SMART HUB

DESIGN AND SPECIFICATIONS

SMARTPROBE OPERATIONAL DATA MEASUREMENTS
FOR POTABLE WATER NETWORKS

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SMARTPROBE

PIPELIFE's compact SmartProbe solution enables a custom and comprehensive distribution of sensors throughout your network's non-trafficable areas. With an improved and extensive overview, you can eliminate blind spots and respond to deviations in turbidity, temperature, pressure and more.
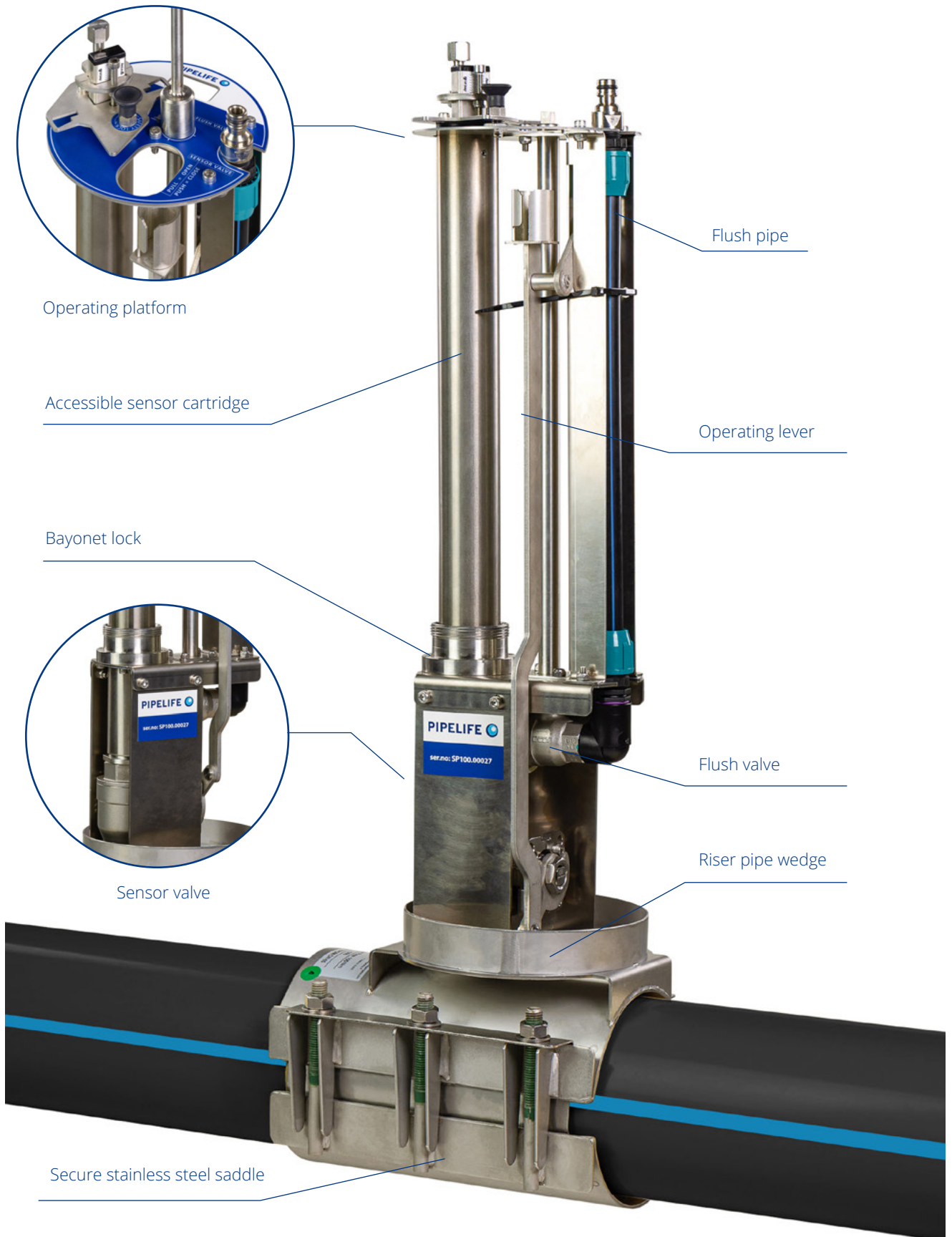
PRODUCT OVERVIEW

Durable access cover

Compact edge controller

Protective PVC/PP riser pipe

Operating platform

Accessible sensor cartridge

Bayonet lock

Sensor valve

Secure stainless steel saddle

Flush pipe

Operating lever

Flush valve

Riser pipe wedge

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TECHNICAL SPECIFICATIONS

APPLICATION AREA

Potable water network pipes

Operating pressure < 10 bar

Compatible with:

· PE pressure pipes

· PVC pressure pipes

· Cast iron pressure pipes

· AC pressure pipes

DO NOT USE THE SMARTPROBE ON ANY OTHER TYPE OF PIPE

The SmartProbe should be installed on a road embankment or sidewalk, away from traffic. Do not install underneath an active roadway.

INSTALLATION METHOD

The hot tapping method enables non-disruptive connections with existing pipes. The water flow can remain uninterrupted and there is no need to empty the pipe section.

GROUND LEVEL ACCESS

After installation, the SmartProbe's components are easily accessible above ground without interrupting the water supply.

SWAPPABLE SENSORS

The sensor cartridges can be easily exchanged when different readings are required. They can be accessed at any time from the ground level and exchanged within minutes.
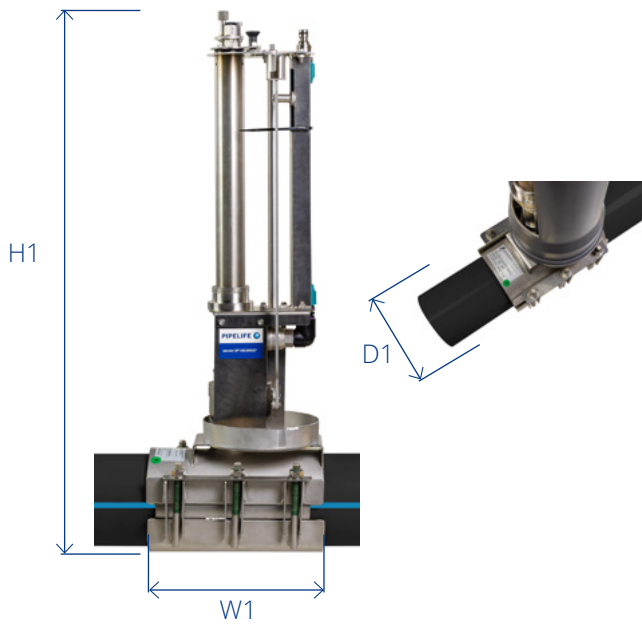
SOFTWARE

Data analysis and visualization are available via the PIPELIFE SmartHub.

SMARTPROBE PARAMETERS

SmartProbe dimensions

Installation dimensions

Potable water pipe OD (mm)	SmartProbe dimensions W1 x H1 x D1 (mm)	Minimum weight (kg)	Minimum installation dimensions W2 x H2 x D2 (mm)	Nominal operating pressure (bar)	Operating tempera-ture (°C)	Wetted materials	SmartProbe package dimensions (mm)
110*	300 x 920 x 210	16.5	300 x 1000 x 300				
160*	300 x 880 x 240	17	300 x 900 x 300			Stainless steel & EPDM	
200*	300 x 920 x 270	18	300 x 940 x 300	0 – 10	0 – 40		450 x 1000 x 400
250*	300 x 960 x 300	20	300 x 960 x 300				

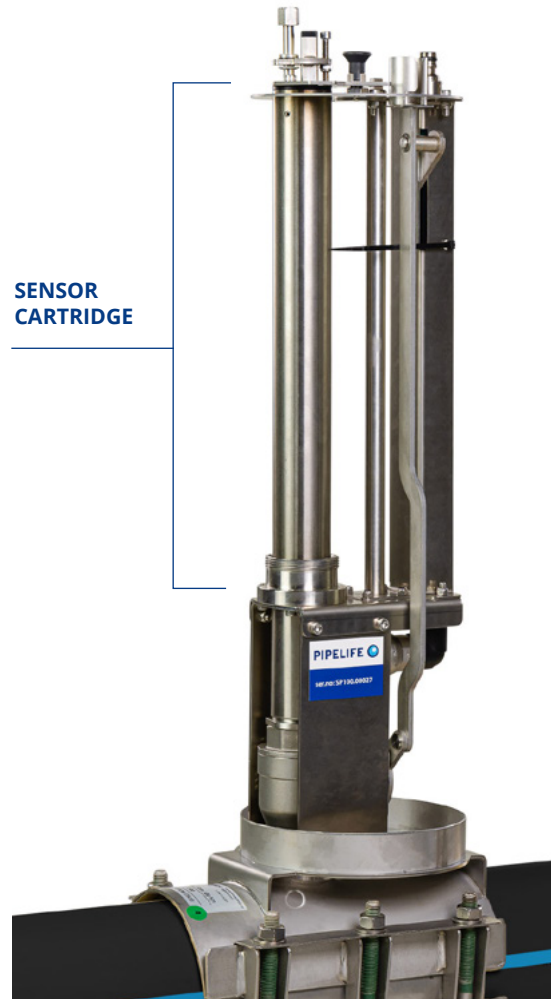| Installation depth H2 (mm):	
Standard SmartProbe, short tool set	900 - 1400
Standard SmartProbe, long tool set	1000 - 2000
XL SmartProbe, short tool set	2000 - 2400
XL SmartProbe, long tool set	2000 - 3000

*XL SmartProbe for each size available upon request

SMARTPROBE SENSOR CARTRIDGE

Dimensions (mm)	110 x 800 x 110
Weight (kg)	2.5
Nominal operating pressure (bar)	0 – 10
Operating temperature (°C)	0 – 40
Min. measuring frequency (seconds)	30
Min. transmission frequency (minutes)	5
Battery	AA or D cell 3.6V
Battery life (years)	5+
Power supply (W)	0.16 – 1.5
Wetted materials	Stainless steel PVC/POM EPDM

Packaging	
Units per box	1
Box dimensions (W x H x D)	130 x 910 x 130

SENSOR CARTRIDGE

SENSORS

PIPELIFE's SmartProbe sensors are configured according to customer data requirements. Other sensors can also be adapted to fit the SmartProbe in order to meet your individual project needs.

Sensor type	Accuracy	Range
Pressure + Temperature	0.01 bar	0 – 30 bar
	0.01 °C	0 – 30 °C
Conductivity + Temperature	0.1 mS/m	1 – 100 mS/m
	0.01 °C	0 – 30 °C
Temperature	0.01 °C	-10 – 85 °C
pH + Oxidation-reduction potential + Temperature	± 0.1 pH	0 – 14 pH
	± 2 mV	-1000 to +1000 mV
	± 0.5 °C	-10°C to +50 °C
Turbidity	< 5% of the reading	0 – 4500 mg/L
Flow + Temperature	Available soon	

SMARTHUB

Data visualization and device configuration settings are available in the PIPELIFE SmartHub. Alternatively, the device can be seamlessly integrated into preexisting third-party systems. SmartHub is available via web browser or smart device app (iOS, Android). In SmartHub, you can configure custom-threshold alarms and generate graphs based on collected data.

SmartHub data insights enable you to:

· Validate hydrological models against existing scenarios

· Detect leakages earlier

· Discover fluctuations in water quality

· Track water distribution throughout your network

· Predict events using Big Data, analytical models and machine learning

Software	PIPELIFE SmartHub
Communication protocol	LoRa or NB-IoT*
Data controller energy source	Battery (5+ years life expectancy)
Two-factor authentication	Yes

*Coming soon

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