

# YUTECH INFRA RED LEVEL SENSING AND TRANSMISSION SYSTEM

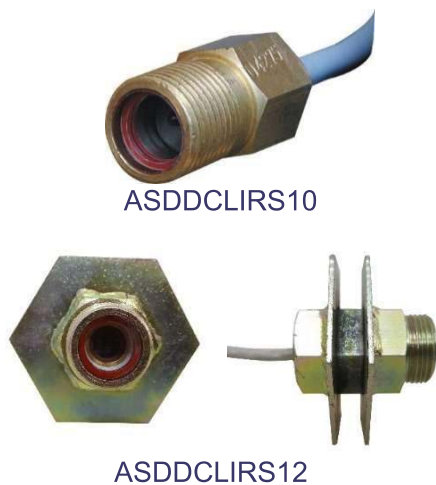
## FOR BOILER BAGASSE SILO

BASED ON YUTECH'S A15 INTELLIGENT ANALYZERS AND SYSTEMS PLATFORM

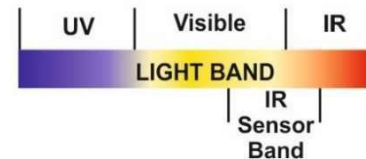


**YUTECH**

## YUTECH INFRA RED LEVEL SENSING AND TRANSMISSION SYSTEM FOR BOILER BAGASSE SILO



IR Sensor's Light Sensing Band for IR Type Donnelly Chute Level Sensors



### YUTECH INFRA RED LEVEL SENSORS:

- YUTECH invented this Technique in 1986
- 100% True Donnelly Chute Level Detection
- No False Indications due to Bagasse Powder
- No False Indications due to Cane Pieces
- No False Indications due to Juice Mist, Water Mist, Sticky Juice Residues, Juice Films and Dirt, Bagasse Powder & Juice Mix formed on the Donnelly Chute Walls
- True Chute Level Detection leads to Excellent Control
- Water Ingress and Dirt Proof
- YUTECH IR Sensors have Built-in Raining Bagasse Compensation and easily Sense Level through Raining Bagasse and Juice Moisture
- Infra Red Light known for Deep Penetration and used in Military Applications for Night Vision, Medical Applications like Deep Fomentation hence the choice of IR for this Critical Application.
- 500+ Sugar Mills use YUTECH IR Sensors in India, Asia Pacific and African Regions
- **ASDDCLIRS10:** Use for Level Sensing before Maceration Water is applied.
- **ASDDCLIRS12:** Use for Level Sensing after Maceration Water is applied. It is the High Temperature variant which can withstand Operating Temperatures up to 100-degree C.

### Product Codes for various Sensor Combinations are as below:

- A15BSAACIR4C1R4FM (4 Level System)
- A15BSAACIR6C1R6FM (6 Level System)
- A15BSAACIR8C1R8FM (8 Level System)
- A15BSAACIR10C1R10FM (10 Level System)
- A15BSAACIR12C1R12FM (12 Level System)
- A15BSAACIR16C1R16FM (16 Level System)



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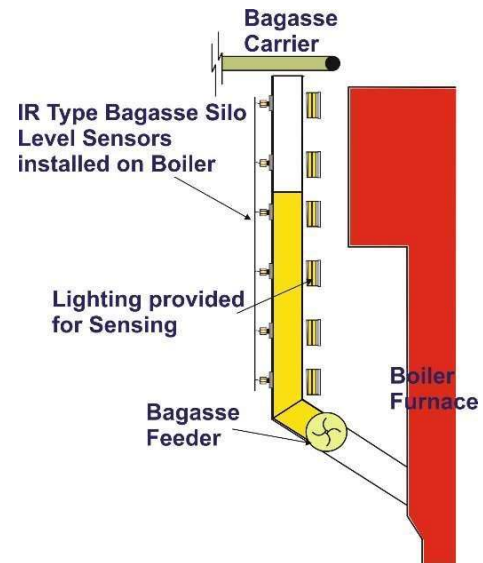
### INFRA RED LEVEL SENSOR INSTALLATION ON BOILER BAGASSE SILO: SCHEMATIC DIAGRAM AND INSTALLATION PICTURE

Sensor Mounting Plate welded on the Chute / Silo. Please see Operating Instructions for Installation Procedure and Guidance.

Proper Bagasse Silo Level Sensing Results in Continuous and Maintained Fuel Feeding to Boiler and avoids Silo overflow / choking



Infra Red Level Sensor Installation on Donnelly Chute



### Innovative Features for Ease of Operation and to save on Installation Cost and Materials:

- **Built-in Raining Bagasse Compensation:** to Accurately Sense, Analyze, Calculate and Derive Accurate Chute Level within a very challenging environment of Residual Juice Dirt, Sticky Bagasse Dust and Vibration
- **Built-in Controller (Optional):**  
Highly Accurate Fuzzy Logic Controller developed especially for Carrier and Mill Speed Control Applications.
- **Built-in 3-Point Auto/Manual Station to Select Control Output from (Optional):**
  - a. Selector Switch for Local PID Output or DCS/PLC PID Output
  - b. Manual Output for Trouble Shooting

This feature simplifies installation by eliminating need for installing a Junction Box and Extra wiring.

### TECHNICAL SPECIFICATIONS:

- **Power Supply:** 85 - 265 VAC, 50 – 60Hz
- **Analyzer Enclosure:** IP67 Field Mounted Dust and Moisture Proof
- **Input:**
  - IR Sensor Signals
- **Calibration can be done from :**
  - **Keyboard:** Keyboard with 5 Keys is provided in the Analyzer
  - **USB Port:** for Windows / Android based YUTECH-AccessApp
- **Display:** 4 Digit LED Dual Display, LED
- **Signal Output:**
  - 4 - 20 mA Processed Measured or Analyzed Variable Output
  - 4 - 20 mA Controller Output (Optional)
    - This Output can be Configured as below:
      - PID Output
      - Scaled Output
      - PID / Scaled Output can be selected by C2P or C2S in the Product Code.
    - Potential-Free Relay Output for each Sensor Input
    - Ethernet Communication Protocol: Modbus-TCPIP
      - Modbus TCPIP Communication can be selected by adding suffix EM to the Product Code this is available only in the Controller Model.

FOR MORE DETAILS PLEASE SEE THE PRESENTATION ON OUR WEBSITE [www.yutechautomation.com](http://www.yutechautomation.com).

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