TIMKEN

Where You Turn

StatusCheck™ Wireless Condition Monitoring System

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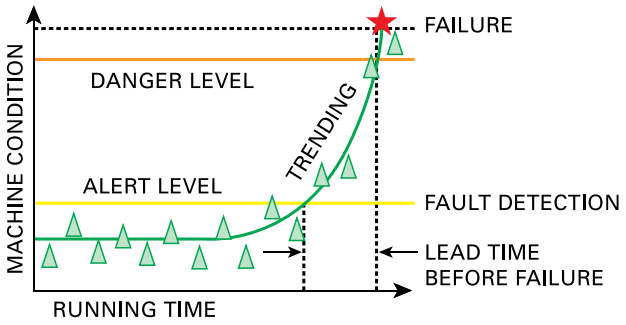


Timken's StatusCheck™ condition monitoring system is a unique wireless system designed to detect excessive levels of temperature and vibration that could lead to overheating and breakdown of critical equipment.

Commonly, when a bearing, gear or other critical machine element becomes worn, contaminated, damaged or is lacking lubrication, the component and/or the machine itself will experience an increase in temperature and vibration. The StatusCheck system can accurately sense and report these increases. This allows you to take corrective action prior to failures – helping to prevent machine damage, expensive repairs and prolonged downtime.

Features:

- Wireless configuration
- Flexible software with adjustable alarm thresholds
- Dual mounting (magnetic or threaded)
- Contact temperature probe
- Two-axis vibration detection
- Measures acceleration and velocity
- Suitable for industrial environments
- Multiple connectivity options
- Open database format

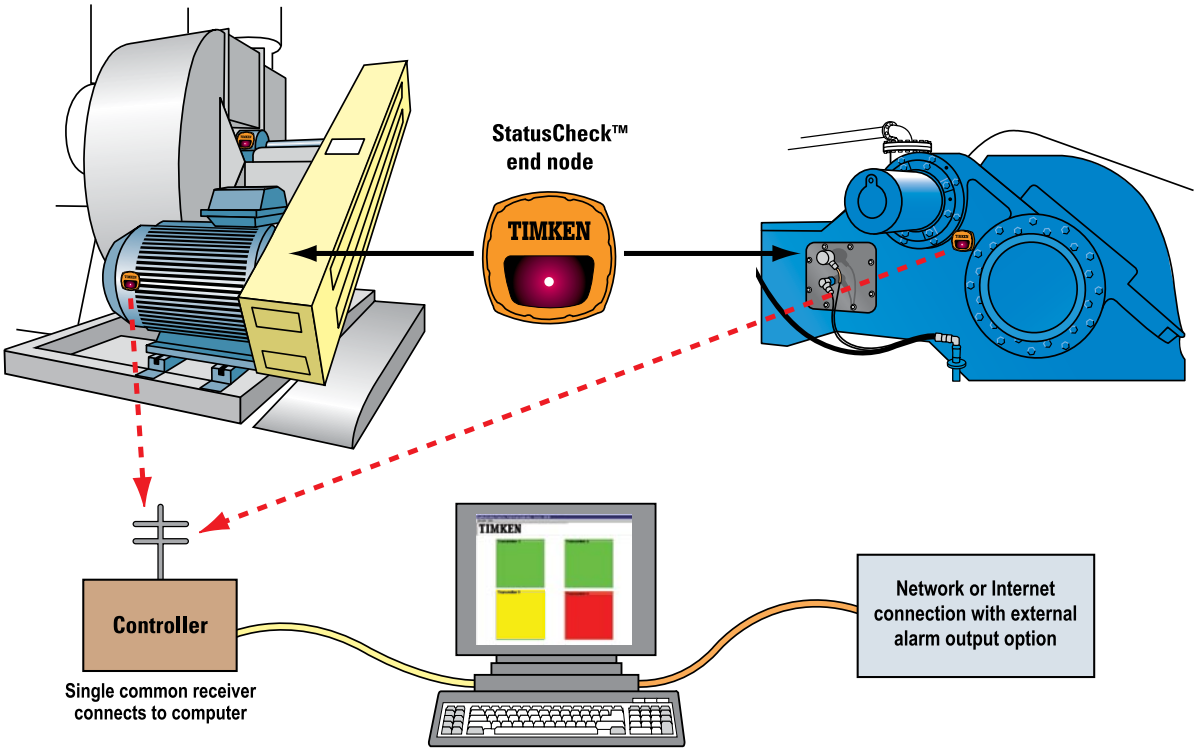
Benefits:

- Economical solution for critical assets (i.e., fans, pumps, motors and gearboxes)
- Easy installation
- Does not interfere with normal machine operations
- Simple interpretation (no vibration analysis training is required)
- Provides early detect of problems on steady-state equipment
- Ideal for hard-to-reach applications and environments

The StatusCheck end node is self-contained with its own internal power source, electronics and sensors. It attaches directly to the outer frame of a machine and uses wireless RF communications to transmit vibration and temperature readings from the machine.

With this system, multiple StatusCheck end nodes (up to 99) can be in use on one or more machines, each of which transmit data back to a controller. This controller is connected to a PC to display the data. Timken StatusCheck software displays real-time data, logs information and triggers alarms when thresholds are exceeded. Alarms can generate e-mails that can be routed to pagers, mobile phones or personal digital assistants (PDAs) for maintenance notification.

CONDITION MONITORING SOLUTIONS



Operating Conditions

- 2.4 GHz ISM band
- Ambient temperature up to 85° C (185° F) at point of transmission
- Measuring temperature up to 232° C (450° F) at tip of probe
- Transmission range: one kilometer (1/2 mile) line-of-sight; 300 meters (328 yards) in plant
- 18 G peak shock load measuring capacity
- Physical size: 10 x 10 x 6 cm (4 x 4 x 2.2 in)
- Data-collection interval: adjustable (five user-selectable rates)
- Battery life up to 4.5 years depending on data-collection interval
- Controller data link: EIA-232 (RS-232) 15 meter (50 feet) cable max, USB (3 meter, 10 feet cable max), Ethernet
- Power: AC 95-260 VAC, 47-63 Hz, DC 18-36 VDC

Router

Timken offers additional functionality with the use of a router or Ethernet connectivity. The router is a high-performance device that is used to improve reception and transmission distances. It receives remote sensor data messages from the end node and automatically repeats these messages to a controller or another router extending the distance of transmission.

The router offers you several benefits, including a direct sequence spread spectrum modulation method of digital data transmission. It will extend the overall transmission distance up to two kilometers (1.2 miles) line-of-sight and 600 meters (656 yards) in-plant range. Routers can be networked in series to extend transmission distance (this network is auto-configuring).

For added flexibility, the controller and router have been integrated into one device and can be configured to perform either function. The router/controller is available in both AC and DC.

Ethernet Connectivity

Another way to improve the usefulness of your system is through Ethernet connectivity. This provides you with a quick and easy way to connect the controller to an Ethernet connection. Once connected, you can remotely monitor the StatusCheck system from any single location on the network. Ethernet connectivity allows you to replace limited distance, point-to-point direct connections. Pre-existing network wires or wireless Ethernet also can be used.

Software

The StatusCheck software enables it to interface with industrial PLC's using the OPC format. The software output can be inputted into the PLC.

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