

# BRIX ANALYZER (HIGH-FREQUENCY BRIX ANALYZER) AND AUTO-RETRACTABLE SELF-CLEANING BRIX SENSOR



**BRIX ANALYZER**



**BRIX SENSOR**



**BRIX ANALYZER  
CONTROLLER**

Brix Analyzer and Sensor combination targets sensing of Suspended Solid Content (Brix) in Slurries or Syrups like Sugar Masecuite, Sugar Syrup, Sugar Melt and Molasses. Brix Analyzer plays a crucial role in Sugar Process Automation and helps in Stabilizing the overall Sugar Process.

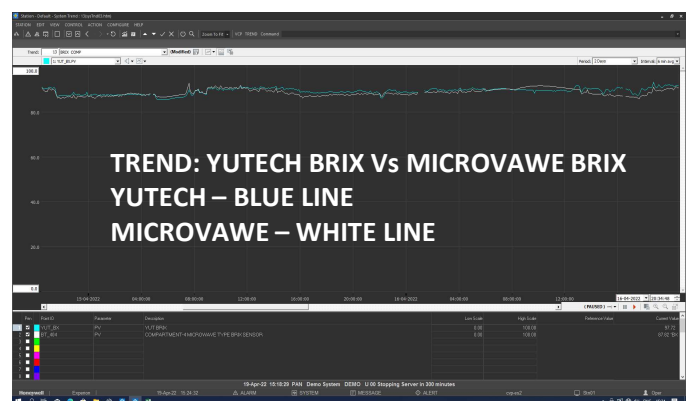
The YUTECH Intelligent Programmable Brix Analyzer is a State-of-the-Art System having Built-in Fuzzy Logic for Automatic Purity Compensation to Accurately Sense, Analyze, Calculate and Derive Masecuite Brix within a Band of varying Purity with Temperature Compensation. This Logic is called Brix Equation and it results in accurate Brix Sensing.

The YUTECH Brix Sensor is Auto-Retractable Self-Cleaning and Self-Washing Brix Sensor. This technique prevents Media Deposits on Sensor Electrode thus always results in Accurate Readings.

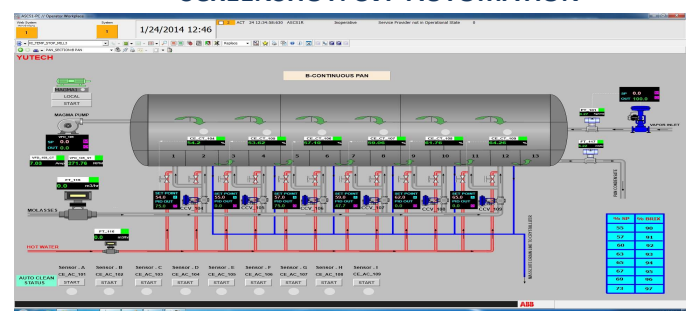
Accurate Brix reading ensures better Process Control and helps to maintain constant Masecuite / Melt / Molasses / Syrup Quality and Steam / Vapour Requirement thus results in Higher Sugar Production Efficiency and Minimum Process Losses.

## SALIENT FEATURES:

- The Brix Sensor Detects Deviation in Electric Signal with respect to changes in the Brix of a Solution whose Brix is to be measured
- This Signal Deviation is then Processed in the Analyzer to obtain a Brix Reading
- YUTECH Brix Analyzer is equipped with Intelligent Auto Purity Compensation Algorithm to derive the Brix accurately in Masecutes of varying Purity
- Very Easy Calibration and Online Brix Compensation Recalibration
- In-Built Automatic Temperature Compensation
- In-Built Self Cleaning and Washing of Sensor with pre-adjustable timing cycle
- 4-20 mA Output, Separate Modbus and Ethernet Communications
- On-line Calibration Software "YUTECH-AccessApp" provides Remote Access to the Brix Analyzer for Calibration, Compensation, and Trouble Shooting.



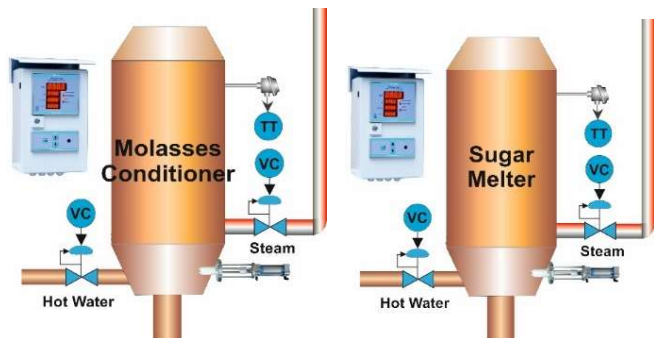
## SCREENSHOT: CVP AUTOMATION



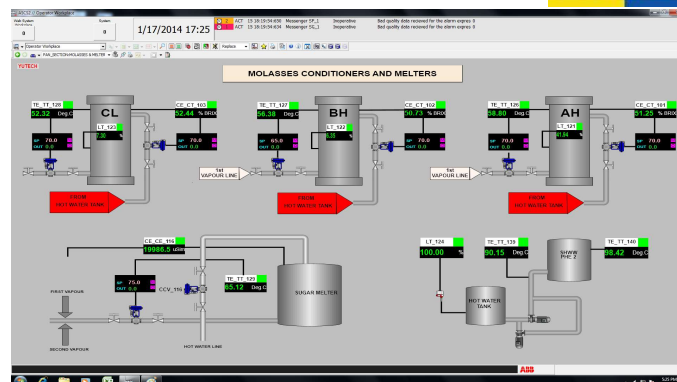
# BRIX ANALYZER (HIGH-FREQUENCY BRIX ANALYZER) AND AUTO-RETRACTABLE SELF-CLEANING BRIX SENSOR



## Molasses Conditioner and Sugar Melter Automation



### Using Brix Analyzer



### SCREENSHOT: MOLASSES CONDITIONER AND SUGAR MELTER AUTOMATION

#### INNOVATIVE FEATURES FOR EASE OF OPERATION AND TO SAVE ON INSTALLATION COST AND MATERIALS:

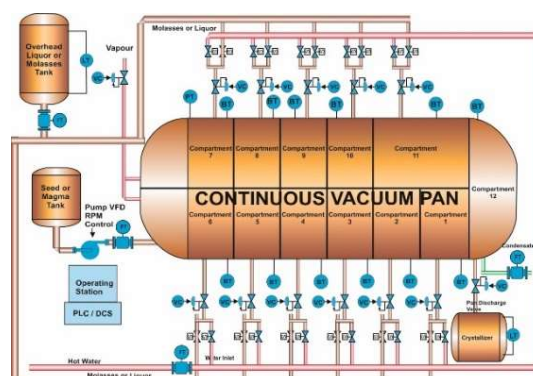
- **BUILT-IN BRIX EQUATION FOR PURITY COMPENSATION:** TO ACCURATELY SENSE, ANALYZE, CALCULATE AND DERIVE BRIX WITHIN A BAND OF VARYING SLURRY, MASSECUTE OR SYRUP MEDIA PURITY.
- **BUILT-IN TEMPERATURE COMPENSATION:** TO ACCURATELY SENSE, ANALYZE, CALCULATE, AND DERIVE BRIX WITHIN A BAND OF VARYING TEMPERATURE.
- **BUILT-IN PID CONTROLLER AND ETHERNET COMMUNICATION FOR CONTROLLER MODELS:**
  - HIGHLY ACCURATE FUZZY LOGIC PID CONTROLLER DEVELOPED ESPECIALLY FOR PROCESS CONTROL AND FLOW CONTROL APPLICATIONS.
  - CVP PAN CHAMBER CONTROL LOGIC BUILT ESPECIALLY FOR CONTINUOUS VACUUM PAN OPERATIONS
  - SUGAR MELTER AND MOLASSES CONDITIONER CONTROL LOGIC
  - REMOTE SET VARIABLE FACILITY
- **BUILT-IN 3-POINT AUTO/MANUAL STATION TO SELECT CONTROL OUTPUT FROM:**
  - a. SELECTOR SWITCH FOR LOCAL PID OUTPUT OR DCS/PLC PID OUTPUT
  - b. MANUAL OUTPUT FOR TROUBLESHOOTING

**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:**
  - BRIX SENSOR SIGNAL
- **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 OUTPUTS:**
  - 4 - 20 MA ANALYZED BRIX OUTPUT
  - 4 - 20 MA CONTROLLER OUTPUT (IN CONTROLLER MODELS)
  - 2 POTENTIAL-FREE RELAY OUTPUTS

#### SCHEMATIC DIAGRAM: CVP AUTOMATION



PLEASE VISIT OUR WEBSITE [www.yutechautomation.com](http://www.yutechautomation.com).

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