



Product overview

Designed to measure the level of clean or contaminated water, the AX-HL range of Hydrostatic Level Sensors offers an excellent alternative to Ultrasonic equivalents.

Variants include 4-20mA and 0-10Vdc versions, with Intrinsically Safe options available. An optional temperature output completes an impressive array of features. Installation is incredibly fast and easy with the provided cable clamp and terminal holding the wire in place.

A breathing capillary tube and filtered terminal block allow atmospheric pressure to be fed to the unit whilst preventing moisture damage to the electronics. Options are available for up to 200 metres (bore holes, reservoirs etc) and are quoted on a per project basis.

Features

- Suitable versions for clean & contaminated water
- Excellent alternative to Ultrasonic equivalents
- Fast and easy installation
- Ships complete with cable clamp and terminal for fitting
- 4-20ma, 0-10Vdc and Intrinsically safe versions available
- Option temperature output

Applications

- Level/temperature measurement of drinking water wells, tanks & pools
- Submersible pump control
- Clean or slightly contaminated liquids
- Sewage waters
- Draw-down protection
- Sewage lift station control

Order Codes

Part Number	Full Description	Water Type	Tank Height	Cable Length	Output
AX-HL-C1-5I	Hydrostatic Level Sensor - 5 metre Polyurethane Cable, 2-Wire	Clean	0-1m	5m	4-20mA & Hart
AX-HL-C2-5I	Hydrostatic Level Sensor - 5 metre Polyurethane Cable, 2-Wire	Clean	0-2m	5m	4-20mA & Hart
AX-HL-C5-10I	Hydrostatic Level Sensor - 10 metre Polyurethane Cable, 2-Wire	Clean	0-5m	10m	4-20mA & Hart
AX-HL-C10-15I	Hydrostatic Level Sensor - 15 metre Polyurethane Cable, 2-Wire	Clean	0-10m	15m	4-20mA & Hart
AX-HL-C1-5V	Hydrostatic Level Sensor - 5 metre Polyurethane Cable, 3-Wire	Clean	0-1m	5m	0-10Vdc
AX-HL-C2-5V	Hydrostatic Level Sensor - 5 metre Polyurethane Cable, 3-Wire	Clean	0-2m	5m	0-10Vdc
AX-HL-C5-10V	Hydrostatic Level Sensor - 10 metre Polyurethane Cable, 3-Wire	Clean	0-5m	10m	0-10Vdc
AX-HL-C10-15V	Hydrostatic Level Sensor - 15 metre Polyurethane Cable, 3-Wire	Clean	0-10m	15m	0-10Vdc
-xx	Specify Custom Cable Length, Price per Meter	Clean	-	-	-
-A	Intrinsically Safe Version	Clean	-	-	-
-T	4-20mA Temperature Output, 4-20mA (I) versions	Clean	-	-	-
AX-HL-W1-5I	Hydrostatic Level Sensor - 5 metre FEP Cable, 2-Wire	Waste	0-1m	5m	4-20mA & Hart
AX-HL-W2-5I	Hydrostatic Level Sensor - 5 metre FEP Cable, 2-Wire	Waste	0-2m	5m	4-20mA & Hart
AX-HL-W5-10I	Hydrostatic Level Sensor - 10 metre FEP Cable, 2-Wire	Waste	0-5m	10m	4-20mA & Hart
AX-HL-W10-15I	Hydrostatic Level Sensor - 15 metre FEP Cable, 2-Wire	Waste	0-10m	15m	4-20mA & Hart
AX-HL-W1-5V	Hydrostatic Level Sensor - 5 metre FEP Cable, 3-Wire	Waste	0-1m	5m	0-10Vdc
AX-HL-W2-5V	Hydrostatic Level Sensor - 5 metre FEP Cable, 3-Wire	Waste	0-2m	5m	0-10Vdc
AX-HL-W5-10V	Hydrostatic Level Sensor - 10 metre FEP Cable, 3-Wire	Waste	0-5m	10m	0-10Vdc
AX-HL-W10-15V	Hydrostatic Level Sensor - 15 metre FEP Cable, 3-Wire	Waste	0-10m	15m	0-10Vdc
-xx	Specify Custom Cable Length, Price per Meter	Waste	-	-	-
-A	Intrinsically Safe Version	Waste	-	-	-
-T	4-20mA Temperature Output, 4-20mA (I) versions	Waste	-	-	-

© Copyright Annicom 2016. All Rights Reserved

Annicom Ltd

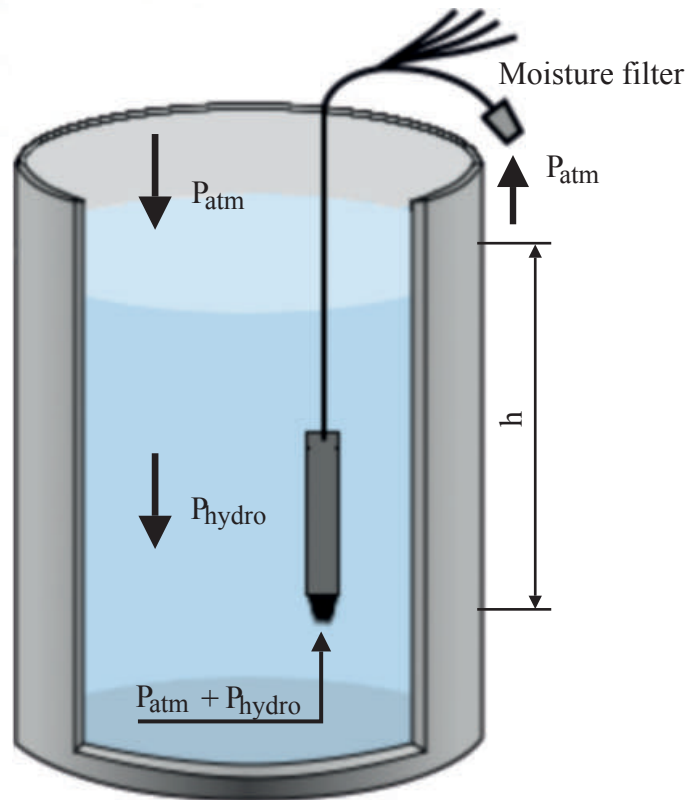
Unit 21, Highview, Bordon, Hampshire. GU35 0AX

Tel: +44 (0)1420 487788 Fax: +44 (0)1420 487799

Email: sales@annicom.com Website: www.annicom.com

Application

The AX-HL hydrostatic level transmitter is designed to measure the level of clean or contaminated liquids. The pressure sensor at the bottom of the probe measures the sum of the hydrostatic pressure (P_{hydro}) of the liquid column above it and the atmospheric pressure (P_{atm}). The atmospheric pressure is led to the sensor through a breathing capillary which is equipped with a moisture filter that prevents the moisture reaching and damaging the electronics. This enables the atmospheric pressure to be subtracted from the measured pressure to get the hydrostatic pressure, which is proportional to the height of the liquid column (h).



$$P = (P_{atm} + P_{hydro}) - P_{atm}$$
$$h = P$$

Specification

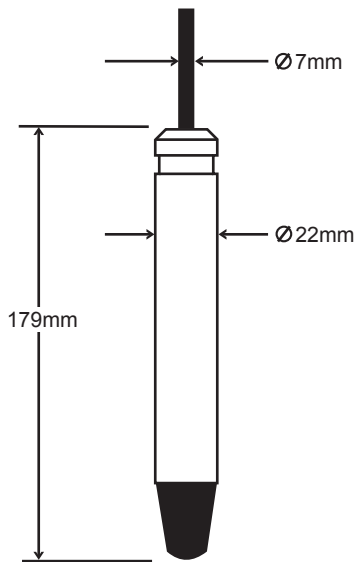
Measuring / Cable Range:	1m to 200m
Linearity:	+/- 0.45%
Process Temperature:	-10°C to +60°C
Power Supply:	4-20mA 12 to 30Vdc 0-10Vdc 18 to 30Vdc
Outputs:	2-wire 4-20mA & Hart 3-wire 0-10Vdc
Intrinsically Safe Class (-A version)	ATEX II 1 G Exia B T6
Waterproof Rating:	IP68
Process Connection:	Cable Mount Wedge Clamp
Electromagnetic Compatibility:	EN61326
Probe Dimensions:	Clean: 173mm x 22mm diameter Waste 210mm x 22mm diameter

Wiring

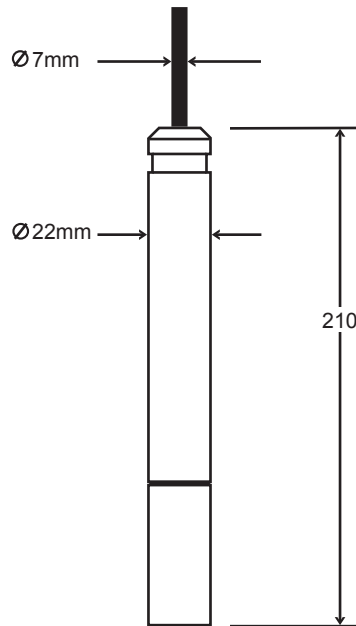
All AX-HL hydrostatic level sensors share the same wire. This includes OEM versions and items available on request. Therefore for the standard versions, some wires are not used. You can find details of the colour coding for wires below.

4-20mA & HART Versions		0-10Vdc Versions	
Yellow	Earth	Yellow	Earth
Red	Current +	Red	Supply In
Black / Blue	Current Negative	Black / Blue	Common
White	—	White	Voltage Out
Black	—	Black	—
Black / Red	—	Black / Red	—
White/Blue	—	White/Blue	—

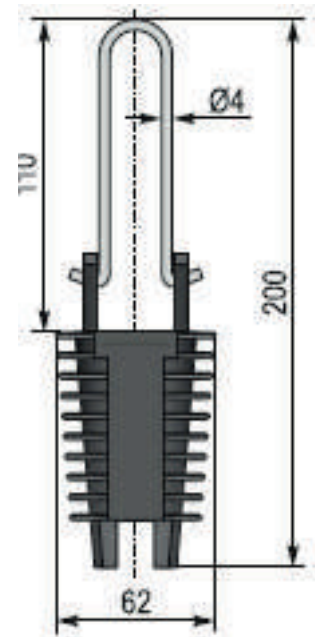
Dimensional Drawings



Clean Water Probe



Sewage Water Probe



Cable Clamp & Wedge

Accessories and Specialist Items

There are a number of non-standard items available if required. These are not covered in this datasheet. Details and order codes can be found below. Please note that none of these items are required for standard operation.

Part Number	Description
NAA-101	Cable terminal box with moisture filter
NAA-102	Cable terminal box with moisture filter and OVP-12/33
NAA-209	Cable mounting wedge clamp
NAA-105	Cable holding assembly
OVP-12/33	Outdoor overvoltage protection unit
OVP-32/33	Indoor overvoltage protection unit