

- Reliable
- Non Contact
- Narrow Beam Technology



FEATURES

- Accurate Continuous Level Measurement of liquids - Tanks -Sumps-Non Contact-Ranges up to 65 Feet
- Quick View Display
- Simple to Program -Easy Adjustment
- False Echoes-Elimination-(Self Teaching)
- Automatic-temperature Compensation
- Explosion Proof -Class 1 Div 1 - Available
- Analog Current output (4 -20 mA) with HART® protocol or output RS-485 Modbus
- Bright Yellow LED Display
- Lock Out Feature

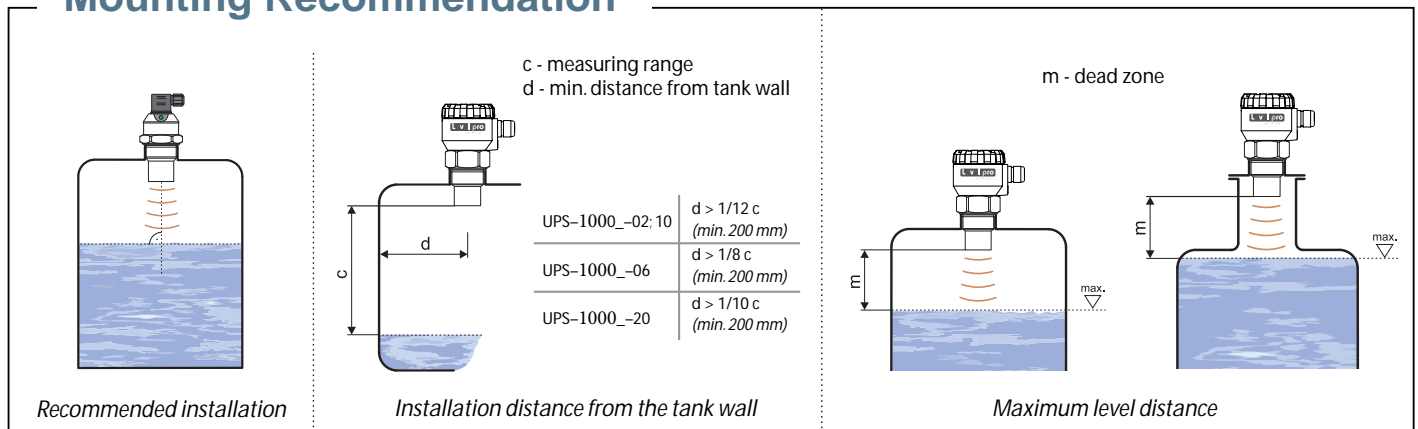
The UltraPro Ultrasonic level Sensors are 2-Wire loop powered sensors designed provide reliable accurate level measurement, flow monitoring, and volume of liquids in tanks, pits, sumps and open channels. The UltraPro series are very reliable and offer both 4-20mA analog output with HART® protocol or output RS-485 Modbus

Key Applications : Chemical Storage Tanks, Waste Sumps, bulk storage, tanker truck, day tank, process tank, neutralization tank, open channel, chemical feed and clarifier applications. The UltraPro Series are designed to work with most types of remote instrumentation and provide enhanced functionality such as remote displays and remote monitoring solutions.

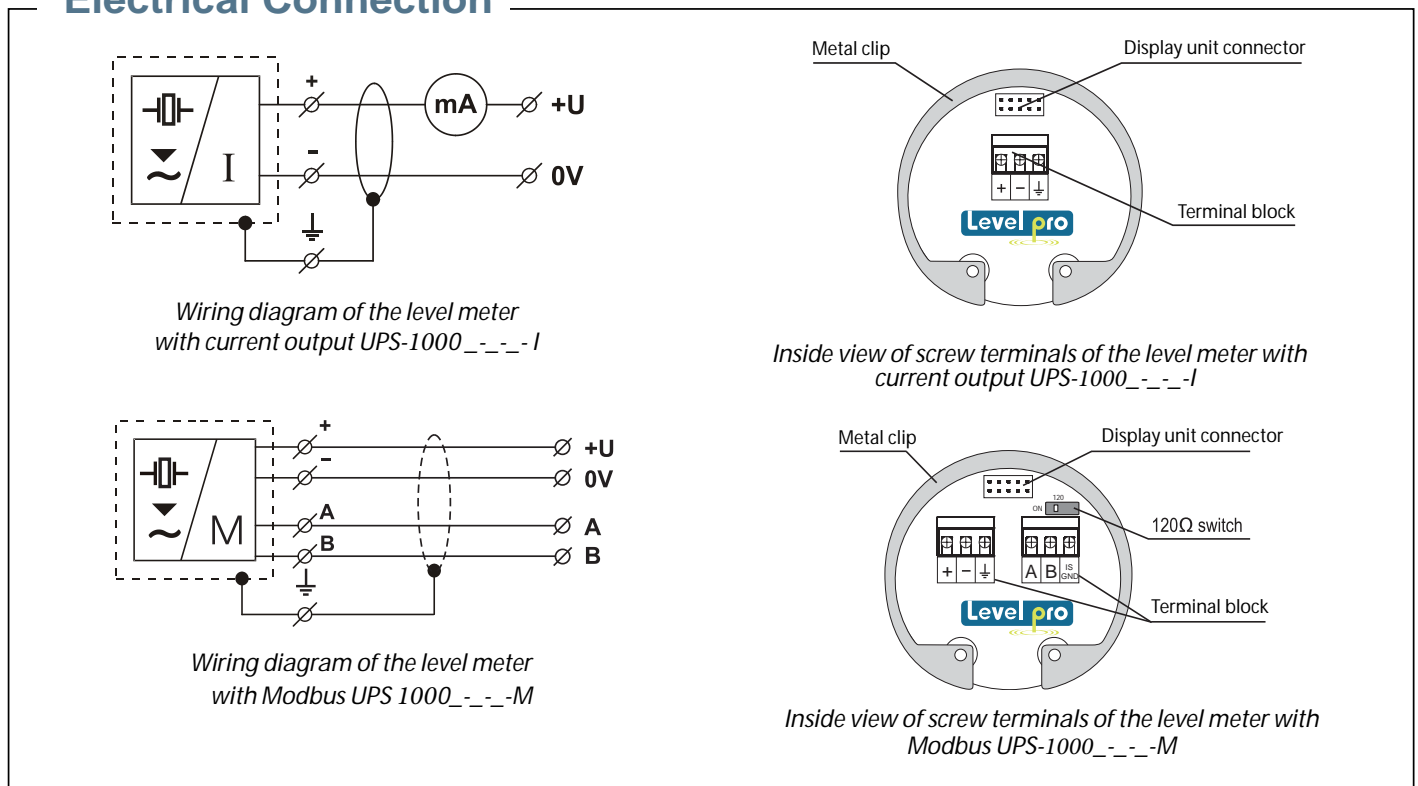
TECHNICAL SPECIFICATIONS

Display type		LED
Resolution		128 x 64 pixel
Character height / Number of digits measured value		9 mm / 5 Digits
Display colour		Yellow
Buttons		Membrane Type
Ambient temperature range		-40 ... +70 °C
Weight		46 g
Measuring range 1)	UPS-1000_-01-_	0.1 ... 1 m
	UPS-1000_-02-_	0.2 ... 2 m
	UPS-1000_-06-_	0.2 ... 6 m
	UPS-1000_-10-_	0.4 ... 10 m
	UPS-1000_-20-_	0.5 ... 20 m
Supply voltage	UPS-1000N-_-_-_-	18 ... 36 V DC
	UPS-1000Xi-_-_-_-I	18 ... 30 V DC
Current supply	UPS-1000N(Xi)-_-_-	4 ... 20 mA / max. 22 mA
Output	UPS-1000_-_-_-_-I	4 ... 20 mA (Limit values 3.9 ... 20.5 mA), HART®
	UPS-1000_-_-_-_-M	RS-485 with protocol Modbus RTU
Current output UPS-500_-_-_-_-I		4 ... 20 mA (limit values 3.9 ... 20.5 mA)
Voltage output UPS-500N-_-_-_-U		0 ... 10 V (limit values 0 ... 10.2 V)
Modbus output UPS-500N-_-_-_-M		Modbus RTU protocol
Resolution		< 1 mm
Accuracy (within the total range)	UPS-1000_-01 in area 0,1-0,2 m / 0,2-1,0 m	0,3 % / 0,2 %
	UPS-1000_-02;-06	0,15 %
	UPS-1000_-10;-20	0,2 %
Temperature error		Max. 0,04% / K
Beamwidth (-3 dB)	UPS-1000_-01_-_-; 02_-_-; 10_-_-	10°
	UPS-1000_-06_-_-	14°
	UPS-1000_-20_-_-	12°
Ambient temperature range	UPS-1000_-01_-_-; 02_-_-; 06_-_-	-30 ... +70 °C
	UPS-1000_-10_-_-; 20_-_-	-30 ... +60 °C
Measuring period	UPS-1000_-01_-_-; 02_-_-	0,5 s
	UPS-1000_-06_-_-; 10_-_-	1,2 s
	UPS-1000_-20_-_-	5,0 s
	UPS-1000_-_-_-_-M	adjustable via Modbus RTU
Averaging (can be modified according to agreement)	ULM-1000_-_-_-_-	4 measurement
	ULM-1000_-_-_-_-M	adjustable via Modbus RTU
Short time temperature stress resistance		+90 °C / 1 hod.
Max. operation overpressure (on transmission surface)		0,1 MPa
Max. internal values 2) (for the Xi version only)		Ui=30 V DC; Ii=132 mA; Pi=0,99 W; Ci=370 nF; Li=0,9 mH
Failure indication	echo failure – basic mode	3,75 mA (0 V)
	echo failure – inverse mode	22 mA (10,5 V)
	level in dead zone – basic mode	22 mA (10,5 V)
	level in dead zone – inverse mode	3,75 mA (0 V)
Protection class		IP67
Recommended cable		PVC 2 x 0,75 mm ² (3 x 0,5 mm ²)
Maximal current output load resistance	at U = 24 V DC	R _{max} = 270 Ū
	at U = 22 V DC	R _{max} = 180 Ū
	at U = 20 V DC	R _{max} = 90 Ū
Minimal voltage output load resistance		R _{min} > 1 kŪ
Delay between supply power rise time and first measurement	UPS-1000_-01_-_-; 02_-_-; 06_-_-	5 s
	UPS-1000_-10_-_-; 20_-_-	9 s
Process connection	UPS-1000_-01_-_-	thread ¾"
	UPS-1000_-02_-_-	thread 1"
	UPS-1000_-06_-_-	thread 1½"
	UPS-1000_-10_-_-	thread 2¼"
	UPS-1000_-20_-_-	aluminium alloy flange
Weight	UPS-1000_-01_-_-	0,20 kg
	UPS-1000_-02_-_-	0,20 kg
	UPS-1000_-06_-_-	0,25 kg
	UPS-1000_-10_-_-	0,65 kg
	UPS-1000_-20_-_-	2,80 kg

Mounting Recommendation



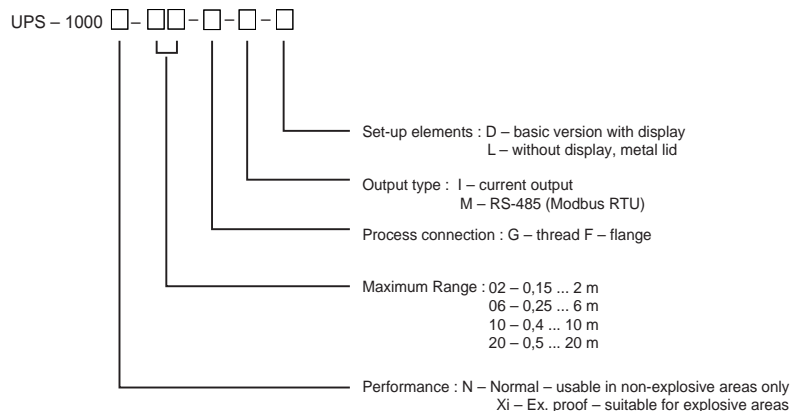
Electrical Connection



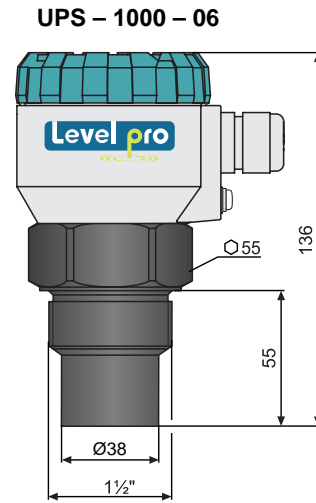
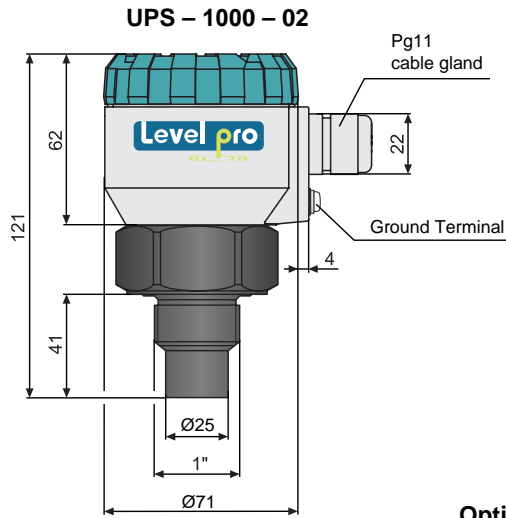
Range of Applications

For continuous non-contact level measurement of liquids (water solutions, sewage water, etc.), mash and pasty materials (sediment, resins etc.) in Please Consult Factory to discuss applications

Order Code



DIMENSIONS DRAWINGS



Optional UPS-1000 with protective connector

