

YUTECH pH ANALYZER

WITH AUTO ELECTRODE WASH AND SWAP ROUTINE, AND AUTO ELECTRODE DECAY DETECTION



pH ANALYZER



**pH ANALYZER CUM
CONTROLLER**

SALIENT FEATURES:

- pH ANALYZER AND ELECTRODE COMBINATION TARGETS SENSING OF HYDROGEN ION CONCENTRATION (pH) WHICH DEFINES THE ALKALINITY OR ACIDITY OF LIQUIDS OR SYRUPS.
- YUTECH pH ANALYZER WORKS WITH ANY COMBINATION TYPE pH ELECTRODE AND CAN ACCEPT RTD PT-100 SIGNAL EITHER FROM SEPARATE SENSOR OR RTD EMBEDDED IN pH ELECTRODE.
- pH ANALYZER PLAYS A CRUCIAL ROLE IN SUGAR PROCESS AUTOMATION AND HELPS STABILIZE THE OVERALL PROCESS AS WELL AS THE FINAL PRODUCT COLOUR AND QUALITY.
- THE YUTECH INTELLIGENT PROGRAMMABLE pH ANALYZER IS A STATE-OF-THE-ART SYSTEM HAVING ALGORITHM TO ACCURATELY SENSE, ANALYZE, CALCULATE AND DERIVE MEDIA pH WITH TEMPERATURE COMPENSATION.
- THE pH ALGORITHM DETECTS pH ELECTRODE DECAY AND RAISES ALARM.
- THE pH ANALYZER HAS A PERIODICAL ELECTRODE WASH ROUTINE. THE ELECTRODE IS AUTOMATICALLY WASHED WITH HOT WATER AT FIXED INTERVALS.
- THE pH ANALYZER HAS AN OPTIONAL ELECTRODE SWAPPER. ELECTRODE SWAPPER HAS TWO ELECTRODES CONNECTED TO IT ONE ELECTRODE SENSES THE PROCESS MEDIA pH WHILE THE OTHER ELECTRODE IS KEPT IN CHARGING LIQUID. THESE ELECTRODES ARE PERIODICALLY WASHED AND SWAPPED FOR ACCURATE pH MEASUREMENT AND ENHANCED ELECTRODE LIFE.

YUTECH pH ANALYZER AND pH CONTROL SYSTEM

JUICE LIMING, AND FINAL JUICE pH CONTROL



- pH SENSOR OR ELECTRODE DETECTS HYDROGEN ION CONCENTRATION AS A FUNCTION OF EMF. THIS SIGNAL IS THEN PROCESSED IN ANALYZER TO OBTAIN PH READING ON A SCALE OF 0 – 14PH.
- pH ANALYZER IS EQUIPPED WITH INTELLIGENT ELECTRODE DECAY CALCULATION ALGORITHM WHICH GENERATES ALARM WHEN ELECTRODE WEAKENS AND ALSO GENERATES ALARM WHEN CHANGE OF ELECTRODE IS NEEDED.
- VERY EASY CALIBRATION AND ONLINE ELECTRODE RECALIBRATION USING SET-7 FUNCTION
- IN-BUILT AUTOMATIC TEMPERATURE COMPENSATION
- IN-BUILT SELF CLEANING AND WASHING OF ELECTRODE WITH PRE-ADJUSTABLE TIMING CYCLE
- 4-20 MA OUTPUT, SEPARATE MODBUS AND ETHERNET COMMUNICATIONS
- ON-LINE CALIBRATION SOFTWARE “YUTECH-ACCESSAPP-PH” PROVIDES REMOTE ACCESS TO PH ANALYZER FOR CALIBRATION, COMPENSATION AND TROUBLE SHOOTING.

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

- **BUILT-IN pH EQUATION**
- **BUILT-IN TEMPERATURE COMPENSATION**
- **BUILT-IN PID CONTROLLER:**
 - HIGHLY ACCURATE FUZZY LOGIC PID CONTROLLER DEVELOPED ESPECIALLY FOR PROCESS CONTROL AND FLOW CONTROL APPLICATIONS.
 - PH CONTROL LOGIC BUILT ESPECIALLY FOR JUICE LIMING PROCESS
 - REMOTE SET VARIABLE FACILITY
- **BUILT-IN 3-POINT AUTO/MANUAL STATION TO SELECT CONTROL OUTPUT FROM:**
 - SELECTOR SWITCH FOR LOCAL PID OUTPUT OR DCS/PLC PID OUTPUT
 - 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:**
 - COMBINATION TYPE pH ELECTRODE SIGNAL
 - RT PT-100 TEMPERATURE SIGNAL (EMBEDDED WITHIN THE ELECTRODE OR SEPARATE)
- **CALIBRATION CAN BE DONE FROM :**
 - **KEYBOARD:** KEYBOARD WITH 5 KEYS IS PROVIDED IN THE ANALYZER
 - **USB PORT:** FOR WINDOWS / ANDROID-BASED YUTECH-ACCESS-APP
- **DISPLAY:** 4 DIGIT LED DUAL DISPLAY, LED
- **SIGNAL OUTPUTS:**
 - 4 - 20 mA ANALYZED pH OUTPUT
 - 4 - 20 mA CONTROLLER OUTPUT (IN CONTROLLER MODELS)
 - 2 POTENTIAL-FREE RELAY OUTPUTS
 - ELECTRODE SWAPPER AND WASHER CONTROL OUTPUTS

PLEASE VISIT OUR WEBSITE www.yutechautomation.com.

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