

## DELIVERING ESSENTIAL VALUE THROUGH TECHNOLOGY INNOVATION



The evolution of technology associated with managing water networks and measuring consumption is entering a new era. The era of iPERL.

Throughout history, the way that societies collect, distribute and gain access to potable water has inspired a culture of invention and innovation...and this continues today with iPERL, a breakthrough technology that defines a smarter future.

Simplicity, Productivity and Environmental Sustainability are the three axis of innovation embodied in iPERL. No measurement technology has ever offered such intelligent end-point data functionality. No measurement technology has ever provided the ability to create so much value through water network management and consumption accuracy.

iPERL - the new data end-point standard fully enabled for a new era.

### SIMPLE

iPERL is founded on complete and simple life-cycle principles. From the selection of the network fitting sizes for the end-point, through to delivery and usage experience and on to disposal, the technology has been designed with simplicity, productivity and sustainability in mind.

### ACCURATE

iPERL accuracy offers real value throughout its wide measuring range independent of water quality, network pressure or piping section modifications. No other current technology can match iPERL.

### LONG LASTING

iPERL delivers its core values throughout its complete life-cycle. Its innovative measuring technology assures iPERL's enduring accuracy in the field, delivering a continuous data stream.



# A PRODUCTIVITY engine for the water NETWORK

## RELIABILITY

Extreme testing conditions, an innovative mechanical design, extensive Sensus experience and the blending of state-of-the-art technologies ensure that iPERL complies with T50 requirements, creating a unique, robust and long-lasting water data end-point.

## CONTROLLED ACCURACY

As installation points are not always ideal, iPERL has been designed for installation in any orientation, independent of flow direction and with no effect on metrological performance

## LOW RISK

Investing in iPERL is investing in the future. Its inbuilt performance brings considerable economic value with fast ROIs and the flexibility to optimize future opportunities.

iPERL's inbuilt data logging allows utilities to pro-actively monitor and adapt to changing consumption habits, triggering potential, additional consumer services.

## APPROVALS

EC type-examination certificate

In conformity with

- 2004/22/EC (MID)
- EN 14154:2007
- OIML R49:2006

Certificate of Compliance For Potable Drinking Water

In conformity with

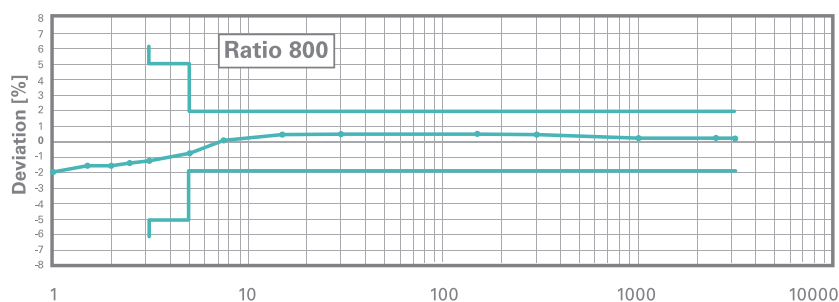
- KTW / DVGW (D)
- ACS (F)
- WRAS (UK)

## PRODUCTIVITY

iPERL comes with an inbuilt R800 ratio for all models in the proposed family range, from  $Q_3$  2.5 to 16 m<sup>3</sup>/h. Such a value proposition means there is no trade-off between performance and network conditions.

Due to its technology, iPERL's R800 ratio meets utilities' expectations throughout iPERL's life-time.

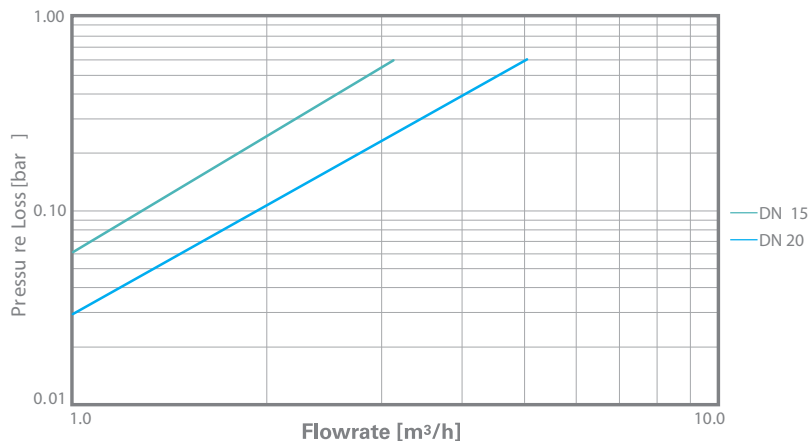
### TYPICAL ACCURACY CURVE



### PERFORMANCE DATA

Nominal Diameter	DN	mm	15	20	25	30	40
Permanent flowrates	$Q_3$	m <sup>3</sup> /h	2.5	4	6.3	10	16
Ratio "R"	$Q_3/Q_1$	R	800				
Maximum Flowrate	$Q_4$	m <sup>3</sup> /h	3.125	5	7.875	12.5	20
Minimum Flowrate	$Q_1$	l/h	3.13	5	7.88	12.5	20
Transitional Flowrate	$Q_2$	l/h	5	8	12.6	20	32

### PRESSURE LOSS CURVE



## ENVIRONMENTAL

iPERL is focused on achieving the lowest possible environmental impact. Such impact is measured through a complete life-cycle analysis covering climate change, ecosystem quality, human health and natural resources.

iPERL was developed with disposal in mind and is manufactured using fully recyclable materials.

iPERL is designed to meet the demands of even the most severe field utilisations. These include the fast open and close tap movements that create fast flow transients difficult to capture and account for...and typical in residential and commercial applications.

iPERL is fully protected against all water network hazards. It is built to accommodate interior and exterior installations. It is IP68 rated and fully protected against water vapour transmissions that would occur with the presence of any air.

## COMMUNICATIONS

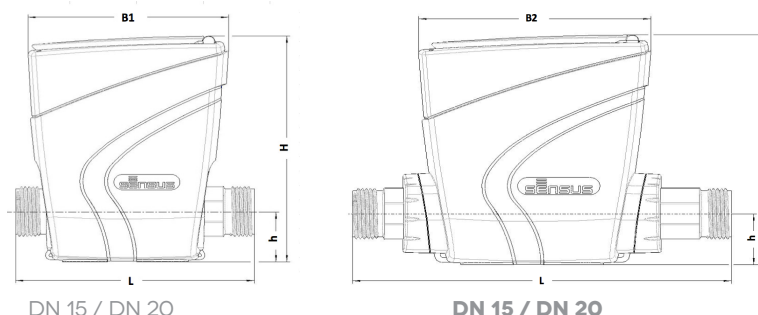
iPERL is equipped with Sensus low power 868MHz or 433MHz integrated radio technology. Utilising a 1½ way communication system, it offers both the benefits of one and two way system architecture. The innovative design provides billing and alarm status for walk-by / drive-by collection, plus in addition the ability to interrogate the meter for more detailed data including data logging of up to 2880 values.

Along with Sensus Radio, iPERL also offers an OMS certified T1 broadcast platform.

### Long Range Radio

Sensus Radio will provide a link to the long range radio infrastructure, FlexNet, allowing iPERL to be directly integrated. With the utility grade communications technology and whole life values of iPERL, we offer a technology roadmap fully aligned to a smarter future.

## DIMENSIONAL DIAGRAM



## DIMENSIONS

	L	H	h	B1	B2
DN15	110	120	26.5	92.5	104
	115				
	134				
	145				
	165				
DN20	170				
	105			92.5	104
	115				
	153				
	165				
	190				

## LAY LENGTH

DN	Available Lay Length (mm)						Thread acc. ISO
15	110	115*	134	145	165	170	3/4"
20	105	115	153	165	190	-	1"
25	198	260	-	-	-	-	1 1/4"
30	260	-	-	-	-	-	1 1/2"
40	300	-	-	-	-	-	2"

\* Also available with thread acc. ISO 3/4" x 7/8"

