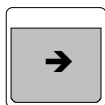
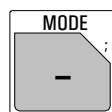
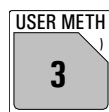


Mode selection



Press key <MODE> until the desired mode is displayed, press <ENTER>, select desired measured quantity with the cursor keys <→> or <←>, and confirm with <ENTER>.

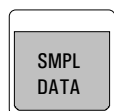


Recall method from internal method memory (key <USER METH>) or from card (key <CARD>):
 >Recall method <ENTER>
 Select method name with <→> or <←> or by entering its name.

Modes:

DET	pH, U, Ipo1, Upo1	D ynamic E quivalence Point T itration.
MET	pH, U, Ipo1, Upo1	M onotonic E quivalence Point T itration.
SET	pH, U, Ipo1, Upo1	S et E ndpoint T itration.
MEAS	pH, U, Ipo1, Upo1, T	M EASuring.
CAL		C ALibration.
TIP		T itration- P rocedure. Linking of various commands and methods to a titration procedure.

Sample data



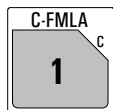
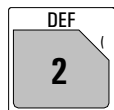
Input for sample data:

- Sample identification. Can be used as sample specific calculation values
- Sample size

Inquiries with silo = OFF (LED "silo" is OFF).

Display	Initial value	Meaning	Input range
id#1 or C21 id#2 or C22 id#3 or C23		Sample identification. Can be used as sample specific calculation values C21...C23.	up to 8 ASCII characters
smpl size smpl unit:	1.0 g g	Sample size, value C00. Unit of sample size.	0...±999 999 g, mg, mL, µL, pc or up to 5 ASCII characters

Calculations and definitions for data output



Input of formula.
Preselection of automatic report output at the end of a determination.
Allocations of values for statistics, common variables, silo calculations and temporary variables (TIP calculations).

Display	Initial value	Meaning	Input range
>formula		Input of formulas	
RS? RS1=EP1*C01/C00		Enter formula number. Enter formula by means of 3 rd functions of keyboard and confirm with <ENTER>. CXX are calculations variables, see below.	1...9
RS1 text	RS1	Text for result output.	RS1 or up to 8 ASCII characters
RS1 decimal places	2	Number of decimal places for result.	0...5
RS1 unit:	%	Selection of result unit. Select the unit with <→> or <←> or enter a unit.	up to 6 ASCII characters
RS1 limit control:	OFF	Limits for the result may be entered.	ON, OFF
		Enter the values of calculation variables C01..C19 with <C-FMLA>.	
>silo calculations		Allocations for silo calculations	
>common variables		Allocations for common variables	
>report		Selection of report blocks for data output	
report COM1:		Output to COM1. Identical for COM2. Press <→> or <←> for selection. If you wish several reports, use ";" as separator.	full, short, mplist, curve, derive, comb, scalc full, scalc srt, calc, param, calib, ff
>mean		Allocations for statistics calculations	
>temporary variables		Allocations for calculations in TIP	

Meaning of the calculation variables CXX

Variable	Meaning
C00	Sample size, key <SMPL DATA>.
C01...C19	Method specific calculation values, such as molecular mass, factors, key <C-FMLA>.
C21...C23	Sample specific calculation values, such as dilution factors, key <SMPL DATA>.
C24, C25	Variables for storing determination results in the silo memory.
C26, C27	Means from silo calculations.
C30...C39	Common variables, i.e. for titer.
C40	Initial measured value of the sample, in MEAS last measured value.
C41	End volume.
C42	Determination time.
C43	Volume drift for SET with conditioning.
C44	Temperature.
C45	Dispensed start volume.
C46	Asymmetry-pH (calibration).
C47	Electrode slope (calibration).
C48	Volume at maximum voltage in the curve.
C49	Volume at minimum voltage in the curve.
C51...C59	Fix EP for DET and MET.
C61...C69	pK/HNP values for DET and MET.
C70...C79	Temporary variables for calculations in TIP.

Configuration



Monitoring of various GLP functions.
 Settings of peripheral units.
 General settings.
 Settings of RS232 interface, values of the common variables.
 Settings for dosing units.

Display	Initial value	Meaning	Input range
>monitoring		Monitoring functions	
validation:	OFF	Monitoring of a time interval for instrument validation.	ON, OFF
calibration:	OFF	Monitoring of a time interval for pH calibration.	ON, OFF
service:	OFF	Monitoring of the date for the next instrument service.	ON, OFF
system test report:	OFF	Print-out of a system test report after switching on.	ON, OFF
>peripheral units		Settings of peripheral units	
send to COM1:	IBM	Selection of printer at COM1. Identical for COM2.	Epson, Seiko, Citizen, HP, IBM
man.reports to COM:	1	Output of manually triggered reports.	1, 2, 1&2
balance:	Sartorius	Selection of balance.	Sartorius, Mettler, Mettler AT, AND, Precisa
stirrer control:	OFF	Stirrer control in the titration sequences.	ON, OFF
remote box:	OFF	Connection of a remote box.	ON, OFF
keyboard:	US	Type of connected PC keyboard.	US, Deutsch, français, espanol, schweiz.
barcode:	input	Target of 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.	english,deutsch,français,español,italiano,portugese,svenska
date	YYYY-MM-DD		
time	HH:MM		
run number	0	Current run number for result output.	0...999 999
auto start	OFF	Automatic starts of titrations.	1...9999, OFF
start delay	0 s	Waiting time before start of titration.	0...999 999 s
result display:	bold	Result display at the end of the determinations.	bold, standard
device label		Device label.	8 ASCII characters
program	798.0010	Program version.	read only
>RS232 settings COM1		RS232-sttings for COM1. Identical for COM2.	
baud rate:	9600	Baud rate.	300,600,1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200
data bit:	8	Data bit.	7, 8
stop bit:	1	Stop bit.	1, 2
parity:	none	Parity.	none, odd, even
handshake:	HwS	Handshake.	HwS, SWchar, SWline, none
>common Variables		Values of common variables	

Parameters for DET and MET

Display	Initial value	Meaning	Input range
>titration parameters		General titration parameters	
meas.pt.density	4	Parameter for DET: Measuring point density. 0 is highest.	0...9
min.incr.	10.0 µl	Parameter for DET: Minimum increment.	0...999.9 µL
[V step	0.10 ml]	Parameter for MET: Volume increment.	0...9.999 mL
dos.rate	max. ml/min	Dosing rate for increments.	0.01...150 mL/min, max.
signal drift	50 mV/min	Drift criterion for measured value acquisition.	0.5...999 mV/min, OFF
equilibr.time	26 s	Waiting time for measured value acquisition.	0...9999 s, OFF
start V:	OFF	Type of start volume.	abs., rel. OFF
start V	0.00 ml	Volume for <i>absolute</i> start volume.	0...999.999 mL
factor	0	Factor for <i>relative</i> start volume: factor * smpl size.	0... ±999 999
dos.rate	max. ml/min	Dosing rate for start volume.	0.01...150 mL/min, OFF
pause	0 s	Waiting time, i.e. after start volume.	0...999 999 s
meas.input:	1	Measuring input for pH and U.	1, 2, diff.
temperature	25.0 °C	Temperature.	-170.0...500.0 °C
>stop conditions		Stop conditions for titration	
stop V:	abs.	Type of stop volume.	abs., rel., OFF
stop V	99.99 ml	Volume for <i>absolute</i> stop volume.	0.00...9999.99 mL, OFF
factor	999999	Factor for <i>relative</i> stop volume: factor * smpl size.	0.. ± 999 999
stop pH	OFF	Stop at measured value.	pH: 0.00...±20.00, OFF U: 0... ±2000 mV, OFF
stop EP	9	Stop after a number of EP's have been found.	1...9, OFF
filling rate	max. ml/min	Filling rate.	0.01...150 mL/min, max.
>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 calculation.	original, delete n, delete all
delete	n= 1	Delete data from sample number n.	1...20
>evaluation		EP evaluation/recognition	
EPC	5	Endpoint criterion.	DET 0...200 MET pH: 0.10...9.99 U: 1...999 mV
EP recognition:	all	Recognition of EP's which fulfill the EP criterion. If "window" is selected, lower and upper limits of windows are inquired.	all, greatest, last, window, OFF
Fix EP1 at pH	OFF	Interpolation of volume at a given measured value (→ C5X).	pH: 0.00... ±20.00, OFF U: 0... ±2000 mV, OFF
pK/HNP:	OFF	Evaluation of pK or half neutralization potential (HNP → C6X).	ON, OFF
>preselections		Preselections for the sequence	
req.ident:	OFF	Request of identifications after start of titration.	id1, id1 & 2, all, OFF
req.smpl size:	OFF	Request of sample size after start of titration.	value, unit, all, OFF
limit smpl size:	OFF	Limit control of sample size entries.	ON, OFF
activate pulse:	OFF	Pulse output on I/O line L6.	ON, OFF