96CONC Conductivity/Concentration Transmitter

- **Large LCD display**
- **Friendly interface**
- **Robust enclosure**
- **Easy to use menus**
- **Multiple mounting methods**
- **Two-Wire loop power**

LECOL 96 series was designed with the user in mind.
Measurement information is easily read on the large liquid crystal display (LCD).

The graphic LCD screen can display multiple parameters simultaneously, including conductivity value, concentration value, mA output signal, temperature, Ω-cm, and smart function keys.

96 series transmitter's keypad interface is user friendly. The smart function keys can be used to navigate to three submenus: "calibrate" , "output", and " configure".

The "calibrate" submenu is for sensor and output signal calibration.
During calibration, output signal can be paused in "Output".
All measuring parameters can be set through "Configure".

4-electrode conductivity/concentration transmitter can be configure as :
Conductivity
   0~2,000,000 µS/cm
Concentration
   0~15% Sodium Hydroxide   - NaOH
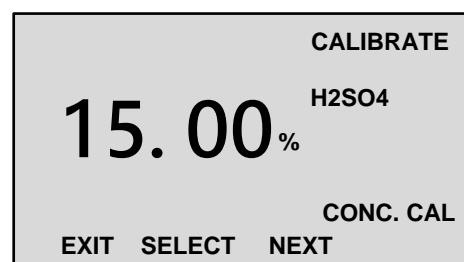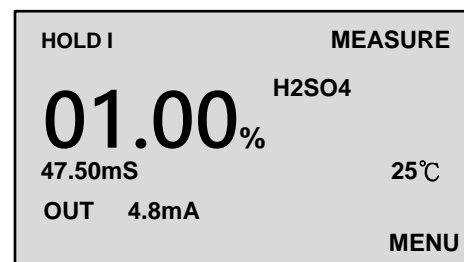   0~20% Sodium Chloride   - NaCl
   0~18% Hydrochloric Acid   - HCl
   0~20% Sulfuric Acid   - H_2SO_4
   User-defined concentration

Enclosure

The powder coated alloy housing meets NEMA 4X and IP65 requirements for use in harsh, industrial environments.
The metal housing suppresses noise and prevents the interference caused by electromagnetic environment.

Mounting Methods

Pipe, wall, and panel mounting options are available to provide flexibility in different installation scenarios.
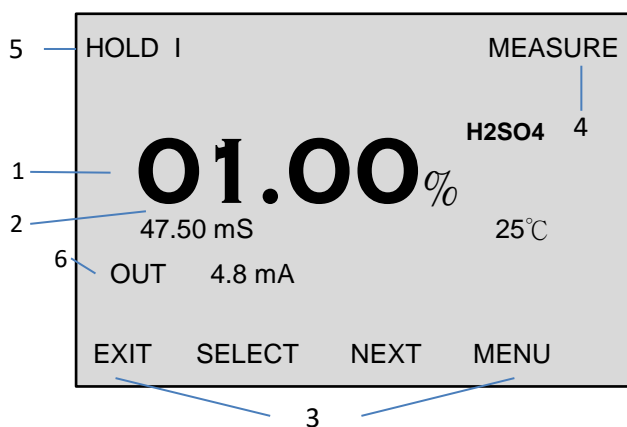
Calibration

Calibration is the process of adjusting the analyzer for accurate measurement. It can be conducted by two methods - comparison with a laboratory instrument or calibration of the sensor in a liquid standard.

Slope adjustments are easily made through a one point calibration using commonly available liquid conductivity standards.

The calibration mode provides the ability to calibrate sensor input, temperature input, and transmitter output. These functions referred to as calibrate states, include Process Variable calibration, temperature calibration, edit calibration, reset calibration, and output calibration.

Main screen displays

1. **Main display**	– Display of primary measurement
2. **Minor display**	– Additional measurements
3. **Function keys**	– Select submenus: Calibrate Output Configure
4. **Current mode**	– Mode in use
5. **Hold Output**	– Manual hold output at a specific value.
6. **Analog Output**	– Analog output value

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96CONC TWO-WIRE COND TRANSMITTER

Selection Keys

There are four selection keys under the screen – EXIT, SELECT, NEXT, MENU. Use the selection keys to:

1. EXIT: To quit, cancel the function
2. SELECT: To select measurement function
3. NEXT: To continue the setting process
4. MENU: To select different measurement modes: calibration mode, output mode, and configuration mode

Specifications

Type
    Two-Wire conductivity/concentration transmitter
Display
    240*128 dots graphic LCD display
Supply voltage
    12~24 VDC, loop power
Power consumption
    0.6W Maximum
Input range
    0~2,000,000 µS/cm
    0~15% NaOH
    0~20% NaCl
    0~18% HCl
    0~20% H_2SO_4
    User-defined concentration
Display resolution
    1 µs/cm, 0.1%, 1 minimum display unit
Accuracy
    +/- 2% of F.S.
    +/- 1 °C
Temperature compensation
    Manual, Automatic STD KCl,
    0~15% NaOH,   0~20% NaCl
    0~18% HCl,   0~20% H_2SO_4
Temperature sensor types
    3kΩ Balco / PT100 / PT1000
Analog output
    Isolated 4~20mA current output
Configurable conductivity range
    0~200µS/cm, 0~2,000,000 µS/cm

Configurable concentration range
    Any type of concentration range
Minimum span
    100 µS/cm for conductivity
    1% of concentration range
Lower display
    Temperature, resistivity(conductivity), current output
Environmental
    Operating temperature :   -10 ~ 50 °C
    Storage temperature   :   -20 ~ 70 °C
    Operating humidity   :   95% RH
    Storage humidity   :   95% RH
Enclosure
    NEMA 4X and IP65
    Aluminum alloy with polyester powder coating
Mounting
    Panel, wall, pipe, and pipe mounting with weather shield
Certification
    Low Voltage Directive2014/35/EU, EN61010-1:2010
    Electromagnetic Compatibility Directive 2014/30/EU EN 61326-1:2013 CE marked
Dimensions
    Size :   144*144*177mm (H*W*D)
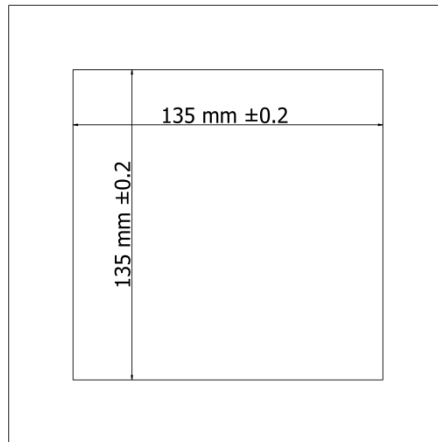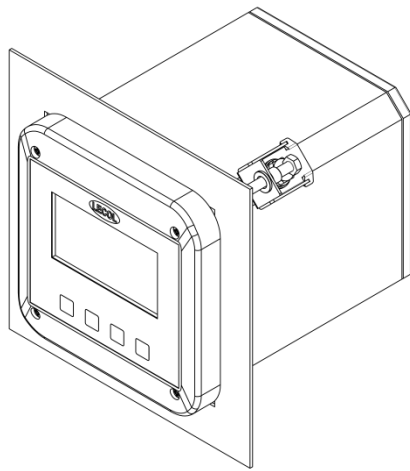   Panel cut : 135*135(±0.2) mm
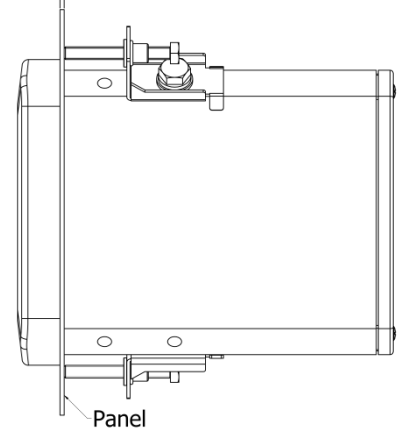Weight
    2.2 kg
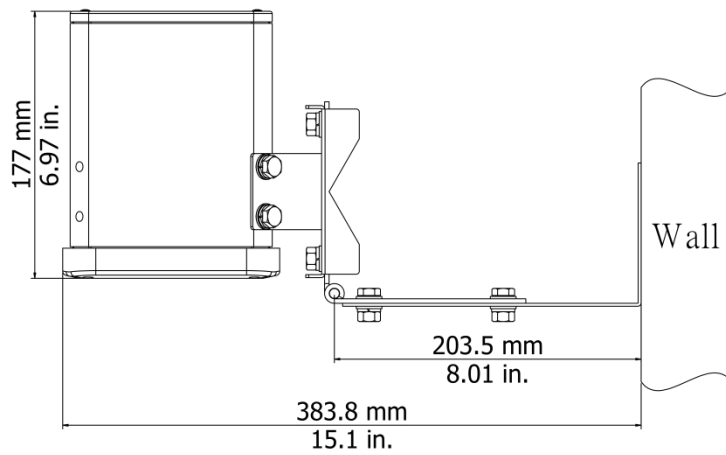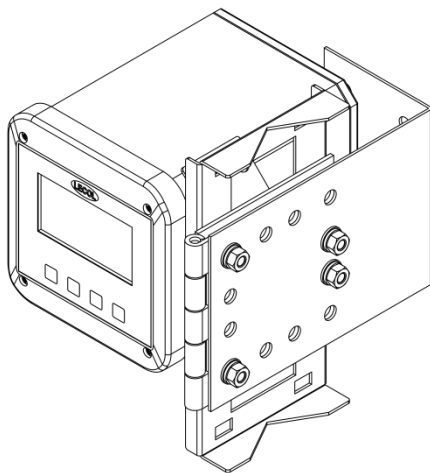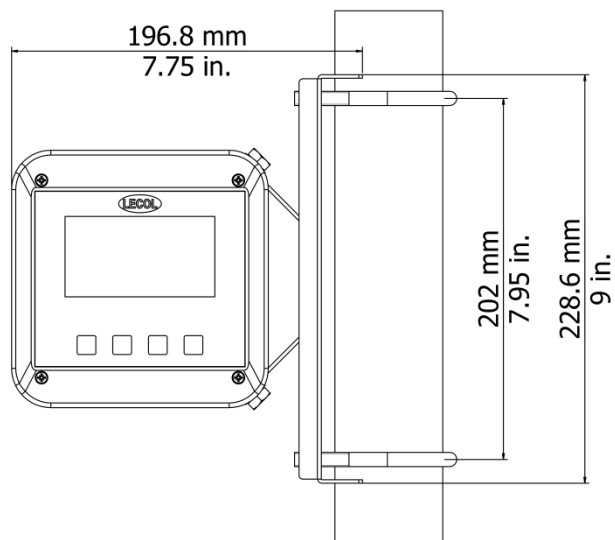   3 kg with pipe mounting kits

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Mounting types

Panel mounting

135 mm ±0.2

135 mm ±0.2

20mm(0.79 in.) max. panel thickness

Panel

Wall mounting

177 mm
6.97 in.

Wall

203.5 mm
8.01 in.

383.8 mm
15.1 in.

Pipe mounting

196.8 mm
7.75 in.

202 mm
7.95 in.

228.6 mm
9 in.

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Pipe mounting with weather shield

201.9 mm
7.95 in.

169.4 mm
6.67 in.

260 mm
10.24 in.

202mm
7.95 in.

228.6 mm
9 in.

Dimensions

144 mm
5.67 in.

144 mm
5.67 in.

158.5 mm
6.24 in.

□134 mm
□5.28 in.

177 mm
6.97 in.
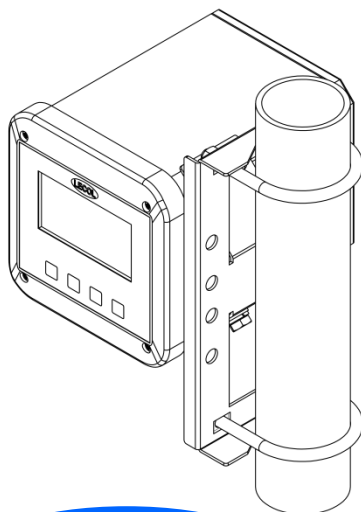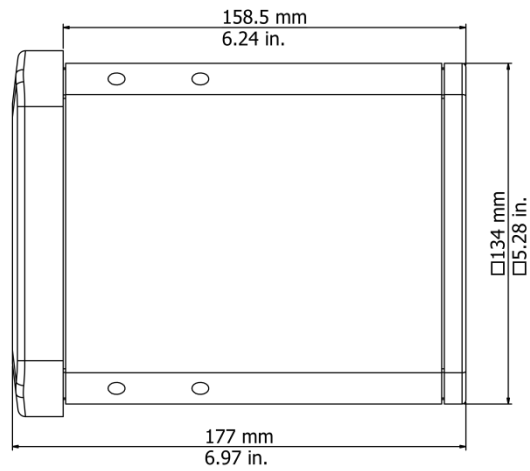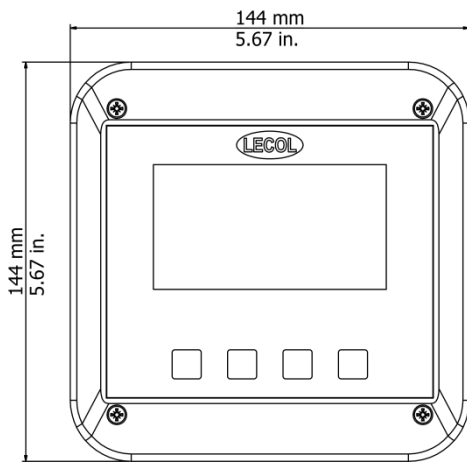
Electrical & sensor wiring

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96 CONC

SENSOR CONNECTIONS

1 DRIVE
2 SENSE
3 SENSE
4 DRIVE
5 T.C.+
6 T.C.-
7 SHIELD
8 GND.
9

POWER/OUTPUT
CONNECTIONS

+ SIGNAL
− POWER
+ AMMETER
− TERMINAL

1 + 12~24 VDC POWER
2 − /4~20mA
3
4

CONC sensor

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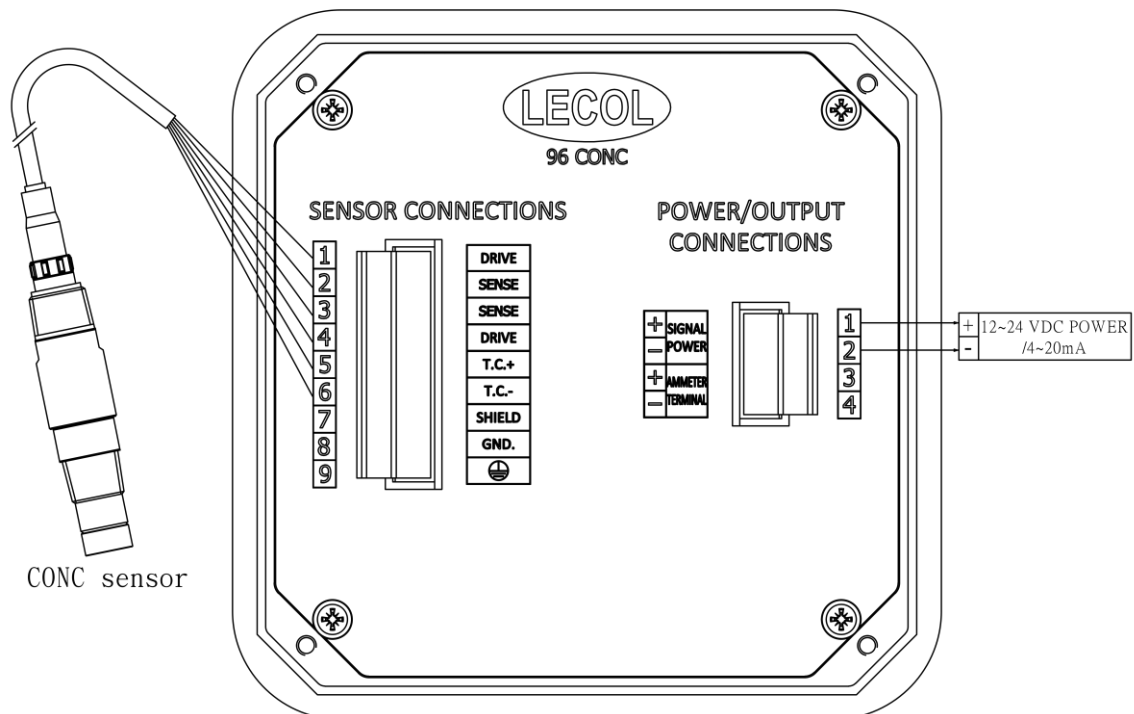
Ordering information

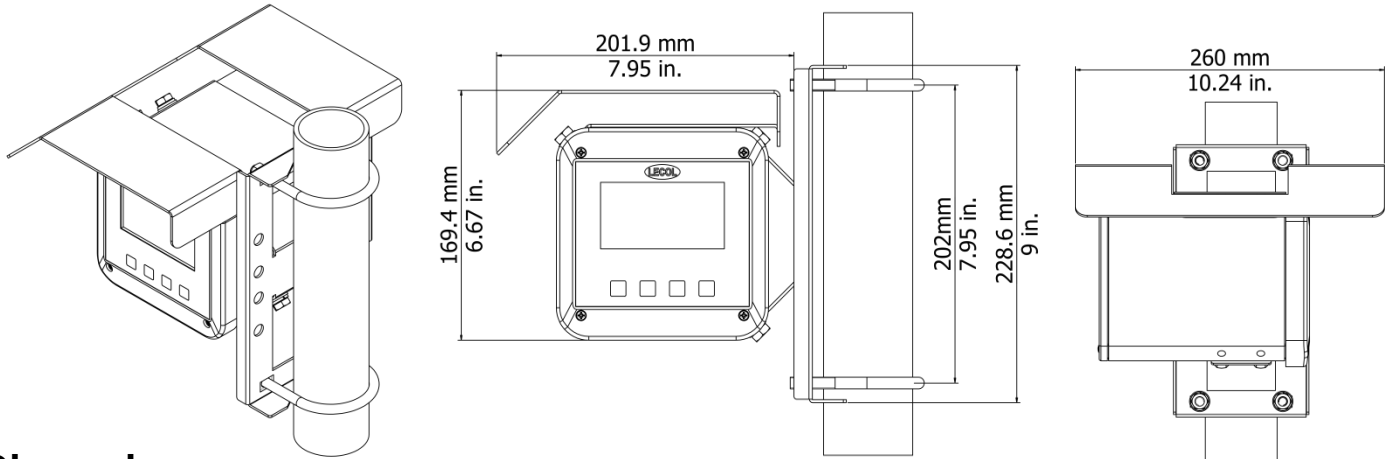| Two-Wire Conductivity/Concentration Transmitter Model : 96CONC	(_)	(_)	(_)	(_)	(_)
A **Programming options** 0 Basic 1 Advanced	(A)				
B **Mounting type** 0 Panel mounting 1 Wall mounting 2 Pipe mounting 3 Pipe mounting with weather shield		(B)			
C **Instruction manual** 0 Chinese (traditional) 1 English			(C)		
D **Others** 0 None 1 Cable glands 2 S.S. electrical adaptor -1/2" NPT				(D)	
E **Identification Tag** 0 None 1 Stainless Steel					(E)

*LECOL reserve the right to make technical changes or modify the contents of this document without prior notice.