Cordant™

Capability at the EDGE

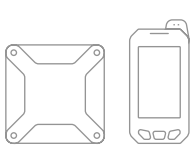
Distributed Condition Monitoring with Orbit DCM

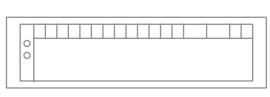
The right fit

Route-based monitoring with portables has it's place, but for your complex higher-criticality machines, monthly measurements may simply not be adequate. Wireless sensors offer more frequent data collection, but they too have their limits. The inevitable compromises between size, battery-life, wireless range and processing can leave these important machines without the continuous condition monitoring they need.

Of course you could step up to a continuous protection system, as these too support condition monitoring. But such an API 670 compliant platform is likely to be an over-kill in terms of both infrastructure and cost.

Route-based CM · · · · · · · Wireless CM · · · · · · · · · · · · **Wired CM** · · · · · · · · · · · · · · · Protection + CM





This is why we developed Orbit DCM. For your important assets with rapid failure modes, substantial process impacts and interactions, and sophisticated mechanical assemblies. We know that conditions can degrade quickly, processes can change suddenly, and complex vibrations from numerous components can combine to make diagnosis difficult without advanced sampling and signal processing capabilities. Orbit DCM has all of this covered. Cost effectively.

Wiring costs are the single most expensive part of any installation

Orbit DCM (Distributed Condition Monitoring) is **distributed**. It's engineered to be mounted at the machine where wiring runs to sensors can be kept short, saving costs.

Capturing the unexpected

Machinery events rarely happen when you're watching. That's why Orbit DCM has an embedded "flight recorder" capable of storing high-resolution snapshots of the event—before, during, and after—allowing you to reconstruct not just **what** happened, but **why**.

No machine left behind

While Orbit DCM can easily address all common machines, it's also designed to fully address your most challenging machines and their unique monitoring requirements.

- **Agitators**
- **Ball and sag mills**
- **Blowers**
- **Centrifuges**
- **Cooling tower fans**
- **Cranes**
- **Extruders**
- **Fans**
- **Gearboxes**
- **Melt pumps**
- **Motors**
- **Paper machines**
- **Pulverizers**
- **Pumps**
- **Reciprocating compressors**
- **Rolling mills/stands**
- **Small compressors**
- **Wind turbines**

The features you need

Compact
Just 291 x 211 x 79 mm, DIN-rail or bracket mounting

Edge-residing
Puts processing where you need it—at the machine

Connected
3 Ethernet ports, 1 serial port (RS485) Modbus TCP/RTU System 1 plug-n-play

Robust
-30 to +65°C, IP66 (with enclosure)

Fast
16-channel synchronous sampling, at over 100 kHz on every channel

Cyber secure
Designed for conformity to IEC 62443-4-2

Powerful
Up to 12800 lines of spectral resolution; overall, band, and peak extractions

Approved
Global Class I Div 2/Zone 2 hazardous areas

Tailored alarming
Supports up to 4 alarm severity levels for every measurement; choose from in-band, out-of-band, over, under

Distributed
Less wiring = lower installed costs

Capable
Ideally suited for rolling element bearings, complex gear assemblies, and even slow-speed machines like wind turbines, extruders, and ball mills

Compatible
Supports all standard vibration sensor types—proximity, velocity, acceleration

Agile
Orbit DCM's rapid state determination allows it to obtain quality data on variable speed machines, even those with highly intermittent operation, like cranes

WANT TO LEARN MORE?

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Rewriting The Energy Equation™