## Rockwell Automation

Dodge	٠	Smart Products
Sales Note		Cost Comparison of Sensorized and Networked Control

## Exploring the Possibilities With SMART SOLUTIONS From Dodge/Rockwell Automation

The following is a cost of ownership comparison between our two solutions for conditions monitoring and predictive maintenance. The first solution uses sensorized bearing connected to plc I/O. The second utilizes a network approach. These two solutions are very effective in meeting our customer's needs and challenges of maximizing equipment and manufacturing uptime. The basic difference between these two approaches is whether your customer wants to use his existing remote I/O to connect to or move toward the future of monitoring/control with all I/O networkable Either way, your customer has a choice that can meet needs.

## Let's Compare

Monitoring the temperature, vibration and speed of 60 bearings located approximately 500 feet from the control room would require...

The sensorized (I/O connection) solution .

- ➢ 60 thermocouple transmitters
- ➢ 60 temperature indicators
- ➢ 60 vibration transmitters
- ➢ 60 zero speed switch electronics
- 360 wires to connect sensors to electrical components and back to control room
- ➢ 60 analog plc input points for vibration
- $\succ$  24 volts dc power supply
- 240 discrete plc input points for monitoring temperature and speed
- $\geq$  90,000 feet of wiring
- > panel space to house components
- > 240 hours for wiring and programming this system

Total estimated cost.....\$190,000.00

The Networked (DeviceNet) solution.

- ➢ 60 EZLINK modules
- ➢ 60 Drop line DeviceNet cables
- ≻ 60 Tees
- $\geq$  24 volts power supplies
- ➤ 500 feet of DeviceNet trunk cable
- ▶ 120 connectors and terminators
- $\triangleright$  one plc scanner
- > 4 hours of cabling and programming

Total estimated cost.....\$60,000.00