

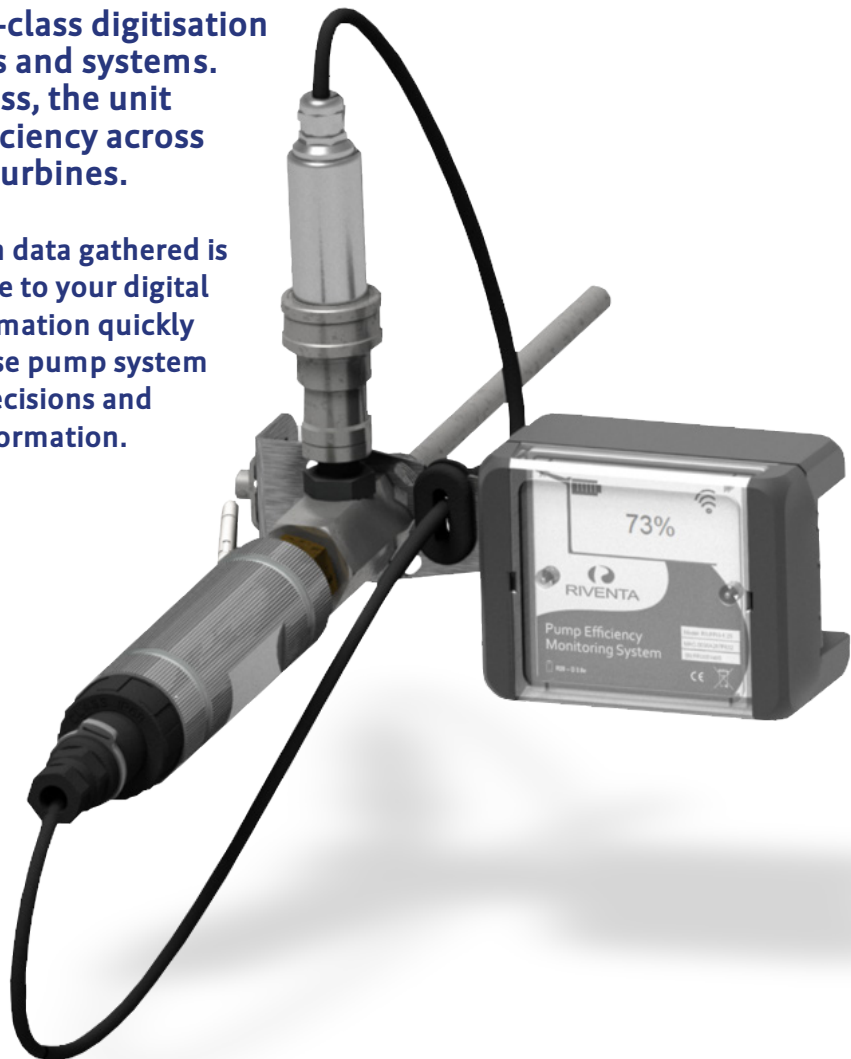
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FREEFLOWi4.0 is our world-class digitisation solution for pumping assets and systems. Highly-powerful and wireless, the unit monitors and measures efficiency across pumps, blowers, fans, and turbines.

The diagnostic and optimisation data gathered is securely transmitted in real-time to your digital systems. You get seamless information quickly and are better enabled to analyse pump system performance, make informed decisions and drive forward with digital transformation.



FREEFLOWi4.0

with 5-year battery life



compatible with **INDUSTRY4.0**

Now is the time to digitise your pumping assets and systems. With the pump industry entering a new, dynamic era of technological transformation - and with the way we work changed by Industry 4.0, IIOT and wireless connectivity - there has never been a more crucial time to maximise advanced technology.

Because a pumping asset is usually part of a dynamic system, its contribution will vary with demand and system characteristics. FREEFLOWi4.0 can monitor pump efficiency and hydraulic performance, so the real-time data for each asset can be trended and evaluated, with information-driven insights generated to drive optimisation.

3 easy steps to digitisation

- **Rapid deployment**
Cable-free, simple installation means you're up and ready in around 2 hours, with minimal disruption to operations.
- **Instant diagnostics and insights**
Once in place, you will start to see instant diagnostics and optimisation insights flowing into your digital systems.
- **Continuous data gathering**
With a 5-year battery life, the unit can remain on site to gather data and continuously power improvements.

Robust world-class technology

Our standard FREEFLOWi4.0 package includes:

- 5-year battery, with innovative power management to extend life.
- Zero installation, but requires 1/2" BSP gated tapping in suction and discharge pipework.
- Capability to integrate with existing type/make of power meter. Flow measurement subject to connection to a power meter.
- Operator guidance.
- Standard API integration with SCADA systems.
- Option to utilise our optimisation platform, HydraNet, or integrate with a third-party solution.
- 5-year warranty and maintenance contracts available.

HydraNet option for 24/7 live data

FREEFLOWi4.0 captures, processes and provides data to managers and operators.

If you choose to use alongside our network optimisation platform, HydraNet, you not only get data insights but an easy-to-use interface providing an essential overview of day-to-day pump performance, condition and reliability.

24/7 enhanced information is made available from FREEFLOWi4.0 to improve asset efficiency and reduce operating costs.

AT A GLANCE:

- **Low maintenance IIOT digital technology**
- **Drives Industry 4.0 initiatives and digital transformation**
- **Delivers highly-accurate flow and efficiency data into existing systems**
- **Better enables teams to analyse and visualise performance**
- **Provides operators with more guidance to improve pump performance**
- **Trends data to support asset decisions**
- **Helps review pump life cycles, refurbishment or replacement**
- **Maximises energy saving opportunities**

Designed to optimise industrial systems

- Robust thermodynamic pump efficiency measurement.
- Essential for high energy pumping applications (100kW+).
- Enables motor and drive efficiency to be measured using our patented technology.
- Measures individual pump efficiency and flow rate.
- Provides pump head, flow, efficiency, power and motor efficiency.

Guaranteed to deliver real value

- Decreases costs by optimising your pumping operations.
- Improves pumping performance by rapidly diagnosing issues.
- Means less maintenance spend with detailed asset information made available at your fingertips.
- Reduces CO2 footprint via continuous improvements to your pumping systems.

Below: FREEFLOWi4.0 application

FREEFLOWi4.0 technical information

Parameters	Units
Pump Efficiency	%
Flow Rate	/s
Differential Head	m
Electrical Power	kW
Differential Temp.	mK
Suction Pressure	m
Delivery Pressure	m
Suction Temp.	°C
Delivery Temp.	°C
NPSHa Monitoring	
Cavitation Index	
Asset Wear Index	
Maintenance Prediction Capability	

Technical specification:

Diff. Temperature Accuracy:	± 0.001 °C or better
Temperature Range:	0 to 40 °C / 40 to 300 °C
Pressure Accuracy:	± 0.1% of range
Maximum Pressure Range:	400 Bar
Flow rate Accuracy	± 1%
Data display:	eINK low-power local sensor display
Operating Temperature:	-10 to 60 °C (avoid condensation)
Data rate:	1-second up to 10-minutes
IP Rating:	IP65 (IP68 optional)
Enclosure Size:	115mm (W) x 60mm (D) x 80mm (H) Excluding sensors and fittings
Weight:	0.2 kg (excl. sensors and fittings)
Power:	R20-D-3.6 Vdc 12-36 Vdc (Optional)
Communication:	TCP/IP Modbus RS485 Modbus Zigbee Wireless-mesh (Optional)

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