



ChannelFlo™ OCRA

RADAR OPEN CHANNEL FLOW METER



Description

The ChannelFlo™ OCRA Radar Open Channel Flow Meter is an all-in-one solution preconfigured for open channel flow. The OCRA is able to provide accurate measurements in a wide variety of applications such as small streams, sewers, large rivers, V-notch weirs and flumes. Our technology allows precision continuous measurement that allows the user to monitor remotely at the convenience of a PC or locally at the display. All of our ChannelFlo™ systems are calibrated for your specific application prior to leaving our factory for easy setup and installation in the field. In an Open Channel application it is very important to have a quality, durable and accurate level measurement sensor. Our Tracer Air™ Radar Level Transmitter measures up to 98 feet, has no moving parts, and is able to measure solids or liquids. The next component in the OCRA is an intuitive, reliable monitoring device. Our CONNEX 3D™ is a high performance, industrial grade analog I/O device with a digital communications that offers flexibility, reliability and affordability on a DIN mount platform. The CONNEX 3D™ is supplied with a remote monitoring software that has the capability to remotely monitor, receive e-mail alerts, data log and much more. If you require pump control the eXmod™ Relay Expansion module is recommended. The eXmod connects to the CONNEX 3D™ via RS-485 serial communication (4-wire) and provides a 10 AMP AC/DC rated relay to maximize the systems capabilities.

Application Photo



Features & Benefits

- Small antenna size, non-contact radar, rugged design
- Pre-calibrated for easy installation and setup
- No moving parts
- Measures solids or liquids
- Ideal for difficult level measurement applications such as vapor, steam, pressure, change of temperature, dust and foam.
- High SNR, even in the case of fluctuations results in accurate performance
- High frequency, the best choice to measure solids and low dielectric media

Technology

The Tracer Air™ radar level transmitter features through the air technology which emits narrow microwave pulses down the cone shaped antenna. The microwave signal comes in contact with the measured medium surface and reflects back to the antenna. The signal is transmitted to the electronic circuit and partly converts to level signals (as microwave featured with high propagation speed, it is almost instantaneous for the electromagnetic waves to reach the target and return to the receiver).

NON-CONTACT RADAR LEVEL TRANSMITTER

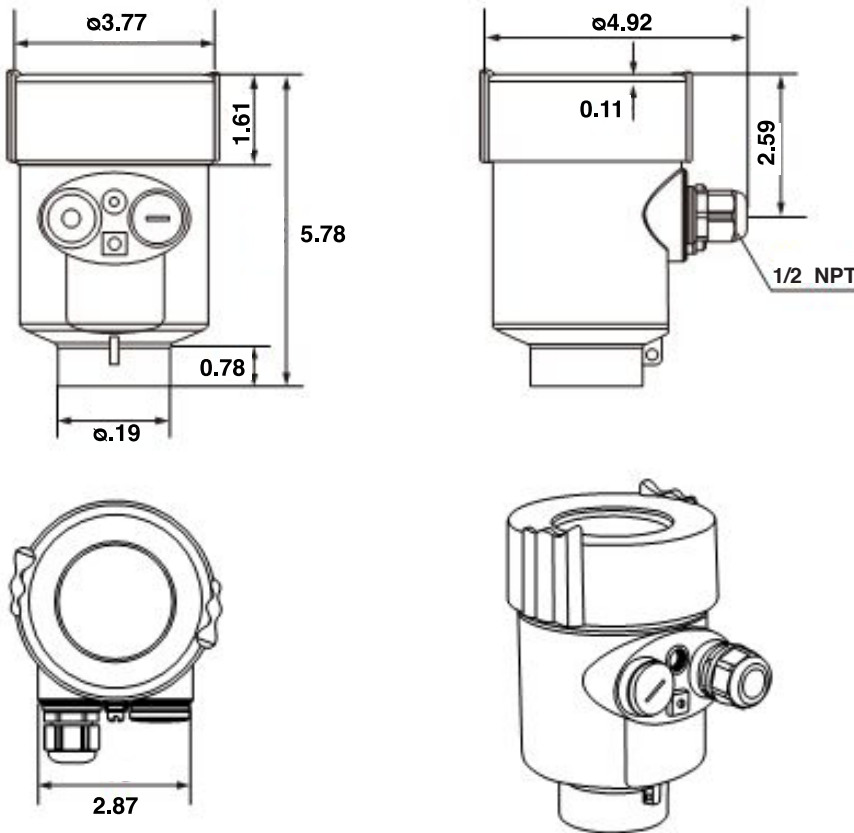
1 Tracer Air™ Specifications



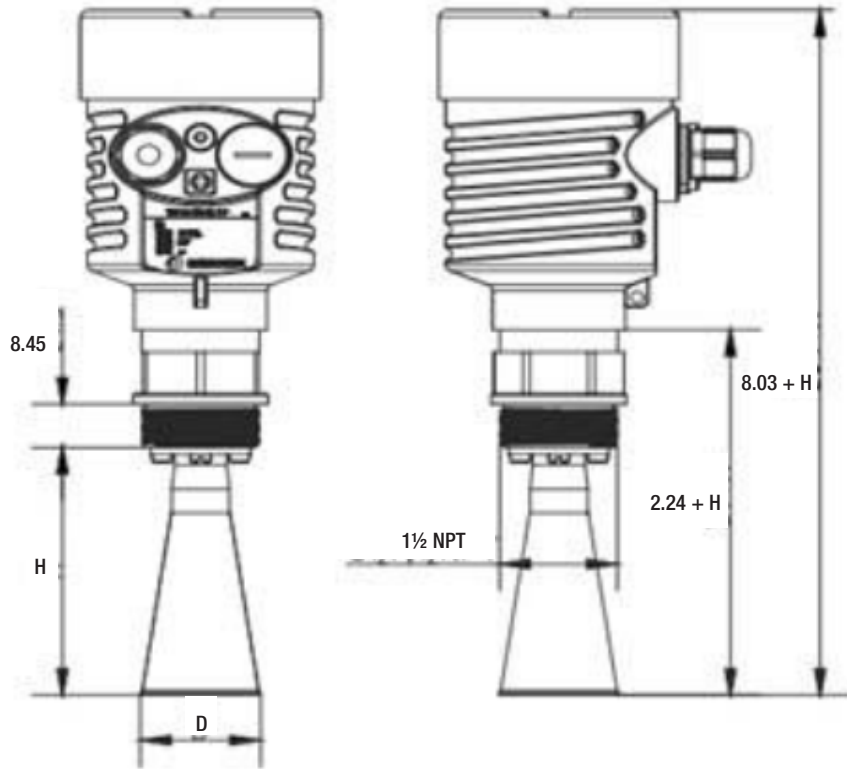
Measuring Range	SS 304: 98 feet (30 meters) PTFE: 65 feet (20 meters)	Process Pressure	-0.1 ~ 4.0 Mpa
Process Connection	1½ NPT	Frequency Range	26GHz
Antenna Material	SS 304 or PTFE	Signal Output	4-20mA / HART@(Two-wire / Four) RS485/ Modbus
Accuracy	±0.1in	Cable Entry	1/2 NPT
Application Temperature	-40°F to 482°F (-40°C to 250°C)	Hazardous Location	Intrinsically safe (Exia IIC T6 Ga)

Specifications are subject to change without notice.

ENCLOSURE DIMENSIONS

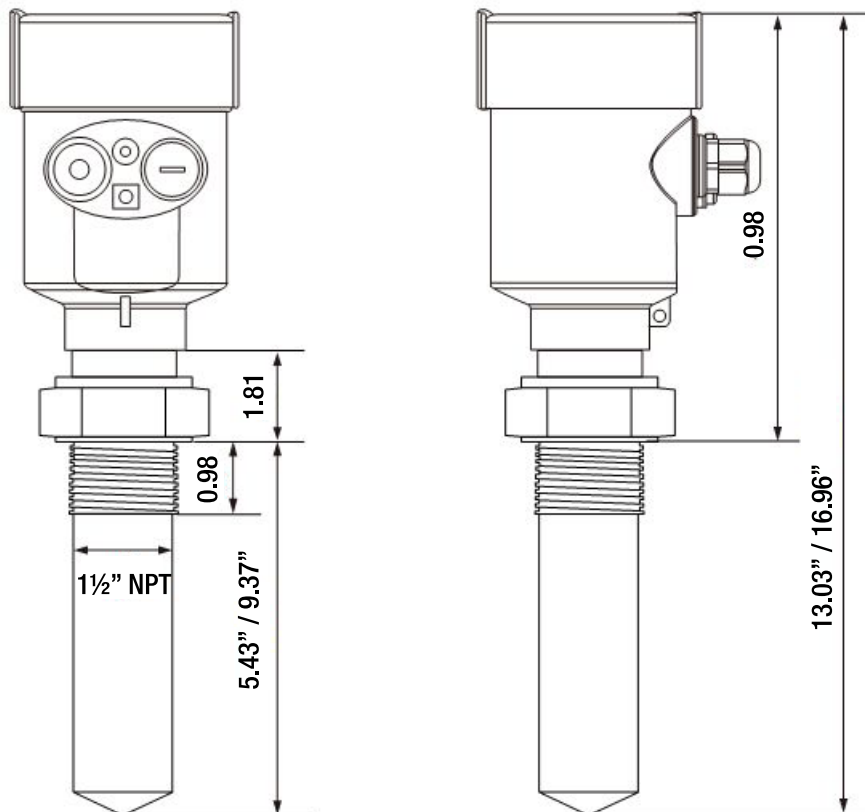


STAINLESS STEEL 304 ANTENNA DIMENSIONS (IN)



FLANGE	D: Horn Mouth Diameter	H: Horn Height
F2	1.81	5.51
F3	2.99	8.93
F4	3.77	11.33

PTFE ANTENNA DIMENSIONS (IN)



LOCAL AND/OR REMOTE MONITOR

2

CONNEX 3D™ Specifications



Display Type	6-digit, Red LED
Display Units	Engineering
Decimal Point	Up to 5 places
Display Output	-99999 to 999999
Status Indicators	(1) Totalizer, Yellow LED (4) Relay, Red LED
Display Height	0.6" (15 mm)
Over Range	Display flashes HIGH and Max. Display Value
Under Range	Display flashes LOW and Min. Display Value
User Interface	Four touch screen buttons or DigaLink PC Windows® Software
Display Refresh Rate	Once Per Second (1/s)
Password	Programmable, restricts modification of settings
Operating Temperature	F: 32° to 140° C: 0° to 60°
Storage Temperature	F: -40° to 185° C: -40° to 85°
Relative Humidity	0 to 90° non-condensing
Accuracy	±0.1% of calibrated span ± count
Temperature Drift	0.005% of calibrated span/°C max from 0 to 65°C ambient; 0.01% of calibrated span/°C max from -40 to 0° C ambient
Supply Voltage	AC Supply: 90-265 VAC @ 50-60 Hz, 15W Max. DC Supply: 12-28 VDC @ 0.5A (Fuse protected via 0.5A slow blow)
Transmitter Power	120 mA @ 24 VDC 24 VDC for AC powered units; For DC powered units, supply voltage equals the DC input voltage
Pulse Input	1 to 24 VDC, 1 to 3000 Hz
Frequency Input	125 mV to 12 VAC, 1 to 30 KHz
Digital Input	Remote total reset
Analog Input	4-20 mA current loop, 0-5 VDC, 1-5 VDC, 0-10 VDC
Analog Output	Isolated 4-20 mA current loop

Connection	Removable screw terminal Accepts 12-22 AWG Wire
Enclosure Type	Panel or Field Mount Models
Field Mount Enclosure Rating	NEMA 4X, NEMA 7 or General Purpose
Enclosure Material	Polycarbonate
Classification	General Purpose
COMMUNICATIONS	
Serial Port	RS-485, Screw Terminal
Ethernet Port	10/100 Base-T (RJ-45)

Note: Specifications subject to change

OPTION FOR PUMP CONTROL

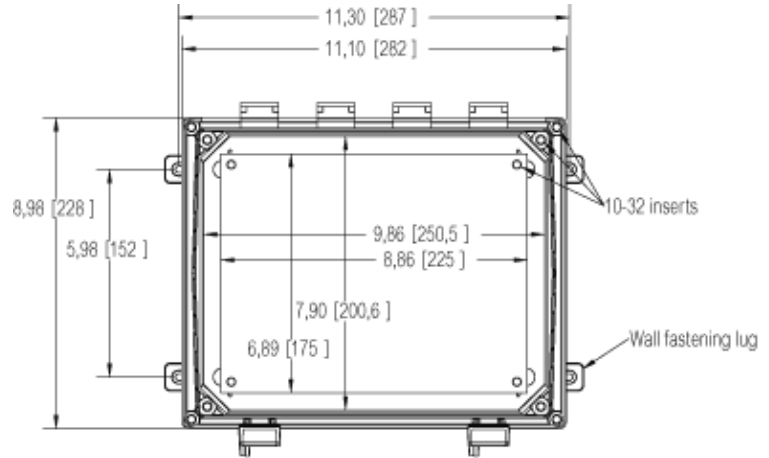
eXmod™ Specifications



Status Indicators	(4) Red LED Relay Indicators
User Interface	4 internal DIP Switches Used To Select ModBus® Address
Contact Form	SPDT
Relay Rating	5A @ 28 VDC; 5A @ 120/240 VDC at Max Ambient Temperature; NO Contact Rated at 10A @ 20°C
Operating Temperature	F: -40° to 149° C: -40° to 85°
Storage Temperature	F: -40° to 149° C: -40° to 85°
Relative Humidity	0-90%, non-condensing
Supply Voltage	12-24 VDC
Connection	Removable Screw Terminal; Accepts 12-22 AWG Wire
Enclosure Type	Field Mount
Enclosure Rating	NEMA 4X (IP65)
Enclosure Material	Polycarbonate
Classification	General Purpose

Specifications are subject to change without notice.

Dimensions Inches (mm)



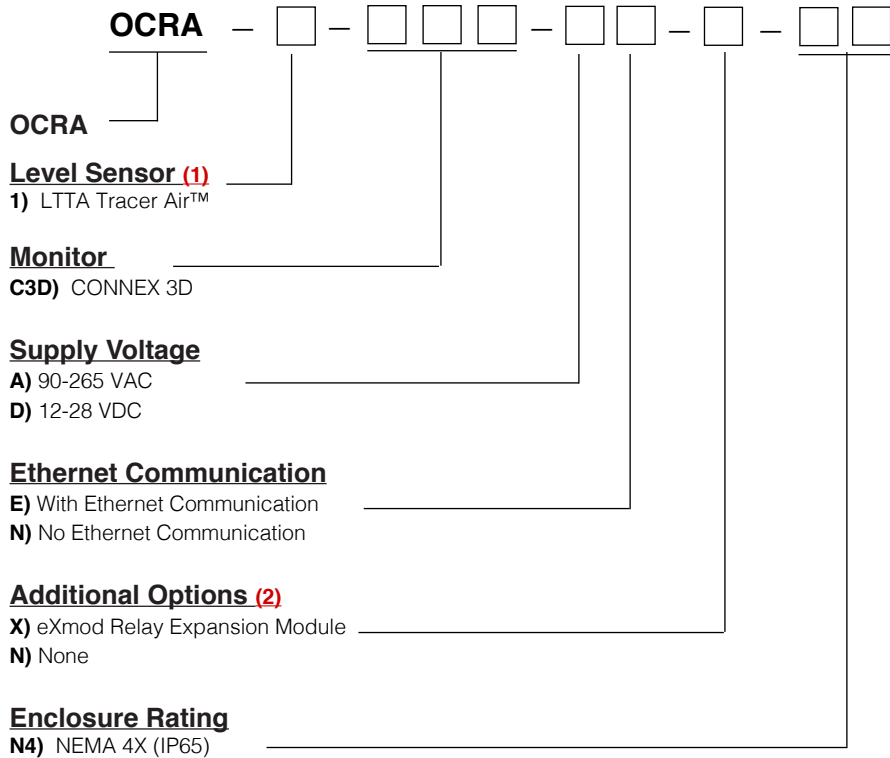
ORDERING INFORMATION

FLO-CORP MODEL NUMBER BUILDER

For Assistance Call **877.356.5463**

Use the diagram below, working from left to right to construct your FLO-CORP Model Number. Simply match the category number to the corresponding box number.

Example: OCRA-1-C3D-AE-X-N4 ChannelFlo™ OCRA Radar Open Channel Flow Meter with 90-265 VAC Supply Voltage, Ethernet Communication with exmod relay expansion module in a NEMA 4X Enclosure.



Ordering Notes:

- (1) Select the best configuration based on your requirements.
- (2) The eXmod is recommended for pump control

Maximize Performance

DigaLink™ E-mail Alerts Configuration & Monitoring Software

DigaLink™ 3.0 is FLO-CORP's unique Alarm, Configuration and Monitoring Software. This enables users to receive e-mail alerts, configure, and remotely monitor from the convenience of their PC. DigaLink is unique in its communication protocol that utilizes both TCP/IP Ethernet communication and Modbus/RS485 serial communication simultaneously. This advanced software features e-mail alerts, display configuration, datalogging and real-time monitoring from unlimited devices. With DigaLink you can easily setup, monitor and receive e-mail alerts from practically anywhere.