

Capability at the EDGE

Distributed Condition Monitoring with Orbit DCM

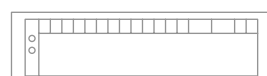
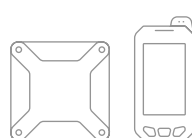


The right fit

Route-based monitoring with portables has its 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

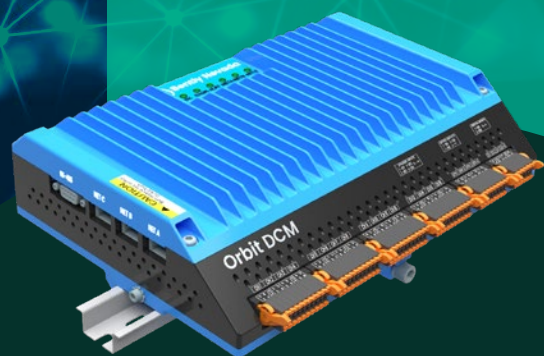
Pulverizers

Pumps

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

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