Titration parameters

Display	Initial value	Meaning	Input range
>control parameters		**Control parameters** (in expert mode only)	
EP at U	50 mV	Preset EP.	0... ±2000 mV
dynamics	70 mV	Distance from EP where max.rate may be applied.	0...2000 mV
max.rate	max. ug/min	Maximum rate.	1.5...2240 ug/min, max.
min.rate	15.0 ug/min	Minimum rate.	0.3...999.9 ug/min, min.
stop crit:	rel.drift	Type of stop criteria.	drift, rel.drift
stop drift	5 ug/min	Stop if the EP and the stop drift is reached.	1...999 ug/min
rel.drift	5 ug/min	Stop if EP and drift value "drift at start + rel.drift" is reached.	0...999 ug/min
>titration parameters		**General titration parameters**	
pause	0 s	Waiting time without production of I_2.	0...999 999 s
extr.time	0 s	Extraction time.	0...999 999 s
start drift	20 ug/min	Below this drift, titration start is possible (cond. ok).	1...999 ug/min
I(pol):	10 uA	Polarization current at indicator electrode.	2, 5, 10, 20, 30 uA
electrode test:	ON	Electrode test.	OFF, ON
temperature	25.0 °C	Temperature.	-170.0...500.0 °C
time interval	2 s	Time interval for data acquisition.	1...999 999 s
max.titr.time	OFF s	Maximum titration time (stop condition).	1...999 999 s, OFF
>statistics		**Statistics calculation**	
status:	OFF	Status of statistics calculation.	ON, OFF
mean	n= 2	Number n of single values for statistics.	2...20
res.tab:	original	Result table for statistics.	original, delete n, delete all
delete	n= 1	Delete data from sample number n.	1...20
>preselections		**Preselections**	
drift corr:	auto	Type of drift correction.	auto, man., OFF
drift value	0.0 ug/min	Value for manual drift correction.	0.0...99.9 ug/min
req.ident:	OFF	Request of identifications after start of titration.	Id1, Id1 & 2, all, OFF
req.smpl size:	value	Request of sample size after start of titration.	value, unit, all, OFF
request and titr:	ON	Titrate during requests.	ON, OFF
smpl unit:	g	Sets method specific unit for the sample size..	g,mg,ug,ml,ul, pc, 5 ASCII
limit smpl size:	OFF	Limit control for sample size.	ON, OFF
low lim.	0.0	Lower limit.	0.0...999 999
up lim.	999999	Upper limit.	0.0...999 999
text id1	id1 or C21	Method specific text for id1. Identical for id2 and id3.	up to 10 ASCII characters
cell:	no diaph.	Type of generator electrode.	no diaph., diaphragm
generator I:	400 mA	Current at generator electrode. "auto" means switching.	auto, 100, 200, 400 mA
oven:	no	KF Oven connected to Coulometer COM.	no, COM1, COM2
activate pulse:	OFF	Pulse output on I/O line L6.	first, all, cond., OFF

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Mode selection

MODE −	Press key <MODE> until the desired mode is displayed and confirm with <ENTER>.	USER METH 3	Recall method from user memory (key <USER METH>): >recall method <ENTER> Select method name with <➜> or <⬅> or by entering its name.

Modes:
The standard calculation formulas are different or the different modes.

Mode	Meaning	Formula(s)
KFC KFC-B	Coulometric KF titration. Titration with deduction of blank.	content=H2O*C01/C00/C02;1;ppm blank=C39;1;ug content=(H2O-C39)*C01/C00/C02;1;ppm
BLANK GLP	Blank determination. GLP test.	blank=H2O;1;ug content=H2O/C01/C00;3;mg/g recovery=RS1/C22;2;

Calculation values C01 and C02 (modes KFC and KFC-B)

| Smpl size in	Result in	C01	C02	Smpl size in	Result in	C01	C02
g	ppm	1	1	ml	mg/ml	1	1 000
	%	1	10 000				
	mg/g	1	1 000				
mg	ppm	1 000	1	ul	mg/ml	1	1
	%	1	10				
	mg/g	1	1				

Sample data

SMPL DATA	Input of sample data: • Sample identifications. Can also be used as sample specific calculation values. • Sample size Inquiries with silo = OFF (LED "silo" is OFF)..

Display	Initial value	Meaning	Input range
id1 or C21 id2 or C22 id3 or C23		Sample identifications. Can also be used as sample specific calculation values C21...C23. Displayed texts for identifications can be modified in key <PARAM>, >preselections.	up to 12 ASCII characters
smpl size	1.0 g	Sample size, calculation value C00.	0...±999 999
smpl unit:	g	Unit of sample size.	g, mg, ml, ul, pc or up to 5 ASCII characters

Calculations and allocations for data output
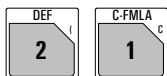
DEF	C-FMLA		Formula input. Report selection for printouts at the end of titrations. Allocations of results for statistics calculation, common variables, silo calculations.
2	**1**		

Display	Initial value	Meaning	Input range
>formula		**Formula input** (in expert mode only)	
RS? RS1=H2O*C01/C00/C02		Formula number. Enter formula by means of 3rd functions of keyboard and confirm with <ENTER>. CXX are calculation variables, see below.	1...9
RS1 text content		Text for result output.	RS1 or up to 8 ASCII characters
RS1 decimal places 1		Number of decimal places for result output.	0...5
RS1 unit: ppm		Unit for result output. Select unit with <➜> or <⬅> or enter a unit.	%,ppm,mg/g,mg/ml,mg,ug,mg/pc
RS1 limit control: OFF		Limit control for result.	up to 6 ASCII characters
RS1 low.lim. 0.0		Lower limit.	ON, OFF
RS1 up lim. 0.0		Upper limit.	0...±999 999
RS1 L13 output: OFF		Sets I/O line L13, if result limits are violated.	0...±999 999
			OFF, active, pulse
		Enter the values of the calculation variables C01...C19 with key <C-FMLA>.	
>silo calculations		**Allocations for silo calculations** (in expert mode only)	
>common variables		**Allocations for common variables** (in expert mode only)	
C30= **C31=** **:**		Allocate a variable to be stored as a common variable.	RSX, H2O, MNX, CXX
>report		**Selection of report blocks for data output**	
COM1:result; **COM2:result;**		Output to COM1. Identical for COM2 and intern (for internal printer at 756).	result, water crv, rate crv, meas crv, comb, mplist, param, calc, scalc full, scalc srt, ff
Additionally for 756: **internal:result;**		Select report blocks with <➜> or <⬅>. If you select several blocks, use ; as separator.	
>mean		**Allocations for statistics calculations** (in expert mode only)	
MN1=RS1 **MN2=** **:**		Allocate variables for statistics.	RSX, H2O, CXX

Meaning of the calculation variables

Variable	Meaning
C00	Sample size, key <SMPL DATA>.
C01...C19	Method specific calculation values, such as molar mass, factors, key<C-FMLA>.
C21...C23	Sample specific calculation values, such as dilution factors, and identifications, key<SMPL DATA>.
C24, C25	Variables for storing determination results in the silo memory.
C26, C27	Means from silo calculations.
C30...C39	Common variables.
C40	Initial potential of sample in mV.
C41	Mass of water in ug.
C42	Determination time.
C43	Drift at the start of the titration.
C44	Temperature.
C45	Total charge in mA·s.

Configuration

CONFIG		Settings for peripheral devices. General settings. Settings for RS232 interfaces, values of common variables. Report configuration.

Display	Initial value	Meaning	Input range
>monitoring		**Monitoring** (in expert mode only)	
reagent: OFF		Monitoring of reagent:	ON, OFF
number of determ. 99		Number of determinations.	1...999, OFF
determ.counter 0		Counter of number of determinations.	0...999
reagent lifetime 7 d		Lifetime of reagent.	1...9999 d, OFF
time counter 0 d		Counter of reagent lifetime.	0...9999 d, OFF
reagent capacity 1000 mg		Reagent capacity.	1...9999 mg
capacity count. 0 mg		Counter of reagent capacity.	0...9999 mg
drift OFF ug/min		Stable "raised" drift.	0...99 ug/min, OFF
reagent change: OFF		Parameters for reagent exchange with connected Dosino.	auto, man., OFF
waiting time 0 s		Waiting time after switching off stirrer.	0...999 999 s
aspirate volume 100 ml		Volume of solution to be aspirated.	0...9999 ml
reagent volume 100 ml		Reagent volume to be added.	0...9999 ml
rinsing volume 0 ml		Rinsing volume.	0...9999 ml
rinsing cycles 1		Number of rinsing cycles.	1...9
validation: OFF		Monitoring of validation.	ON, OFF
time interval 365 d		Time interval for validation.	1...9999 d
time counter 0 d		Time counter.	0...9999 d
service: OFF		Monitoring of service.	ON, OFF
next service. YYYY-MM-DD		Date of next service.	YYYY-MM-DD
system test report: OFF		Printout of system test report after switching on the device.	ON, OFF
>peripheral units		**Settings of peripheral units** (in expert mode only)	
send to COM1: IBM		Selection of printer at COM1. Identical for COM2.	Epson, Seiko, Citizen, Custom, HP, IBM
man.reports to: int.		Output of manually triggered reports. int. = internal printer.	1,2,1&2 (and at 756: int.,1&int.,2&int.,all)
balance: Sartorius		Selection of balance.	Sartorius, Mettler, Mettler AT, AND, Precisa
stirrer control: ON		Stirrer control in the titration sequence.	ON, OFF
remote box: OFF		Connection of a remote box.	ON, OFF
keyboard: US		Type of connected PC keyboard.	US, deutsch, francais, espanol, schweiz.
barcode: input		Target for data from the barcode reader. "input" means current input field.	input, method, id1, id2, id3, smpl size
>auxiliaries		**General settings**	
dialog: english		Selection of dialog language.	
date YYYY-MM-DD **time** HH:MM			
run number 0		Current run number for result output..	0...9999
operator level: standard		Defines the number of inquiries in the Coulometer dialog.	standard, expert
start delay 0 s		Waiting time before start of titration.	0...999 999 s
result display: bold		Result display at the end of the titrations.	bold, standard
dev.label		Device label.	up to 8 ASCII characters
beep 1		Number of beeps.	1...3, OFF
display meas.value: OFF		Display measured voltage values..	ON, OFF
program 5.756.0010		Program version.	read only
>RS232 settings COM1		**Settings for COM1. Identical for COM2** (in expert mode only)	
>report		**Switching on/off of report lines for printout** (in expert mode only)	
>common variables		**Values of common variables** (in expert mode only)	