AMS EZ 1000

Eddy Current Measurement System

- Includes a complete measurement chain – sensor, cable and converter – that can also be purchased as individual components for right-sized inventory
- Complies with API 670 requirements for eddy current measurements
- Field calibration saves time when replacing parts
- Compatible with 3rd party sensors for maximum flexibility and reduced inventory
- Accurate, reliable measurements from oil-proof sensors
- 3-year warranty

Improving the reliability of your mechanical assets requires advanced yet easy-to-use technology for monitoring health condition and protection against catastrophic failure.

So Many Sensors, So Little Time

Traditional eddy current measurement chains consist of virtually hundreds of part numbers and are factory pre-calibrated to specific sensors, cable lengths, measurement ranges and target materials. Having the right spare on hand when you need it is either very expensive or simply impossible. Receiving the right spare from the factory can cost you weeks of expensive downtime and lost production. You need the replacement parts when and where you need it.

Ready To Work When You Are

With Emerson's AMS EZ 1000 eddy current sensor and converter you always have the part you need when you need it. With one converter that is compatible with a range of sensors and cables, you'll be able to mix-and-match your spares to your application while reducing your converter inventory. And with an easy-to-use procedure for field calibrations, you'll be back to work sooner. A simple three-step, pushbutton process powered by Emerson's Machine Studio software makes changing out sensors following a shutdown or replacing sensors during turnarounds/maintenance quick and painless.

Better Sensor Technology Delivers Better Measurements

Many sensors on the market today are based on air coil technology, which is prone to interference from surrounding material and forces multiples sensors to be spaced further apart. Emerson's eddy current sensors are based on ferromagnetic core technology, providing a more focused measurement area than with air coil-based sensors. This allows the sensors to be mounted closer to surrounding material and to each other.

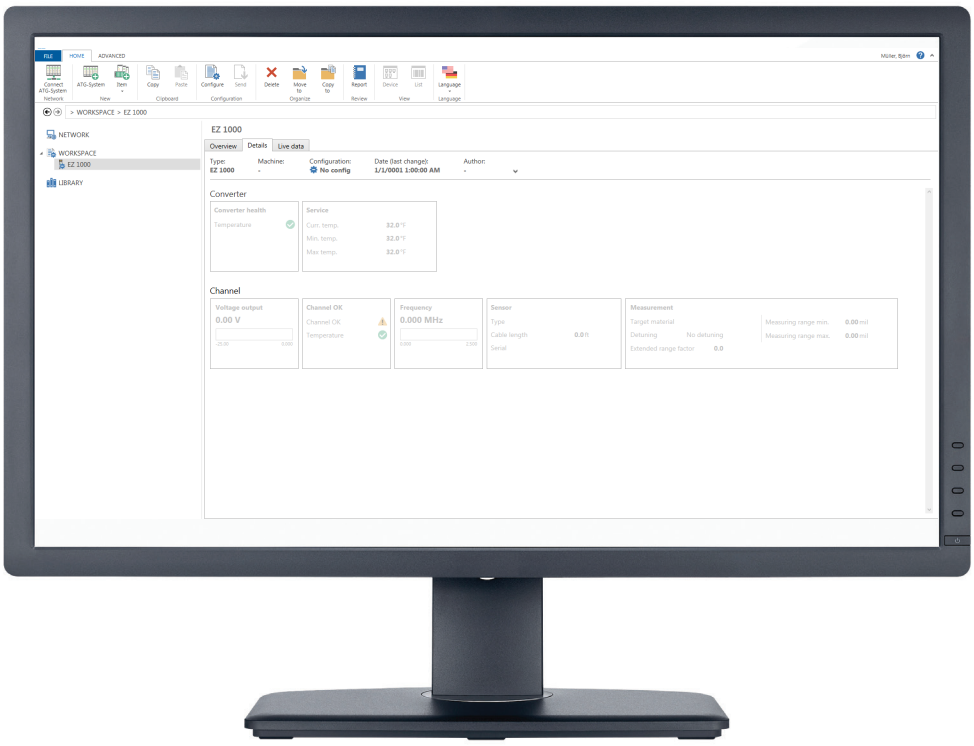
Proximity of one sensor to another is also a concern in situations such as 2003 voting, where sensors are closely spaced and often on small diameter shafts. Traditional eddy current sensors use single fixed excitation frequencies. Identical frequencies on adjacent sensors will create cross-talk between those sensors and distort the measurement. Emerson eddy current sensors use a flexible excitation frequency, allowing you to have different frequencies on similar, adjacent sensor and eliminate the cross-talk.

Emerson's eddy current sensors can be ordered in a wide variety of tip sizes, case and unthreaded lengths, cable lengths and types including armoring. Whatever your application, the AMS EZ 1000 measurement chain can be customized to fit your need.

Machine Studio Configuration Software

Machine Studio configuration software is used to define the properties of the measurement chain, including sensor type, system cable length, measurement range, target material, and excitation frequency. While connected, the user has access to the health data and main values of the device.

This enables the user to adjust the sensor at the measurement point without requiring additional measuring tools. Machine Studio configuration software was written using human-centered design principles, making the user interface intuitive and easy-to-use.



Instrumentation

AMS EZ 1000 Eddy-Current Sensor series components (Shown in the graphic below):

EZ1000 Converter

- DIN-Rail mount
- Configurable (USB)
- Sensor type configurable
- System cable length configurable
- Measurement range configurable
- Configurable sensor target material

EZ105x Sensor

- 5mm Tip Size
- 1mm (40mils) Standard Measuring Range
- M8x1 and 1/4”-28UNF Case Thread options
- Unthreaded Length options
- Standard & Armored Cable options
- 0.5m, 1.0m, 1.5m, 2.0m, 5m & 10m cable options
- Oil proof
- Lemo Connector

EZ108x Sensor

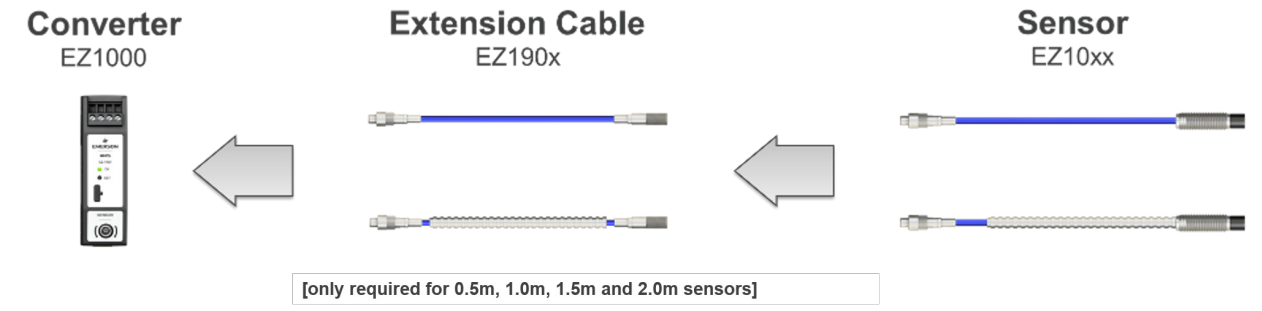
- 8mm Tip Size
- 2mm (80mils) Standard Measuring Range
- M10x1 and 3/8”-24UNF Case Thread options
- Unthreaded Length options
- Reverse Mount options
- Standard & Armored Cable options
- 0.5m, 1.0m, 1.5m, 2.0m, 5m & 10m cable options
- Oil proof
- Lemo Connector

EZ190x Extension Cable

- Standard & Armored Cable options
- 2.5m to 9.5m cable options
- Lemo Connector

EZ116x Sensor

- 16mm Tip Size
- 4mm (160mils) Standard Measuring Range
- M18x1.5 and 3/4”-16UNF Case Thread options
- Unthreaded Length options
- Standard & Armored Cable options
- 1.0m, 5.0m & 10.0m cable options
- Lemo Connector



Ordering Information

Description	Model Number
Eddy-Current Converter	EZ1000
Eddy-Current Sensor, 5mm tip size	EZ105x-xx-xx-xxx*
Eddy-Current Sensor, 8mm tip size	EZ108x-xx-xx-xxx*
Eddy-Current Sensor, 16mm tip size	EZ116x-xx-xx-xxx*
Eddy-Current Sensor Extension Cable	EZ190x-xxx*

Please see individual component spec sheets for specific model number coding.

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