

# PRODIGY ULTRAPIPE

## GPRS STANDPIPE FLOW MONITORING

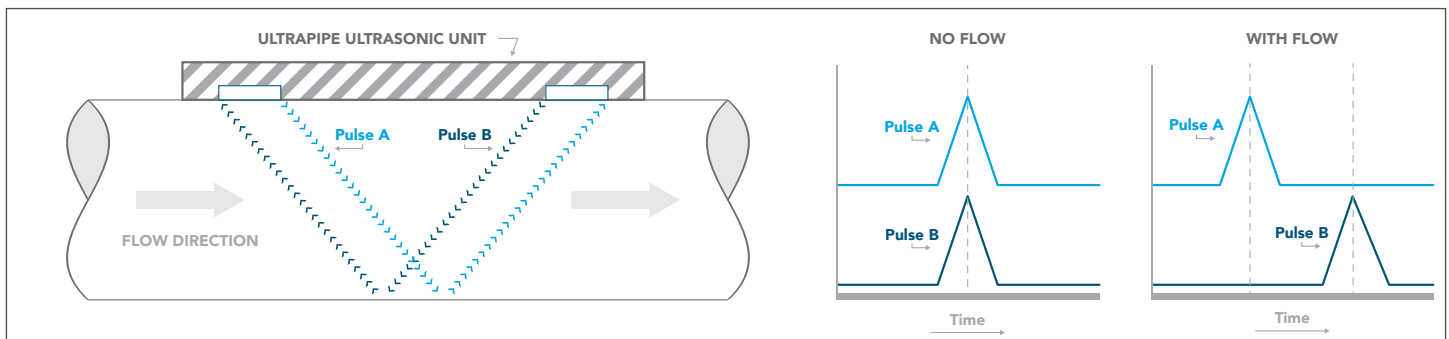
The Prodigy UltraPipe is a multi-sensor, wireless IoT flow monitoring device that 'smart enables' standpipes, mechanical meters and other portable assets. Our sensors detect and measure a broad range of standpipe water consumption conditions - within a simple, cellular connected, non-invasive, clamp-on device.

The technology allows real-time monitoring of GPS location, measurement of water consumption and time. All data is available real-time through a simple cloud-based portal that provides up-to-date water volume measurements, alerts and notifications.

The UltraPipe is available in two versions; a pulse output triggered device which uses the output of an existing mechanical meter, and an ultrasonic variant which uses two ultrasonic transducers mounted onto the standpipe surface to measure the water flow externally through time of flight differentials. Both variants are extremely robust and allow simple attachment onto most standpipes in minutes.

The UltraPipe monitors, processes, and records multiple channels of data from on-board sensors and stores the data in memory, ready for upload to the cloud via cellular connectivity. Reports and data files are transmitted real time to ensure alerts and notifications are received as they occur.

FEATURES	
Flow measurement	✓
Non-invasive	✓
GPS position	✓
Live upload of usage events	✓
Live wireless cellular connectivity	✓
Battery powered	✓
No wires or contact with water	✓



## OPERATIONAL REQUIREMENTS

Operating mode	Fully wireless – 2G connectivity (CAT-M1 or NBIoT options available). Default will be 2G unless specified otherwise. Internal antennas as standard
Application	22mm to 60mm diameter standpipes
Pipe materials	Aluminium
Measuring/Monitoring capability	Live alerts – real time upload
Attachment means	Non-invasive clip/bolt on device
Pipe diameters	22mm, 40mm, 50mm and 60mm +/- 5mm
Power requirements	Self-powered and 5vdc external option
Installation environment	IP67 as standard, inside, outside, below ground. IP68 available upon request
Cellular coverage	UK multi-carrier SIM (Included)

## INSTALLATION RECOMMENDATIONS

Mounting position	Minimum mounting distance onto standpipe of 300mm away from hydrant/valve opening
Min. pipe exposure required	12in. clean length and full circumferential access
Activation	External switch, pulse output or accelerometer triggered (default will be external switch unless specified otherwise)
Standpipe circumferential position	Mount between standpipe handles to provide clear antenna coverage

## SPECIFICATIONS

	PRODIGY ULTRAPIPE (PULSE OUTPUT)	PRODIGY ULTRAPIPE (ULTRASONIC)
Size	150mm Length x 62mm Width x 40mm Depth	204mm Length x 62mm Width x 40mm Depth
Enclosure material	Thermoplastic	Thermoplastic
Power	3.6v Lithium rechargeable battery	3.6v Lithium rechargeable battery
Battery life	Up to 3 years operating in normal conditions, including one remote system check-in and data upload per day	Up to 3 years operating in normal conditions, including one remote system check-in and data upload per day
Operating temperature	-55 to 85°C (-67 to 185°F)	-55 to 85°C (-67 to 185°F)
Communications Modem	Carrier certified 2G Modem as standard. CAT M1 and NBIoT variants available upon request	Carrier certified 2G Modem as standard. CAT M1 and NBIoT variants available upon request
Processor	Processors (8-bit microcontroller)	Processors (8-bit microcontroller)
ADC	Twin 16-bit multichannel ADC	Twin 16-bit multichannel ADC
Non-volatile memory	128Mbytes	128Mbytes
Ultrasonic flow sensor	Not applicable	Twin 1Mhz ultrasonic transducers
Accelerometer	3 Axis low consumption board mount accelerometer	3 Axis low consumption board mount accelerometer
Upload and alert capability	Real-time alerts – System check-in as standard and over the air programmable	Real-time alerts – System check-in as standard and over the air programmable
Sample rate	Feature specific sampling rates ranging from 300 samples/sec to 6000 samples/sec	Feature specific sampling rates ranging from 300 samples/sec to 6000 samples/sec
Call in and upload frequency	Event triggered	Event triggered
Product warranty	3 years standard – terms apply	3 years standard – terms apply
Data and Web Portal	Subscription based	Subscription based