



# AP-300

*Automatic  
Polarimeter*

**По вопросам продаж и поддержки обращайтесь:**

Архангельск (8182)63-90-72  
Астана +7(7172)727-132  
Белгород (4722)40-23-64  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
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Набережные Челны (8552)20-53-41

Нижний Новгород (831)429-08-12  
Новокузнецк (3843)20-46-81  
Новосибирск (383)227-86-73  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16  
Пермь (342)205-81-47  
Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
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Саратов (845)249-38-78

Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
Ставрополь (8652)20-65-13  
Тверь (4822)63-31-35  
Томск (3822)98-41-53  
Тула (4872)74-02-29  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
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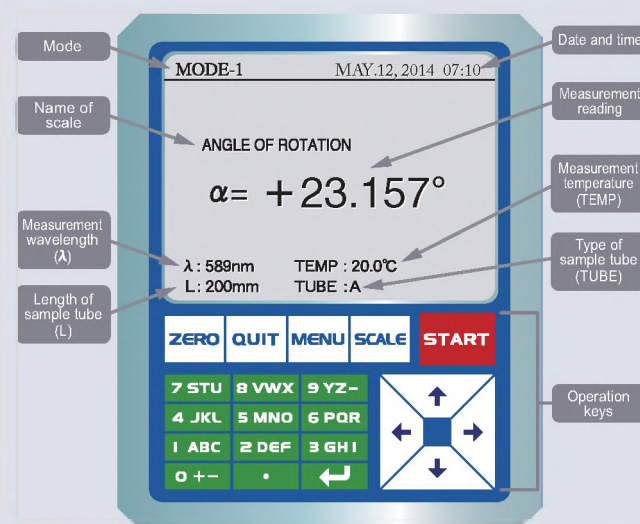
## Features

- NEW** FDA 21 CFR Part 11 Software Included in Standard Delivery.
- NEW** With high resolution : Angle of rotation 0.001°, International Sugar Scale 0.001°Z
- Easy To Use: Simply place an observation tube in the sample chamber of the AP-300 and press START key
- Automatic Temperature Compensation Function for International Sugar Scale with a range between 18°C and 30°C
- Conforms with ICUMSA standards
- Built in memory stores the 30 most recent measurement readings
- Out-of-range measurements are indicated instantly by graphic display
- The AP-300 offers ease of use with a very competitive price
- Compact and space saving
- Average Measurement Value is Displayed!
- Password Function as necessary for ISO Standard!

## Application

- Measures the specific optical rotation of medical agents
- Measures the concentration of optically active substances found in fragrance materials or chemical compositions
- Measures the international sugar scale and the purity of sugar
- Identifies the attributes of inverted sugar, etc.
- Measures the specific optical rotation or the concentration of optically active substances

### Example of angle of rotation display



### Explanation of measurements display

- **Angle of rotation**  
The angle of rotation is the basic numeric value measured by polarimeters, and changes depending on the concentration of the solution, the length of the observation tube, temperature, and/or the measurement wavelength. It is symbolized by "α" and indicated in "°."
- **International Sugar Scale**  
The International Sugar Scale is indicated in "°Z."  
The measurement value of 26g of sucrose in 100ml of sucrose solution in a 200mm observation tube is 100°Z. This measurement value is commonly used in the sugar manufacturing industry, and is usually temperature-compensated to the reference temperature of 20°C (68°F). The AP-300 can display the measurement value with or without temperature compensation (Automatic Temperature Compensation, "ATC").
- **Specific Rotation**  
The Specific Rotation is a numeric value unique to each substance. By definition, the specific rotation value is equivalent to the angle of rotation obtained by a measuring a solution of 100% concentration in a 100mm observation tube (although such a measurement is actually not practical). Specific rotation is symbolized by "[α]" and indicated in "°."
- **Concentration**  
The Concentration is the density of a liquid solution made by dissolving an optically active substance in water or alcohol. It is indicated in "g/100ml."
- **Purity**  
The Purity is the proportion of sucrose compared to the soluble solid content in a sample. It is indicated in "%." To measure the purity, input the Brix value of the sample (which can be obtained by using an ATAGO refractometer) into the AP-300 before taking a measurement.



## Observation tubes

- RE-72056 : Observation tube 50mm long OT-50(A) / 2.5mℓ
- RE-72054 : Observation tube 100mm OT-100(A)(SUS) / 5mℓ
- RE-72055 : Observation tube 200mm long OT-200(A) / 10mℓ
- RE-72036 : Jacketed flow tube 50mm / 2.5mℓ
- RE-72034 : Jacketed flow tube 100mm / 4.5mℓ
- RE-72035 : Jacketed flow tube 200mm / 9mℓ
- RE-72051 : Unjacketed flow tube (Glass) 50mm / 4.5mℓ
- RE-72052 : Unjacketed flow tube (Glass) 100mm / 9mℓ
- RE-72033 : Jacketed flow tube with funnel 100mm / 11mℓ
- RE-72032 : Jacketed flow tube with funnel 200mm / 15mℓ
- RE-72037 : Unjacketed flow tube with funnel 100mm / 11mℓ
- RE-72038 : Unjacketed flow tube with funnel 200mm / 15mℓ
- RE-72042 : Unjacketed small volume observation tube 10mm long / 1mℓ
- RE-76015 : Sample chamber cover for Flow Cell (Cover only)
- RE-76018 : Inner lid for 50mm tube
- RE-76016 : Inner lid for 100mm tube
- RE-76017 : Inner lid for 200mm tube

\* To use the flow tubes, the sample chamber RE-76015 and a Inner lid matching the size of the tube will be necessary to be purchased.

## Special Packages

ATAGO has prepared 4 different AP-300 packages.

### Recommended for sugar industry

#### Type A

### Temperature Control

Cat.No.5296

- AP-300
- Jacketed flow tube with funnel (200mm-approximate volume 15ml)
- \* Circulating Constant Temperature Bath 60-C4 (Cat.No.1922) sold separately.

#### Type B

### No Temperature Control

Cat.No.5297

- AP-300
- Unjacketed flow tube with funnel (200mm-approximate volume 15ml)

### Recommended for pharmaceutical industry

#### Type C

### Temperature Control

Cat.No.5294

- AP-300
- Jacketed flow tube(100mm)
- Inner Lid (For Tube 100mm)
- Quartz Control Plate (8°, 17°, or 34°)
- Digital printer DP-AD
- Printer paper for DP-AD
- Ribbon cassette for DP-AD
- Circulating Constant Temperature Bath 60-C4 (Cat.No.1922)

#### Type D

### No Temperature Control

Cat.No.5295

- AP-300
- Quartz Control Plate (8°, 17°, or 34°)
- Digital printer DP-AD
- Printer paper for DP-AD
- Ribbon cassette for DP-AD

Options other than above mentioned 4 types are available. Contact your nearest ATAGO representative for details.



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