Unique, reliable and safe method to detect electrical discharges in electric motor bearings

SKF Electrical Discharge Detector Pen TKED 1

The SKF TKED 1 (EDD Pen) is a simple to use hand-held instrument for detecting electrical discharges in electric motor bearings. Electrical discharges are a result of motor shaft voltages discharging to earth through the bearing, causing electrical erosion, lubricant degradation and ultimately bearing failure.

Electric motors are more vulnerable to suffer electrical erosion in bearings when controlled by a Variable Frequency Drive. When incorporated into a predictive maintenance programme, the EDD Pen can help detect bearings more susceptible to failure, and to a significant degree, prevent unplanned machine downtime.

- Unique remote solution allows operation at a distance from the motors. This helps protect the user from touching machinery in motion.
- SKF developed technology. [1)]
- No special training required.
- Capable of detecting electrical discharges on a time base of 10 seconds, 30 seconds or infinite.
- LED backlit screen, allows use in dark environments.
- IP 55 can be used in most industrial environments.
- Supplied standard with batteries, a spare antenna and language-free instructions for use in a carrying case.

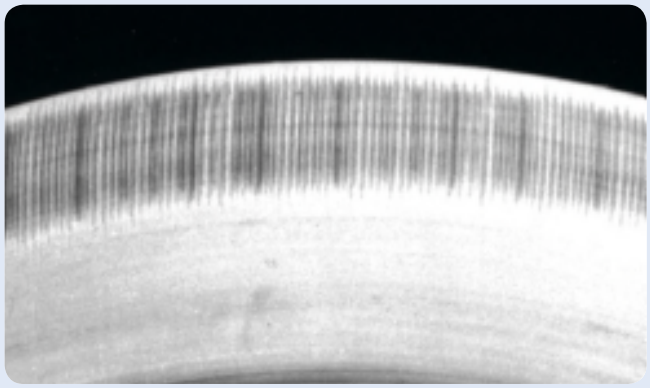
1) Patent applied for

Technical data

Designation	TKED 1
Power supply	4,5 V 3 × AAA Alkaline type IEC LR03
Time control:	
– pre-sets	10 or 30 seconds
– default	indefinite
Operational and storage temperature	0 to 50 °C *(32 to 122 °F)* –20 to +70 °C *(–4 to +158 °F)*
Ingress protection level	IP 55

Display	LCD counter range: 0 to 99 999 discharges. User selectable backlight and low battery warning
Case dimensions (l × w × h)	260 × 85 × 180 mm *(10.3 × 3.4 × 7.0 in.)*
Total case and contents weight	0,6 kg *(1.4 lb)*

Lubricant degradation caused by electrical discharge currents



Fluting marks characteristic of electrical erosion in bearings

PUB MP/P8 14372 EN · October 2014