

# Dynatrol®

## LEVEL SWITCH

### SEALED & SUSPENDED



#### GENERAL:

The Type CL-10DJ Sealed and Suspended Dynatrol® Detector is designed for high point level detection of bulk solids. For problem applications, such as those associated with angle-of-repose, this configuration provides reliable operation in hard to reach locations.

#### PRINCIPLE OF OPERATION:

The Dynatrol® Detector is suspended to the point of desired level detection. When the probe is uncovered, the drive coil drives the rod into a self-sustained mechanical oscillations at the natural resonant frequency of the rod. The pick-up coil, located opposite to the drive coil, is excited by these mechanical oscillations and produces an a-c signal voltage. This signal voltage indicates the rod is uncovered that a low level exists.

When the process media covers the rod, a dampening of the rod oscillations occurs. Consequently, the magnitude of the rod oscillations are greatly reduced and the output from the pick-up coil drops to a very low value, indicating that the rod is covered - that a high level exists.

The On/Off signal from the Dynatrol® Detector operates a SPDT relay in the

EC-501A Control Unit. The contacts of this relay can be used to actuate alarms, indicator lights or process control equipment.

#### ADVANTAGES:

##### Versatile

The sealed and suspended construction is available for the DJ and G-Series Dynatrol® Detectors.

##### No Adjustment Required

All components have been constructed for long operating-life and require no field adjustments.

#### SPECIFICATIONS:

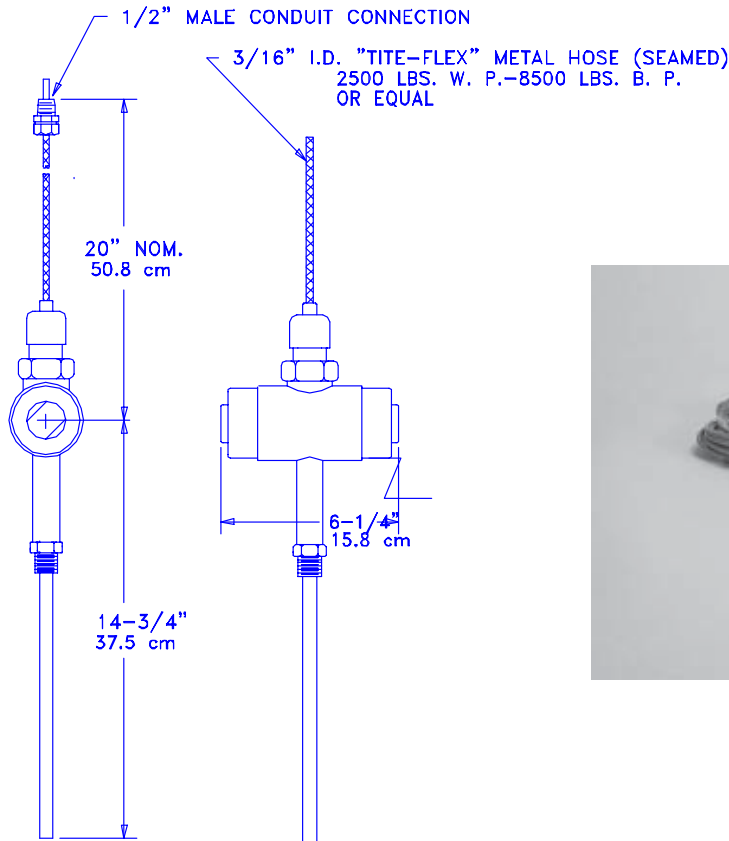
##### DYNATROL® DETECTOR, Type CL-10DJ SEALED AND SUSPENDED

- CSA/NRTL/C Rated Explosion Proof: Class 1, Group D, Division 1
- Temperature Ratings to 350°F
- Pressure Connection: ¾" NPT
- Conduit Connection: ½" NPT

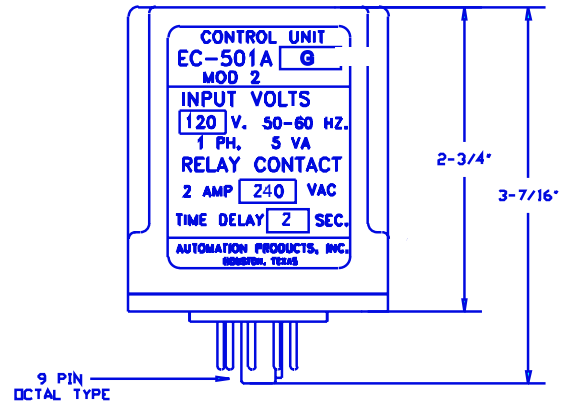
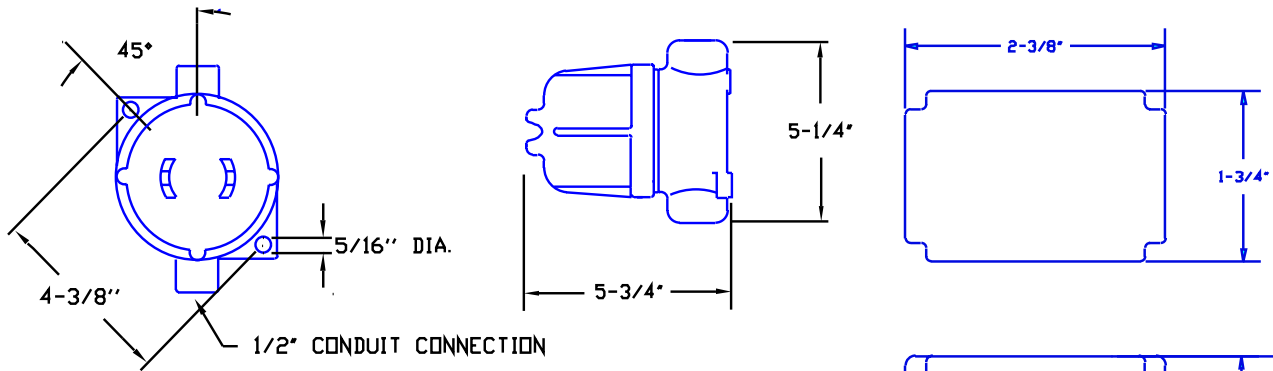
##### EC-501A CONTROL UNIT

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

# DYNATROL® LEVEL DETECTOR - SEALED & SUSPENDED



## EC-501 A CONTROL UNIT



**AUTOMATION PRODUCTS, INC.**

3030 MAXROY STREET HOUSTON, TEXAS 77008

PHONE

(713)869-0361

www.DynatrolUSA.com

FAX

(713)869-7332