2455 Piston Gauge Monitor, Setup in COMPASS for Pressure software



This procedure is intended for Fluke Calibration customers with COMPASS for Pressure Calibration software and 2455 Piston Gauge Monitor and 2400 series piston gauge

Purpose

This document instructs how setup a 2455 Piston Gauge Monitor in COMPASS for Pressure calibration software.

Notes

See 2455 Piston Gauge Monitor user manual and COMPASS for Pressure online help file

Instructions

First try to find an example setup that is in the hidden example database (updated from the default.mdb file)

- a. [Setup], <Support Device>
- b. Click new icon (blank white piece of paper)
- c. Choose "Ruska" as Manufacturer and "2455" as Model, then click the binoculars icon to the right to search the example database
- d. Double-click on a 2455 example setup, then click [OK] on the pop-up window reminding you to doublecheck the settings
- e. Go through the various tabs verifying the settings and values.

Header tab; Serial Number, Identification or Customer ID is required for an "Individual" device

		Support Device Editor		×
	Record Label 2455 PG Mo	pnitor	2 / 66	D
(He	eader Calibration Communications	Output Set Comment		Ð
	Support Device Type	Simple Device	•	
	Record Type	Individual	•	K 0
	Manufacturer	Ruska	- <u>M</u>	
	Model	2455	▼	\times
	Serial Number	49044		
	Identification			H
	Customer ID			
		This device can be used as a DUT.		
				_
-				
		Close		

Calibration tab, entries are optional

Support Device Editor	×
Record Label 2455 PG Monitor 2 / 66	D
Header Calibration Communications Output Set Comment	49
Calibration Date 4 /20/2006 Calibration Due Date 4 /20/2006	
Calibration Performed By Certification ID	
Calibration Setting1 Calibration Setting3	
Calibration Setting2 Calibration Setting4	
M&TE Device	
Record Last Edited 9/4/2014 1:01:04 PM	
Record Last Edited By Admin	
,	
Chara I	-

Communications tab. NOTE: The Handshaking selection is critical. It must be set to RTS/CTS

Support Device Editor		×
Record Label 2455 PG Monitor	<mark>2/66</mark> ↓ ↓	
Header Calibration Communications Output Set Comment	Ŀ	18
_ Interface _ Common read and set interface.		
Data Acquisition Type RS232		n
RS232 Port COM1 Ports RS232 Settings 19200,N,8,1	·	x
Handshaking RTSXON/XOFF 💌	-	
Binary Command Set 🕅		- <u>6</u> -
Command Timeout(s) 8		- 1 6
Command Terminator <cb><lf></lf></cb>		2
Response Terminator CR> <lf></lf>		-
Close		

Outputs tab, Ambient Pressure

	Support Device Editor	×
Record L	abel 2455 PG Monitor	D
Header Calibration (Communications Output Set Comment	Ð
Final Output Labels		
1)Amb P 2)Amb BH	Output #1	\sim
3)Amb Temp 4)Position	Final Output Ambient Pressure: 70.000 / 110.000 kPa	×
5)PRT	Edit Output	• <u>`</u>
Add	<u> </u>	
Copy <u>R</u> emove		0
	Close	

Outpu	Relationship
Raw Output Final Output Tolerance	•]
Required Raw Outputs to d	etermine Final Output 📔 💌
Output Type Press	ure 💌 kPa 💌
Output Source RS23	2 🔹
Minimum 70.00	D
Maximum 110.0	00
Resolution 0.001	-
Raw Output to Final Output Relat	ionship
Same {Raw Output = Final Outp	ut} 🔹
<u></u> K	<u>C</u> ancel

Output R	Output Relationship	
Raw Output Final Output Tolerance		
Label	Amb P	
Output Type	Pressure	
Final Output	Ambient Pressure 🔹	
Pressure Measurement Mode	Absolute 🔹	
Unit	kPa 💌	
Minimum	70.000	
Maximum	110.000	
Resolution	0.001	
	Cancel	

Output Relationship
Raw Output Final Output Tolerance
Number of Tolerance Segments 1 - Segment Tolerance %Span - %Span 0.010
Tolerance Segment Definition All Final Outputs
<u>O</u> K <u>C</u> ancel

69	:Amb P		×
Commands Read *1)ABP	Command Global Settings		D
	Command Type	Read	Ð
	Command Number	1 💌	
	Command	ABP	
	Delay After Command (s)	0	- KO
	Read Response Process Besponse	X X	-
	Manipulate Response	······································	\mathbf{X}
			2
	<u>K</u>		

Outputs tab, Ambient Relative Humidity

	Support Device Editor		×
Record Labe	2455 PG Monitor	<mark>2/66</mark> ∢ ▶	
Header Calibration Com	munications Output Set Comment		
1)Amb P 2)Amb RH 3)Amb Temp	Output #2 Raw Output Humidity 0.0 - 100.0 %RH		ю
4)Position 5)PRT	Final Output Ambient Humidity: 0.0 / 100.0 %RH		X
Add Copy <u>R</u> emove	<u>E</u> dit Commands		9 5 (2)
	Close		

Output Relationship ×
Raw Output Final Output Tolerance
Required Raw Outputs to determine Final Output
Output Type Humidity 🗨 🗶 RH 💌
Output Source RS232
Minimum 0.0
Maximum 100.0
Resolution 0.1
Raw Output to Final Output Relationship
Same {Raw Output = Final Output}
OK <u>C</u> ancel

Output Relationship	x
Raw Output Final Output Tolerance	
Label Amb RH	
Output Type Humidity	
Final Output Ambient Humidity	
Unit 🛛 🕞 🚽	
Minimum 0.0	
Maximum 100.0	
Resolution 0.1	
<u>OK</u> <u>Cancel</u>	

Output Relationship ×
Raw Output Final Output Tolerance
Number of Tolerance Segments 1 💌
Segment Tolerance 🏾 🗶 Span
%Span 0.010
Tolerance Segment Definition All Final Outputs
Min Max

69	Output Command Editor:Amb RH	×
Commands Read *1)ABH	Command Global Settings Command Type Read Command Number Command Number Command ABH Delay After Command (s) Read Response Process Response Manipulate Response	
	<u>0</u> K	

Outputs tab, Ambient Temperature

	Support Device Editor	×
Record L	abel 2455 PG Monitor	D
Header Calibration (Communications Output Set Comment	Ð
Final Output Labels		
1)Amb P 2)Amb BH	Output #3	KO
3)Amb Temp	Raw Output Temperature 0.000 - 100.000 C	
4)Position 5)PRT	Final Output Ambient Temperature: 0.000 / 100.000 C	\mathbf{X}
	Edit Output	
Add	<u>E</u> dit Commands	
Сору		
<u>R</u> emove		9
	Close	

Output Relationship	×	
Raw Output Final Output Tolerance		
Required Raw Outputs to determine Final Output		
Output Type Temperature 🗨 C 💌		
Output Source RS232		
Minimum 0.000		
Maximum 100.000		
Resolution 0.001		
Raw Output to Final Output Relationship		
Same (Raw Output = Final Output)		
<u>D</u> K <u>C</u> ancel		

Output Relationship	×
Raw Output Final Output Tolerance	
Label Amb Temp	
Output Type Temperature	
Final Output Ambient Temperature	
Unit C	
Minimum 0.000	
Maximum 100.000	
Resolution 0.001	
QK <u>Cancel</u>	

Output Relationship ×
Raw Output Final Output Tolerance
Number of Tolerance Segments 1
Segment Tolerance 🎇 Span
%Span 0.010
Tolerance Segment Definition All Final Outputs
Min Max
<u></u> K <u>C</u> ancel

Ø 0	utput Command Editor:Amb Temp	×
Commands Read *1)ABT	Command Global Settings Command Type Read Command Number 1 Command ABT Delay After Command (s) 0 Read Response Process Response Manipulate Response ,	□ ■ ↓ × ?
<u> </u>		

Outputs tab, Piston Position (FPI)

Support Device Editor	×
Record Label 2455 PG Monitor	D
Header Calibration Communications Output Set Comment	e e
Final Output Labels 1)Amb P 2)Amb RH 3)Amb Temp Position -0.500 cm	ю
4)Position Final Output Piston Position: -0.500 / 0.500 cm 5)PRT Edit Output	×
Add Edit Commands Copy	2
Close	

Output Relationship ×		
Raw Output Final Output Tolerance		
Required Raw Outputs to determine Final Output		
Output Type Position 💌 cm 💌		
Output Source RS232		
Minimum -0.500		
Maximum 0.500		
Resolution 0.001		
Raw Output to Final Output Relationship		
Same {Raw Output = Final Output}		
<u>DK</u> <u>Cancel</u>		

Output R	Relationship	×
Raw Output Final Output Tolerance		
Label	Position	
Output Type	Position 💌	
Final Output	Piston Position 💌	
Unit	cm 🔽	
Minimum	-0.500	
Maximum	0.500	
Resolution	0.001 💌	
Ок	Cancel	

Output Relationship ×
Raw Output Final Output Tolerance
Number of Tolerance Segments 1 💌
Segment Tolerance 🏾 🗶 Span
%Span 0.010
Tolerance Segment Definition All Final Outputs
Min Max

69	Output Command Editor:Position	×
Commands	Command Global Settings Command Type Read Command Number Command Number Command FPA Delay After Command (s) Read Response Process Response Manipulate Response	□ ■ □ × ?
	<u>Ω</u> K	

Outputs tab, PRT (Piston-cylinder temperature)

	Support Device Editor	×
Record L	Label 2455 PG Monitor 2 / 66	, D
Header Calibration (Communications Output Set Comment	
Final Output Labels [1]Amb P	Outout #5	
2)Amb RH 3)Amb Temp 4)Position	Raw Output Temperature 0.0 - 100.0 C Final Output P-C Temperature: 0.0 / 100.0 C	X
	<u>E</u> dit Output	
<u>A</u> dd Copy <u>R</u> emove	<u> </u>	2
	Close	

Output Relationship				
Raw Output Final Output Tolerance				
Required Raw Outputs to determine Final Output				
Output Type Temperature 🗨 C 💌				
Output Source RS232				
Minimum 0.0				
Maximum 100.0				
Resolution 0.1				
Raw Output to Final Output Relationship				
Same {Raw Output = Final Output}				
<u></u> <u></u> <u></u> <u></u> <u></u> <u></u> <u></u>				

Output Relationship				
Raw Output Final Output Tolerance				
Label PRT				
Output Type Temperature				
Final Output P-C Temperature				
Unit C				
Minimum 0.0				
Maximum 100.0				
Resolution 0.1				
<u>Q</u> K <u>C</u> ancel				

Output Relationship ×
Raw Output Final Output Tolerance
Number of Tolerance Segments 1 💌
Segment Tolerance 🍾 Span
%Span 0.010
Tolerance Segment Definition All Final Outputs
JToi
Min Max
<u>OK</u> <u>Cancel</u>

69	Output Command Editor:PRT			
Commands Read *1)RTA	Command Global Settings Command Type Read Command Number Command T Command RTA Delay After Command (s) 0 Read Response Process Response Manipulate Response	□ ■ □ × ?		
<u> </u>				

Set tab, blank - this is a Read device only

Support Device Editor	×	
Record Label 2455 PG Monitor		
Header Calibration Communications Output Set Comment	Þ	
Final Set Labels Baw Set		
Final Set	5	
Edit Set	X	
Use Ready Status Hold/Stability Ready Add		
Copy Use Remote Vent Manual Vent Bemove Use Remote Control Abort Manual Control Abort	2	
<u><u>C</u>lose</u>		

Comments tab, comments are optional

Support Device Editor		×
Record Label 2455 PG Monitor	<mark>2/66</mark>	Ľ
Header Calibration Communications Output Set Comment		Þ
Device Comment		
	^	5
		\times
	~	2
Close		

End of Procedure

Fluke Calibration. Precision, performance, confidence.**

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