

Water Determination - Volumetric Titration - TKF1 (automatic)

ASTM E 203

Product group(s): Various

User group(s): Automotive, Beverages, Chemicals, Cosmetics, Food, Petroleum, Pharmaceuticals, Power Generation, Various

Scope: This test method is intended as a general guide for the application of the volumetric Karl Fischer (KF) titration for determining free water and water of hydration in most solid or liquid organic and inorganic compounds.

The sample is dissolved or dispersed in a suitable liquid and titrated with KF reagent, which consists of iodine, sulfur dioxide, organic base, and a solvent (typically an alcohol). The titration end point is determined amperometrically with a platinum electrode which senses a sharp change in cell resistance when the iodine is reduced by sulfur dioxide in the presence of water.

- intuitive keypad & function guide display
- several easy to use programs
- automatic stand-by mode
- display of results in 99m, mg/l, % etc.
- Data Logger for the last 55 results

Titration acc. to Karl-Fischer

More details are mentioned in the "Order Number" section



Technical Data

Measuring Range: from 0.1 mg up to 100 % water
Inputs & outputs: - 1 BNC connector (polarized electrode)
 - 1 miniDIN connector (external keyboard)
 - 1 RS232C bidirectional connector (PC, printer, phone)
 - 1 RS232C connector (balance)
Electrical safety: EC, EN 61 010, EN 50 081-2 & EN 50 082-2
Temperature max.: +15 °C to +40 °C
Dimensions: 130 x 160 x 300 mm (WxDxH)
Weight: approx. 4 kg

Main Unit

16-3300

Titration acc. Karl-Fischer - TKF1
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Consisting of:

Enclosure: ABS and enameled steel, 7-key membrane keypad, graphic backlit LCD (128 x 64 dots)

Non-volatile memory: up to 10 titration programs, up to 4 operator names, clock/calendar

Program comments: 8 lines x 40 characters, up to 55 results stored in data logger

Languages: English, Spanish, French, Italian

Supplied with:

- 2 burette inlet tubes with bottle cap (DIN 45 screw)
- 2 burette outlet tubes with antidiffuser device
- 4 drier cartridges with molecular sieve
- 1 support for electrode & tubes with magnetic stirrer & vessel
- 2 TLL sample syringes (5 ml)
- 1 double platinum electrode
- 1 electrode cable with BNC connector
- 1 inlet tube for solvent dispensing pump
- 1 outlet tube with bottle cap (DIN 45 screw) for the vessel emptying pump

Power Supply: 90-264 V AC, 47-63 Hz, (24 V DC)

Options & Accessories

16-3301	Thermal Printer (40 columns) RS232 interface
16-3302	Dot Impact Printer 40 columns, RS232 interface
16-3303	Software Kit- TiCom for communication between titrator & PC <u>Consisting of:</u> CD, DB-9 cable, USB licence key
16-3304	Cable to connect a balance <u>Note:</u> please specify pin out

Spare Parts

16-3304	Cable to connect a balance <u>Note:</u> please specify pin out
16-3305	Syringe (TLL SL), 5 ml
16-3306	Electrovalve for burette To be fitted on a syringe to control the flow direction of a solvent or reagent.
16-3307	Peristaltic Pump with Neoprene tube Used to dispense the solvent or empty the titration vessel.

Order Guideline

Minimum equipment:	1x 16-3300
Spares (approx. 1 year):	2x 16-3305
Additional requirements:	balance