



**Introducing the *Levelese* open channel Weir Flow Meter, the *simple*, price, value and accuracy leader for your liquid flow measuring needs.**

**Specified, patented and designed by engineers with half a century's individual experience in level instrumentation, patented *Levelese* has been proven to operate in the most stringent environments ranging from marine oil storage, acidic material transportation vessels to rivers and streams. *Levelese* is not affected by turbulence.**

***Levelese* continuous Weir Flow monitors are:**

- Easy to install and maintain
- Highly reliable
- Without moving parts
- Possess wide rangeability from 16 ft to more than 166 ft
- Demonstrate negligible sensing errors
- Operate in explosive, corrosive and extreme environments

**Using the principle of buoyancy the *Levelese* level measuring system weighs an inert chain, secured below the fluid surface and determines the inverse of liquid level and converts it to an analog or digital electronic signal for indication, alarming or continuous or on-demand transmission.**



**Applications:**

- Open Channel Flow
- Irrigation
- Waste Water
- Boiler Feedwater Inlet Flow

**Specifications:**

**Level Ranges: 1 inch to 3 ft**  
**Ranges:**  
 0-0.5 Ft to 3 Ft.  
 Suppressed Zero Ranges

**Materials of construction: low copper powder coated Aluminum, Stainless steel**  
**Accuracy: Better than  $\pm 0.15\%$  FS**  
**Linearity: Better than 0.98% FS**  
**Hysteresis: Better than 0.03% FS**  
**Temperature range: -30 to +65°C**  
**Power required, various for application**

- 12 Vdc @22 mA for transmitters
- 117 VAC, 24 VDC w/Displays
- Rechargeable batteries

**Output/Display**

4-20 mA,  
 HART<sup>®</sup>, Fieldbus<sup>®</sup> wireless & smart transmitters, Modbus<sup>®</sup>, Ethernet<sup>®</sup>  
 Wireless  
 Linear level or characterized flow  
 Bargraph w/3 Digit Display  
 4 1/2 Digit LCD Display  
 Multi-point SCADA, Graphic

**Accessories:**

**Stream Mounting Kit**  
**Stilling Wells**  
**NEMA4 X , XP, Intrinsic Safe**  
**Flow Elements**



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## SPECIFICATIONS

**Specifications:**

Level Ranges: 1 inch to 3 ft

Ranges:

0-0.5 Ft

0-3.0 Ft

Suppressed Zero Ranges

(Absolute depth of fluid does not affect the measured range)

Materials of construction: low copper powder coated Aluminum,  
Stainless steel

Accuracy:

Level

Better than  $\pm 0.15\%$  FS

Linearity: Better than 0.98% FS

Hysteresis: Better than 0.03% FS

Flow: 1-3% depending on flow element

Temperature range: -30 to +65°C

Power required, various for application

· 12 Vdc @22 mA for transmitters

· 117 VAC, 24 VDC w/Displays

· Rechargeable batteries

Signals proportional to level or to flow

Output/Display

4-20 mA

HART, Fieldbus, hard wired or wireless  
analog & smart transmitters,

Modbus, Ethernet

Signals proportional to flow

Bargraph w/3 Digit Display

4 ½ Digit LCD Display

Multi-point SCADA, Graphic

Accessories:

Stream Mounting Kit

XP or Intrinsically Safe Certification

IS level systems,

Class I, Div 1, Groups C&D

Weir Boxes for V-Notch, Rectangular & Cippoleti weirs

### HOW TO ORDER

	Flow Element	Linearization	Body	Output	Power	IS	Mounting	Calibration	Accessories	Description
Levelese Flow Meter	0									Levelese Open Channel Flow Meter, Complete with 1-1/2" HDPE chain, 4" NPT Mounting Fitting, Low Copper Aluminum Body, Integral XP, NEMA 4 Electronics Enclosure.
										Level Accuracy: Better than $\pm 0.15\%$ FS
										Linearity: Better than 0.98% FS
										Hysteresis: Better than 0.03% FS
										Temperature Range: -30 to +65 Deg C
	1	0								V-Notch Weir, Signal proportional to Level
	1	1								V-Notch Weir, Signal Linear with flow ADD...
	2	0								Rectangular Weir, Signal Proportional to Level
	2	0								Rectangular Weir, Signal Linear with flow ADD...
	3	1								Trapezoid (Cippoleti) Weir, Signal proportional to level
	3	1								Trapezoid (Cippoleti) Weir, Signal Linear with Flow
										Temperature Range: -30 to +65 Deg C
			2							Other Materials or Pressure Ratings
			3							316 Stainless Steel Body & Parts, ADD.....
			1							PVC Body, 316 SS Chain Attachment, Viton Diaphragm Seal, Integral NEMA4X Polycarbonate Dual-Compartment Electronic Enclosure.... ADD
				0						2-Wire 4-20 Integral Analog 4-20 mA Transmitter, 12-26 VDC
				1						1200 Ohm Load Cell, 5-12 VDC Excitation, 2 mV/V Output
				2						Levelese™ MODBUS™ Transmitter...ADD
				3						HART™, FIELDBUS Smart 2-Wire Transmitter...ADD
				4						900 MH Wireless Transmitter...ADD
				5						2.4 GH Wireless Transmitter...ADD
				6						Other Output Options
				0						12-24 VDC Regulated Power Supply (by Others)
				1						117 VAC Power Supply, External, for 6 Sensors
				2						Rechargeable batteries in Enclosure on Sensor
				3						Solar Rechargeable batteries with Enclosure
								0		Standard Integrally Mounted Single Compartment Enclosure, XP for Class I, Div 2, Groups C&D
								1		NEMA4X Corrosive Service, Dual Compartment Enclosure Standard Service.... ADD
								2		XP, Dual Compartment Enclosure, for Class I, Div 2, Groups
								3		Certified XP Enclosure for Class I, Div 2, Groups B, C, D...ADD
								4		Certified XP or IS for Class I, Div1, Groups C & D...ADD
								0		Standard 4" NPT Screw Mounting
								1		Low-Pressure (150 psi) Aluminum Pipe Flange Fitting 4" Pipe Size X 9" OD...ADD
								2		Low-Pressure (150 psi) Aluminum Pipe Flange Fitting 6" Pipe Size X 9" OD...ADD
								3		Low-Pressure (150 psi) Aluminum Pipe Flange Fitting 8" Pipe Size X 9" OD...ADD
								4		Ring Collar
								5		Other Materials or Pressure Ratings
								0		2 Point Level Standard Calibration in Water
								1		3 Point Level Calibration in Water
								2		5 Point Level Calibration in Water

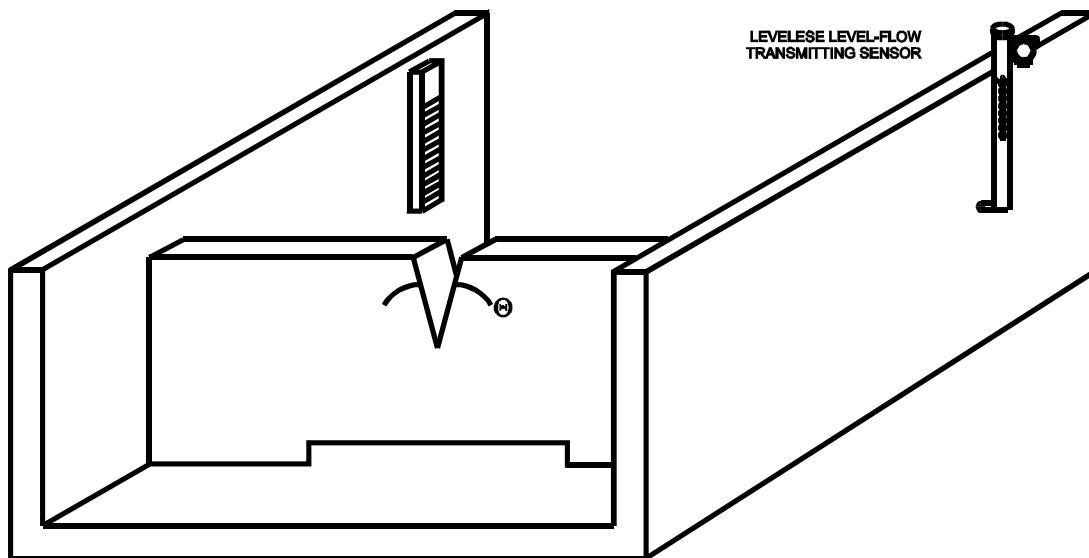


**LEVELESE Wireless Sensor & Stilling Well in Creek**

**LEVELESE, INC.**  
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NOTE: SPECIFICATIONS & DIMENSIONS SUBJECT TO CHANGE WITHOUT NOTICE

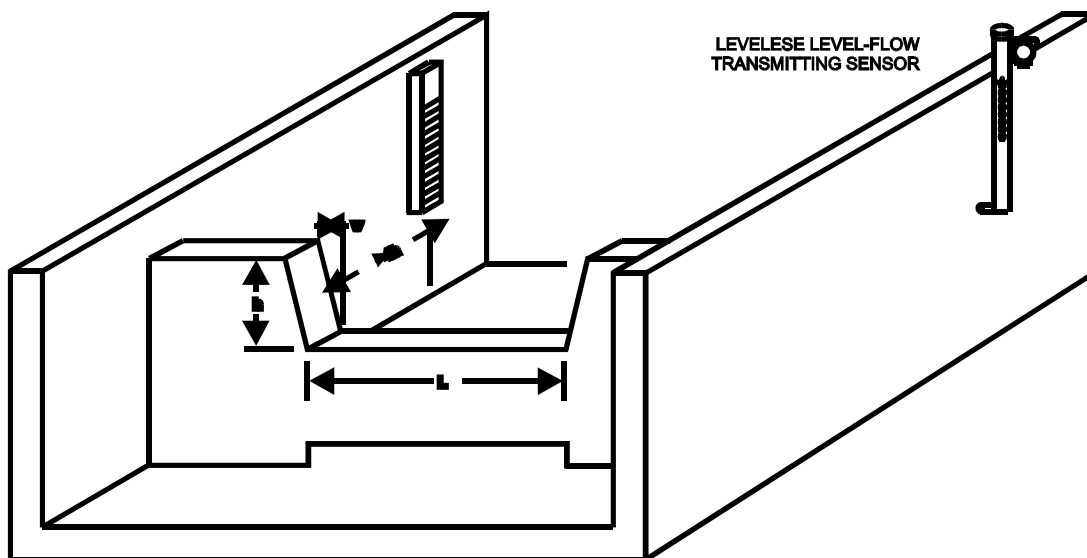
# LEVEESE OPEN CHANNEL FLOW METERS



4-20 mA, Wireless, Ethernet, Modbus, HART  
 $Q=2.48\tan(\theta/2)H^{5/2}$   $0.1<H<1'$

## NOTES:

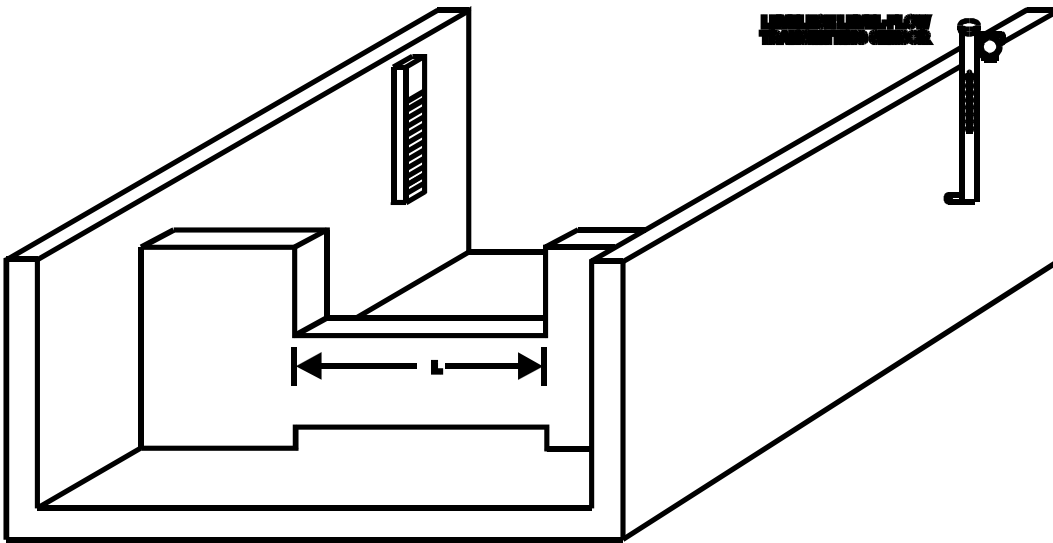
1. UNITS: Q: CFS, L, H FT
2. H IS MEASURED AT LEAST 4h FROM WEIR



4-20 mA, Wireless, Ethernet, Modbus, HART  
 $Q=3,367LH^{3/2}$ ,  $w/h=1/4$

## NOTES:

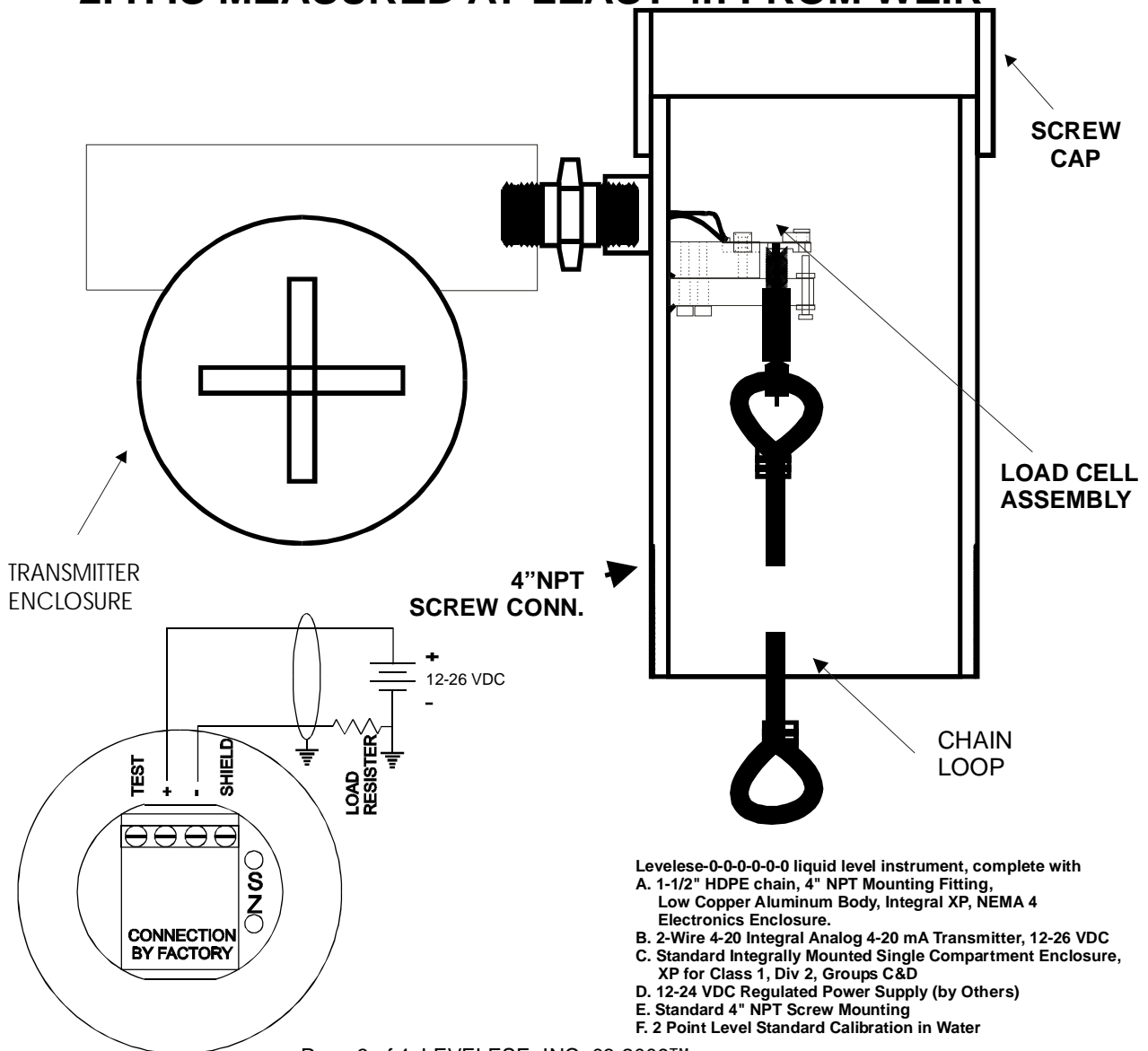
1. UNITS: Q: CFS, L, H FT
2. H IS MEASURED AT LEAST 4h FROM WEIR



4-20 mA, Wireless, Ethernet, Modbus, HART  
 $Q=3.33(L-0.2H)H^{3/2}$

**NOTES:**

1. UNITS: Q: CFS, L, H FT
2. H IS MEASURED AT LEAST 4h FROM WEIR



- Levelse-0-0-0-0-0 liquid level instrument, complete with
- A. 1-1/2" HDPE chain, 4" NPT Mounting Fitting, Low Copper Aluminum Body, Integral XP, NEMA 4 Electronics Enclosure.
- B. 2-Wire 4-20 Integral Analog 4-20 mA Transmitter, 12-26 VDC
- C. Standard Integrally Mounted Single Compartment Enclosure, XP for Class 1, Div 2, Groups C&D
- D. 12-24 VDC Regulated Power Supply (by Others)
- E. Standard 4" NPT Screw Mounting
- F. 2 Point Level Standard Calibration in Water