MYRONL RS485AD1 Multi Parameter Monitor Controller

MYRONL RS485AD1 Multi Parameter Monitor Controller Instruction Manual

Contents

MYRON L®

MYRONL RS485AD1 Multi-Parameter Monitor Controller

Specifications:

- Isolated Half duplex
- **Connector Type**: RJ12
- **Connector Label**: RS-485
- All data values are comma-separated
- Data is represented in ASCII characters
- **Serial Baud Rate**: 115200
- **Parity Bit**: No
- **Time Interval (in seconds)**: 30

Product Usage Instructions

Connection Steps:

1. Connect the RJ12 to RJ12 straight pinned line cord to the RS-485 adaptor.
2. Connect the RS-485 adaptor to the data-logging device (e.g., computer) using an RS-485 to USB Industrial Converter.
3. Connect the pins as per the provided connection examples, ensuring proper signal and ground connections.
4. If using terminations, short TERM 1 to TERM 2 on the last unit and apply terminations to both ends of the cable.

Enabling/Disabling Line Termination:

To enable/disable line termination on the RS-485 adapter, adjust the Line Termination Jumper to either ON (Enabled) or OFF (Disabled) position as needed.

FAQ

- **Q: Do I need to make programming modifications for streaming data on the 900 Series model 900M-3C?**
  - **A:** No, streaming is automatic on the 900 Series model 900M-3C; programming modifications are not necessary.
- **Q: Are terminations required for cable lengths?**
  - **A:** Termination is usually not required for cable lengths, but if used, ensure terminations are applied to both ends of the cable.

Instructions for Streaming Serial Output Using the RS-485 Communication Port

The RS-485 communication port on the 900 Series allows data logging of the date/time, location, and measurement information in the form of serial ASCII data. It is one-way data streaming from the 900 Series to a data logging device such as a computer.

Programming modifications are not necessary on the 900 Series model 900M-3C; streaming is automatic.

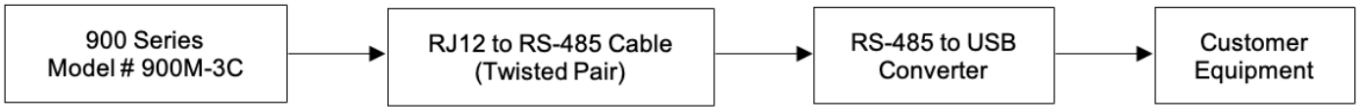
Specifications

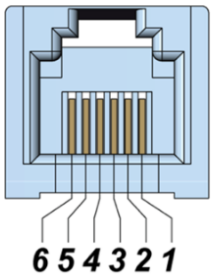
- RS-485 Serial Output
- Isolated
- Half duplex
- Connector Type: RJ12
- Connector Label: RS-485
- All data values are comma-separated
- Data is represented in ASCII characters
- **Serial Baud Rate**: 115200
- **Parity Bit**: No
- **Time Interval (in seconds):** 30

Connection

Connection Examples

Example #1 using customer-supplied equipment:



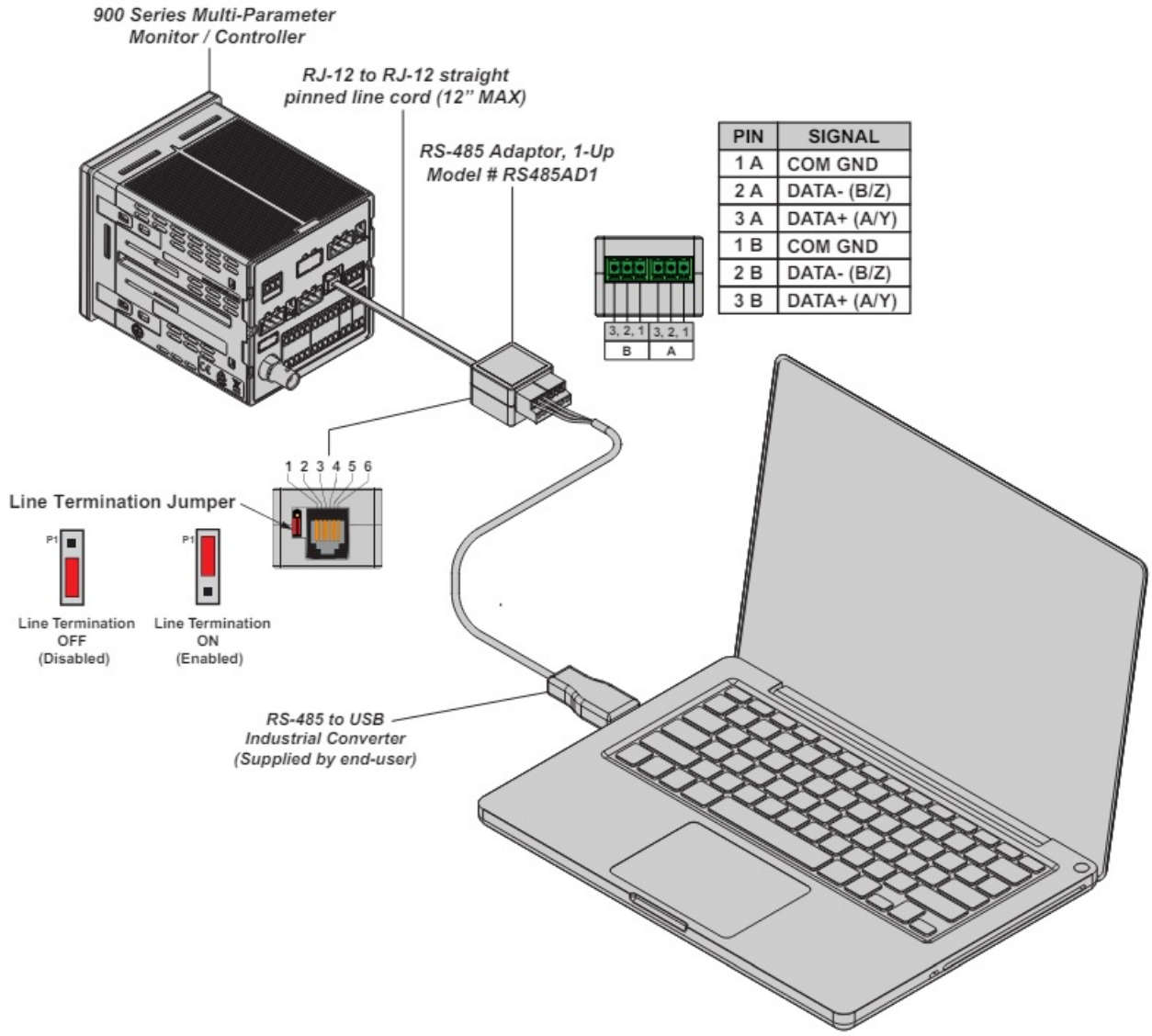


PIN	SIGNAL
1	COM GND
2	DATA- (B/Z)
3	DATA+ (A/Y)
4	TERM 1
5	TERM 2
6	COM GND

To enable cable line termination on the last unit, short TERM 1 to TERM 2.

NOTE: If you use terminations, they must be applied to both ends of the cable

Example #2 using a Myron L® Company RS-485 Adapter (Part # RS485AD1):



Enable/Disable Line Termination on the RS-485 Adapter:

- **Terminating Resistor**: 120 Ω
- Termination is usually not required for cable lengths <100'.
- If you use terminations, they must be applied to both ends of the cable (the RS485AD1 and the user-supplied
- RS-485 to USB converter).
- Follow industry guidelines for your application to determine if line termination is required.
- Use only RS-485 twisted pair wire (example: Belden 3105A).
- Connect the three wires of the RS-485 to port A or port B as shown above.
- For a chart of RS-485 Streaming Serial Output Data, of this document.

RS-485 Streaming Serial Output Data in Order of Transmittal (data is comma delimited):

Data Label	**Example of Data**	**Data Description**	**Data Detail**
Date and Time	10/29/21 14:15:15	Date and Time value from the 900	
Location Name	TC DESK	Location Name stored in the 900	

COND/RES 1 Value	990.719	Primary Measurement Value, Sensor: Cond/Res1	If no sensor, then reported reading will be -3000.00 (equivalent to N/A) [1]
COND/RES 1 Unit	ppm	Primary Measurement Unit, Sensor: Cond/Res1	
COND/RES 1 Temp. Value	23.174	Secondary Measurement Value (Temperature), Sensor: Cond/Res1	If no sensor, then reported reading will be -1.000 (equivalent to N/A) [1]
COND/RES 1 Temp. Unit	C	Secondary Measurement Unit (Temperature), Sensor: Cond/Res1	
COND/RES 2 Value	164.008	Primary Measurement Value, Sensor: Cond/Res2	If no sensor, then reported reading will be -3000.00 (equivalent to N/A) [1]
COND/RES 2 Unit	ppm	Primary Measurement Unit, Sensor: Cond/Res2	
COND/RES 2 Temp. Value	3.827	Secondary Measurement Value (Temperature), Sensor: Cond/Res2	If no sensor, then reported reading will be -1.000 (equivalent to N/A) [1]
COND/RES 2 Temp. Unit	C	Secondary Measurement Unit (Temperature), Sensor: Cond/Res2	
MLC pH/ORP Value	6.934	Primary Measurement Value, Sensor: MLC pH/ORP	If no sensor, then reported reading will be -3000.00 (equivalent to N/A) [1]
MLC pH/ORP Unit		Primary Measurement Unit, Sensor: MLC pH/ORP	pH unit: Blank ORP unit: mV
MLC pH/ORP Temp. Value	4.199	Secondary Measurement Value (Temperature), Sensor: MLC pH/ORP	If no sensor, then reported reading will be -1.000 (equivalent to N/A) [1]
MLC pH/ORP Temp. Unit	C	Secondary Measurement Unit (Temperature), Sensor: MLC pH/ORP	
mV IN Value	6.993	Primary Measurement Value, Sensor: mV IN	If no sensor, then reported reading will be -3000.00 (equivalent to N/A)[1, 2]

mV IN Unit		Primary Measurement Unit, Sensor: mV IN	pH unit: Blank ORP unit: mV
mV IN Temp. Value	96.197	Secondary Measurement Value (Temperature), Sensor: mV IN	If no sensor, then reported reading will be -1.000 (equivalent to N/A) [1, 2]
mV IN Temp. Unit	C	Secondary Measurement Unit (Temperature), Sensor: mV IN	
RTD Temp. Value	96.195	Primary Measurement Value, Sensor: RTD	If no sensor, then reported reading will be -3000.00 (equivalent to N/A)
RTD Temp. Unit	C	Primary Measurement Unit, Sensor: RTD	
N/A	-1.000	Not Used	Not Used
N/A	C	Not Used	Not Used
4-20 mA IN Value	0.004	Primary Measurement Value, Sensor: 4-20mA In	
4-20 mA IN Unit	mA	Primary Measurement Unit, Sensor: 4-20mA In	
N/A	-1.000	Not Used	Not Used
N/A		Not Used	Not Used
Flow/Pulse Value	0.000	Primary Measurement Value, Sensor: Flo/Pulse	
Flow/Pulse Unit	gpm	Primary Measurement Unit, Sensor: Flo/Pulse	
Flow/Pulse Secondary Value	0.000	Secondary Measurement Value, Sensor: Flo/Pulse	Value of Flow or Volume -1.000 if primary measurement is Pulse
Flow/Pulse Secondary Unit	Gal	Secondary Measurement Unit, Sensor: Flo/Pulse	Unit of Flow or Volume Blank if primary measurement is Pulse
% Rejection Value	83.446	Primary Measurement Value, Sensor: % Rejection	N/A if % Rejection is disabled on the 900
% Rejection Unit	%	Primary Measurement Unit, Sensor: % Rejection	N/A if % Rejection is disabled on the 900
N/A	-1.000	Not Used	N/A
N/A	C	Not Used	N/A

1A reading of “-3000” for a primary measurement or “-1.000” for a secondary measurement is an indication that there is no sensor detected, or there is an error in settings.

2 If the mV IN input channel’s measurement type is set to pH (with temperature compensation), the secondary measurement (temperature) will be the same as the RTD input channel. If there is no temperature sensor connected to the RTD input, both the primary and secondary mV IN measurements will indicate no sensor detected

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Documents / Resources

	MYRONL RS485AD1 Multi Parameter Monitor Controller [pdf] Instruction Manual RS485AD1 Multi Parameter Monitor Controller, RS485AD1, Multi Parameter Monitor Controller, Parameter Monitor Controller, Monitor Controller, Controller

References

- User Manual