



proMtec  
highly concentrated know how

**INLINE CONCENTRATION  
CONTROL**

**TOF 1500**

THE ULTIMATE SENSORS  
FOR PROCESS ONLINE  
CONCENTRATION  
MEASUREMENTS  
IN SOLUTION  
AND LIQUID  
MIXTURES

# PROMTEC'S NEWEST TECHNOLOGY, THE TOF 1500 HAS PROVEN ITS VALUE.

## THE NEWEST DEVELOPMENT

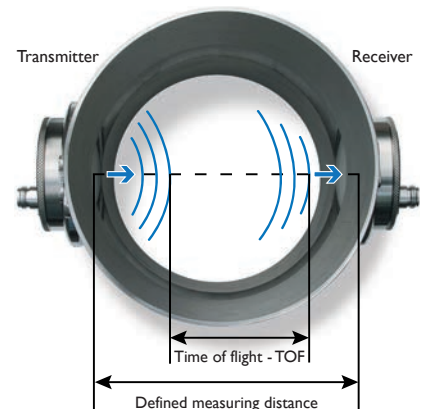
The TOF 1500 Inline Concentration Control is our newest release in the market, using state-of-the-art technology. The instrument combines compact design with the highest technical standards. It is named TOF 1500 from the expression “*time-of-flight*”, due to the fact that the measurement is based on the time that low-kHz pulses take to travel through the medium.



## HOW DOES TOF 1500 WORK?

Both installation and calibration of TOF 1500 measuring systems are simple and easily performed after all technical details are clarified. The TOF works as following:

- TOF pulses are emitted by a transmitter and travel through the measuring medium.
- The emitted pulses are collected by the receiver.
- The system calculates the time that the pulses take to travel through the medium, measured in  $\mu\text{s}$ .
- In the evaluation unit, the raw signal is converted into the concentration or density unit defined by the user.

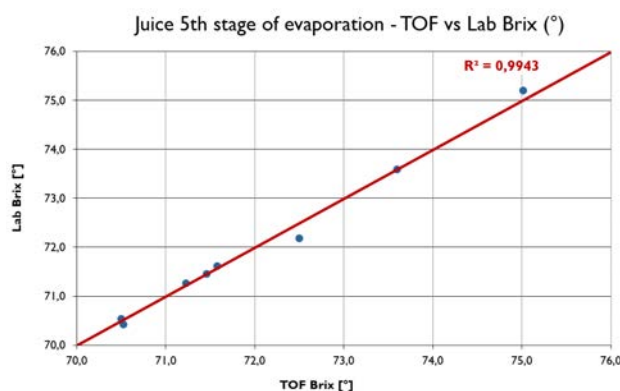
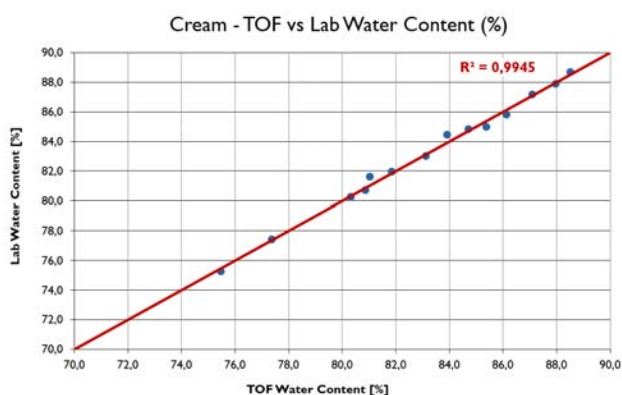


## ACCURATE AND USER-FRIENDLY

The system concept is based on many years of successful experience with transmission measurement technologies. These TOF-pulses do not cause any kind of alterations to the product.

### Example of current applications:

- sugar juice - thin and thick juice, juice in all evaporation stages
- vinasse
- acid solutions - e.g. acetic, phosphoric and sulphuric acids
- urea
- acetone
- cosmetic creams



## TECHNICAL SPECIFICATIONS

Housing	Aluminium wall housing, protection IP65, 160 x 160 x 120 mm
Mounting	4 mounting tabs H x B = 120 x 180 mm for ø 6 mm
Power supply	24V DC, max. 1000 mA
Display	Colour display TFT - 4,3" - 480 x 272 pixel, illuminated. Large display of the current measurement and drag pointer with analogue bar graph displays of measurement evaluations in the defined scale
TOF measurement	Low frequency pulse generator 20-50 V and pulse detector with delay time measurement in µs range
User interface menus	Soft touch keyboard with 4 keys, well-structured multilingual menus available
Status display	LEDs for measurement status and access-PIN for parameters
Output	4 – 20 mA isolated output for concentration and temperature, loop resistance 500 ohms
Data interface	USB 2.0 interface for software update, data output and calibration via PC
Data memory	SD-card slot for optional measurement data writing and reading and storage of parameter settings
Temperature of operation	Ambient temperature for the evaluation unit: 0 to +50 °C Product temperature for the sensor: from 0 to 120 °C



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