

Industrial Internet of Things (IIoT) Applied Solutions

Digitally Transform Your Operations to Drive Operational Improvements

SOLUTION



Optimize production, Improve Reliability and achieve sustainability goals

- Monitor condition of systems, machines and devices to improve maintenance scheduling and reduce unexpected downtime
- Measure critical parameters to optimize machine and system performance
- Monitor energy costs and CO₂ emissions from machines and assets
- Identify air losses and detect leaks, reducing wasted energy
- Monitor a variety of medias to prevent late stage quality issues, and reduce material waste

Gain actionable insights

- Factory Automation – predict failures of cylinders and valves, reducing unexpected downtime events that reduce throughput
- Dust Collection and Bulk Material Handling – monitor pulse valve cycles & air consumption predicting maintenance & energy consumption
- Tire Manufacturing – monitor machine components and key parameters to determine the cause of increased cycle times
- Food & Beverage and Life Sciences – monitor critical production parameters such as temperature, water, air, gas electricity and steam to optimize production



CONSIDER IT SOLVED™

IIoT applications provide actionable insight

Emerson's IIoT solutions help to digitally transform your operations to help you achieve performance increases. These solutions are built upon intelligent devices creating new data and software analysis that provides actionable information to help you improve overall equipment effectiveness (OEE), optimize production and achieve your sustainability goals.

Fast access to actionable insights

Cylinder Monitoring				
Name	Min [ms]	Max [ms]	Current [ms]	Status
MSC Extend	150	200	200	OK
MSC Retract	150	200	2142	TOO SLOW
PSA Extend	400	400	115	TOO FAST
PSA Retract	400	450	2413	TOO SLOW
HTC Extend	400	450	402	OK
HTC Retract	400	450	347	TOO FAST

Valve Monitoring				
Name	Life Time	%	Current	Status
MSC Valve	75,000,000	7	4,742,142	OK
PSA Valve	75,000,000	103	76,914,780	END OF LIFE
HTC Valve	75,000,000	97	72,707,006	LOW REMAINING

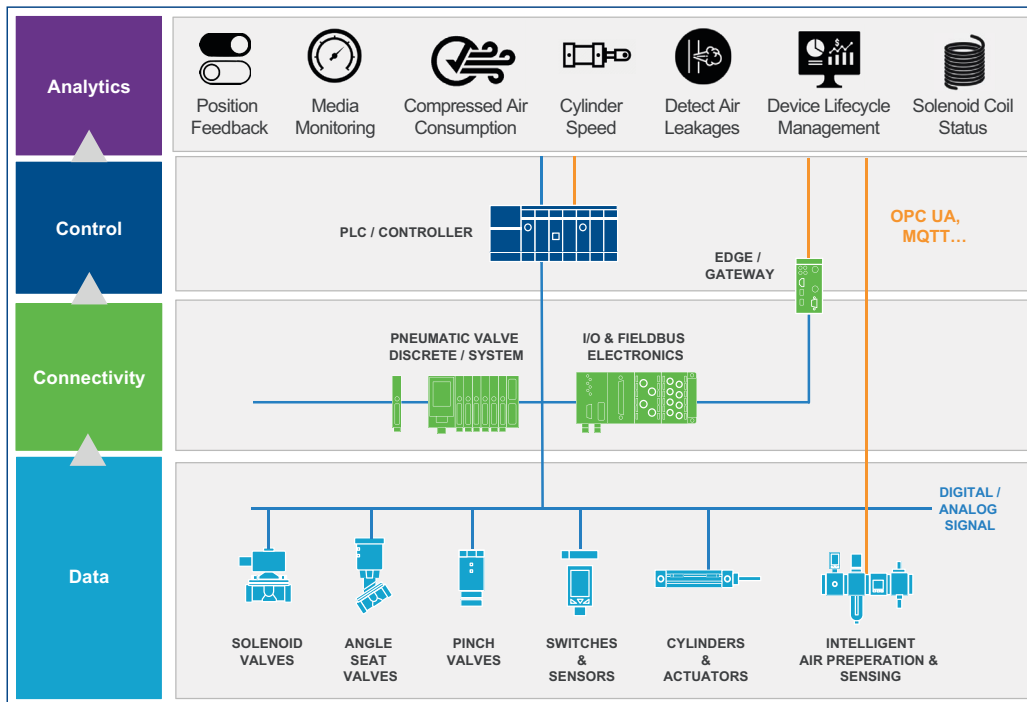


Improve OEE and Production Uptime – monitor actuator and valve performance cycles and condition preventing unexpected failures affecting availability.

Optimize Energy, Emissions and Utilities – detect irregularities through real-time monitoring of utilities such as water, air gas, electricity and steam. Monitor air consumption and leak detection helping to reduce energy use.

Scalable solutions offer easy integration into existing system architecture

- Intelligent/smart devices can connect via edge gateways to the cloud
- Data analysis can also be performed in the field using edge computing
- IIoT solutions are easy to add to existing equipment, requiring no modification or interfacing to existing PLCs or controllers
- Dashboards provide actionable insights, accessible on premise or remotely



For more information:
www.Emerson.com/Digital-Transformation-Pneumatics

