This notice of alterations amending that must be made to the 17th edition of FieldMate Versatile Device Management Wizard R3.03 (IM 01R01A01-01EN).

E FieldMate Startup

E-1 FieldMate Startup Window

◆ Modbus Modem communication Settings

● Startup

Start from Login window -> Communication settings -> Modbus RTU (YOKOGAWA) -> Setting.
Start this function from Modbus Interface Configuration of the Tool menu of the main window.

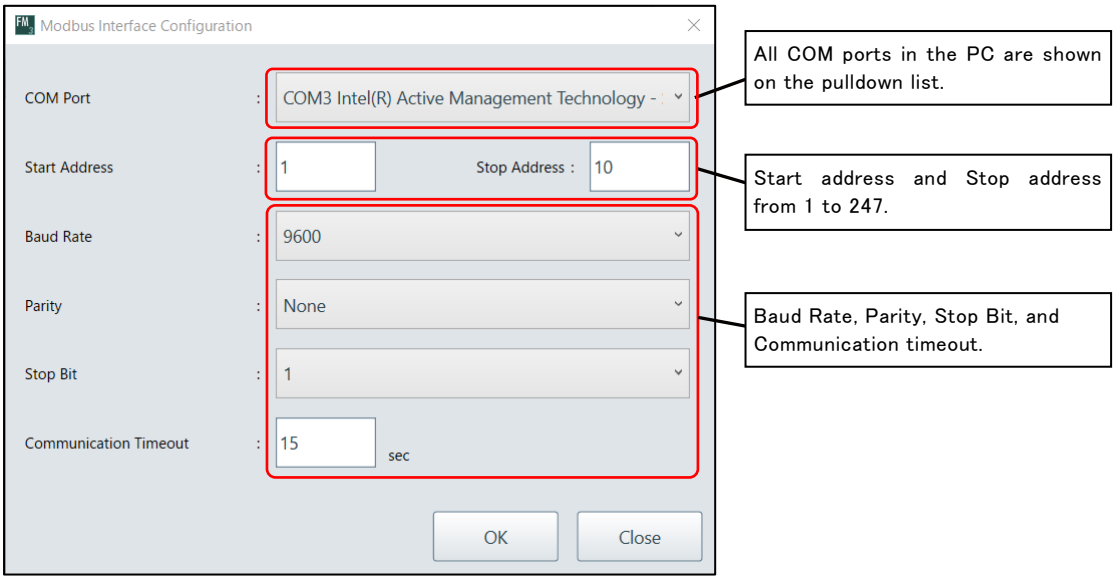

Figure E-1-1 Modbus Modem Configuration

H Segment Viewer

H-2-4 Input Loop Check Support

■ Perform Input Loop Check Support

Start Test button starts the process, the status and progress of the test are monitored.
To abort the test process, please press Abort button.
User can operate the followings in Execute dialog.

Icon	Function
	Toggle ON / OFF of Repeate mode of test pattern. When Repeat mode is ON, the color of the icon turns blue.
	Re-output the simulated signal being output from the beginning. When it is pressed twice consecutively, it returns to the previous simulation signal and starts outputting.
	Interrupts the simulated signal being output and starts outputting the next simulated signal.
	When the test pattern is being executed, the color of the icon becomes blue. Pressing the icon while maintaining the simulated signal output resumes the output of the simulation signal.
	When the simulated signal output is maintained, the color of the icon turns blue. (Test pattern interruption) Pressing the icon while executing the test pattern maintains the output of the simulation signal.
Temporary Output	Display a dialog for outputting an arbitrary simulation signal. It is effective only during test pattern interruption.

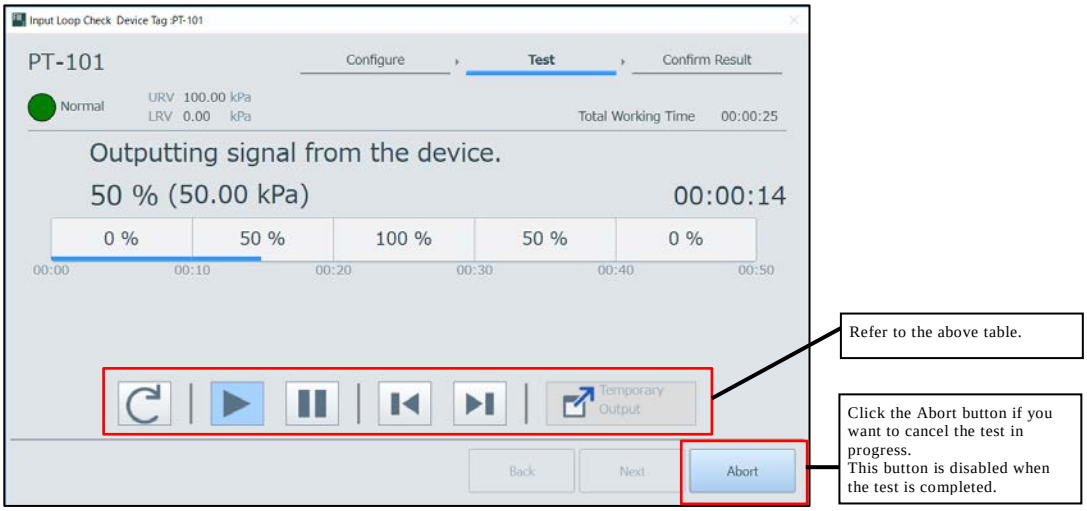

Figure H-2-1 Input Loop Check Support Status

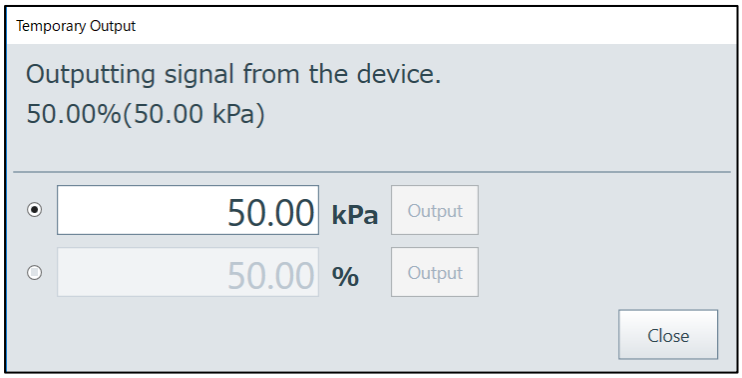

Figure Temporary Output dialog

After the input loop check is completed, the window shows the test results.

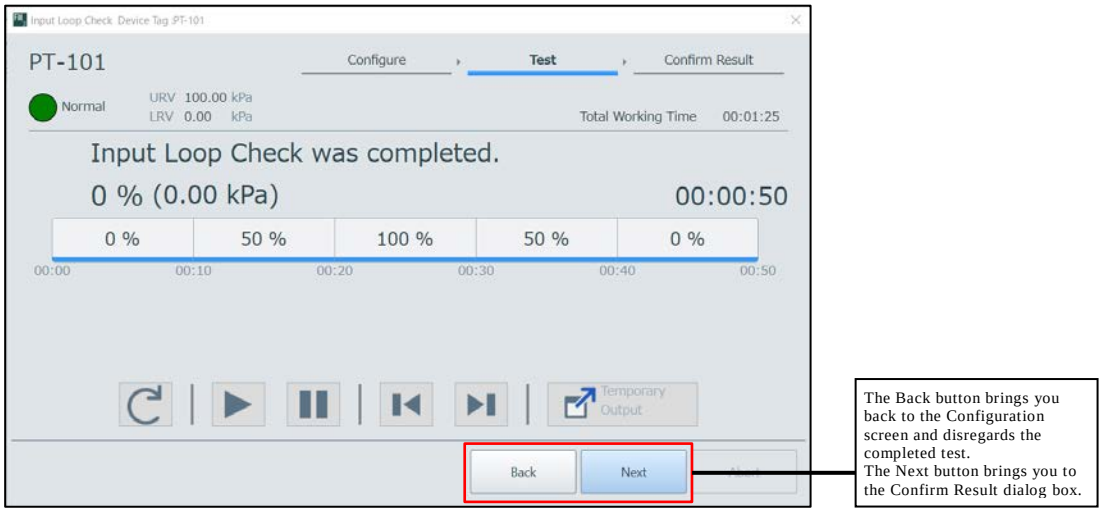

Figure H-2-2 Input Loop Check Support Results

H-2-9 Relationship with Device Maintenance Info window

The following shows the relationship between Segment Viewer and Device Maintenance Info window.

Table H-2-3 Correspondence of Segment Viewer/Device Management Info window and Communication Path (Communication method)

Segment Viewer Item	Device Maintenance Info Item	HART	FOUNDATION fieldbus	PROFIBUS	BRAIN	ISA100 (Infrared)	ISA100 (Gateway)	HART (GW)	Modbus (GW)
Device Info	Device Info	○	○	○	○	○	○	○	○
All Parameters	Parameter	○	○	×	○	○	○	×	×
Adjustment Parameters		○	×	×	○	×	×	×	×
Sticky Note	Sticky Note	○	○	○	○	○	▲ *3	▲ *3	▲ *3
Image	Image	○	○	○	○	○	▲ *3	▲ *3	▲ *3
Typical Parameter	—	○	○	×	○	×	×	×	×
Provisioning	—	×	×	×	×	○	×	×	×
PM Data *1	Attachment	○	○	×	×	○	○	×	×
DTM Data *2		○	○	○	○	○	○	○	○

*1：Data saved on DB from Parameter Manager.

*2：Data saved on DB from DTM Works (DTM).

*3：Show, edit or add operations from the device navigator are available. They are hidden on the Segment Viewer.

S Calibration Support

S-2-4 Operation

The procedure of operating Calibration Support function is as follows.

■ Preparation

1. Power on CA700.
2. Connect instruments according to Figure S-2-2.

■ Start FieldMate

1. Start FieldMate. If FieldMate has been already started, click Update button in the main window.

■ Start Calibration Support function

1. FieldMate starts Calibration Support function automatically when finding to connect to CA700. Then Start dialog appears

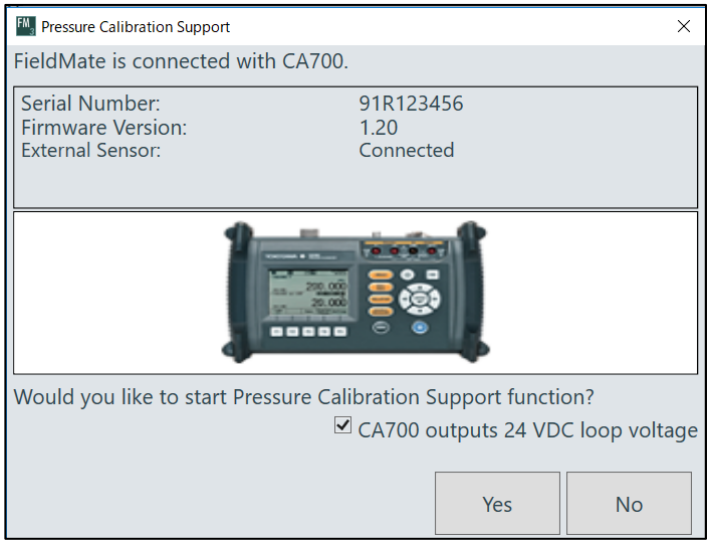

Figure S-2-1 Start dialog

2. CA700 can apply the loop voltage for the target device. Check “CA700 outputs 24 VDC loop voltage” if this function is used.
3. Click “Yes” for starting Calibration Support function.

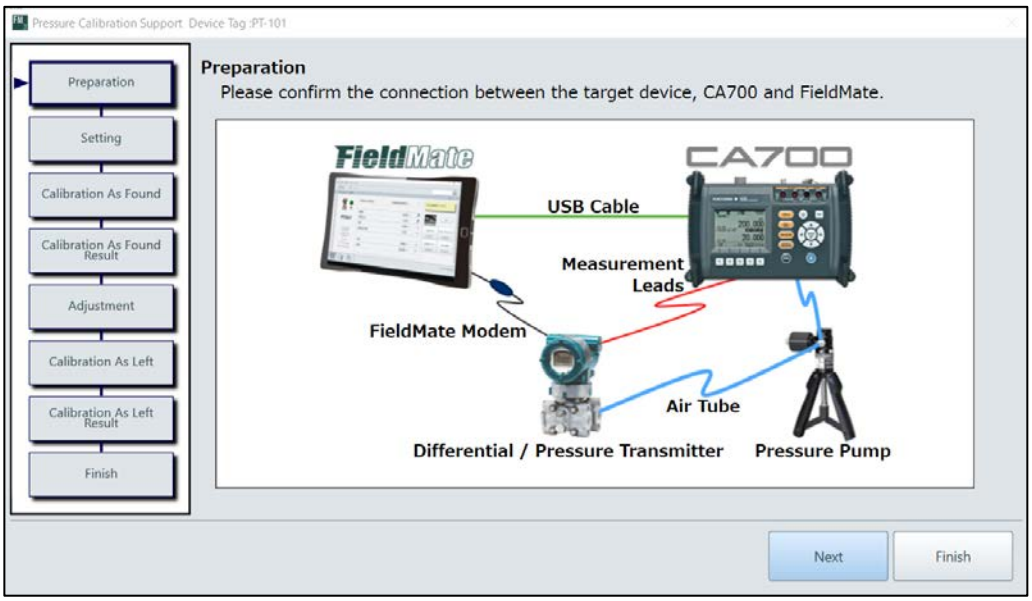

Figure S-2-2 Preparation dialog

■ Settings for calibration work

1. Setting dialog appears.
   The configuration items for the external pressure sensor are displayed at the bottom of the dialog when the PM100 external pressure sensor is connected to the CA700.

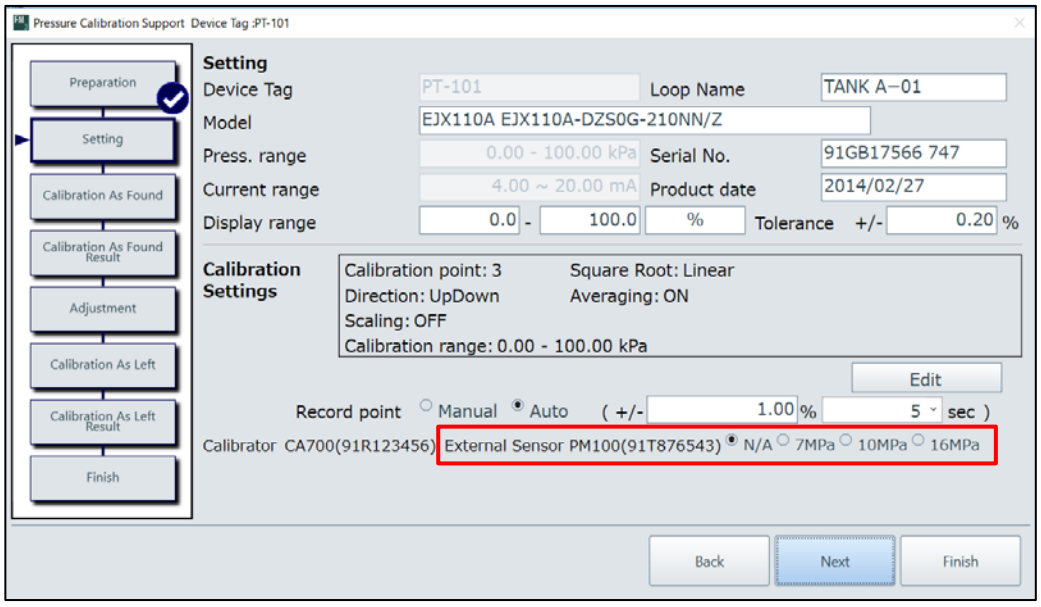

Figure S-2-3 Setting dialog

2. Configure the setting data for calibration work. The detail setting dialog appears if clicking Edit button

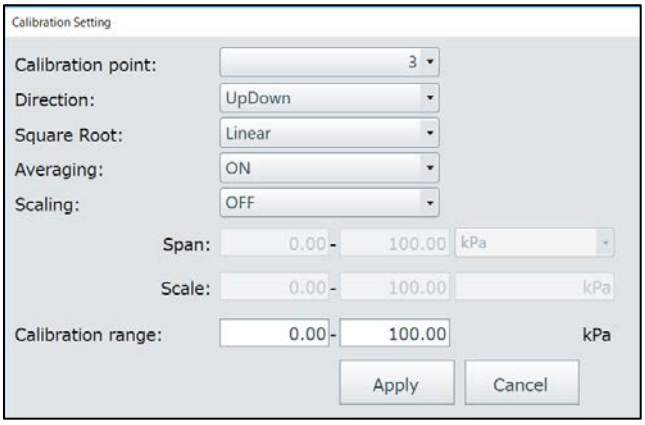

Figure S-2-4 Detail setting dialog

The setting items are following tables.

Table S-2-1 Setting items (1/2)

Item	Attribute	Remarks
Device Tag	Display only	Device Tag name of the target device
Loop Name		Loop name of the target device
Model		Model name of the target device. The device information is displayed as initial value if the target device is Yokogawa pressure transmitter.
Press. range	Display only	Input value range of the target device
Current range	Display only	Output value range of the target device
Display Range		Display range of the target device
Serial No.		Serial Number of the target device
Product Date		Product date of the target device
Tolerance		Tolerance for pass/fail judgment
Record Point	Manual Auto	Set the record mode for calibration data
Target Range for Automatic mode	0 to 5.00 %	The range for the test point This item is enabled if Automatic mode.
Target Time for Automatic mode	1 to 1000 sec.	The remain time for the test point This item is enabled if Automatic mode.
Calibrator	Display only	The serial number of CA700

Figure S-2-1 Setting items（2/2）

Item	Attribute	Remarks
Calibration point	1 to 10	Set the number of calibration points. Set the number of measurement points 0% to 100%. The range is 1 to 10. If you specify 1, the calibration is performed at 0% if the calibration direction (Direction) is set to Up or Up/Down and 100% if set to Down. If you specify a number between 2 and 10, the calibration is performed for the number of specified points. This includes calibration at 0% and 100%. The calibration points are at equally divided points between 0% and 100%. For example, if the number of calibration points is set to 5, the calibration points are 0%, 25%, 50%, 75%, and 100%.
Direction	Up Down Up/Down	Set whether to start calibrating from 0% (Up), from 100% (Down), or from 0% to 100% back down to 0% (Up/Down). Up: 0% to 100% Down: 100% to 0% Up/Down: 0% to 100% to 0% If the calibration direction is Up/Down, the number of calibration points is given by Number of calibration points = (Number Of Points setting) x 2 – 1. For example, if the number of calibration points is set to 5, the calibration points are 0%, 25%, 50%, 75%, 100%, 75%, 50%, 25%, and 0% (total of 9 points).
Square Root	Linear Square Root	Set the device configuration of square root setting.
Averaging	ON OFF	CA700 displays moving average results.
Scaling	ON OFF	CA700 displays linearly scaled results. You can assign a unit appropriate for the values after scaling.
Scaling - Span		The base value of liner scaling function This item is enabled if scaling is ON.
Scaling - Scale		The transferred value of liner scaling function This item is enabled if scaling is ON.
Calibration range		Set the 0% and 100% of the calibration range in terms of the calibration target input and output (which corresponds to the input).

NOTE

About the tolerance:

Tolerance = ±((100% value of the measurement function – 0% value of the measurement function) × tolerance setting / 100)

For example, when the calibration target output is 4 mA to 20 mA and this range is assigned to 0 to 100%, if the tolerance range is set to 0.02%, the tolerance is given by

±(20 mA – 4 mA)×0.02/100 = ±0.0032 mA.

NOTE

About the tolerance in the case of “Square Root” setting:

Current output is 50% or over:

”Toleramce setting”

Current output is 0% or over and less than 50%:

”Toleramce setting” * 50 / Current output (%)

Current output is 0%:

”Toleramce setting”

3. Click [Next] button and then Calibration As Found dialog appears.

■ Calibration As Found

Zero calibration of CA700 is performed before device calibration work.

Zero calibration of CA700 can be performed with pressing [CA700 ZERO] button in Calibration dialog.

NOTE

Refer to CA700 Pressure Calibrator User’s Manual (IM CA700-01EN) about the detail information of Zero Calibration of CA700.

Zero calibration of CA700 can be performed in Adjustment phase and Calibration As Left phase.

Calibration As Found has two modes of Manual and Automatic.

In Manual mode, the calibration data is recorded by user.

In Automatic mode, the calibration data is recorded automatically according to the configured condition.

● Manual mode

1. Calibration As Found dialog appears.

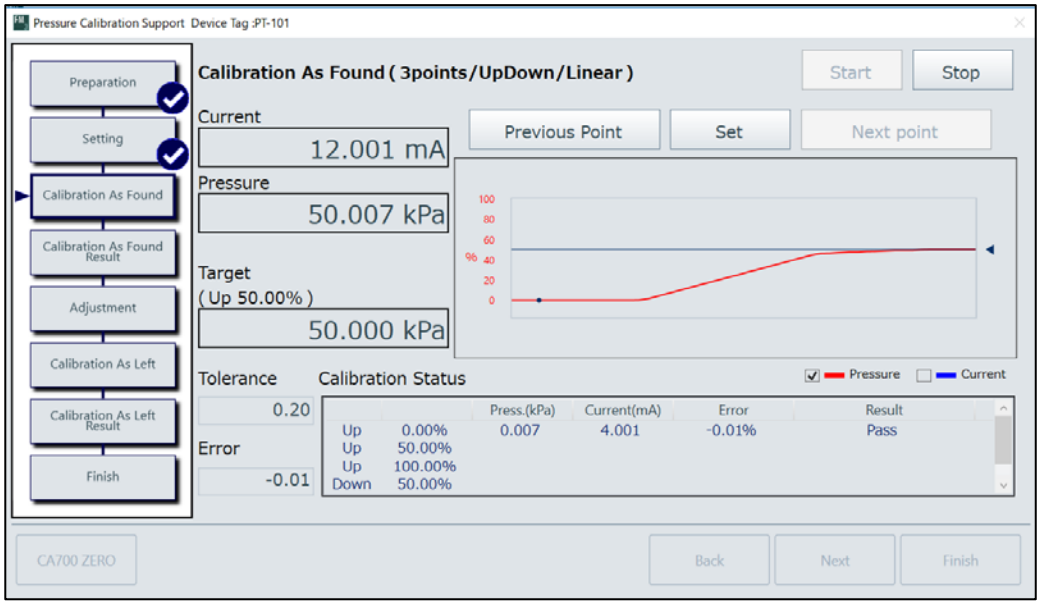

Figure S-2-5 Calibration As Found dialog (Manual mode)

2. Click [Start] button and then Calibration Support function start to plot pressure value on a trend graph.
3. The current value and pressure value are displayed in the Current and Pressure text box.
   The calibration point (pressure) is displayed in the Target text box. The pressure value (red line) and the target value (blue line) are displayed as trend graph in graph area.
   Pressure line and Current line graph are displayed if each check box below the graph area is checked.
4. User inputs the pressure to the pressure transmitter with pressure pump to refer to the trend graph.
5. Click [Set] button when the output signal from the target device is stabilized and then the current value and pressure value are recorded as the calibration data. The calibration data is displayed in the result area.
6. Click [Next point] button to proceed to the next calibration point. User repeats step 3 to 5.
   User can re-record the calibration data of previous point with pressing [Previous point] button.
7. Click [Next] button after recording the calibration data of every calibration point and then Calibration As found Result dialog appears.

● Automatic mode

1. Calibration As Found dialog appears.

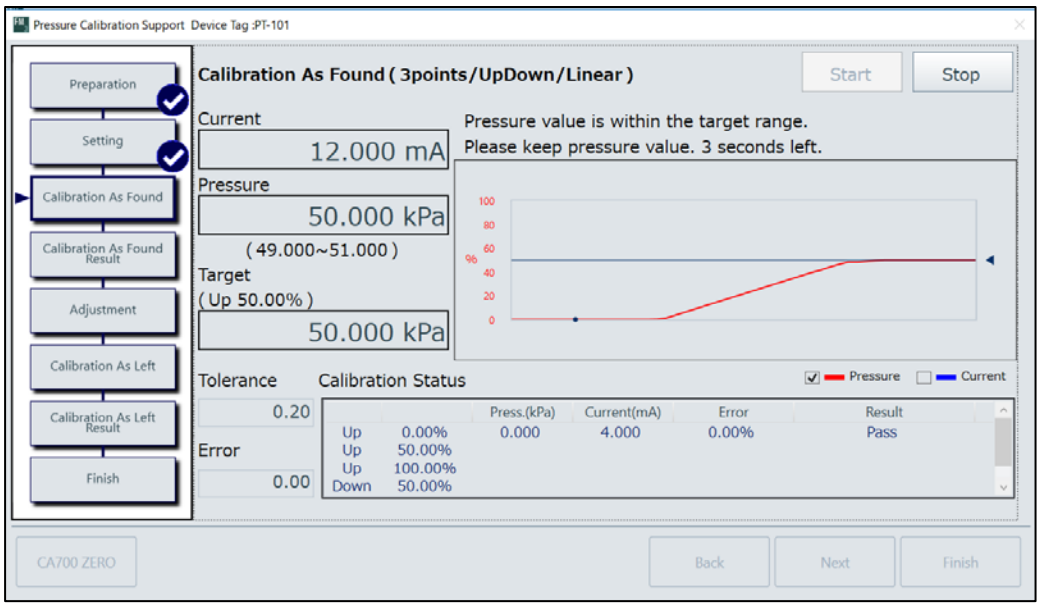

Figure S-2-6 Calibration As Found dialog (Automatic mode)

2. Click [Start] button and then Calibration Support function start to gather current value and pressure value from CA700.
3. The current value and pressure value are displayed in the Current and Pressure text box. The calibration point (pressure) is displayed in the Target text box. The pressure value (red line) and the target value (blue line) are displayed as trend graph in graph area.
   Pressure line box and Current line box graph are displayed if each check box below the graph area is checked.
4. User inputs the pressure to the pressure transmitter with pressure pump to refer to the trend graph.
5. The message for keeping input pressure is displayed when the input pressure is in the target range. Keep the input pressure for the target time.
6. After target time, the current value and pressure value are recorded as the calibration data automatically. The calibration data is displayed in the result area.
7. The calibration support function proceeds to the next calibration point automatically. User repeats step 4 to 6.
   User can re-record the calibration data of previous point with pressing [Previous point] button. [Previous point] button is not enabled during the input pressure is in the target range.
8. Click [Next] button after recording the calibration data of every calibration point and then Calibration As Found Result dialog appears.

S-3-1 Conformation the calibration result in History window

3. Click Detail button ( ) of target work and then the detail calibration information of the target work. Also, user can output the calibration result as report.
   If All parameter of the device has been acquired in the calibration result dialog, each parameter information van be output with pressing [All Parameters (Calibration As Found (Left))] icon.

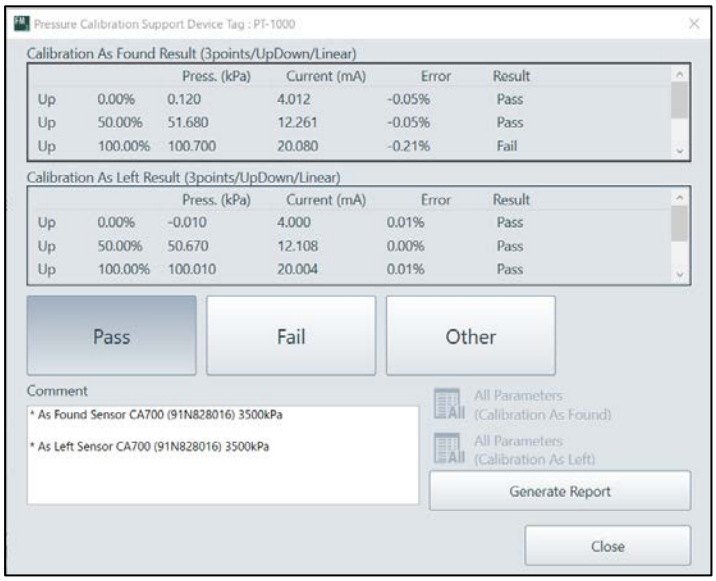

Figure S-3-7 Calibration Result dialog