



REDRAVEN™



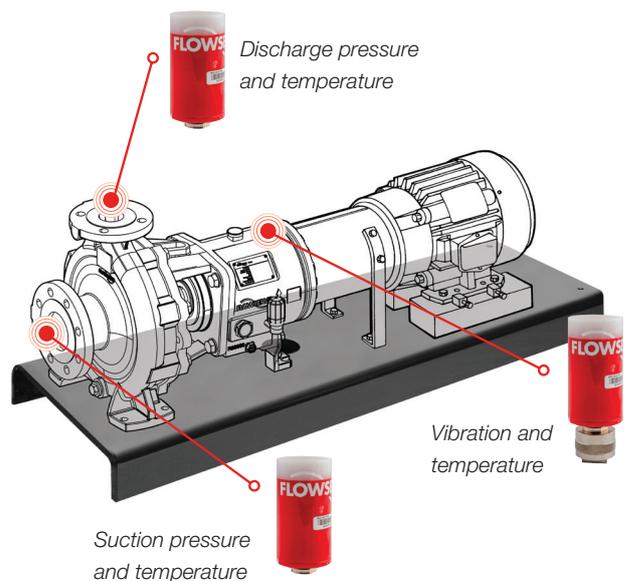
# FLOWSERVE NODE WIRELESS MONITORING

## A reliable, secure long-range sensor for equipment performance monitoring

With the Node sensor, you'll get power and reliability in a compact, intrinsically safe and cost-effective wireless edge device.

The goal of predictive maintenance is to identify equipment failures before they occur. But to achieve this level of insight, you need a powerful equipment sensor. The Flowserve Node is an affordable, advanced monitoring device that continuously reports critical equipment performance information.

The Node is capable of collecting tri-axial vibration, temperature and pressure data, encrypting that data, and transmitting it as far as one mile away. It can be connected directly to pumps and other assets throughout a plant, even in explosion-rated areas. Its wireless and long-range capabilities make it ideal for large refineries or other facilities that want a reliable and cost-effective asset health management solution.





# Flowserve Node Wireless Monitoring

## Flowserve Node benefits

### Collect extensive data

To make informed decisions, you need the right data. The Node collects pressure, temperature, vibration (three axes, including FFT 8 Peak Data on vertical axis), discrete and 4/20 mA signals. With this information, you can get a clear picture of how your equipment is performing.

### Immediately see when equipment experiences problems

You can set alarms to be notified immediately when equipment dips below desired performance thresholds. Easy-to-read indicators (green and red) clearly indicate equipment status.

### Take immediate action

The Node's active sensor information can be directly linked to a database shared by your computerized maintenance management system (CMMS) or the Flowserve Insight Portal, so you can take immediate action to prevent potential equipment failures.

### Optimize your operation

Data-driven decisions enable your team to optimize operations, improve plant reliability, and make informed changes to operating and maintenance activities. The Node gives you economically feasible access to insights that lead to lower total lifecycle costs.

### Reduce costs

Because of its long-range capabilities, you do not have to purchase expensive receivers, boosters or repeaters, which keeps operating costs low. And since the Node is wireless, plants won't experience any disruptions due to complex installations, which are common with wired sensors.

## Specific details

Operating frequency	900 or 868 MHz
Operating range	1.21 km (0.75 miles)
Transmission rates	5 seconds or higher (30 minutes recommended)
Vibration range	0 to 25 mm/s (0 to 1 in/s) (6 Hz to 1 kHz range)
Accuracy (vibration)	+/- 10% F.S.
Temperature range (direct mount)	-40°C to 85°C (-40°F to 185°F)
Accuracy (temperature)	+/- 0.15°C (0.27°F) @ 0°C (32°F); +/- 0.35°C (0.63°F) @ 100°C (212°F)
Sensor types	Temperature, pressure (0 to 69 barg / 0 to 1,000 psig), vibration, discrete, 4/20 mA

## Certifications

Certificate Number: C ML 16ATEX2378X	
Notified Body:	Certification Management Limited
Report Number:	R1695A/00
Markings:	
<b>Flowserve</b> <b>77064 TX, USA Model: SELD-102</b>	
  	
<b>IEEx CML 16.0148X</b> <b>CML 16ATEX2378X</b> <b>Ex ia IIC T4 Ga</b> <b>Ex ia IIIC T116°C Da</b> <b>-20°C ≤ Ta ≤ +60°C</b>	<b>CSA 2017 70127072</b> <b>Cl I, Zn 0 A/Ex ia IIC T4 Ga</b> <b>Cl I, Zone 20, A/Ex ia IIIC T116°C Da</b> <b>I.S. for Cl I, Div 1 Grps A, B, C, D;</b> <b>Cl II, Div 1, Grps E, F, G;</b> <b>Cl III, Div 1, and provides I.S. circuits</b> <b>With Entity Parameters per Install</b>
Ingress Protection	
Code: IP66	

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