Sept 2015 / J. Weiss

Quick Start Guide <u>Installing a</u> Keller Pressure / Vacuum Transducer

Items Required

Keller Transducer - Series 30 - Preciseline Model 0308.36723.070369 Keller CCS30 - Test and Setup software Power Supply - A/C wall adapter 12VDC RS-422/485 to RS-232 adapter RS-232 Serial Port - USB adapter Total Vu Software w/ *Keller Series30.ini* device file

- μLinc Setup Install RS-232 USB adapter into any μLinc USB port, follow mfg instructions. Note the COM port number in device manager. Set COMx: port to 9600,8, n,1
- 2. The Transducer is pre-wired to the A/C wall adapter 12VDC
- 3. Install Transducer into target machinery

4.	Transducer	pin-out	LaserLinc extender cable pin-out:
	Black - 3.3	- 12VDC	Red
	White -	Ground	Blk (paired with Red)
	Blue -	RS-485A	White (T/R+)
	Yel -	RS-485B	Blk (paired with white (T/R-)

- 5. Connect White / Black wires to RS-485 adapter per chart above
- 6. Plug RS-485 adapter into RS-232 serial port on µLinc
- 7. Plug A/C adapter into 120VAC outlet

TotalVu Setup

- 1. Exit Total Vu
- 2. Copy file Keller Series 30. ini into Total Vu's c:\Laserlinc\Total Vu\devices folder
- 3. Install Keller's CCS30 config and test program



4. Run CCS30, search for device. This device found on COM3:1 (device 1)

Control Cer	nter Series 30)		
leasuremer	nt View	Extras mbar	- Help	
Devices				
Interface:	Baud Rate	e:	Address: (e.g.: 30-35 8	(8) Devices
auto	▼ auto	•	auto (250)	 Search
SN F	Range	Device-Type	Address	Remove
186479 8	00.0 - 2000.0 n	nb S30X	COM3: 1	Configuro
				Conligure
				NewMagawamant
				New Measurement
				Current Meas. Values

5. Goto Config - Set device to address 1 (or 2 if second device), click the write button

Configure: 186479 Configuration SN:	186479 (S30X)	• mbar •	1 an		X
Device-Type: Software Version: Serial Number:	5.20 (S30X) 5.50 186479	Compensated Pressur Compensated Tempe Current Address:	e Range: rature Range:	800.0 - 2000.0 mbar -10.000 - 80.000 °C 1	
Zero / Current Values Address Current Address:	Communication	New Address:	1		Write
Baud Rate Current Baud Rate:	9600	New Baud Rate:	9600	¥	
					Write



6. In the Zero/Current Values Tab set the Zero Mode to *Defaultvalue* and click Run, Exit CCS30 software.

Configure: 186479				· Cara Ma		X
Configuration SN: 18	6479 (S30X)	▪ mbar	-			
Information						
Device-Type: 5.20	(S30X)	Compensate	d Pressure Range:	800.0 - 2000.0 mbar		
Software Version: 5.50		Compensate	d Temperature Range:	-10.000 - 80.000 °C		
Serial Number: 1864	79	Current Addr	ess:	1		
Zero / Current Values Cor P1 : Pressure Sensor 1 Current Value:	nmunication 987.24	mbar				
Zero-Mode:	Defaultvalue	•	mbar		Run]
TOB1 : Temperature of P	ressure Sensor 1					51
Current Value:	24.23	°C				
Status: Connected						

7. Run Total Vu Software / Full Config / Serial I/O

8. Select appropriate *COMx* port, set communication settings as shown (if necessary)

COM Port 3	Approaches Tanger Andre All Martin	X
COM Port Select the Serial Ports category of COM1 COM3	Port. Total Vu works with any serial port that appears in the f the operating system's Device Manager.	1
Settings Select settings to for the device or o Use Device M	o match the device connected to the port. Refer to the documentation contact the manufacturer if you are unsure of the device's settings.	
<u>B</u> aud Rate <u>D</u> ata Bits <u>P</u> arity <u>S</u> top Bits <u>F</u> low Control	9600 8 None 1 None	
	« <u>B</u> ack <u>N</u> ext » Cano	cel



9. Select Modbus RTU & choose a Modbus Network Name

COM Port 3			
Usage Select how the port will be utilized. W can be any mix of device types includir input measurements are defined on th	th Modbus, m ng multiple of f ne next tab.	; ultiple devices may be connected and there the same type. With Modbus and ASCII, the	2
 C Disabled C Output Modbus RTU C Custom ASCII Protocol 			
Modbus Network Name Enter the name for the network. It mu The name may be up to 30 characters any of the names listed below.	at begin with a in length and	a letter or a digit. [] or are illegal. it must be unique. It cannot match	
Existing Modbus Network Names			
		Rade Nort - Capaol	

10. Select Keller Series 30 from Device Type, Click Add Device to Network. Select P1 then click Add Measurement

COM Port 3	
Input Measurements To add devices to the Modbus network, select the Device to Network button. To add measurem device browser below, select the type of measurement	3 rice Type and Device ID below and click ents to monitor, select the device in the t from the list and click the Add button.
Modbus <u>Network Devices & Measurements</u>	Edit Delete
Device Type	Measurement <u>T</u> ypes
EuroTherm 2216e EuroTherm 3208h Keller Series30	CFG_P CFG_T CH0 Firmware Class_Group Firmware Year_Week P1
Device ID 1 Add Device to Network	<u>A</u> dd Measurement « <u>B</u> ack <u>N</u> ext » Cancel



11. Select these values;



12. Click through, name measurement BAR & finish

Modbus Input Measurement - P1 on Keller [Keller Series30]	×
Measurement Name	5
Enter the name for the new measurement. It must begin with a letter or a digit. [] or are illegal. The name may be up to 30 characters in length and it must be unjoue. It cannot match any of the names listed below.	
Bar	
Existing Measurements (shown for convenience)	
« <u>B</u> ack <u>F</u> inish	Cancel



13. Add Temperature measurement - Select TOB1 & click Add Measurement

General Port Settings Usage Measurements Timi	na Commands								
To add devices to the Modbus network, select the Device Type and Device ID below and click									
the Add Device to Network button. To add measurements to monitor, select the device in the device browser below, select the type of measurement from the list and click the Add button.									
Modbus Network Devices & Measurements		Edit							
-Bar [P1]									
□ □ Temp [TOB1] □ 3: Keller Series30									
Device3_BAR [P1] Device3 Temp (TOB1)									
Device Type	Measurement	<u>T</u> ypes							
EuroTherm 2216e EuroTherm 3208h	P1 P2	^							
Keller Series30	STAT								
	TOB1								
Device ID 1 + Add Device to Network	11002	Add Measurement							
		V							
Modbus Input Measurement - TOB1 on Keller [Keller S	Series30]	1							
Number to Average									
and average before reporting a new measurement	ea trom the device ht value.	e to collect							
1									
Running Average									
If checked, the value reported will be the average	of a user-specifie	If checked, the value reported will be the average of a user-specified number of							
the most recent measurements.									
Resolution									
Resolution Select the number of places to display in the mea	asurement value t	o the right of							
Resolution Select the number of places to display in the mea the decimal point.	asurement value t	o the right of							
Resolution Select the number of places to display in the mea the decimal point.	asurement value t	o the right of							
Resolution Select the number of places to display in the mea the decimal point. 1 0.1 Scaler Select the multiplier to apply to the data received	asurement value t from the Modbus	o the right of device. The scaler is							
Resolution Select the number of places to display in the mea the decimal point. Scaler Select the multiplier to apply to the data received applied prior to reporting it as a measurement value official the number of the select	asurement value t from the Modbus ue. An example is	o the right of device. The scaler is s shown to see the							
Resolution Select the number of places to display in the mea the decimal point. Scaler Select the multiplier to apply to the data received applied prior to reporting it as a measurement val effect of your setting. 0.01 Fxample: Received	asurement value t from the Modbus ue. An example in Data = 145: R	o the right of device. The scaler is s shown to see the							
Resolution Select the number of places to display in the meather decimal point. 1 0.1 Scaler Select the multiplier to apply to the data received applied prior to reporting it as a measurement valeffect of your setting. 0.01 Example: Received	asurement value t from the Modbus ue. An example is Data = 145; R	o the right of device. The scaler is s shown to see the Result = 1.45							
Resolution Select the number of places to display in the meat the decimal point. Image: Image of the decimal point. Scaler Select the multiplier to apply to the data received applied prior to reporting it as a measurement vale effect of your setting. Image: Image of the data received applied prior to reporting it as a measurement vale of the data received applied prior to report the data received applied prioredapplied prior to report the data received ap	from the Modbus ue. An example is Data = 145; R	o the right of device. The scaler is s shown to see the Result = 1.45							
Resolution Select the number of places to display in the meat the decimal point. 1 0.1 Scaler Select the multiplier to apply to the data received applied prior to reporting it as a measurement vale effect of your setting. 0.01 Image: Select the multiplier to apply to the data received applied prior to reporting it as a measurement vale offset of your setting. 0.01 Image: Select the value of the data received applied prior to reporting. 0.01 Image: Select the value of the data received applied prior to reporting. 0.01 Image: Select the value of the data received applied prior to report the data received the data received applied prior to report the data received applied prior to report the data received applied prior to report the data received prior to report the data received the data received prior to report the data received prior to r	asurement value t from the Modbus ue. An example is Data = 145; R elow is added to tl esults in a smaller	o the right of device. The scaler is a shown to see the Result = 1.45 The computed value of the final measurement value.							
Resolution Select the number of places to display in the meat the decimal point. Image: Image of the decimal point. Scaler Select the multiplier to apply to the data received applied prior to reporting it as a measurement value frect of your setting. Image: Image of the decimal point is reported. A negative Offset is reported. A negative Offset is use offset	asurement value t from the Modbus ue. An example is Data = 145; R elow is added to the esults in a smaller	o the right of device. The scaler is s shown to see the Result = 1.45 The computed value of the final measurement value.							
Resolution Select the number of places to display in the meat the decimal point. Image: Image of the decimal point. Ima	asurement value t from the Modbus ue. An example is Data = 145; R elow is added to tl esults in a smaller	o the right of device. The scaler is a shown to see the Result = 1.45 The computed value of the final measurement value.							
Resolution Select the number of places to display in the meat the decimal point. Image: Image of the decimal point. Scaler Select the multiplier to apply to the data received applied prior to reporting it as a measurement value frect of your setting. Image: Image of the data received applied prior to reporting it as a measurement value of frect of your setting. Image: Image of the data received applied prior to reporting it as a measurement value of frect of your setting. Image: Image of the data received applied prior to reporting it as a measurement value of frect of your setting. Image of the data received of the data received applied prior to reporting it as a measurement value of the data received of	from the Modbus ue. An example is Data = 145; R elow is added to the esults in a smaller « <u>B</u> ack	o the right of device. The scaler is s shown to see the Result = 1.45 The computed value of the final measurement value.							



14. Click through, Name Measurement TEMP and Finish

Modbus Input Measurement - TOB1 on Keller [Keller Series30]	×
Measurement Name Enter the name for the new measurement. It must begin with a letter or a digit. [] or are illegal. The name may be up to 30 characters in length and it must be unique. It cannot match any of the names listed below.	5
Temp	
Existing Measurements (shown for convenience)	
Bar	
« <u>B</u> ack <u>Einish</u>	Cancel

15. Hit Next, Set Sample Rate and Timeout values as shown

COM Port 3 - Modbus Netwo	COM Port 3 - Modbus Network							
General Port Settings Usage Measurements Timing Commands								
Sample <u>Rate</u> If the device does not transmit data automatically and its measurement values must be requested every time, enter how often to sample the measurements from the device. The system will sample each of the measurements sourced from the device once in this time period. If this is left blank or you enter a value of zero [0], the system will poll the device as fast as possible. IMPORTANT: if this value is too low or zero, polling the device can actually cause the device to fail to operate preperty.								
2	seconds							
Timeout After sending a reques wait for a response bef I Use <u>T</u> imeout	Timeout After sending a request to the device for a value, enter the maximum amount of time to wait for a response before assuming failure. Use Timeout							
6	seconds							
					<u>O</u> K	Cancel		



16. Click Next(s) to finish wizard

Create Functional Measurement called inH20 to convert BAR to inH2O. In Full Config/Measurements, 17. Select Functional Measurement. Use Product function and constant operand of 401.463. http://www.convertunits.com/from/inH2O/to/bar

Functional Measurement - inH2)			×
General Operation C	perands Mode Properties Status	SPC Action		
Name	inH20			
Measurement Type	Function			
Operation	Product			
Operands:	bar 401.463			
Averaging	1			
Offset	Disabled			
Resolution	2 0.12			
Measurement Mode	Continuous			
Old Status Error	Disabled			
Specifications	none			
SPC Plans	Standard SPC			
			<u>0</u> K	Cancel

18.

Add Total Vu measurement display and/or charts as desired			
🝳 spc			
Name	Value	Samples	
Bar	0.99	1863	
inH20	397.45	728	
Temp	23.9	1863	
🔾 Temp			
<u>F</u> ile <u>V</u> iew			
25.0			
24.0			
23.5			
23.0			
22.0 9:05 9:10 22 Tue Sep 2015	9:15 9:20 9:25	9:30 9:35 9:40	9:45 9:50 9:55 10:00

