

# Dynatrol®

## INTERFACE LEVEL DETECTOR FOR SOLIDS IN LIQUIDS

The TYPE CL-10DJI DYNATROL® INTERFACE LEVEL DETECTOR has the unique ability to detect the phase change interface occurring between:

- 1) a liquid and a settled bed of solids,
- 2) a liquid and a floating bed of solids, or
- 3) the liquid phases of products having significantly different viscosities.



### ADVANTAGES:

#### Versatile

This Dynatrol® control is used to detect the interface levels that exist between liquids and settled solids. Typical applications include water/carbon interfaces, water/sand interfaces, liquid/catalyst interfaces as well as those that occur in steeping processes.

#### Simple

All components of the Dynatrol® Interface Detector are constructed for a long operating life and require no field adjustments.

### PRINCIPLE OF OPERATION:

The Dynatrol® Interface Detector is a vibrating probe installed through the wall of a tank or vessel at the point of desired interface detection.

While the probe is projecting into the liquid upper phase, it is driven into self-sustained mechanical oscillations. These oscillations produce a signal indicating the probe is not covered by the settled bed of solids.

However, when the solid materials rise to cover it, the probe's oscillations are dampened. This changed output signal indicates the probe is covered by the floating or settled bed of solids.

The ON/OFF signal from the Dynatrol Interface Detector operates an SPDT relay within the Model EC-501 A Control Unit. These contacts can be configured on-site to actuate alarms, indicator lights or other related process-control equipment.

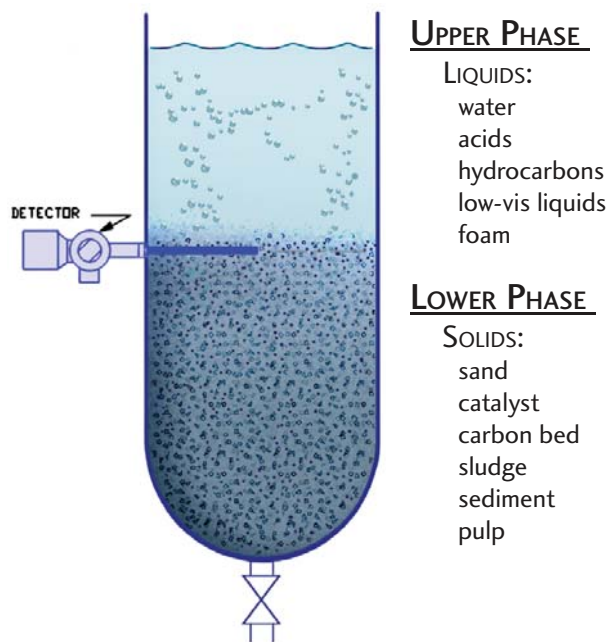
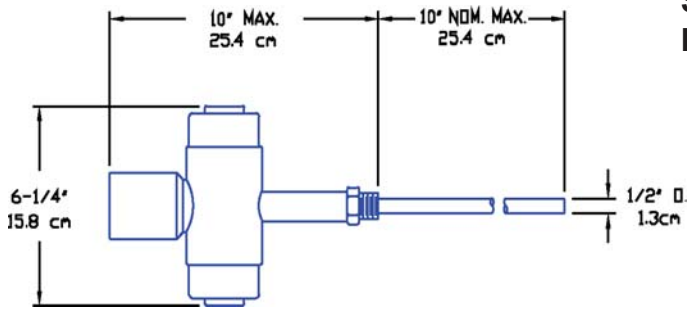


ILLUSTRATION showing the Dynatrol® DJI being used to detect the phase change within a process tank.

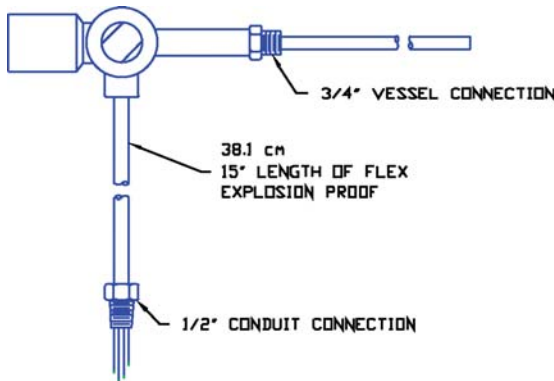
# DYNATROL® DJI INTERFACE



## SPECIFICATIONS:

### DYNATROL® DETECTOR, Type CL-10DJI

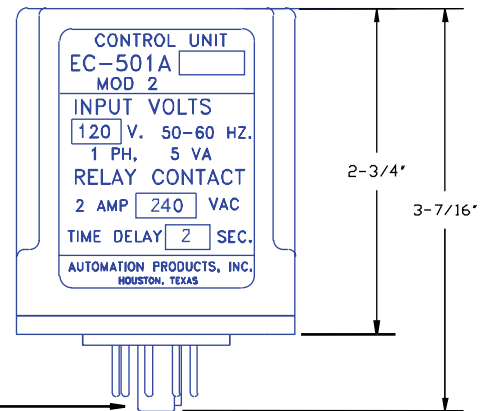
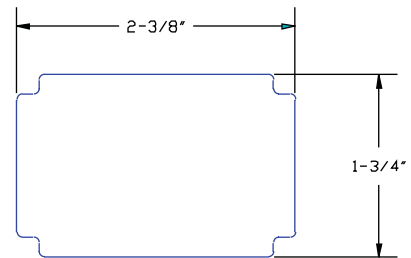
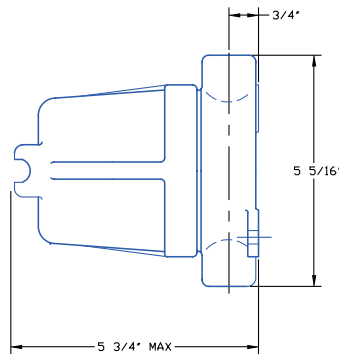
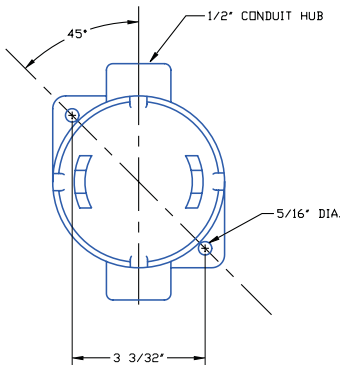
- Explosion Proof: Class I, Groups C&D, Div.1
- Temperature Rating: 300°F standard  
(High-Temp construction available)
- Pressure Rating: 1000 PSIG @ 100°F
- Pressure Connection: 3/4" NPT
- Conduit Connection: 1/2" NPT
- Material: Stainless Steel  
(other metals available)



### EC-501A CONTROL UNIT

- Solid State Circuitry
- Explosion Proof: CSA NRTL/C approved  
for Class I, Group D, Div.1
- Voltage Supply (Nominal): 120 V, 50-60Hz  
(also available in 240VAC and 24VDC)
- Power Consumption: 5VA
- Temperature Rating: 125°F Maximum
- Contacts: SPDT 2A @ 120VAC
- Non-Inductive

## EC-501 A CONTROL UNIT



## AUTOMATION PRODUCTS, INC.

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