data of the DUV diagnostic unit

Measuring range [g] / overload capacity [g]	± 20 / 100
Frequency range [Hz]	Low-speed unit: 0.125 – 500; normal-speed unit: 1.25 – 5000
Spectral resolution [Hz]	Low-speed unit: 0.125; normal-speed unit: 1.25
Diagnostic methods	FFT, envelope-FFT, trend analysis
Minimum measuring time [s]	Low-speed unit: 8.0; normal-speed unit: 0.8
Speed range [rpm]	Low-speed unit: 12 – 3500; normal-speed unit: 120 – 12000
Switch outputs	1: Early warning; 2: Main alarm
Operating voltage [V] / current consumption at 24 V _{DC} [mA]	10 ... 32 / 100
Protection class / degree of protection	III / IP67
EMC	IEC 1000-4-2/3/4/6
Temperature range [°C]	– 30 ... + 70
Housing materials	Zinc die-casting, coating based on epoxy finish, polyester membrane keypad
Electr. connection for supply and switch output	M12 plug connection
Electr. connection RS-232 communication	M8 plug connection

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