

Micro Motion, Inc.

Mass Flowmeter Calibration Certificate

15330364

Product Code

CNG050S290NCAAEZZZ

Serial ID

15330364

Order ID

10464876

Line

1.1

Item

2

Customer Tag

SN 22061327A

Process

Process ID : 9.29596758

Process Time : 2022.02.23 9:42:12

Process Stand : SSFLE@SSCCL:1

Stand Uncertainty : +/-0.030%

Fluid : H2O

100% Rate : 38.6 KG/MIN

Pickoff : 1

Max Rate P/T : 41.81 PSIG/20.7 C

Results

Status : PASS

D1 : 0

D2 : 1

K1 : 4078.153

K2 : 4243.506

DT : 4.25

FD : 0

DTG : 0

DFQ1 : 0

DFQ2 : 0

FlowCal : 141.464.50

FFQ : 0

FTG : 0

DensCal : 04078042444.25

FCF : 141.46

FT : 4.5

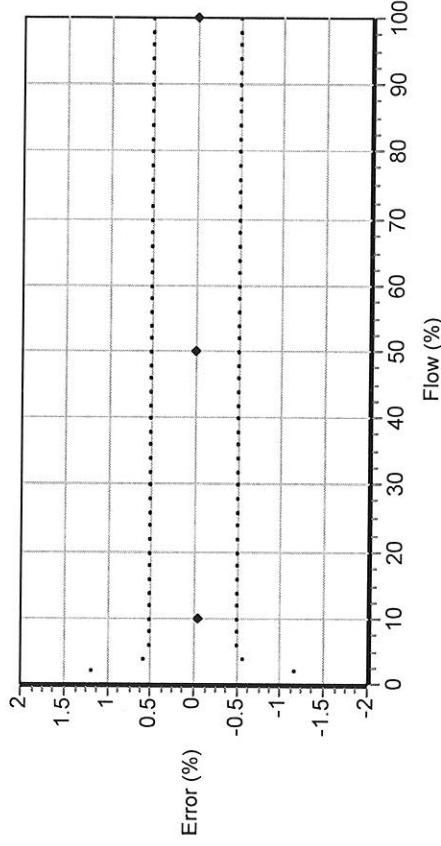
Ray L...

RAZVAN OCTAVIAN, COSMA

Technician

This certificate is produced by an electronic data system and is valid without signature.

Traceable to one or more of the following National Metrology Institutes: NIM-China, NIST-USA, and VSL-The Netherlands



Flow (%)	Flow Rate (kg/min)	Meter Total (kg)	Reference Total (kg)	Error (%)	Specification (±%)
100.0	38.6	38.34717	38.34264	0.012	0.500
10.0	3.86	7.852141	7.85535	-0.041	0.500
50.0	19.3	19.75226	19.75359	-0.007	0.500
100.0	38.6	38.32337	38.32261	0.002	0.500

Product Code

CNG050S290NCAAEZZZ

2700I13ABAEZWZ

PUCK700

Serial ID

15330364

3519992

26196773

Order ID

10464876

10464876

Line Item

1.1 2

1.33 2

Customer Tag SN 22061327 A

Process

Process ID : 1.36696625

Process Time : 2022.04.01 21:16:15

Process Stand : CONFIGURATION@SSCB

Sensor

D1 : 0

D2 : 1

DFQ1 : 0

DFQ2 : 0

DT : 4.25

DTG : 0

Dens PCF : 0

Density Meter Factor : 1

FCF : 141.46

FD : 0

FFQ : 0

FT : 4.5

FTG : 0

Flow PCP : 30

Flow PCF : 0

K1 : 4078.153

K2 : 4243.506

Mass Flow Meter Factor : 1

Volume Flow Meter Factor : 1

Units

Density Unit : G/CM3

GSV Flow Unit : SCFM

Mass Flow Unit : G/SEC

Pressure Unit : POUNDS/SQUARE INCH

Special GSV Base Time Unit : MIN

Special GSV Base Volume Unit : Standard cubic feet

Special GSV Conv Factor : 1

Special GSV Flow Unit Text : NONE

Special GSV Total Text : NONE

Special Mass Base Unit : G

Special Mass Conv Factor : 1

Special Mass Flow Text : NONE

Units

Special Mass Time Unit : SEC

Special Mass Total Text : NONE

Special Volume Base Unit : L

Special Volume Conv Factor : 1

Special Volume Flow Text : NONE

Special Volume Time Unit : SEC

Special Volume Total Text : NONE

Temperature Unit : C

Volume Flow Unit : L/MIN

MVD Channel Assignments

Channel B Power : Active (internally powered)

Assignments

Event 1 Variable : Density

Event 2 Variable : Density

Frequency1 Scaling Method : Frequency = Flow

Frequency Variable 1 : Mass Flow Rate

mA1 Variable : Mass Flow Rate

Ranges

Event 1 Setpoint : 0

Event 1 Type : Event Low (Event "OFF" if PV > SP)

Event 2 Setpoint : 0

Event 2 Type : Event Low (Event "OFF" if PV > SP)

Frequency1 Active State : Active High

Frequency1 Hertz : 1000

Frequency1 Output Mode : Single

Frequency1 Pulses/Unit : 1.554404

Frequency1 Rate : 643.3333

Frequency1 Units/Pulse : 0.64333333

mA1 LRV : 0

mA1 URV : 643.3333

Faults

Frequency1 Fault Behavior : Upscale

Faults

Frequency1 Fault Value : 15000
mA1 Fault Behavior : Downscale (Default)
mA1 Fault Value : 2

Other

Calibration Process ID : 9.29596758

Core Software Rev : 35

Density Cutoff : 0.2

Density Damping : 1.6

Density High Limit : 5

Density Low Limit : 0

Direction : FORWARD

Fault Dwell Time : 0

Feature Key : 1

Flow Damping : 0.8

HART Device ID : 4132511

LD Type : 0

Mass Flow Cutoff : 1.836

Pressure Comp Line Pressure : 0

Pressure Compensation State : OFF

RS485 Baud : 1200 baud

RS485 Parity : Odd

RS485 Protocol : HART

Slug Duration : 0

Tag :

Temperature Damping : 4.8

Transmitter Software Rev : 80

Volume Flow Cutoff : 0.11016

Product Code

CNG050S290NCAAEEZZZ

Serial ID

15330255

Order ID

10464876

Line Item

1.1 1

Customer Tag

22061327 B

Process

Process ID : 9.29602298

Process Time : 2022.02.24 7:58:23

Process Stand : SSFIE@SSCCL:1

Stand Uncertainty : +/-0.030%

Fluid : H2O

100% Rate : 38.6 KG/MIN

Pickoff : 1

Max Rate P/T : 41.81 PSIG/20.2 C

Results

Status : PASS

D1 : 0

D2 : 1

K1 : 4071.11

K2 : 4235.75

DT : 4.25

FD : 0

DTG : 0

DFQ1 : 0

DFQ2 : 0

FlowCal : 142.274.50

FFQ : 0

FTG : 0

DensCal : 04071042364.25

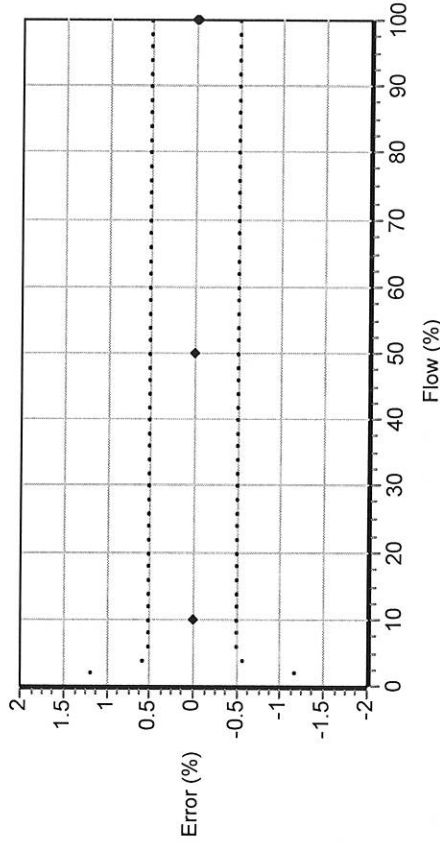
FCF : 142.27

FT : 4.5

Razvan Octavian
RAZVAN OCTAVIAN, COSMA

Technician

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Flow (%)	Flow Rate (kg/min)	Meter Total (kg)	Reference Total (kg)	Error (%)	Specification (±%)
100.0	38.6	38.28734	38.2949	-0.020	0.500
10.0	3.86	7.889197	7.889464	-0.003	0.500
50.0	19.3	19.79923	19.80081	-0.008	0.500
100.0	38.6	38.24681	38.2508	-0.010	0.500

Micro Motion, Inc.

Transmitter Configuration Report

3520061

Product Code

CNG050S290NCAAEZZZ

2700I13ABAEZVZ

PUCK700

Serial ID

15330255

3520061

26196804

Order ID

10464876

10464876

Line Item

1.1 1

1.33 1

Customer Tag

22061327B

Process

Process ID : 1.36696347

Process Time : 2022.04.01 17:54:41

Process Stand : SSCB-CONFIG1@SSCB

Sensor

Units

D1 : 0

D2 : 1

DFQ1 : 0

DFQ2 : 0

DT : 4.25

DTG : 0

Dens PCF : 0

Density Meter Factor : 1

FCF : 142.27

FD : 0

FFQ : 0

FT : 4.5

FTG : 0

Flow PCP : 30

Flow PCF : 0

K1 : 4071.11

K2 : 4235.75

Mass Flow Meter Factor : 1

Volume Flow Meter Factor : 1

Units

Density Unit : G/CM3

GSV Flow Unit : SCFM

Mass Flow Unit : G/SEC

Pressure Unit : POUNDS/SQUARE INCH

Special GSV Base Time Unit : MIN

Special GSV Base Volume Unit : Standard cubic feet

Special GSV Conv Factor : 1

Special GSV Flow Unit Text : NONE

Special GSV Total Text : NONE

Special Mass Base Unit : G

Special Mass Conv Factor : 1

Special Mass Flow Text : NONE

Special Mass Time Unit : SEC

Special Mass Total Text : NONE

Special Volume Base Unit : L

Special Volume Conv Factor : 1

Special Volume Flow Text : NONE

Special Volume Time Unit : SEC

Special Volume Total Text : NONE

Temperature Unit : C

Volume Flow Unit : L/MIN

MVD Channel Assignments

Channel B Power : Active (internally powered)

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Frequency1 Pulses/Unit : 1.554404

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Faults

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Calibration Process ID : 9.29602298

Core Software Rev : 35

Density Cutoff : 0.2

Density Damping : 1.6

Density High Limit : 5

Density Low Limit : 0

Direction : FORWARD

Fault Dwell Time : 0

Feature Key : 1

Flow Damping : 0.8

HART Device ID : 4133430

LD Type : 0

Mass Flow Cutoff : 1.836

Pressure Comp Line Pressure : 0

Pressure Compensation State : OFF

RS485 Baud : 1200 baud

RS485 Parity : Odd

RS485 Protocol : HART

Slug Duration : 0

Tag :

Temperature Damping : 4.8

Transmitter Software Rev : 80

Volume Flow Cutoff : 0.11016