



SCS Directory

Accreditation number: SCS 0052

International standard: ISO/IEC 17025:2017
Swiss standard: SN EN ISO/IEC 17025:2018

Endress+Hauser Flowtec AG
Kägenstrasse 7
CH-4153 Reinach BL

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Initial accreditation:

16.09.1994

Current accreditation:

01.10.2019 to 30.09.2024

Scope of accreditation see:

www.sas.admin.ch
(Accredited bodies)

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Scope of accreditation as of 11.11.2022

Calibration laboratory for flow measurements of water, hydrocarbons and air as well as density of water



SCS Directory

Accreditation number: SCS 0052

Calibration and Measurement Capability (CMC)

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume of flowing water	0,003 dm ³ ... 0,017 dm ³	Volumetric	0,035 %	The maximum and minimum flow are determined for a measuring time of 30 seconds. Longer measuring times are possible.
	0,015 dm ³ ... 0,192 dm ³	Volumetric	0,022 %	
	0,4 dm ³ ... 5 dm ³	Volumetric	0,050 %	
	5 dm ³ ... 10 dm ³	Volumetric	0,021 %	
	20 dm ³ ... 40 dm ³	Gravimetric	0,030 %	
	40 dm ³ ... 4 000 dm ³	Gravimetric	0,020 %	
	4 000 dm ³ ... 50 000 dm ³	Gravimetric	0,050 %	
Volume of flowing hydrocarbons	113 dm ³ ... 342 dm ³	Volumetric	0,050 %	Viscosities of: (11 ... 31) mPa s (cP) (13...36) mm ² /s (cSt) Densities of: (821...837) kg/m ³
	132 dm ³ ... 285 dm ³	Volumetric	0,050 %	Viscosities of: (75...300) mPa s (cP) (89...345) mm ² /s (cSt) Densities of: (846...862) kg/m ³
Mass of flowing water	0,003 kg ... 0,017 kg	Volumetric	0,035 %	The maximum and minimum flow are determined for a measuring time of 30 seconds. Longer measuring times are possible.
	0,015 kg ... 0,192 kg	Volumetric	0,022 %	
	0,4 kg ... 5 kg	Volumetric	0,050 %	
	5 kg ... 10 kg	Volumetric	0,021 %	
	20 kg ... 40 kg	Gravimetric	0,030 %	
	40 kg ... 4 000 kg	Gravimetric	0,015 %	
	4 000 kg ... 30 000 kg	Gravimetric	0,030 %	
Mass of flowing hydrocarbons	30 000 kg ... 50 000 kg	Gravimetric	0,050 %	Viscosities of: (11...31) mPa s (cP) (13...36) mm ² /s (cSt) Densities of: (821...837) kg/m ³
	93 kg ... 286 kg	Volumetric	0,050 %	
	111 kg ... 247 kg	Volumetric	0,050 %	Viscosities of: (75...300) mPa s (cP) (89...345) mm ² /s (cSt) Densities of: (846...862) kg/m ³



SCS Directory

Accreditation number: SCS 0052

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume and mass flow of hydrocarbons	1,8 m ³ /h ... 1 210 m ³ /h 1,6 t/h ... 1 010 t/h	Volumetric Volumetric	0,050 % 0,050 %	Viscosities of: (11...31) mPa s (cP) (13...36) mm ² /s (cSt) Densities of: (821...837) kg/m ³ Viscosities of: (75...300) mPa s (cP) (89...345) mm ² /s (cSt) Densities of: (846...862) kg/m ³
	1,8 m ³ /h ... 1 710 m ³ /h 1,6 t/h ... 1 400 t/h	Master Master	0,080 % 0,080 %	
	1,8 m ³ /h ... 810 m ³ /h 1,6 t/h ... 700 t/h	Volumetric Volumetric	0,050 % 0,050 %	
	1,8 m ³ /h ... 810 m ³ /h 1,6 t/h ... 700 t/h	Master Master	0,080 % 0,080 %	
	Volume flow of water	0,4 dm ³ /h ... 1,84 dm ³ /h	Volumetric	
	1,84 dm ³ /h ... 23 dm ³ /h	Volumetric	0,022 %	
	23 dm ³ /h ... 79 dm ³ /h	Volumetric	0,050 %	
	79 dm ³ /h ... 1,2 m ³ /h	Volumetric	0,021 %	
	0,4 m ³ /h ... 0,7 m ³ /h	Gravimetric	0,030 %	
	0,7 m ³ /h ... 432 m ³ /h	Gravimetric	0,020 %	
	432 m ³ /h ... 5 760 m ³ /h	Gravimetric	0,050 %	
	1,8 dm ³ /h ... 0,24 m ³ /h	Master	0,080 %	
	0,24 m ³ /h ... 18 m ³ /h	Master	0,050 %	
	18 m ³ /h ... 360 m ³ /h	Master	0,035 %	
	360 m ³ /h ... 720 m ³ /h	Master	0,050 %	
	720 m ³ /h ... 1 739 m ³ /h	Master	0,080 %	
	1 739 m ³ /h ... 5 760 m ³ /h	Master	0,120 %	
Mass flow of water	0,4 kg/h ... 1,84 kg/h	Volumetric	0,035 %	
	1,84 kg/h ... 23 kg/h	Volumetric	0,022 %	
	23 kg/h ... 79 kg/h	Volumetric	0,050 %	
	79 kg/h ... 1,2 t/h	Volumetric	0,021 %	
	36 kg/h ... 0,4 t/h	Gravimetric	0,050 %	
	0,4 t/h ... 0,7 t/h	Gravimetric	0,030 %	
	0,7 t/h ... 432 t/h	Gravimetric	0,015 %	
	432 t/h ... 3 600 t/h	Gravimetric	0,030 %	
	3 600 t/h ... 5 760 t/h	Gravimetric	0,050 %	
	1,8 kg/h ... 240 kg/h	Master	0,080 %	
0,24 t/h ... 18 t/h	Master	0,050 %		



SCS Directory

Accreditation number: SCS 0052

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Mass flow of water	18 t/h ... 360 t/h	Master	0,033 %	
	360 t/h ... 720 t/h	Master	0,050 %	
	720 t/h ... 1739 t/h	Master	0,080 %	
Volume flow of air	0,04 m ³ /h ... 2 m ³ /h	Master	0,40 %	
	2 m ³ /h ... 9 000 m ³ /h	Master	0,25 %	
Mass flow of air	0,05 kg/h ... 3,2 kg/h	Master	0,30 %	
	3,2 kg/h ... 14 600 kg/h	Master	0,25 %	
Density of water	1 001 kg/m ³ ^(*1) ... 997,1 kg/m ³		0,05 kg/m ³	5°C – 25°C
	< 997,1 kg/m ³ ... 990,25 kg/m ³		0,07 kg/m ³	> 25°C – 45°C
	< 990,25 kg/m ³ ... 980,6 kg/m ³		0,10 kg/m ³	> 45°C – 65°C
	< 980,6 kg/m ³ ... 971,7 kg/m ³		0,12 kg/m ³	> 65°C – 80°C
	(*1) Maximal density with an in-service pressure of 2 barg			

Depending on the measured quantity, the instrument and the measurement range, the calibrations can be performed in Reinach and/or Cernay.

SCS Directory

Accreditation number: SCS 0052

Calibration procedures applied

Gravimetric

Weighing method with changeover unit based on international standard ISO 4185 Measurement of liquid flow in closed conduits – Weighing method.

The resulting mass can be converted into volume by using the density at reference conditions and considering the measurement uncertainty of the density.

Volumetric

The traceable measuring volume is determined by the axial movement of a piston or plunger between two high-precision proximity sensors or between two points of a linear measuring system in a cylinder (e.g. "Compact" or "Piston Prover" based on the API MPMS Chapter 4 - Proving Systems).

The volumes can be converted into masses using the density at the reference.

Master

The reference constitutes traceable flow sensors, as stated in international standard ISO 11631 Measurement of fluid flow – Methods of specifying flowmeter performance.

Reference material

Calibration with reference liquids based on the ITS-90 international temperature scale

Compact Prover

Based on chapter 4 of API MPMS standard – Proving systems



SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec AG Kalibrierstelle Kägenstrasse 7 CH-4153 Reinach BL	Flow and density of water: FCP-10

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume of flowing water	3 cm ³ ... 17 cm ³	Volumetric	0,035 %	The maximum and minimum flow are determined for a measuring time of 30 seconds. Longer measuring times are possible.
	15 cm ³ ... 192 cm ³	Volumetric	0,022 %	
Mass of flowing water	3 g ... 17 g	Volumetric	0,035 %	
	15 g ... 192 g	Volumetric	0,022 %	
Volume flow of water	0,4 dm ³ /h ... 1,84 dm ³ /h	Volumetric	0,035 %	
	1,84 dm ³ /h ... 23 dm ³ /h	Volumetric	0,022 %	
Mass flow of water	0,4 kg/h ... 1,84 kg/h	Volumetric	0,035 %	
	1,84 kg/h ... 23 kg/h	Volumetric	0,022 %	
Density of water	999,2 kg/m ³ ... 995,73 kg/m ³	Reference material	0,10 kg/m ³	
	995,73 kg/m ³ ... 993,0 kg/m ³	Reference material	0,15 kg/m ³	



SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec AG Kalibrierstelle Kägenstrasse 7 CH-4153 Reinach BL	Flow and density of water: FCP-6.10

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume of flowing water	0,4 dm ³ ... 10 dm ³	Volumetric	0,05 %	The maximum and minimum flow are determined for a measuring time of 30 seconds. Longer measuring times are possible.
	20 dm ³ ... 400 dm ³	Gravimetric	0,05 %	
Mass of flowing water	0,4 kg ... 10 kg	Volumetric	0,05 %	
	20 kg ... 400 kg	Gravimetric	0,05 %	
Volume flow of water	1,8 dm ³ /h ... 1,2 m ³ /h	Volumetric	0,05 %	
	0,4 m ³ /h ... 40 m ³ /h	Gravimetric	0,05 %	
Mass flow of water	1,8 kg/h ... 1,2 t/h	Volumetric	0,05 %	
	0,4 t/h ... 40 t/h	Gravimetric	0,05 %	
Density of water	999,2 kg/m ³ ... 995,73 kg/m ³	Reference material	0,10 kg/m ³	
	995,73 kg/m ³ ... 993,0 kg/m ³	Reference material	0,15 kg/m ³	



SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec AG Kalibrierstelle Kägenstrasse 7 CH-4153 Reinach BL	Flow and density of water: FCP-6.12 / FCP-6.13

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume of flowing water	0,4 dm ³ ... 5 dm ³	Volumetric	0,050 %	The maximum and minimum flow are determined for a measuring time of 30 seconds. Longer measuring times are possible.
	5 dm ³ ... 10 dm ³	Volumetric	0,021 %	
	20 dm ³ ... 40 dm ³	Gravimetric	0,030 %	
	40 dm ³ ... 400 dm ³	Gravimetric	0,020 %	
Mass of flowing water	0,4 kg ... 5 kg	Volumetric	0,050 %	
	5 kg ... 10 kg	Volumetric	0,021 %	
	20 kg ... 40 kg	Gravimetric	0,030 %	
	40 kg ... 400 kg	Gravimetric	0,015 %	
Volume flow of water	1,8 dm ³ /h ... 79 dm ³ /h	Volumetric	0,050 %	
	79 dm ³ /h ... 1,2 m ³ /h	Volumetric	0,021 %	
	0,72 m ³ /h ... 40 m ³ /h	Gravimetric	0,020 %	
	0,72 m ³ /h ... 40 m ³ /h	Master	0,050 %	
Mass flow of water	1,8 kg/h ... 79 kg/h	Volumetric	0,050 %	
	79 kg/h ... 1,2 t/h	Volumetric	0,021 %	
	0,72 t/h ... 40 t/h	Gravimetric	0,015 %	
	0,72 t/h ... 40 t/h	Master	0,050 %	
Density of water	999,2 kg/m ³ ... 995,73 kg/m ³	Reference material	0,10 kg/m ³	
	995,73 kg/m ³ ... 993,0 kg/m ³	Reference material	0,15 kg/m ³	



SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec AG Kalibrierstelle Kägenstrasse 7 CH-4153 Reinach BL	Flow and density of water: FCP-6.6

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume of flowing water	0,4 dm ³ ... 10 dm ³	Volumetric	0,050 %	The maximum and minimum flow are determined for a measuring time of 30 seconds. Longer measuring times are possible.
	20 dm ³ ... 400 dm ³	Gravimetric	0,050 %	
Mass of flowing water	0,4 kg ... 5 kg	Volumetric	0,050 %	
	5 kg ... 10 kg	Volumetric	0,021 %	
	20 kg ... 50 kg	Gravimetric	0,050 %	
Volume flow of water	50 kg ... 350 kg	Gravimetric	0,015 %	
	350 kg ... 400 kg	Gravimetric	0,050 %	
	1,8 dm ³ /h ... 1,2 m ³ /h	Volumetric	0,050 %	
Mass flow of water	0,4 m ³ /h ... 40 m ³ /h	Gravimetric	0,050 %	
	1,8 kg/h ... 79 kg/h	Volumetric	0,050 %	
Density of water	79 kg/h ... 1,2 t/h	Volumetric	0,021 %	
	0,4 t/h ... 0,72 t/h	Gravimetric	0,050 %	
	0,72 t/h ... 36 t/h	Gravimetric	0,015 %	
	36 t/h ... 40 t/h	Gravimetric	0,050 %	
Density of water	999,2 kg/m ³ ... 995,73 kg/m ³	Reference material	0,10 kg/m ³	
	995,73 kg/m ³ ... 993,0 kg/m ³	Reference material	0,15 kg/m ³	



SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec AG Kalibrierstelle Kägenstrasse 7 CH-4153 Reinach BL	Flow and density of water: FCP-7.1.4

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume of flowing water	20 dm ³ ... 50 dm ³	Gravimetric	0,030 %	The maximum and minimum flow are determined for a measuring time of 30 seconds. Longer measuring times are possible.
	50 dm ³ ... 4 000 dm ³	Gravimetric	0,020 %	
Mass of flowing water	20 kg ... 50 kg	Gravimetric	0,030 %	
	50 kg ... 350 kg	Gravimetric	0,015 %	
	350 kg ... 500 kg	Gravimetric	0,020 %	
	500 kg ... 4 000 kg	Gravimetric	0,015 %	
Volume flow of water	0,4 m ³ /h ... 0,7 m ³ /h	Gravimetric	0,030 %	
	0,7 m ³ /h ... 432 m ³ /h	Gravimetric	0,020 %	
	1,4 m ³ /h ... 720 m ³ /h	Master	0,050 %	
Mass flow of water	0,4 t/h ... 0,7 t/h	Gravimetric	0,030 %	
	0,7 t/h ... 432 t/h	Gravimetric	0,015 %	
	1,4 t/h ... 720 t/h	Master	0,050 %	
Density of water	999,2 kg/m ³ ... 995,73 kg/m ³	Reference material	0,10 kg/m ³	
	995,73 kg/m ³ ... 993,0 kg/m ³	Reference material	0,15 kg/m ³	



SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec AG Kalibrierstelle Kägenstrasse 7 CH-4153 Reinach BL	Flow and density of water: FCP-7.1.5

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume of flowing water	20 dm ³ ... 50 dm ³	Gravimetric	0,030 %	The maximum and minimum flow are determined for a measuring time of 30 seconds. Longer measuring times are possible.
	50 dm ³ ... 4 000 dm ³	Gravimetric	0,020 %	
Mass of flowing water	20 kg ... 50 kg	Gravimetric	0,030 %	
	50 kg ... 4 000 kg	Gravimetric	0,015 %	
Volume flow of water	0,4 m ³ /h ... 0,7 m ³ /h	Gravimetric	0,030 %	
	0,7 m ³ /h ... 432 m ³ /h	Gravimetric	0,020 %	
	1,4 m ³ /h ... 432 m ³ /h	Master	0,050 %	
Mass flow of water	0,4 t/h ... 0,7 t/h	Gravimetric	0,030 %	
	0,7 t/h ... 432 t/h	Gravimetric	0,015 %	
	1,4 t/h ... 432 t/h	Master	0,050 %	
Density of water	999,2 kg/m ³ ... 995,73 kg/m ³	Reference material	0,10 kg/m ³	
	995,73 kg/m ³ ... 993,0 kg/m ³	Reference material	0,15 kg/m ³	



Swiss Confederation

SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec AG Kalibrierstelle Kägenstrasse 7 CH-4153 Reinach BL	Flow of air: FCP-15

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume flow of air	0,04 m ³ /h ... 1 270 m ³ /h	Master	0,40 %	
Mass flow of air	0,05 kg/h ... 1 000 kg/h	Master	0,30 %	



Swiss Confederation

SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec AG Kalibrierstelle Kägenstrasse 7 CH-4153 Reinach BL	Flow of air: FCP-16

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume flow of air	3,5 m ³ /h ... 5 050 m ³ /h	Master	0,40 %	
Mass flow of air	4 kg/h ... 10 000 kg/h	Master	0,30 %	



SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec AG Kalibrierstelle Kägenstrasse 7 CH-4153 Reinach BL	Flow of hydrocarbons: FCP-21

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume of flowing hydrocarbons*	113 dm ³ ... 342 dm ³	Volumetric	0,050 %	*Mineral oils with viscosities of: (11...31) mPa s (cP) (13...36) mm ² /s (cSt)
Mass of flowing hydrocarbons*	93 kg ... 286 kg	Volumetric	0,050 %	
Volume flow of hydrocarbons*	1,8 m ³ /h ... 1 210 m ³ /h	Volumetric	0,050 %	*Densities of: (821...837) kg/m ³
	1,8 m ³ /h ... 1 710 m ³ /h	Master	0,080 %	
Mass flow of hydrocarbons*	1,6 t/h ... 1 010 t/h	Volumetric	0,050 %	
	1,6 t/h ... 1 400 t/h	Master	0,080 %	



SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec AG Kalibrierstelle Kägenstrasse 7 CH-4153 Reinach BL	Flow of hydrocarbons: FCP-22

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume of flowing hydrocarbons*	132 dm ³ ... 285 dm ³	Volumetric	0,050 %	*Mineral oils with viscosities of: (75...300) mPa s (cP) (89...345) mm ² /s (cSt) *Densities of: (846...862) kg/m ³
Mass of flowing hydrocarbons*	111 kg ... 247 kg	Volumetric	0,050 %	
Volume flow of hydrocarbons*	1,8 m ³ /h ... 810 m ³ /h	Volumetric	0,050 %	
	1,8 m ³ /h ... 810 m ³ /h	Master	0,080 %	
Mass flow of hydrocarbons*	1,6 t/h ... 700 t/h	Volumetric	0,050 %	
	1,6 t/h ... 700 t/h	Master	0,080 %	



Swiss Confederation

SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec AG Kalibrierstelle Kägenstrasse 7 CH-4153 Reinach BL	Flow of air: FCP-23.1

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume flow of air	2 m ³ /h ... 9 000 m ³ /h	Master	0,25 %	
Mass flow of air	3,2 kg/h ... 14 600 kg/h	Master	0,25 %	



SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec AG Kalibrierstelle Kägenstrasse 7 CH-4153 Reinach BL	Density of water: DCP-8.4 / DCP-8.5 / DCP-8.6 / DCP-8.7

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Density of water	1 001 kg/m ³ (*1) ... 997,1 kg/m ³		0,05 kg/m ³	5°C – 25°C
	< 997,1 kg/m ³ ... 990,25 kg/m ³		0,07 kg/m ³	> 25°C – 45°C
	< 990,25 kg/m ³ ... 980,6 kg/m ³		0,10 kg/m ³	> 45°C – 65°C
	< 980,6 kg/m ³ ... 971,7 kg/m ³		0,12 kg/m ³	> 65°C – 80°C
	(*1) Maximal density with an in-service pressure of 2 barg			



SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec AG Kalibrierstelle Kägenstrasse 7 CH-4153 Reinach BL	Density of water: DCP-9.2

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty ± ¹⁾	Remarks
Density of water	999,97 kg/m ³ ... 999,19 kg/m ³		0,07 kg/m ³	5°C – 15°C
	< 999,19 kg/m ³ ... 998,29 kg/m ³		0,08 kg/m ³	> 15°C – 20°C
	< 998,29 kg/m ³ ... 995,73 kg/m ³		0,10 kg/m ³	> 20°C – 35°C
	< 995,73 kg/m ³ ... 992,3 kg/m ³		0,15 kg/m ³	> 35°C – 40°C
	< 992,3 kg/m ³ ... 983,28 kg/m ³		0,20 kg/m ³	> 40°C – 60°C
	< 983,28 kg/m ³ ... 971,7 kg/m ³		0,30 kg/m ³	> 60°C

(1) The given extended measurement uncertainty is the standard uncertainty of the measurement multiplied by an extension factor k = 2, which corresponds to a confidence level of about 95% for a normal distribution.



SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec Laboratoire d'étalonnage Rue de l'Europe 35 F-68700 Cernay	Flow of water: FCP-6.2 / FCP-6.4 / FCP-6.8 / FCP-6.9

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume of flowing water*	0,4 dm ³ ... 10 dm ³	Volumetric	0,050 %	*The maximum and minimum flow are determined for a measuring time of 30 seconds. Longer measuring times are possible.
	20 dm ³ ... 400 dm ³	Gravimetric	0,050 %	
Mass of flowing water*	0,4 kg ... 10 kg	Volumetric	0,050 %	
	20 kg ... 400 kg	Gravimetric	0,050 %	
Volume flow of water*	1,8 dm ³ /h ... 1,2 m ³ /h	Volumetric	0,050 %	
	0,4 m ³ /h ... 40 m ³ /h	Gravimetric	0,050 %	
	36 dm ³ /h ... 40 m ³ /h	Master	0,080 %	
Mass flow of water*	1,8 kg/h ... 1,2 t/h	Volumetric	0,050 %	
	0,4 t/h ... 40 t/h	Gravimetric	0,050 %	
	36 kg/h ... 40 t/h	Master	0,080 %	



SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec AG Laboratoire d'étalonnage Rue de l'Europe 35 F-68700 Cernay	Flow and density of water: FCP-6.15 / FCP-6.16

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume of flowing water	0,4 dm ³ ... 5 dm ³	Volumetric	0,050 %	The maximum and minimum flow are determined for a measuring time of 30 seconds. Longer measuring times are possible.
	5 dm ³ ... 10 dm ³	Volumetric	0,021 %	
	20 dm ³ ... 40 dm ³	Gravimetric	0,030 %	
	40 dm ³ ... 400 dm ³	Gravimetric	0,020 %	
Mass of flowing water	0,4 kg ... 5 kg	Volumetric	0,050 %	
	5 kg ... 10 kg	Volumetric	0,021 %	
	20 kg ... 40 kg	Gravimetric	0,030 %	
	40 kg ... 400 kg	Gravimetric	0,015 %	
Volume flow of water	1,8 dm ³ /h ... 79 dm ³ /h	Volumetric	0,050 %	
	79 dm ³ /h ... 1,2 m ³ /h	Volumetric	0,021 %	
	0,72 m ³ /h ... 40 m ³ /h	Gravimetric	0,020 %	
	1,8 dm ³ /h ... 0,24 m ³ /h	Master	0,080 %	
	0,24 m ³ /h ... 40 m ³ /h	Master	0,050 %	
Mass flow of water	1,8 kg/h ... 79 kg/h	Volumetric	0,050 %	
	79 kg/h ... 1,2 t/h	Volumetric	0,021 %	
	0,72 t/h ... 40 t/h	Gravimetric	0,015 %	
	1,8 kg/h ... 240 kg/h	Master	0,080 %	
	0,24 t/h ... 40 t/h	Master	0,050 %	
Density of water	999,2 kg/m ³ ... 995,73 kg/m ³	Reference material	0,10 kg/m ³	
	995,73 kg/m ³ ... 993,0 kg/m ³	Reference material	0,15 kg/m ³	



SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec Laboratoire d'étalonnage Rue de l'Europe 35 F-68700 Cernay	Flow of water: FCP-8.4 / FCP-8.5

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume of flowing water*	20 dm ³ ... 400 dm ³	Gravimetric	0,05 %	*The maximum and minimum flow are determined for a measuring time of 30 seconds. Longer measuring times are possible.
Mass of flowing water*	20 kg ... 400 kg	Gravimetric	0,05 %	
Volume flow of water*	36 dm ³ /h ... 40 m ³ /h	Gravimetric	0,05 %	
	36 dm ³ /h ... 100 m ³ /h	Master	0,08 %	
Mass flow of water*	36 kg/h ... 40 t/h	Gravimetric	0,05 %	
	36 kg/h ... 100 t/h	Master	0,08 %	



SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec Laboratoire d'étalonnage Rue de l'Europe 35 F-68700 Cernay	Flow of water: FCP-7.1.1 / FCP-7.1.2 / FCP-7.1.7

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume of flowing water*	20 dm ³ ... 5 000 dm ³	Gravimetric	0,050 %	*The maximum and minimum flow are determined for a measuring time of 30 seconds. Longer measuring times are possible.
Mass of flowing water*	20 kg ... 5 000 kg	Gravimetric	0,050 %	
Volume flow of water*	0,4 m ³ /h ... 575 m ³ /h	Gravimetric	0,050 %	
	1,4 m ³ /h ... 680 m ³ /h	Master	0,080 %	
Mass flow of water*	0,4 t/h ... 575 t/h	Gravimetric	0,050 %	
	1,4 t/h ... 680 t/h	Master	0,080 %	



SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec Laboratoire d'étalonnage Rue de l'Europe 35 F-68700 Cernay	Flow of water: FCP-7.1.3

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume of flowing water*	20 dm ³ ... 4 000 dm ³	Gravimetric	0,050 %	*The maximum and minimum flow are determined for a measuring time of 30 seconds. Longer measuring times are possible.
Mass of flowing water*	20 kg ... 4 000 kg	Gravimetric	0,050 %	
Volume flow of water*	0,4 m ³ /h ... 432 m ³ /h	Gravimetric	0,050 %	
	1,4 m ³ /h ... 720 m ³ /h	Master	0,080 %	
Mass flow of water*	0,4 t/h ... 432 t/h	Gravimetric	0,050 %	
	1,4 t/h ... 720 t/h	Master	0,080 %	



SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec Laboratoire d'étalonnage Rue de l'Europe 35 F-68700 Cernay	Flow of water: FCP-25.1 / FCP-25.2

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume of flowing water*	40 dm ³ ... 400 dm ³	Gravimetric	0,020 %	*The maximum and minimum flow are determined for a measuring time of 30 seconds. Longer measuring times are possible.
Mass of flowing water*	40 kg ... 400 kg	Gravimetric	0,015 %	
Volume flow of water*	1,8 m ³ /h ... 40 m ³ /h	Gravimetric	0,020 %	
	1,8 m ³ /h ... 18 m ³ /h	Master	0,050 %	
	18 m ³ /h ... 360 m ³ /h	Master	0,035 %	
Mass flow of water*	1,8 t/h ... 40 t/h	Gravimetric	0,015 %	
	1,8 t/h ... 18 t/h	Master	0,050 %	
	18 t/h ... 360 t/h	Master	0,033 %	



SCS Directory

Accreditation number: SCS 0052

Local site	Calibration plant
Endress+Hauser Flowtec Laboratoire d'étalonnage Rue de l'Europe 35 F-68700 Cernay	Flow of water: FCP-7.2

Measured Quantity / Instrument or Gauge	Measurement Range	Measurement Conditions	Best Measurement Uncertainty \pm ¹⁾	Remarks
Volume of flowing water	0,5 m ³ ... 50 m ³ for 60 m ³ /h ... 5 760 m ³ /h	Gravimetric	0,050 %	
	20 dm ³ ... 400 dm ³ for 4 m ³ /h ... 36 m ³ /h	Gravimetric	0,080 %	
Mass of flowing water	320 kg ... 500 kg for 4 t/h ... 36 t/h	Gravimetric	0,080 %	
	0,5 t ... 2,5 t for 36 t/h ... 90 t/h	Gravimetric	0,050 %	
	2,5 t ... 30 t for 90 t/h ... 3 600 t/h	Gravimetric	0,030 %	
	30 t ... 50 t for 3 600 t/h ... 5 760 t/h	Gravimetric	0,050 %	
Volume flow of water	4 m ³ /h ... 36 m ³ /h	Gravimetric	0,080 %	
	36 m ³ /h ... 5 760 m ³ /h	Gravimetric	0,050 %	
	36 m ³ /h ... 1 739 m ³ /h	Master	0,080 %	
	1 739 m ³ /h ... 5 760 m ³ /h	Master	0,120 %	
Mass flow of water	4 t/h ... 36 t/h	Gravimetric	0,080 %	
	36 t/h ... 90 t/h	Gravimetric	0,050 %	
	90 t/h ... 3 600 t/h	Gravimetric	0,030 %	
	3600 t/h ... 5 760 t/h	Gravimetric	0,050 %	
	36 t/h ... 1 739 t/h	Master	0,080 %	

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