

Certificate of calibration

No.: 27008-35-24-0090

Master Meter:

Type: Critical nozzles 1;5;10;20; 50;100;200;500;1000; 2000; 5000; 10000; 15000 l/h
nominal flow rate
Certified by: PTB Braunschweig, national institute of metrology
Certificate No.: 18489/16 PTB, 18488/16 PTB,18487/16 PTB,18486/16 PTB,18485/16 PTB,18484/16
PTB,18483/16 PTB,18482/16 PTB,18481/16 PTB,18480/16 PTB,18479/16
PTB,18478/16 PTB,18477/16 PTB,

Calibration Conditions:

Test sample: Measuring Range 20-1.200 [ltr/h]
Type: TG10/4-500 mbar
Model: Casing of Refined Stainless Steel, Measuring Drum of Polyvinylide
Flouride
Measurement range: 20 - 1.200 [L/h]
Pressure (max.): 500 mbar
Pressure test: 750 mbar
Packing Liquid: Water
Serial-No.: 1.544.5HI
Date: 05/18/2024
Calibration gas: Air
Conditions: Temperature room: 20,0 [°C]
Humidity test air: 12,4 [%]
Pressure atmospheric: 997,6 [mbar]
Location of gas pressure
measurement: Gas Meter inlet
Location of temperature
measurement: within Gas Meter casing
Pulse Generator: V4.11 500 pulses

Certificate of calibration

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Calibration-Result:

Scale value of high precision level indicator (HPLI) -1

Flow Rate [ltr/h]	Pressure Loss [mbar]	Measurement Error (*) [%]	Calibration volume [ltr]
4	0.24	-0.04	10
250	0.2	+0.17	30
460	0.31	+0.17	850
1100	0.8	+0.09	1840
1300	1.02	-0.15	110

(*)percental error of Meter reading

Remark: The measurements have been executed using standards traceable to the national standard at the "PTB"

J. Mortimer

Bochum, 2024-Mai-21 :

Certificate of calibration

No.: 27009-35-24-0091

Master Meter:

Type: Critical nozzles 1;5;10;20; 50;100;200;500;1000; 2000; 5000; 10000; 15000 l/h
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PTB, 18483/16 PTB, 18482/16 PTB, 18481/16 PTB, 18480/16 PTB, 18479/16
PTB, 18478/16 PTB, 18477/16 PTB,

Calibration Conditions:

Test sample: Measuring Range 20-1.200 [ltr/h]
Type: TG10/4-500 mbar
Model: Casing of Refined Stainless Steel, Measuring Drum of Polyvinylide
Flouride
Measurement range: 20 - 1.200 [L/h]
Pressure (max.): 500 mbar
Pressure test: 750 mbar
Packing Liquid: Water
Serial-No.: 1.544.6HI
Date: 05/13/2024
Calibration gas: Air
Conditions: Temperature room: 22,8 [°C]
Humidity test air: 12,7 [%]
Pressure atmospheric: 995,3 [mbar]
Location of gas pressure
measurement: Gas Meter inlet
Location of temperature
measurement: within Gas Meter casing
Pulse Generator: V4.11 500 pulses

Certificate of calibration

No.: 27009-35-24-0091

Calibration-Result:

Flow Rate [ltr/h]	Pressure Loss [mbar]	Measurement Error (*) [%]	Calibration volume [ltr]
4	0.18	+0.11	10
250	0.18	+0.1	30
460	0.23	-0.14	850
1100	0.34	-0.21	1840
1300	0.34	-0.19	100

(*)percental error of Meter reading

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J. Mortimer

Bochum, 2024-Mai-21 :

Certificate of calibration

No.: 27010-35-24-0092

Master Meter:

Type: Critical nozzles 1;5;10;20; 50;100;200;500;1000; 2000; 5000; 10000; 15000 l/h
nominal flow rate
Certified by: PTB Braunschweig, national institute of metrology
Certificate No.: 18489/16 PTB, 18488/16 PTB, 18487/16 PTB, 18486/16 PTB, 18485/16 PTB, 18484/16
PTB, 18483/16 PTB, 18482/16 PTB, 18481/16 PTB, 18480/16 PTB, 18479/16
PTB, 18478/16 PTB, 18477/16 PTB,

Calibration Conditions:

Test sample: Measuring Range 20-1.200 [ltr/h]
Type: TG10/4-500 mbar
Model: Casing of Refined Stainless Steel, Measuring Drum of Polyvinylide
Flouride
Measurement range: 20 - 1.200 [L/h]
Pressure (max.): 500 mbar
Pressure test: 750 mbar
Packing Liquid: Water
Serial-No.: 1.544.7HI
Date: 05/12/2024
Calibration gas: Air
Conditions: Temperature room: 23,0 [°C]
Humidity test air: 10,9 [%]
Pressure atmospheric: 1008,6 [mbar]
Location of gas pressure
measurement: Gas Meter inlet
Location of temperature
measurement: within Gas Meter casing
Pulse Generator: V4.11 500 pulses

Certificate of calibration

No.: 27010-35-24-0092

Calibration-Result:

Scale value of high precision level indicator (HPLI) -1

Flow Rate [ltr/h]	Pressure Loss [mbar]	Measurement Error (*) [%]	Calibration volume [ltr]
4	0.21	-0.34	10
250	0.14	-0.21	30
460	0.17	-0.13	850
1100	0.28	-0.08	1840
1300	0.29	-0.49	110

(*)percental error of Meter reading

Remark: The measurements have been executed using standards traceable to the national standard at the "PTB"

J. Mortimer

Bochum, 2024-Mai-21 :

Certificate of calibration

No.: 27011-35-24-0093

Master Meter:

Type: Critical nozzles 1;5;10;20; 50;100;200;500;1000; 2000; 5000; 10000; 15000 l/h nominal flow rate
Certified by: PTB Braunschweig, national institute of metrology
Certificate No.: 18489/16 PTB, 18488/16 PTB, 18487/16 PTB, 18486/16 PTB, 18485/16 PTB, 18484/16 PTB, 18483/16 PTB, 18482/16 PTB, 18481/16 PTB, 18480/16 PTB, 18479/16 PTB, 18478/16 PTB, 18477/16 PTB,

Calibration Conditions:

Test sample: Measuring Range 20-1.200 [ltr/h]
Type: TG10/4-500 mbar
Model: Casing of Refined Stainless Steel, Measuring Drum of Polyvinylide Flouride
Measurement range: 20 - 1.200 [L/h]
Pressure (max.): 500 mbar
Pressure test: 750 mbar
Packing Liquid: Water
Serial-No.: 1.544.8HI
Date:
Calibration gas: Air
Conditions: Temperature room: 22,7 [°C]
Humidity test air: 11,6 [%]
Pressure atmospheric: 1004,9 [mbar]
Location of gas pressure measurement: Gas Meter inlet
Location of temperature measurement: within Gas Meter casing
Pulse Generator: V4.11 500 pulses

Certificate of calibration

No.: 27011-35-24-0093

Calibration-Result:

Scale value of high precision level indicator (HPLI) -0,3

Flow Rate [ltr/h]	Pressure Loss [mbar]	Measurement Error (*) [%]	Calibration volume [ltr]
4	0.26	+0.05	10
250	0.21	-0.23	30
460	0.2	-0.05	850
1100	0.26	+0.01	1840
1300	0.31	-0.36	110

(*)percental error of Meter reading

Remark: The measurements have been executed using standards traceable to the national standard at the "PTB"

J. Mortimer

Bochum, 2024-Mai-21 :