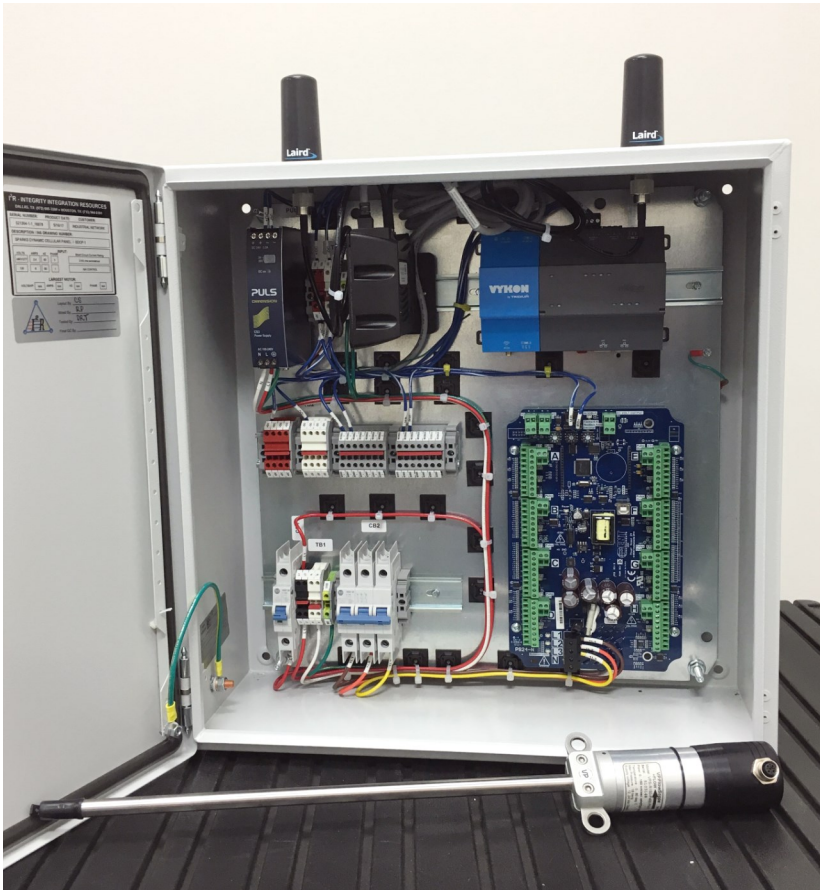# SPARKS DYNAMICS

ReMASTER

EQUIPMENT MONITORING SOLUTION

Features and Benefits:

♦ **Industrial SCADA System**

♦ **Modbus Communication**

♦ **Monitor KPIs and Control Panel Information**

♦ **Collects and Pushes Data to the Sparks Cloud**

♦ **ViewMaster Allows Web Access to Data Sets 24/7**

♦ **Data Analytics Alert User to System Anomalies**

The Sparks Dynamic's ReMaster System offers industrial customers a way to capture and analyze their system's data. ReMaster uses Modbus communication and can collect data on energy, flow, pressure and temperature as well as control panel data. There are additional add-ons such as thermal imaging and vibration detection.

All the data collected is pushed to the Sparks Cloud and can be viewed online using ViewMaster software. This real time data can be viewed and used to determine inefficiencies and areas in need of optimization. Data analytics developed in conjunction with the National Institute of Standards and Technology (NIST), can also send alerts to the user for any system anomalies.
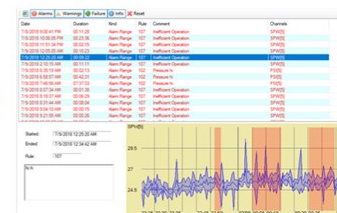

Utility/ Equipment Room

ReMASTER Panel

Sparks Cloud Service
Microsoft Azure

ReMASTER

Actionable Intelligence

Communication of Alarms/Events

Sparks Analytics Engine

Components

Platform Software Solution	Powered by the Niagara Framework, VYKON by Tridium (a Honeywell Company) is an open, intelligent automation and control solution that meets all the challenges of real-world integration and enterprise connectivity and ensures complete interoperability among diverse facility systems.
Processor	The VYKON JACE 8000 is a compact, embedded controller/server platform. It combines integrated control, supervision, data logging, alarming, scheduling and network management functions with Internet connectivity and web serving capabilities in a small, compact platform.
Sensor Module	The Vykon 16 I/O Module is designed for use as local I/O within control panels for the wired connection of sensors and actuators. Includes: • (8) Universal Inputs • (4) Form A Relay Outputs • (4) 0-10 VDC Analog Outputs. Contains removable screw terminal connectors and status indication LEDs.
Modbus Devices	Modbus RTU 485-Modbus TCP is an open protocol derived from the Master/Slave architecture. It is a widely accepted industrial protocol due to its ease of use and reliability. **Modbus Enabled Devices:** • **Power Meter** Multi-channel power meter that can be configured for monitoring multiple electrical circuits (sharing a common voltage source). It is supplied with split core Current Transformers (CTs). • **Compressed Air / Chilled Water Insertion Sensors** Measures mass flow, temperature and pressure simultaneously. • **Industrial Machinery Control Panels** Monitor all of the onboard sensors that are part of a compressor or chiller package. • **Thermal Detection** Thermal imagers offer affordable, fully integrated thermal imaging and measurement solutions for industrial process monitoring.

General

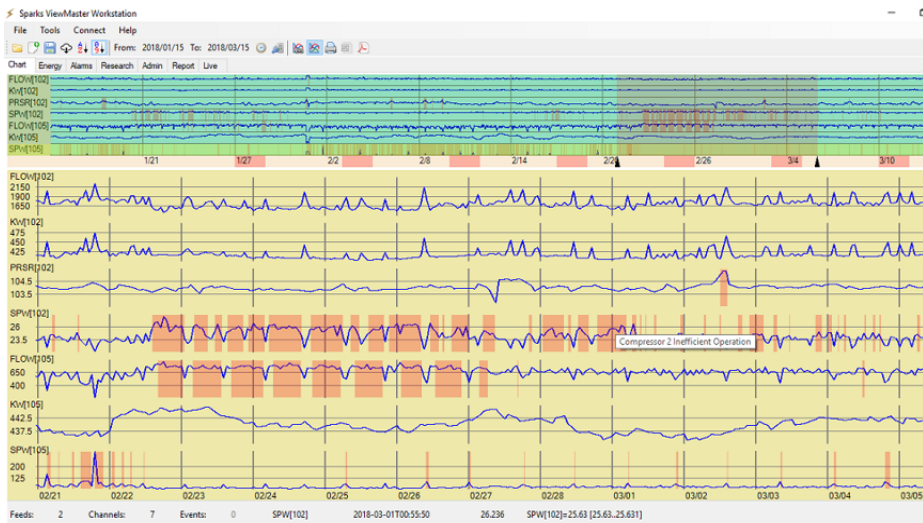|	
Network Options	Network Switches are installed for JACE connectivity to the network as well as enabling other network connected devices • Moxa 4-Channel PoE (EDS-206A-4PoE) • Moxa 4-Channel Non-PoE (EDS-205A) • Moxa Industrial 1121 Wireless Router • Sierra Wireless AirLink Cellular Modem

Sparks Dynamics Software	Sparks Dynamics provides three software packages that stream, analyze and display system data.
	• Sparks Cloud Data Streaming
	• Sparks Data Analytics
	• ViewMaster:
	  – Remote Monitoring
	  – Report Generation
	  – Alert Notification

Panel Input Connectivity	• 480V, 3 phase signal for power meter • 120V source for DC power supply and single phase power meters • Modbus daisy chained wiring • Panel Power Supply Mounted Included Moxa DC Power Supply 24V, 10 Amp. Provides power for Ethernet switches, Jaces, sensor devices, PoE • Current Transformer (CT) Inputs
Casing	Rittal NEMA 4, wall mount enclosure with back panel. Hinged door with two quarter turn latches.
Dimensions	19.75" X 19.75" X 8.25"
Weight	40 lbs.
Warranty	1 year standard warranty

ViewMaster remote monitoring software facilitates 24/7 monitoring and trending as well as connectivity to data analytics software that can detect anomalies.

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