CALIBRATION CERTIFICATE

Nº 61 / LC10.038

Number **VG 180426**

Mettler-Toledo S.A.E.
Laboratorio de Calibración

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ITEM	Piston operated burette
MANUFACTURER	METTLER TOLEDO
MODEL	ME-51107127
NOMINAL VOLUME	20 ml
IDENTIFICATION	ID004028
APPLICANT	METTLER-TOLEDO PAC RIM AG-TAIWAN 2F., No 17, Lane 171, Sec. 2 , Jiuzong Rd 11494 Taipei City Taiwan
Calibration date	15 October 2018

Autorized Signatory

Firmado digitalmente por
Pilar Ramos
Fecha: 2018.10.15
15:31:43 +02'00'

Instrument information

Burette	ME-51107127
Serial number	ID004028
Nominal volume	20 ml

Calibration procedure

Procedure PEC/MTE/22 based to the ISO 8655 norm and with the METTLER TOLEDO manuals.
The measured volume corresponds with delivered volume (Ex) at the reference temperature of 20 ºC.

Calibration conditions

Ambient temperature	Min. 20,2 ºC	Max. 20,3 ºC
Relative humidity	51,8 % Hr	
Pressure	942,8 mbar	

Traceability

Standard equipment used

Balance	BAL01	AT201 - 5 decimal places balance
Burette drive	MOT01	T50
Water temperature	TER 68	0,1 ºC resolution
Ambient conditions	REG02	(air Temp, rH)
Class III water	1802501863	

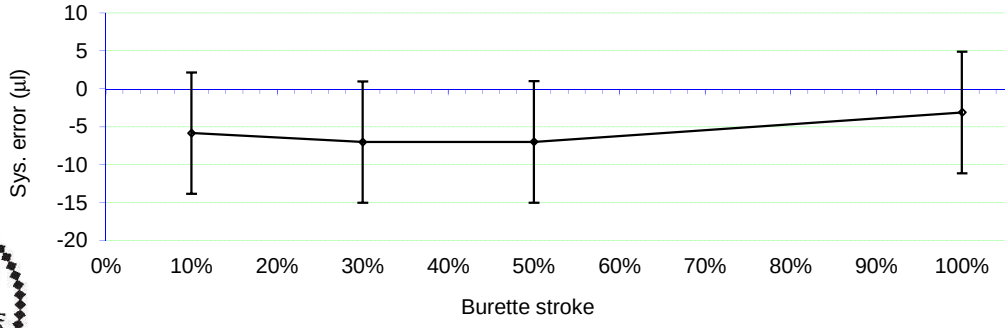
The reference water density is refered to the ISO/TR 20461 (2000) tables.
The traceability of measurements are refered to laboratories accredited by recognized ILAC organisms or national laboratories EUROMET participants.

Uncertainty

The reported expanded uncertainty of measurement is stated as the Standard uncertainty of measurement multiplied by the coverage factor k = 2, which for a normal distribution corresponds to a coverage probability of approximately 95%. The standard uncertainty of measurement has been determined in accordance with EAL publication EAL-R2.

Calibration results

Burette stroke	10%	30%	50%	100%	
Selected volume	**2**	**6**	**10**	**20**	**ml**
Water temperature	19,8	19,8	19,8	19,8	ºC
Measured volume	1994,2	5993,0	9993,0	19996,9	µl
Systematic error	**-5,8**	**-7,0**	**-7,0**	**-3,1**	**µl**
Relative error at selected volume	-0,29%	-0,12%	-0,07%	-0,02%	
Relative error at nominal volume	-0,03%	-0,04%	-0,03%	-0,02%	
Measurement uncertainty	**8**	**8**	**8**	**8**	**µl**



METTLER TOLEDO Laboratorio de Calibración

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Coslada, 15 October 2018

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