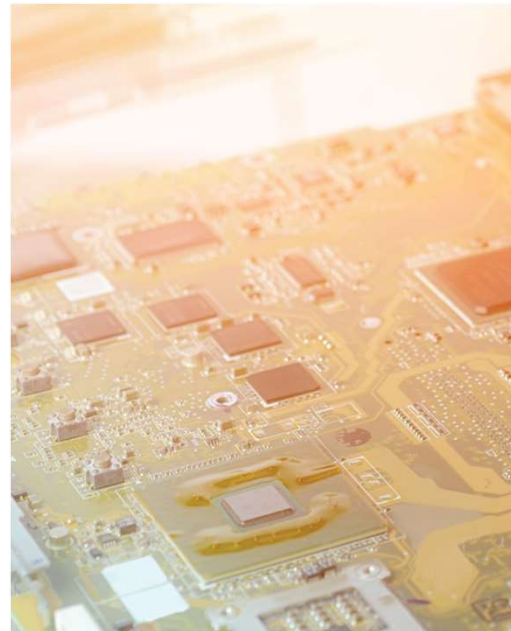


welcome

Omron - your trusted partner in automation

Presented by: Christopher Henn
christopher.henn@omron.com





corporate profile



80+ years - founded in 1933

8 billion in annual sales

350+ offices in 110 countries – s/b 117 countries

36,000+ employees

42% industrial automation

Industrial Automation Product Portfolio





Omron industrial automation's global industry strategy

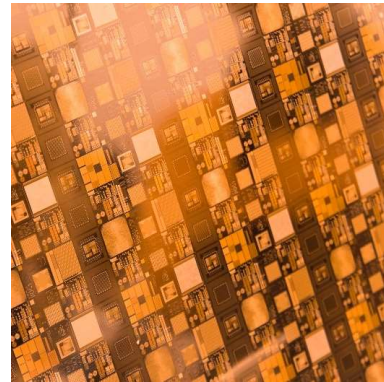
Strategically aligned sales teams, engineers and field resources



automotive



food and commodity
packaging



semiconductor
and digital



life sciences



infrastructure



our mission

“ To improve lives and contribute to a better society.

our values ”

innovation driven by social needs

Be a pioneer in creating inspired solutions for the future.

challenging ourselves

Pursue new challenges with passion and courage.

respect for all

Act with integrity and encourage everyone's potential.

<https://www.youtube.com/embed/SiQU4wkEPnE?rel=0&autoplay=1&showinfo=0&vq=hd720>



K6CM Motor Monitoring Device

K6CM Capabilities

[Problems]

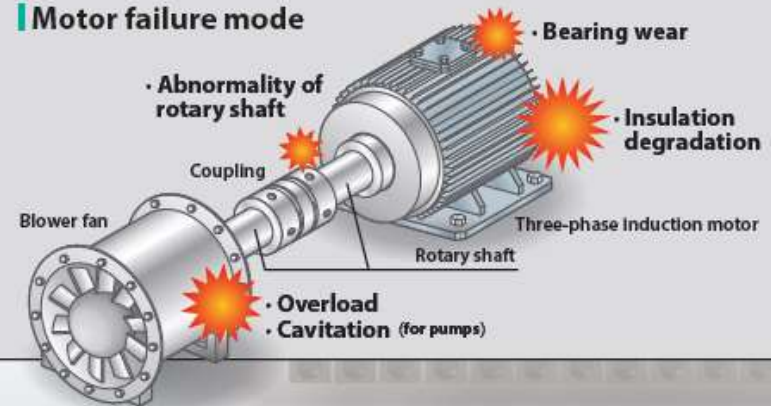
Are you having trouble preventing motor issues caused by degradation?

The conventional motor condition inspection has several items to examine. Therefore, an experienced maintenance engineer is required to determine the need for motor maintenance. Furthermore, typical motor inspection in production facilities is very time consuming due to the large quantity of motors.

Example of inspection items

Phenomenon Symptoms	Vibration	Heat generation	Decreased electrical resistance	Overcurrent
Bearing wear	✓	✓		✓
Insulation degradation			✓	
Overload	✓	✓		✓
Open phase		✓		

Motor failure mode



Why predictive maintenance?

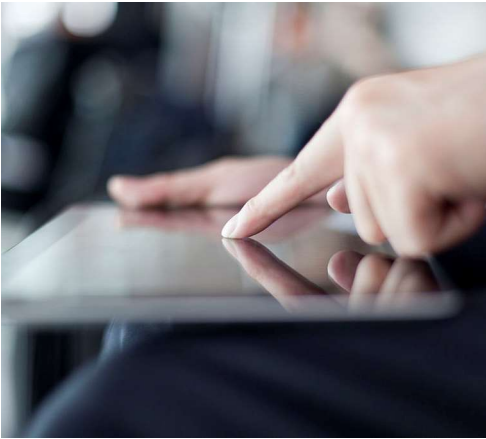
Unplanned downtime can be extremely expensive for our customers. Here are some examples of downtime costs by industry:

Industry	Cost of downtime (per min.)	Cost of downtime (per hr.)
Automotive – Assembly	\$15,000	\$900,000
Automotive – Powertrain	\$5,000	\$300,000
Semi-conductor	\$4,167	\$250,020
Processed Food Production	\$312	\$18,720
Bottled Water Production	\$50	\$3,000



This does not include the cost to repair or replace the issue!





K6CM Motor Monitoring Device

K6CM is a 3-phase induction motor monitoring device designed to:

- Increase production uptime
- Lower maintenance costs
- Visualize a motor's maintenance requirements



EtherNet/IP™

K6CM-CI Installation

CT sizes up to 407hp (300kW)
motor

- Noise detection
- Bearing wear
- Motor Overload

2 types of input voltage
100-240VAC
24VAC/DC



Invertor

Contactor

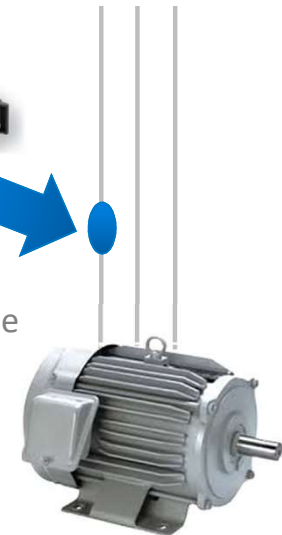
or



CT



You can clamp CT to
any 1 wire of motor cable



K6CM-VB Installation

Up to 10G of vibration

- Bearing Wear
- Motor Insulation Degradation
- Motor Overload

2 types of input voltage
100-240VAC
24VAC/DC



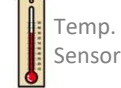
Inverter

Contactor

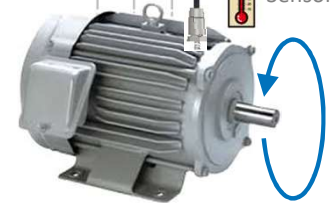
or



Preamplifier



Motor
rotation



Power
current



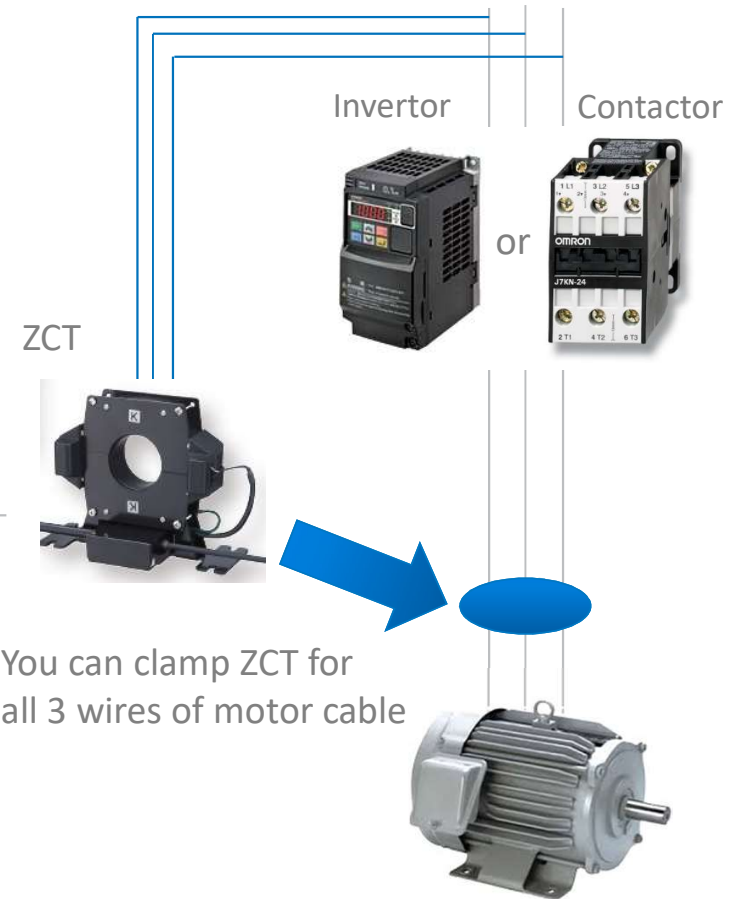
Temperature
Sensor inside

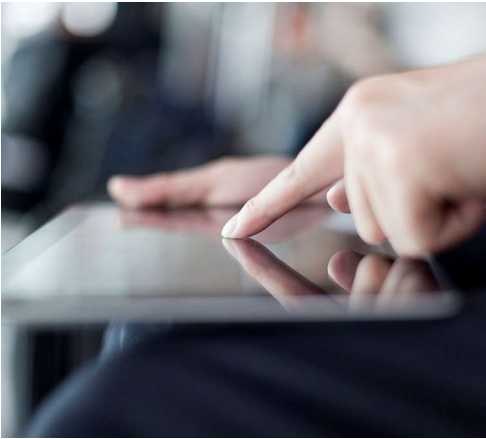


K6CM-IS Installation

Limited to motors size 10hp
(7.5kW) and below

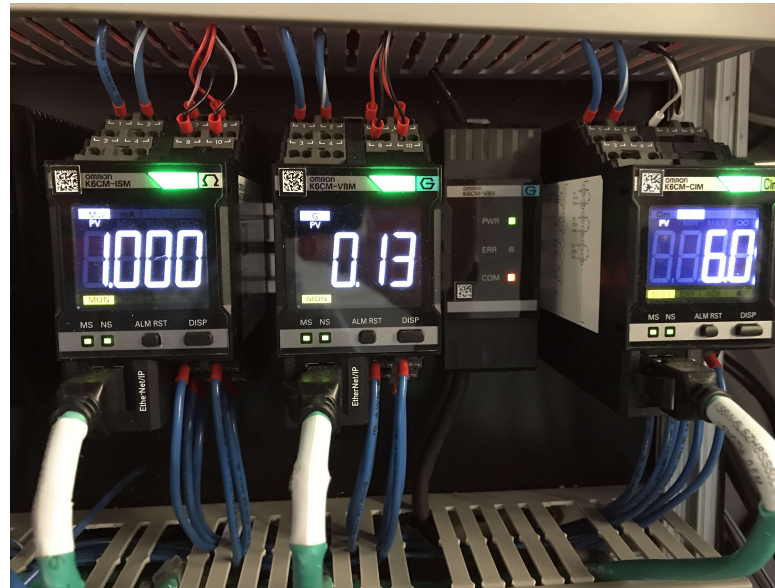
- Insulation Resistance
- Leakage Current of Invertor



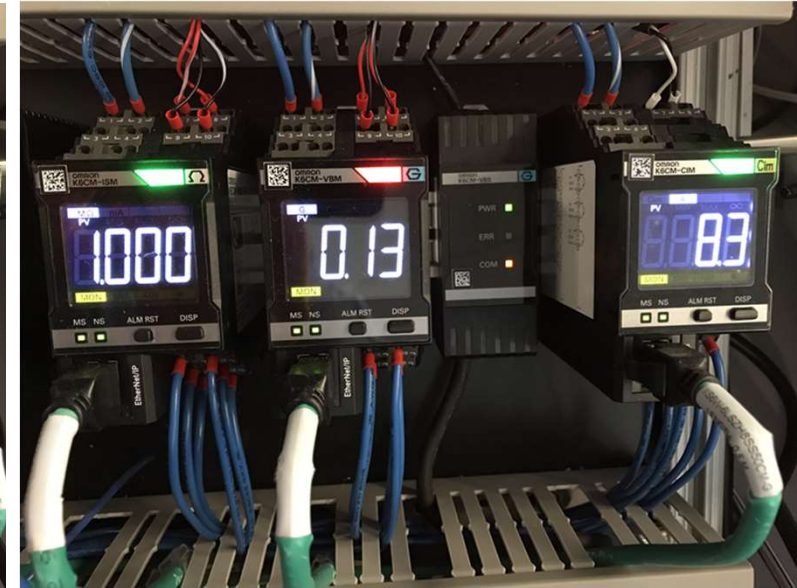


K6CM Customer Benefits

Visualization of motor status



Before Alarm



After Alarm

K6CM Monitoring Tool



Up to 10 motors and 3 K6CM units per motor are monitored in one PC Tool



Questions?
