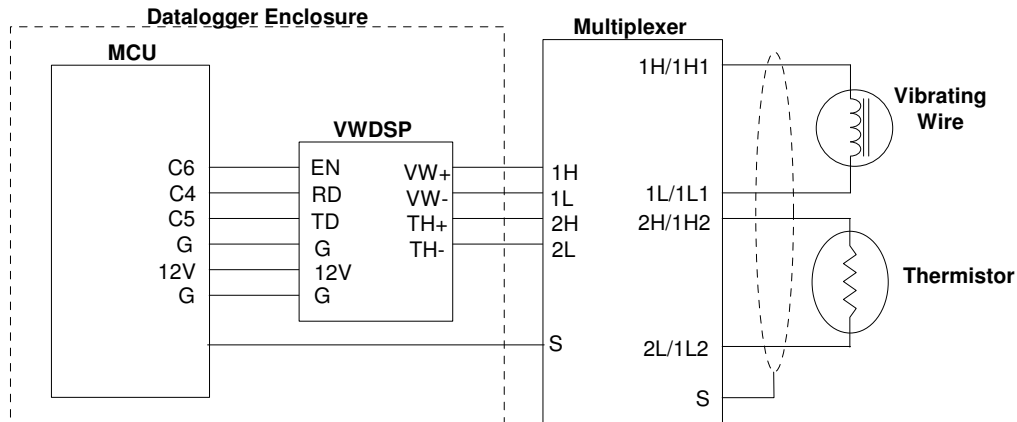


Sensor Mux Wiring Diagrams
 MultiLogger Application Note #17
 Revision March 2008

1. Vibrating Wire

Wiring



Channel Configuration

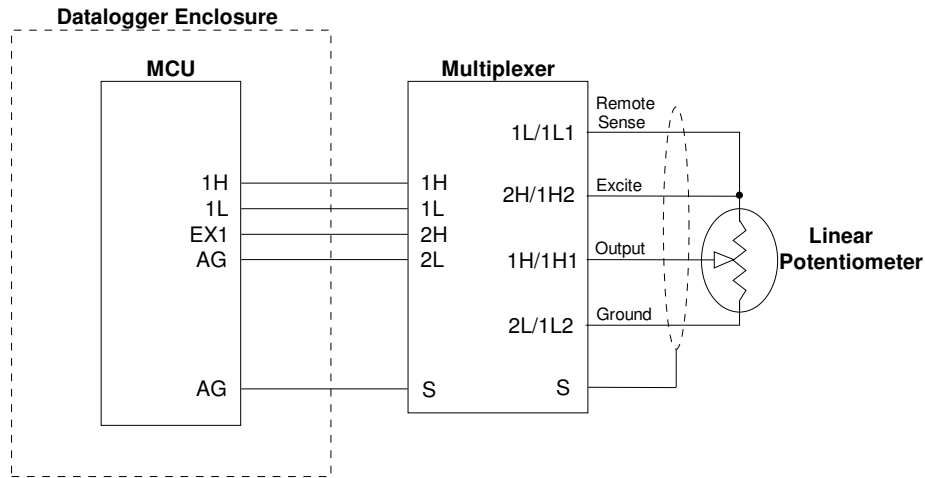
Type	Make	Model	Description	Output Units
Sensor Mux	Generic	VWDSP Low Freq	Low frequency gages (400-1200Hz)	Digits
Sensor Mux	Generic	VWDSP Middle Freq	Middle frequency gages (1200-3200Hz)	Digits
Sensor Mux	Generic	VWDSP High Freq	High frequency gages (1500-3500Hz)	Digits
Sensor Mux	Generic	VWDSP Wide Freq	Generic for all gages (400-4000Hz)	Digits
Sensor Mux	Generic	VWDSP CISC	CISC Cell gages (800-1500Hz)	Digits
Sensor Mux	Generic	VWDSP CISC	CISC cell gages (800-1500Hz)	Period (uS)

Upper Channel Configuration

Model	Description	Output Units
SMVWDSP_THERMA °C	YSI44005 Thermistor read using VWDSP	°C
SMVWDSP_THERMA °F	YSI44005 Thermistor read using VWDSP	°F
SMThermistor-°C	YSI44005 Thermistor read using half-bridge	°C
SMThermistor-°F	YSI44005 Thermistor read using half-bridge	°F

2. Linear Potentiometer

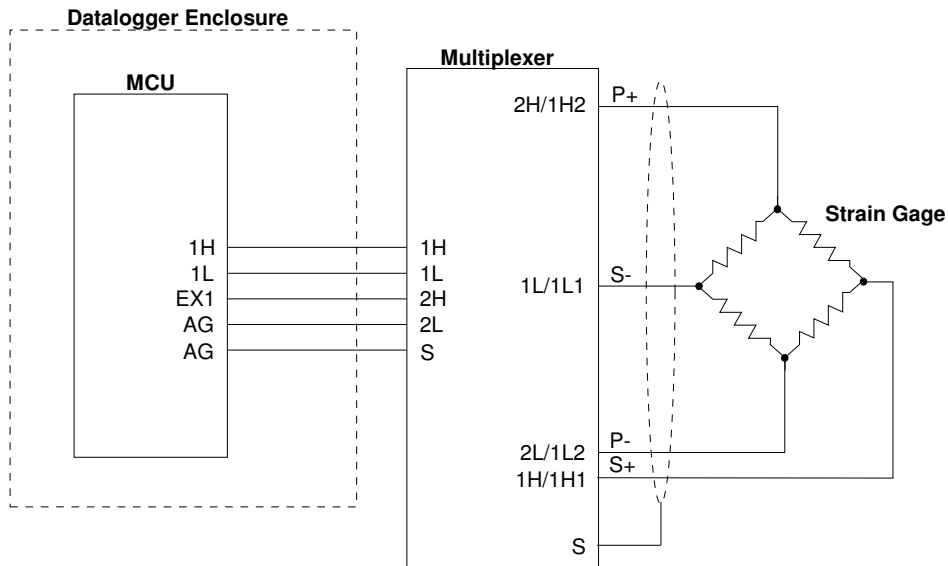
Wiring



Channel Configuration

Type	Make	Model	Description	Output Units
Sensor Mux	Generic	Linear Pot	Linear Pot – No remote sense	Volts (0-2.5)
Sensor Mux	Generic	Linear Pot RS	Linear Pot – with remote sense	Volts (0-2.5)

3. Full-Bridge Strain Gage

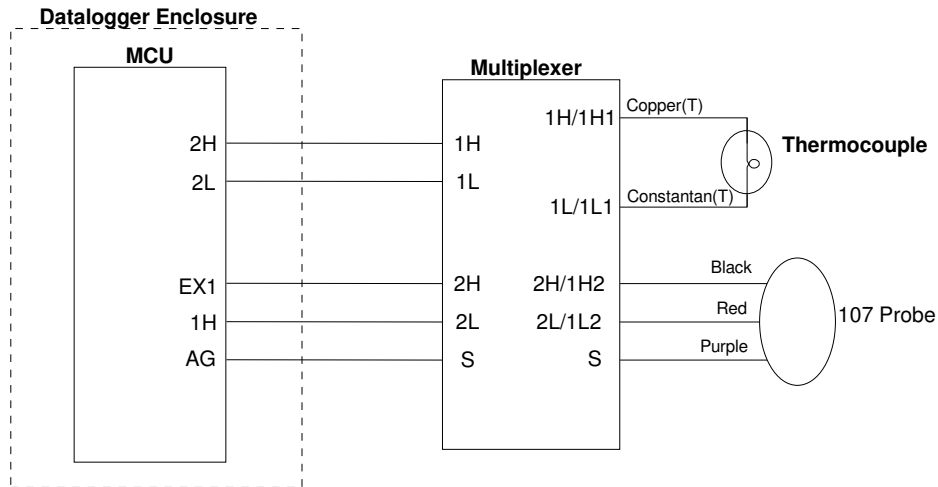


Channel Configuration

Type	Make	Model	Description	Output Units
Sensor Mux	Generic	Full Bridge 2.5mV	Full bridge with max 1mV/V output	Digits (+/- 4000)
Sensor Mux	Generic	Full Bridge 7.5mV	Full bridge with max 3mV/V output	Digits (+/- 12000)
Sensor Mux	Generic	Full Bridge 25mV	Full bridge with max 10mV/V output	Digits (+/- 40000)

4. Thermocouple

Wiring

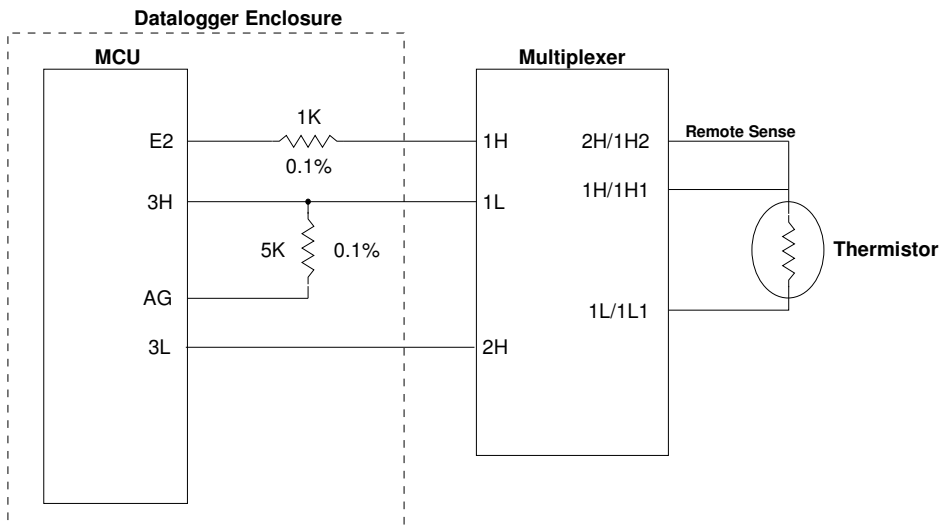


Channel Configuration

Type	Make	Model	Description	Output Units
Sensor Mux	Generic	TC TypeT-°C	Type T (copper-constantan) thermocouple	°C
Sensor Mux	Generic	TC TypeT-°F	Type T (copper-constantan) thermocouple	°F

5. Thermistor

Wiring

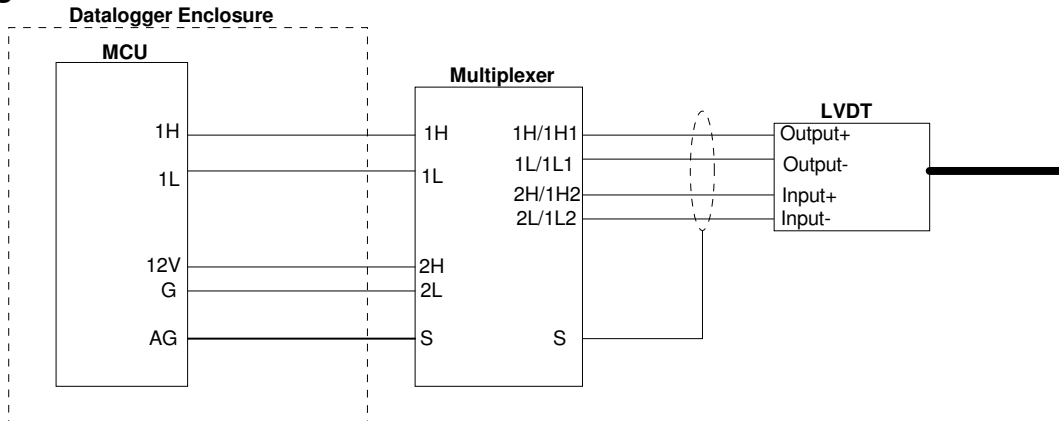


Channel Configuration

Type	Make	Model	Description	Output Units
Sensor Mux	YSI	YSI44004-°C	YSI 44004 type thermistor	°C
Sensor Mux	YSI	YSI44004-°F	YSI 44004 type thermistor	°F
Sensor Mux	YSI	YSI44005-°C	YSI 44005 type thermistor	°C
Sensor Mux	YSI	YSI44005-°F	YSI 44005 type thermistor	°F
Sensor Mux	YSI	YSI44006-°C	YSI 44006 type thermistor	°C
Sensor Mux	YSI	YSI44006-°F	YSI 44006 type thermistor	°F

6. LVDT 2.5V Output

Wiring



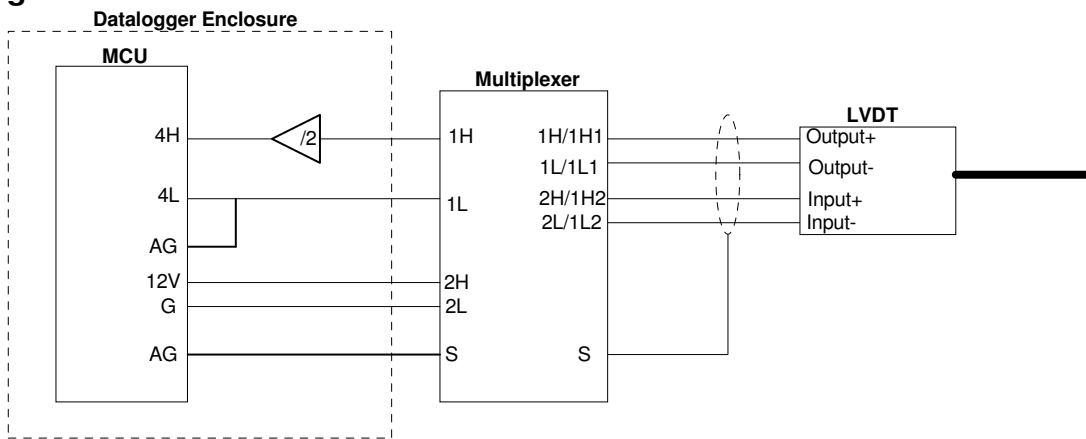
Note: For Single-Ended output jumper LVDT Output- to S.

Channel Configuration

Type	Make	Model	Description	Output Units
Sensor Mux	Generic	LVDT 2.5V	LVDT with 2.5V FS output	Volts (0-2.5)

7. LVDT 5V Output

Wiring



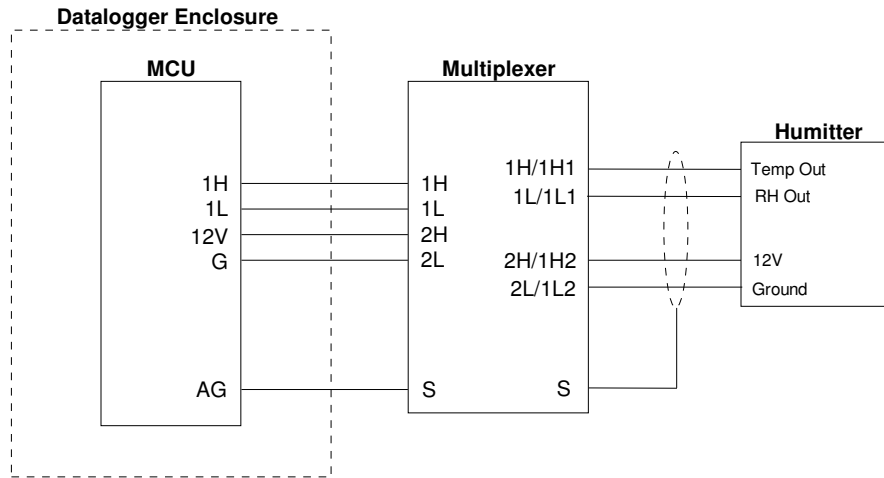
Note: Output+ termination impedance is 10kΩ.

Channel Configuration

Type	Make	Model	Description	Output Units
Sensor Mux	Generic	LVDT 5V	LVDT with 5V FS output	Volts (0-5)

8. Vaisala

Wiring

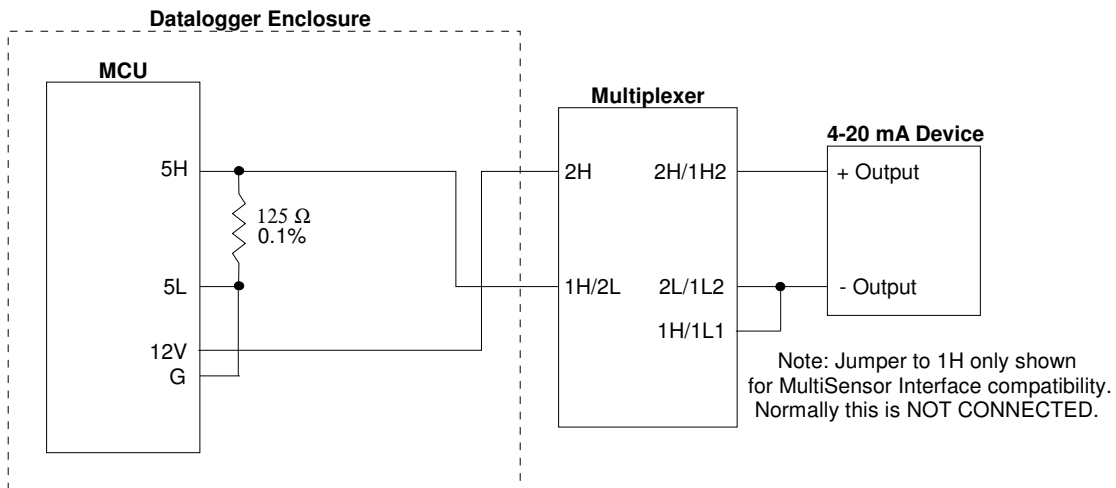


Channel Configuration

Type	Make	Model	Description	Output Units
Sensor Mux	Vaisala	Humitter	HMP44 or Humitter RH Sensor	RH (0-100)
Upper Channel		SMVaisala °C	HMP44 or Humitter Temp Sensor	°C
Upper Channel		SMVaisala °F	HMP44 or Humitter Temp Sensor	°F

9. 4-20mA (2 Wire)

Wiring

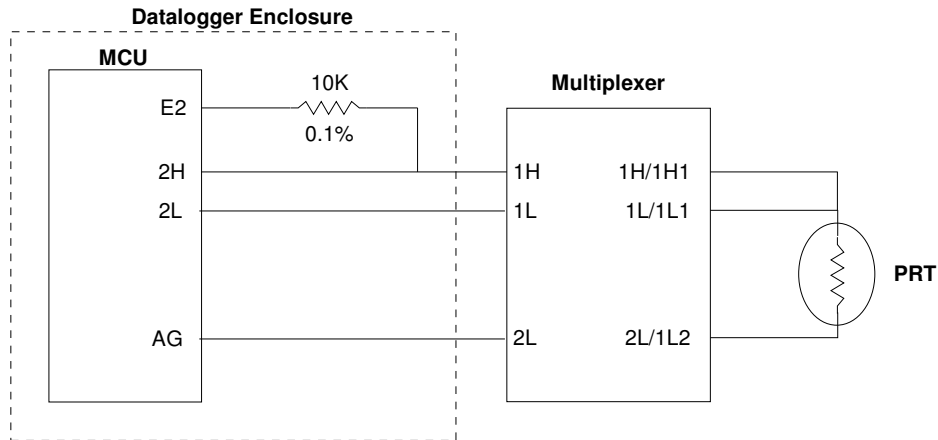


Channel Configuration

Type	Make	Model	Description	Output Units
Sensor Mux	Generic	4-20mA	Generic 4-20mA Sensor	mA (4-20)
Sensor Mux	Generic	4-20mA LoopPwr	Generic 4-20mA Sensor	mA (4-20)

10. 100Ohm PRT

Wiring

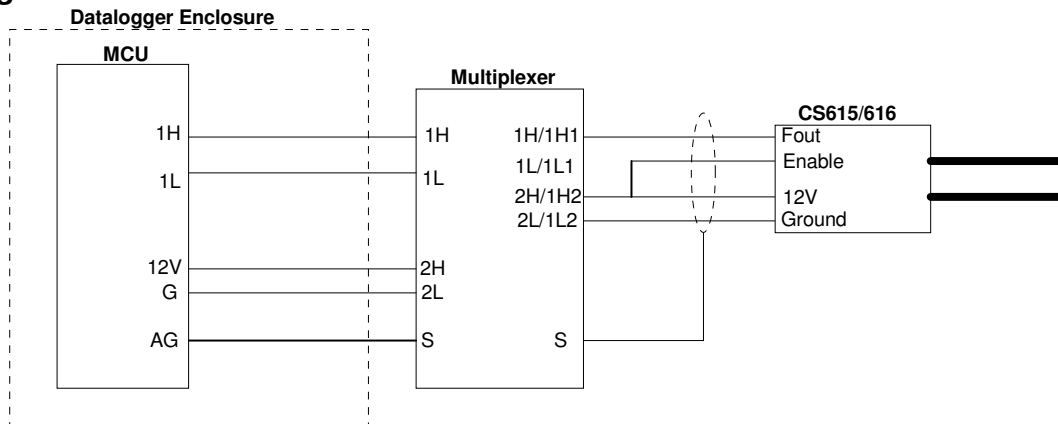


Channel Configuration

Type	Make	Model	Description	Output Units
Sensor Mux	Generic	Platinum RTD-°C	Platinum 3-wire RTD	°C
Sensor Mux	Generic	Platinum RTD-°F	Platinum 3-wire RTD	°F

11. Water Content

Wiring

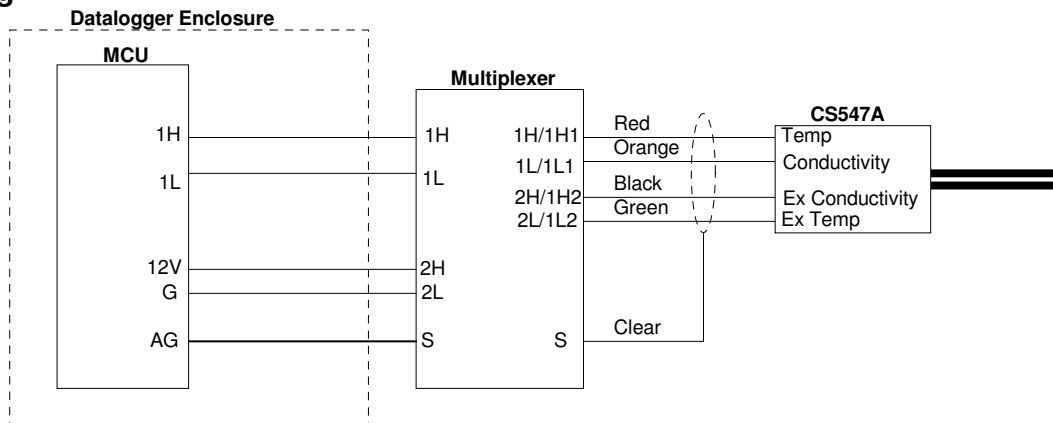


Channel Configuration

Type	Make	Model	Description	Output Units
Sensor Mux	Campbell	CS615	Campbell CS615 Water Content Reflectometer	Fractional (0-1)
Sensor Mux	Campbell	CS616	Campbell CS616 Water Content Reflectometer	Fractional (0-1)

12. CS547A Conductivity

Wiring



Channel Configuration

Type	Make	Model	Description	Output Units
Sensor Mux	Campbell	CS547A	Campbell CS547A Conductivity	EC

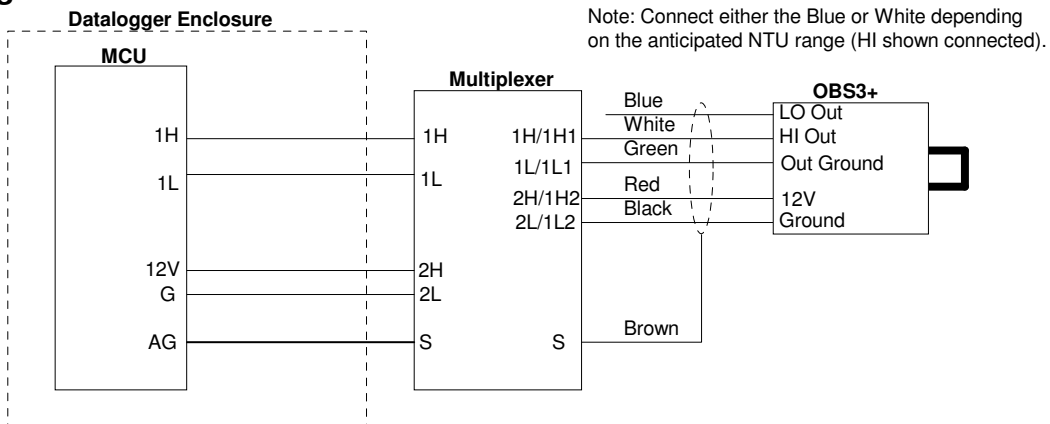
Note: Use the Extended Properties **Apply CS547A Corrections** to correct the CS547A output.

Upper Channel Configuration

Model	Description	Output Units
SMCS547A_Temp-°C	Campbell CS547A Temperature	°C

13. D & A Instruments Turbidity

Wiring

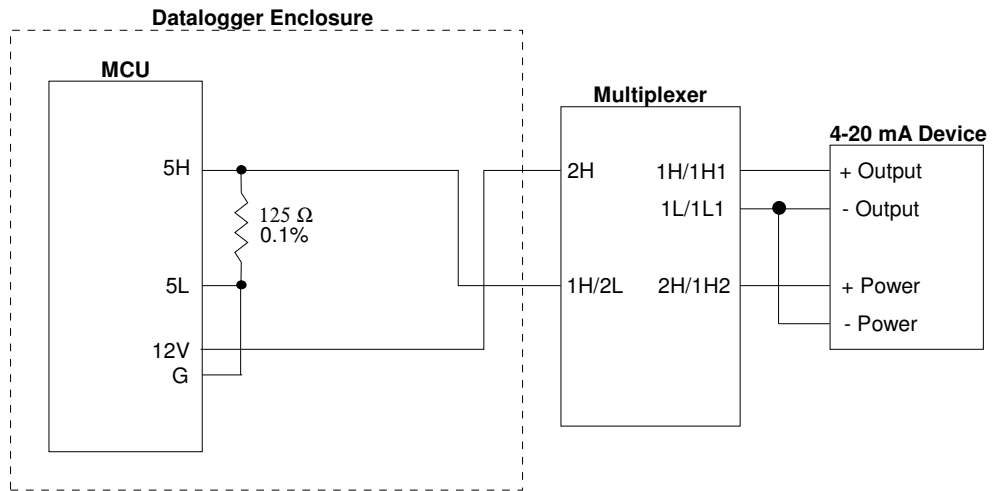


Channel Configuration

Type	Make	Model	Description	Output Units
Sensor Mux	D & A Instrument	OBS3+	D & A Instrument OBS3+ Turbidity Sensor	NTU (0-4000)

14. 4-20mA (4 Wire)

Wiring



Channel Configuration

Type	Make	Model	Description	Output Units
Sensor Mux	Generic	4-20mA	Generic 4-20mA Sensor	mA (4-20)
Sensor Mux	Generic	4-20mA LoopPwr	Generic 4-20mA Sensor	mA (4-20)