

**FieldMate**

# **Calibration Support function Supplement Material**

**FieldMate Support Desk**

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# Preface

- This material states the detail reference for “Scaling function” when Calibration support function is used by FieldMate.
- The Calibration support function is available at the following software.
  - ◆ FieldMate R3.03.00 or later
  - ◆ CA700 (Firmware version 1.10 or later)

# Scaling function

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- Scaling function is used for the following cases.
  - ◆ The engineering unit of the connected device is not supported by CA700
  - ◆ The engineering unit above is not fully identical to CA700

# Use Case for using Scaling function

# Scaling Function - Use Case

## Use Case Condition

- Transmitter with 0-10197mmH<sub>2</sub>O is available at hand
- This is because transmitter setting is allowed on a text “mmH<sub>2</sub>O” basis
- However, CA700 identifies “mmH<sub>2</sub>O@4°C” or “mmH<sub>2</sub>O@20°C” only
- Discrepancy is encountered with error message during operation
- Procedure may be paused due to engineering unit issue

## How to solve

- This time, Scaling function is applied
- This document states “Scaling Function” how it works on FM and CA700
- Please proceed with your engineering unit and its data

# Scaling setting

- Set scaling from original to converted one in calibration tool
- Go “Next”

FM Pressure Calibration Support Device Tag :PT1111

**Setting**

Device Tag: PT1111 Loop Name: [ ]

Model: FIV110A-FMG11-310DN/DCC

Calibration point: 3

Direction: UpDown

Averaging: ON

Scaling: ON

Span: 0 - 10197 mmH2O@4°C

Scale: 0.00 - 10197 mmH2O

Calibration range: 0.00 - 10197 mmH2O

Calibrator: [ ]

TA13374

17/10/12

+/- 0.05 %

10 sec )

Apply Cancel Edit

Back Next Finish

# Start 1<sup>st</sup> target

## ■ “Start” and “Set”

Pressure Calibration Support Device Tag :PT1111

Preparation ✓  
Setting ✓  
Calibration As Found  
Calibration As Found Result  
Adjustment  
Calibration As Left  
Calibration As Left Result  
Finish

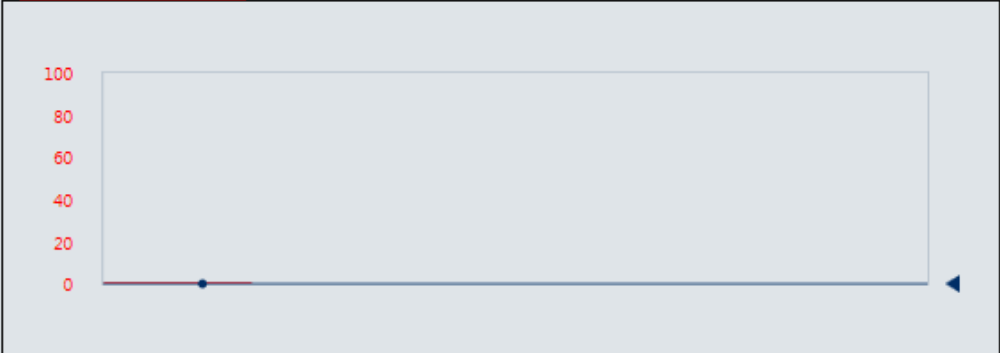
### Calibration As Found ( 3points/UpDown )

Start Stop

Current 4.000 mA Set Next point

Pressure 0.0 mmH2O

Target (Up 0.00 %) 0.000 mmH2O



Tolerance 0.05

Error 0.00

Calibration Status		Press.(mmH2O)	Current(mA)	Error	Result
Up	0.00 %	0.000	4.000	0.00 %	Pass
Up	50.00 %				
Up	100.00 %				
Down	50.00 %				

Back Next Finish



# 2<sup>nd</sup> target

- New Target appears, “Set” and “Next point”

FM Pressure Calibration Support Device Tag :PT1111


Preparation ✓  
Setting ✓  
Calibration As Found  
Calibration As Found Result  
Adjustment  
Calibration As Left  
Calibration As Left Result  
Finish

**Calibration As Found ( 3points/UpDown )** Start Stop

Current 11.970 mA Set Next point

Pressure 5079.6 mmH2O

Target ( Up 50.00 % )  
5,098.500 mmH2O



Tolerance 0.05

Error -0.01

Calibration Status

		Press.(mmH2O)	Current(mA)	Error	Result
Up	0.00 %	0.000	4.000	0.00 %	Pass
Up	50.00 %	5,083.300	11.975	-0.01 %	Pass
Up	100.00 %				
Down	50.00 %				

Back Next Finish

# 3<sup>rd</sup> target

- New Target appears, “Set” and “Next point”

FM Pressure Calibration Support Device Tag :PT1111

Preparation ✓  
Setting ✓  
Calibration As Found  
Calibration As Found Result  
Adjustment  
Calibration As Left  
Calibration As Left Result  
Finish

### Calibration As Found ( 3points/UpDown )

Start Stop

Current: 20.099 mA **Set** **Next point**

Pressure: 10260.2 mmH2O

Target (Up 100.00 %): 10,197.000 mmH2O

Tolerance: 0.05  
Error: -0.01

		Press.(mmH2O)	Current(mA)	Error	Result
Up	0.00 %	0.000	4.000	0.00 %	Pass
Up	50.00 %	5,083.300	11.975	-0.01 %	Pass
Up	100.00 %	10,262.000	20.101	-0.01 %	Pass
Down	50.00 %				

Back Next Finish

# 4<sup>th</sup> target

- New Target appears, “Set” and “Next point”

FM Pressure Calibration Support Device Tag :PT1111

Preparation ✓

Setting ✓

**Calibration As Found**

Calibration As Found Result

Adjustment

Calibration As Left

Calibration As Left Result

Finish

### Calibration As Found ( 3points/UpDown )

Start
Stop

Current: 11.875 mA **Set** **Next point**

Pressure: 5019.0 mmH2O

Target (Down 50.00 %): 5,098.500 mmH2O

Tolerance: 0.05

Error: -0.01

Calibration Status		Press.(mmH2O)	Current(mA)	Error	Result
Up	0.00 %	0.000	4.000	0.00 %	Pass
Up	50.00 %	5,083.300	11.975	-0.01 %	Pass
Up	100.00 %	10,262.000	20.101	-0.01 %	Pass
Down	50.00 %	5,017.900	11.872	-0.01 %	Pass

Back
Next
Finish

# last target

- New Target appears, “Set” and “Next”

FM Pressure Calibration Support Device Tag :PT1111

Preparation ✓  
Setting ✓  
Calibration As Found  
Calibration As Found Result  
Adjustment  
Calibration As Left  
Calibration As Left Result  
Finish

**Calibration As Found ( 3points/UpDown )** [Start] [Stop]

Current  [Set] [Next point]

Pressure

Target (Down 0.00 %)

Tolerance  Calibration Status

Error

		Press.(mmH2O)	Current(mA)	Error	Result
Up	0.00 %	0.000	4.000	0.00 %	Pass
Up	50.00 %	5,083.300	11.975	-0.01 %	Pass
Up	100.00 %	10,262.000	20.101	-0.01 %	Pass
Down	50.00 %	5,017.900	11.872	-0.01 %	Pass

[Back] [Next] [Finish]

# Data recorded in FM

- Final result is shown and proceed as you like

FM Pressure Calibration Support Device Tag :PT1111

**Calibration As Found Result ( 3points/UpDown )**

		Press.(mmH2O)	Current(mA)	Error	Result
Up	0.00 %	0.000	4.000	0.00 %	Pass
Up	50.00 %	4,974.500	11.805	-0.01 %	Pass
Up	100.00 %	10,342.300	20.226	-0.02 %	Pass
Down	50.00 %	5,288.400	12.298	0.00 %	Pass
Down	0.00 %	-0.100	4.000	0.00 %	Pass

Pass Fail Other

Comment

Generate Report

Save all parameters

Back Next Abort Finish

- If you have any inquiry about FieldMate, please contact to FieldMate Support Desk with the following e-mail address.
- FieldMate Support Desk
  - ◆ <field-mate-support-desk@cs.jp.yokogawa.com>