

CATALYTIC REACTOR

Mod. CATR/EV

RE

CHEMICAL ENGINEERING

www.elettronicaveneta.com

24B-E-RE-CATR-0

INTRODUCTION

The unit is equipped with two column reactors containing catalyst (ion-exchange resin) of different granulometry and a third column reactor containing an enzymatic catalyst (invertase), enabling the study of the inversion of sucrose in glucose and fructose.

A polarimeter measures the angle of rotation of the solution from which the conversion of the reaction can be estimated.

The reaction yield can be also determined using the optional spectrophotometer mod. CATR1/EV.

An optional data acquisition software with interface (mod. SI-CATR/EV) is also available.

TRAINING PROGRAM

This unit enables to deepen the following issues:

- Fixed-bed catalytic reactor operation
- Mass balance
- Comparison between chemical and enzymatic catalyst
- Determination of the conversion

TECHNICAL SPECIFICATIONS

- Bench-top framework of AISI 304 stainless steel
- 2 jacketed column reactors for the chemical catalyst
- Jacketed column reactor for the biological catalyst
- Thermostatic bath
- Peristaltic feeding pump
- Polarimeter to measure the angle of rotation
- Electronic thermostat
- Switchboard of painted carbon steel with ELCB

Power supply: 230 Vac 50 Hz single-phase - 1 kVA
(Other voltage and frequency on request)

Dimensions: 850 x 700 x 770 mm

Weight: 70 kg



Data acquisition software with interface - mod. SI-CATR/EV

- For Windows
- Synoptic with the values of the measured variables
- Real-time trend
- Historical trend

REQUIRED ACCESSORIES (NOT INCLUDED)

- Personal Computer running Windows
(for mod. SI-CATR/EV only)

SUPPLIED WITH

THEORETICAL – EXPERIMENTAL HANDBOOK



VARIATIONS OF THE PLANT ON REQUEST

The equipment can be modified on request of the Customer.

OPTIONAL

- Spectrophotometer mod. CATR1/EV