

P-Series Sensors

Ultrasonic sensors for level measurement

ELECTRONICS

ACOUSTIC

WEIGHT

OVERLOADING
SAFETY SYSTEMS

VALVES

TEMPERATURE

DETECT
A FIRE®

FLOW

DENSITY

INTERFACE

PRESSURE

LEVEL

P-Series sensors are suitable for continuous level measurement in the water and wastewater sector. For connection to NivuMaster-Series evaluation units. Suitable for harsh ambient conditions.

The ultrasonic sensors with integrated temperature compensation for connection to NivuMaster- Series evaluation units provide a wide variety of measuring options for liquids. The sensors provide accurate and reliable readings even in narrow tanks, no matter what measurement range or application. False echoes reflected from built-in obstructive constructions are negligible since they will be avoided automatically.

The sensors are available with 1"-thread or as flange version according to DIN and thus can be installed without any problems.

Benefits

- Very low in maintenance through non-contact measurement
- Extremely versatile thanks to measurement ranges from 0.07 m to 40 m
- Protection IP 68
- ATEX approval for Ex-Zone 0 and 1
- Alarm output in case of flooding possible
- Resistant to moisture, aggressive environments and heavy temperature fluctuations

Typical applications

- Level measurements in the water and wastewater sector
- Flow measurements in open flumes and weirs
- Volume measurements in tanks
- Comparative measurements on screens
- Pump control in pump stations

Technical Specifications

Process connection	1" BSP/NPT Standard
Echo evaluation	Automatic and self-learning echo suppression
Cable lengths	5, 10, 20, 30, 50 or 100 m; other lengths upon request
Ex-Approval	II 2GD Ex m II T6 (II 1GD Ex ia IIC T6 also available, only in connection with intrinsically safe transmitter)
Protection	IP 68 (5 Bar)
Enclosure material	Valox 357 PBT PVDF (optional)

Specifications subject to change

OPTIONS

Flood protection head	• To generate echo loss and alarm output in case of flooding • No soiling of sensor face output in case of flooding and hence no cleaning of the sensor face required (not for P 25 and P40)
Flange type	Flanges DIN DN80 / DN100 / DN150 / DN200, ANSI 3" / 4" / 6" / 8" (only for P-6, P-10 and P-15)
Enclosure material	PVDF for aggressive Medias, max. 70 °C (for P-6, P-10 and P-15)
Coating of transmitter surface	Sensor face with soft foam coating for dusty bulk solids (only for P-6, P-10 and P-15)

Specifications subject to change

P-M3

Measurement uncertainty	1 mm
Resolution	0,5 mm
Beam angle	<10°
Operating temperature	-30 to +95 °C (Ex-Zone -30°C do 75°C)
Transmit frequency	125 KHz
Measurement range	0,07 m - 2,4 m

Specifications subject to change

P-3

Transmit frequency	125 KHz
Measurement uncertainty	+/- 0,25 % of the current measurement range
Resolution	2 mm
Beam angle	<10°
Operating temperature	-30 to +95 °C (Ex-Zone -30°C do 75°C)
Measurement range	0,125 m - 3 m

Specifications subject to change

Technical Specifications

P-6

Transmit frequency	75 kHz
Measurement uncertainty	+/- 0,25 % of the current measurement range
Resolution	2 mm
Beam angle	<10°
Operating temperature	-40 °C to +90 °C (Ex-Zone -40 °C to +75 °C)
Measurement range	0,3 m - 6 m

Specifications subject to change

P-S6

Resolution	2 mm
Measurement uncertainty	+/- 0,25 % of the current measurement range
Beam angle	<10°
Operating temperature	-40 °C to +90 °C (Ex-Zone -40 °C to +75 °C)
Transmit frequency	50 kHz
Measurement range	0,2 m - 6 m

Specifications subject to change

P-10

Transmit frequency	50 kHz
Measurement uncertainty	+/- 0,25 % of the current measurement range
Resolution	2 mm
Beam angle	<10°
Operating temperature	-40 °C to +90 °C (Ex-Zone -40 °C to +75 °C)
Measurement range	0,3 m - 10 m

Specifications subject to change

P-15

Measurement uncertainty	+/- 0,25 % of the current measurement range
Transmit frequency	50 kHz
Resolution	2 mm
Beam angle	<10°
Operating temperature	-40 °C to +90 °C (Ex-Zone -40 °C to +75 °C)
Measurement range	0,5 m - 15 m

Specifications subject to change

Technical Specifications

P-25

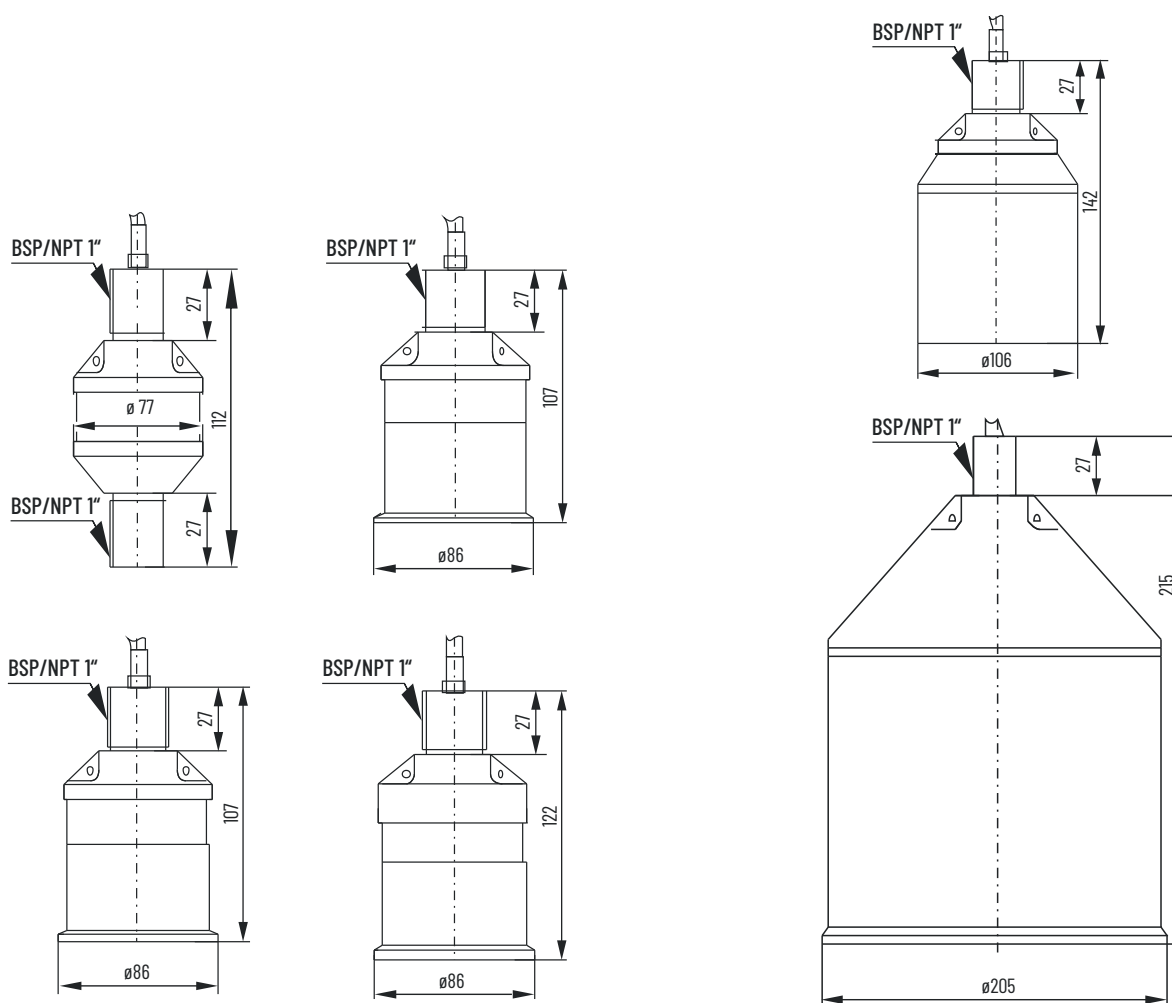
Measurement uncertainty	+/- 0,25 % of the current measurement range
Resolution	2 mm
Beam angle	<10°
Operating temperature	-40 °C to +90 °C (Ex-Zone -40 °C to +75 °C)
Transmit frequency	30 kHz
Measurement range	0,6 m - 25 m

Specifications subject to change

P-40

Measurement uncertainty	+/- 0,25 % of the current measurement range
Resolution	2 mm
Beam angle	<7°
Operating temperature	-40 °C to +90 °C (Ex-Zone -40 °C to +75 °C)
Transmit frequency	20 kHz
Measurement range	1,2 m - 40 m

Specifications subject to change



Technical Specifications

SENSOR TYPE I-10

Operating temperature	from - 40 °C to + 80°C
Resolution	3 mm
Measurement uncertainty	< 6 m: 3 mm; > 6 m: 6 mm
Beam angle	<10°
Transmit frequency	50 KHz
Measurement range	0,3 m - 10 m

Specifications subject to change

SENSOR TYPE I-15

Operating temperature	from - 40 °C to + 80°C
Resolution	5 mm
Measurement uncertainty	< 10 m: 5 mm; > 10 m: 10 mm
Beam angle	<10°
Transmit frequency	41 KHz
Measurement range	0,5 m - 15 m

Specifications subject to change

