

Product Code

CNG050S290NCAAEEZZZ

Serial ID

15098504

Order ID

10392206

Line Item

2.1 1

Customer Tag

21011307A

Process

Process ID : 9.27661083

Process Time : 2020.11.19 16:15:55

Process Stand : SSF1E@SSCCL:1

Stand Uncertainty : +/-0.030%

Fluid : H2O

100% Rate : 38.6 KG/MIN

Pickoff : 1

Max Rate P/T : 41.7 PSIG/24.1 C

Results

Status : PASS

D1 : 0

D2 : 1

K1 : 4009.224

K2 : 4174.775

DT : 4.25

FD : 0

DTG : 0

DFQ1 : 0

DFQ2 : 0

FlowCal : 142.344.50

FFQ : 0

FTG : 0

DensCal : 04009041754.25

FCF : 142.34

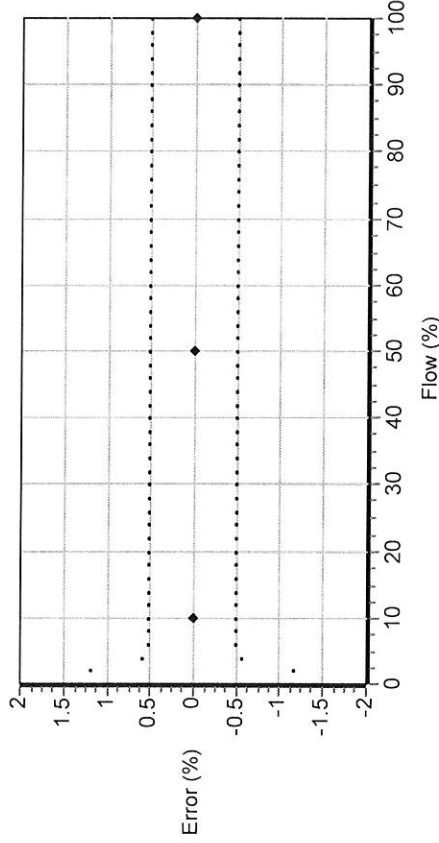
FT : 4.5

*[Signature]*

BUNGARDEAN, OVIDIU

Technician

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Flow (%)	Flow Rate (kg/min)	Meter Total (kg)	Reference Total (kg)	Error (%)	Specification (±%)
100.0	38.6	38.29763	38.30194	-0.011	0.500
10.0	3.86	7.855808	7.855709	0.001	0.500
50.0	19.3	19.74744	19.74662	0.004	0.500
100.0	38.6	38.24488	38.24686	-0.005	0.500

Product Code

CNG050S290NCAAEZZZ  
2700113BAEZWZ  
PUCK700

Serial ID

15098504  
3480816  
26112732

Order ID Line Item Customer Tag

10392206 2.1 1  
10392206 2.34 1



21011307A

Process

Process ID : 1.36091106  
Process Time : 2021.01.27 6:54:41  
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 : 142.34

FD : 0

FFQ : 0

FT : 4.5

FTG : 0

Flow PCP : 30

Flow PCF : 0

K1 : 4009.224

K2 : 4174.775

Mass Flow Meter Factor : 1

Volume Flow Meter Factor : 1

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 : 9.27661083  
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 : 6120746  
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

21011307A



**Tulsa Gas Technologies, Inc.**  
4809 S. 101<sup>st</sup> East Ave Tulsa, OK 74146  
PHONE: 918-665-2641 FAX: 918-665-2657

2/2/2021

Dispenser Serial Number 21011307

Side A

## Micro Motion Transmitter Configuration

Required settings for correct operation of Micro Motion mass flow meter.

Transmitter Model Number: 2700  
Sensor Model Number: CNG095  
Transmitter Serial Number: 3480816  
Sensor Serial Number: 15098504  
Flow Calibration Factor: 142.344.50  
Flow Units: lb/min

### Communication on RS-485

Protocol: Modbus ASCII 7 Bit  
Modbus Address: 1  
Baud Rate: 9600  
Parity: Even  
Stop Bits: 1

### HART Communication

Superimposed on Primary mA (PV)

### Analog Output (4-20 mA)

Analog Variable (PV): Mass Flow  
Lower Range Value: 00000 lb/min  
Upper Range Value: 300.000 lb/min  
mA Cutoff: 0.0000 lb/min

### Freq/Rate

Frequency variable (TV): Mass Flow  
Frequency Cutoff: 0.2500 lb/min  
Pulses per Unit: 1000.00000 per lb

### Temperature

Temp Units: deg F

**Product Code**

CNG050S290NCAAEZZZ

**Serial ID**

15087029

PUCK700

26124700

**Order ID**

10392206

**Line Item**

1.1 1

**Customer Tag**

21011307B

**Process**

Process ID : 1.36090150

Process Time : 2021.01.26 11:39:55

Process Stand : TSM1A@SSCB:1

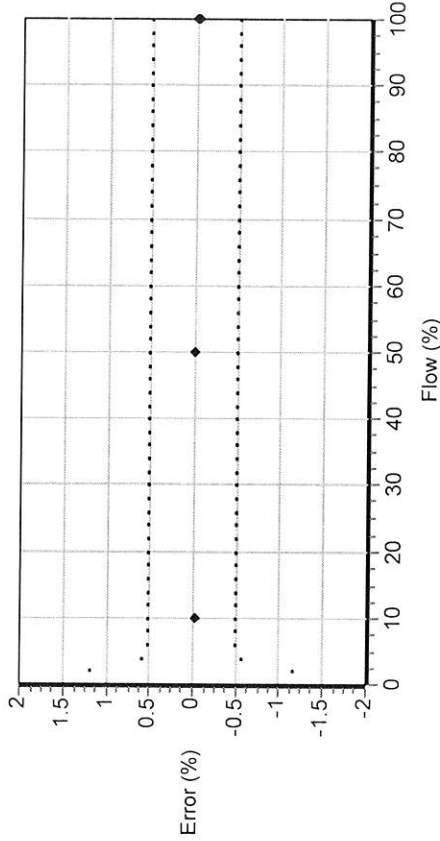
Stand Uncertainty : +/-0.030%

Fluid : H2O

100% Rate : 38.6 KG/MIN

Pickoff : 1

Max Rate P/T : 27.68 PSIG/21.4 C

**Detail****Results**

Status : PASS

D1 : 0

D2 : 1

K1 : 4022.657

K2 : 4191.956

DT : 4.25

FD : 0

DTG : 0

DFQ1 : 0

DFQ2 : 0

FlowCal : 140.014.50

FFQ : 0

FTG : 0

DensCal : 04023041924.25

FCF : 140.01

FT : 4.5

*Eddie Mitchell*  
 EDDIE MITCHELL

Technician

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

**Product Code**

CNG050S290NCAAEZZZ

2700113ABAEEZWX

PUCK700

**Serial ID**

15087029

3481998

26124700

**Order ID**

10392206

10392206

**Line Item Customer Tag**

1.1 1

1.34 1

21011307B

**Process**

Process ID : 1.36091123

Process Time : 2021.01.27 7:05:36

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 : 140.01

FD : 0

FFQ : 0

FT : 4.5

FTG : 0

Flow PCP : 30

Flow PCF : 0

K1 : 4022.657

K2 : 4191.956

Mass Flow Meter Factor : 1

Volume Flow Meter Factor : 1

**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 : 0.6433333  
 mA1 LRV : 0  
 mA1 URV : 643.3333

**Faults**

Frequency1 Fault Behavior : Upscale

**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

Faults

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

Other

Calibration Process ID : 1.36090150  
Core Software Rev : 35  
Density Cutoff : 0.2  
Density Damping : 0.8  
Density High Limit : 5  
Density Low Limit : 0  
Direction : FORWARD  
Fault Dwell Time : 0  
Feature Key : 1  
Flow Damping : 0.8  
HART Device ID : 6120744  
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 : 2.4  
Transmitter Software Rev : 80  
Volume Flow Cutoff : 0.11016

21011307B



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2/2/2021

Dispenser Serial Number 21011307

Side B

## Micro Motion Transmitter Configuration

Required settings for correct operation of Micro Motion mass flow meter.

Transmitter Model Number: 2700  
Sensor Model Number: CNG095  
Transmitter Serial Number: 3481998  
Sensor Serial Number: 15087029  
Flow Calibration Factor: 140.014.50  
Flow Units: lb/min

### Communication on RS-485

Protocol: Modbus ASCII 7 Bit  
Modbus Address: 1  
Baud Rate: 9600  
Parity: Even  
Stop Bits: 1

### HART Communication

Superimposed on Primary mA (PV)

### Analog Output (4-20 mA)

Analog Variable (PV): Mass Flow  
Lower Range Value: 00000 lb/min  
Upper Range Value: 300.000 lb/min  
mA Cutoff: 0.0000 lb/min

### Freq/Rate

Frequency variable (TV): Mass Flow  
Frequency Cutoff: 0.2500 lb/min  
Pulses per Unit: 1000.00000 per lb

### Temperature

Temp Units: deg F