

CDI Meters Compressed Air Flowmeter Connection Instructions

For use with HOBO® H22, U12, U30, UX90-001x, UX120-006M, and UX120-017x data loggers, HOBO ZW data nodes, and Pulse Input Adapters (S-UCC-M00x and S-UCD-M00x)

Applies to these CDI Flowmeters:

Onset Part No.	Output*	Nom. Pipe Size	CDI Part No.
T-CDI-5200-10S	4-20mA representing 0 to 100 scfm of air	1 in.	5200-10S
T-CDI-5400-20S	4-20mA representing 0 to 600 scfm of air	2 in.	5400-20S

This document provides instructions on connecting the CDI Compressed Air Flowmeters listed above to each of the following:

- FlexSmart™ Analog Module and 4-20mA cable used with HOBO H22 series data loggers
- Analog Sensor Port option and 4-20mA cable used with HOBO U30 series data loggers
- 4-20mA cable used with HOBO U12 and UX120-006M data loggers
- 4-20mA cable or adapter cable used with HOBO ZW series data nodes

This also includes wiring details for connecting to a pulse output for the HOBO 4-Channel Pulse Input data logger (UX120-017x), HOBO UX90 state logger (UX90-001x), and Pulse Input Adapters (S-UCC-M00x and S-UCD-M00x).

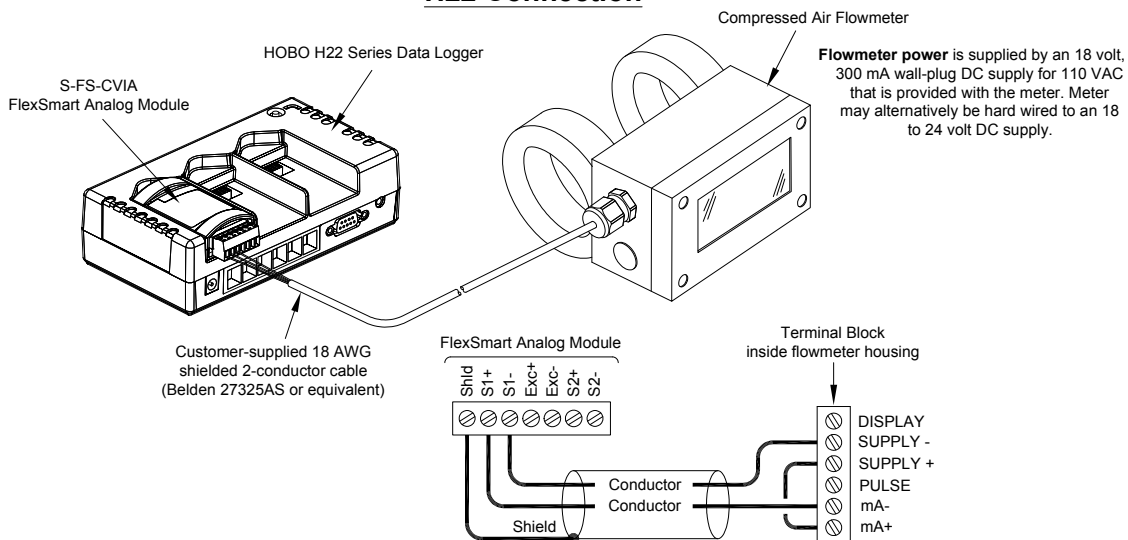
It also lists configuration values used by HOBOWare® Pro software to configure the logger for each flowmeter. **Note:** For flowmeter details, refer to the documentation provided by CDI Meters.

Required:

- Selected CDI Flowmeter
- HOBO H22, U12, U30, UX90-001x, UX120-006M, or UX120-017x data logger, or HOBO ZW data node or Pulse Input Adapter (S-UCC-M00x and S-UCD-M00x)
- FlexSmart Analog Module, Onset Part No. S-FS-CVIA (for H22 series); Analog Sensor Port option (for U30 series); 4-20mA cable, Onset Part No. CABLE 4-20mA (for all series)
- HOBOWare® Pro Software, version 2.2.1 or higher (2.4.0 or higher for U30 series; 3.0 or higher for ZW series; 3.6 or higher for UX120-006M)
- Customer-supplied length of 18 AWG, shielded, 2-conductor cable (Belden 27325AS or equivalent recommended)

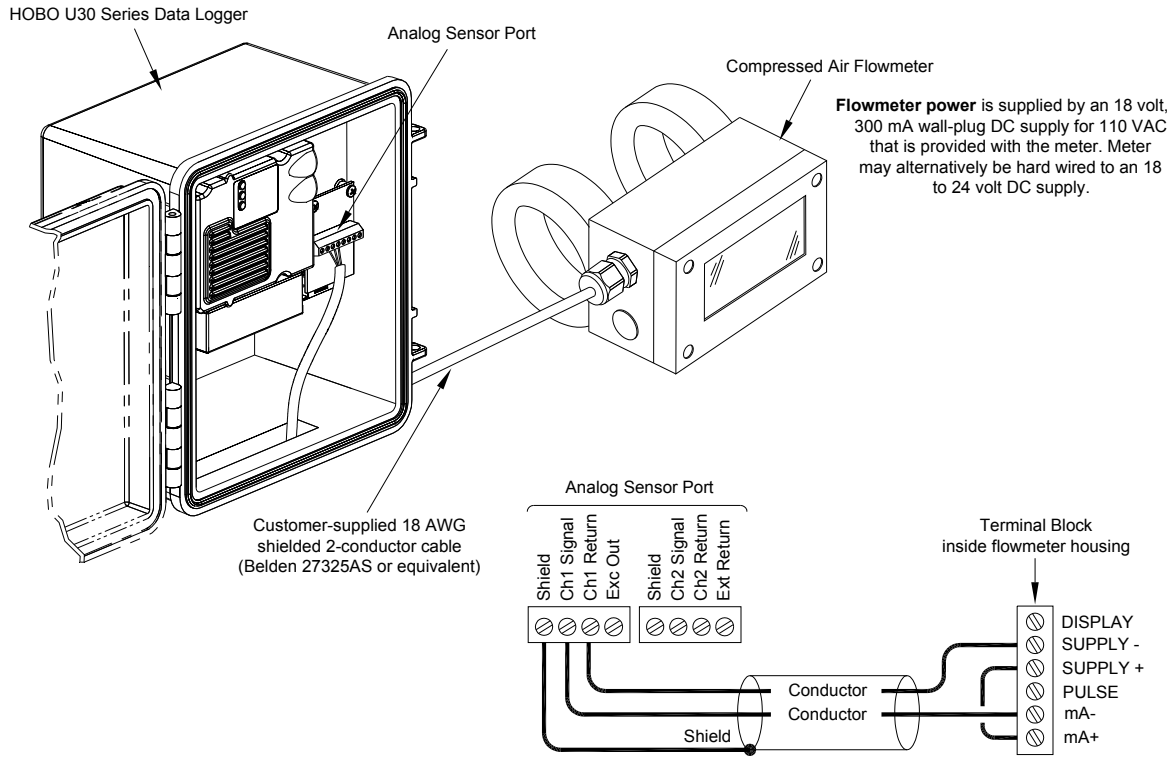
Connecting the Flowmeter to the Analog Module or Port:

H22 Connection

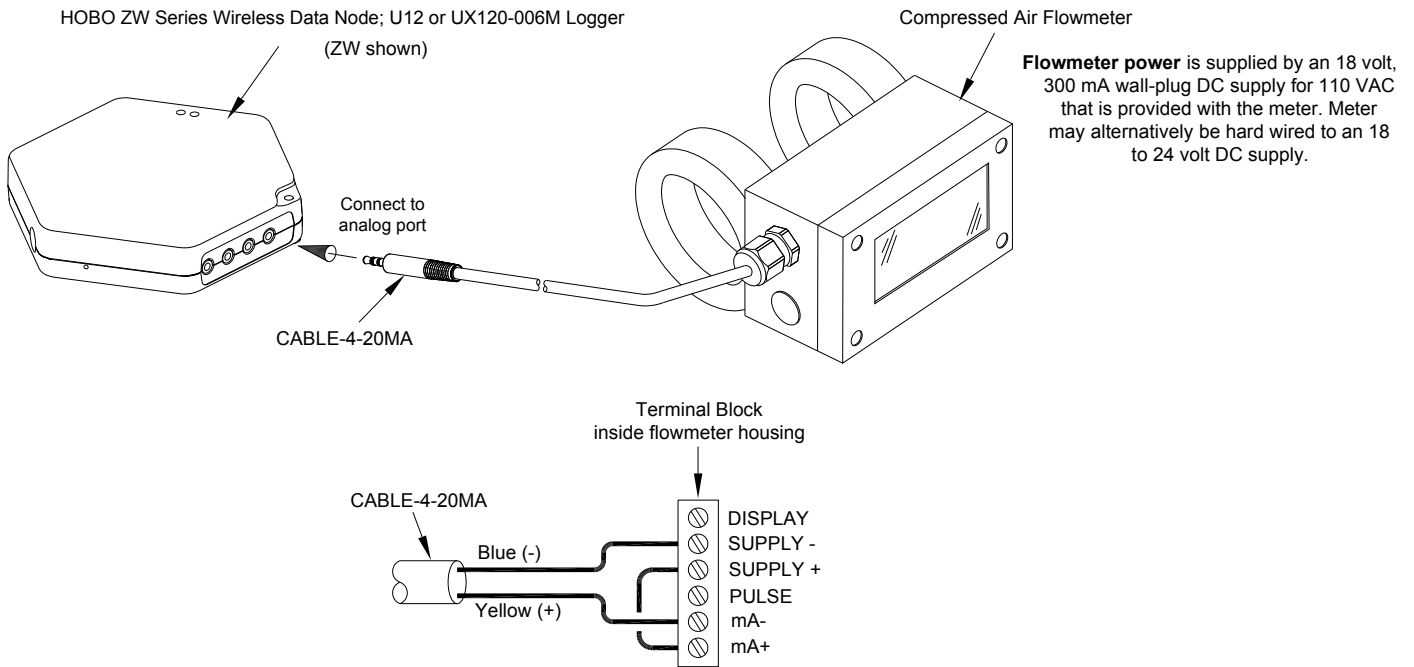


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U30 Connection



ZW, U12, and UX120-006M Connection



CDI Meters Compressed Air Flowmeter Connection Instructions

Configuring the Logger or Data Node for the Flowmeter, using HOBOWare Pro Software:

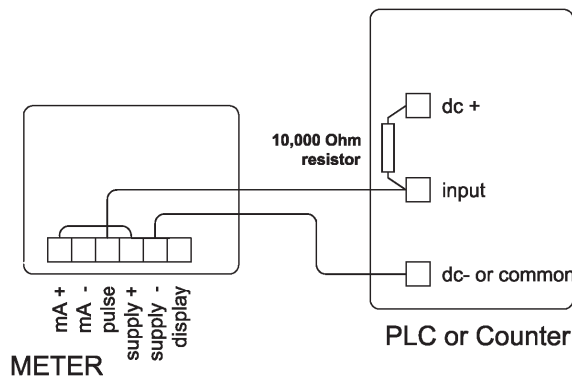
HOBOWare Pro software provides configuration files for the flowmeter. The table below lists the recommended configuration values that these files contain. For information on loading configuration files, refer to the software documentation.

Onset Part Nos.	Channel Name	Measurement Type	Raw Value 1	Raw Value 2	Raw Units	Scaled Value 1*	Scaled Value 2*	Scaled Units
T-CDI-5200-10S	Air Flow	Current	4	20	mA	0	200	scfm
T-CDI-5400-20S	Air Flow	Current	4	20	mA	0	600	scfm

* 4-20-mA output represents ranges shown. *Calibrated* ranges are 1 to 80 scfm for T-CDI-5200-10S and 3 to 350 scfm for T-CDI-5400-20S. Accuracy will be reduced when flow is outside of calibrated range.

Connecting the Flowmeter to Pulse Output

Use this wiring diagram when connecting a CDI Flowmeter to a logger or sensor with pulse output, including the HOBOWare 4-Channel Pulse Input Data Logger (UX120-017x), HOBOWare UX90 State Logger (UX90-001x), and Pulse Input Adapters (S-UCC-M00x and S-UCD-M00x).



Note that the supply- terminal is normally grounded to the pipe on which the meter is mounted.

WIRING FOR PULSE OUTPUT

CDI Meters, Inc.
June 1, 2005

When using HOBOWare to launch a HOBOWare 4-Channel Pulse Input Data Logger (UX120-017x) or HOBOWare UX90 State Logger (UX90-001x) connected to a CDI Flowmeter, select Raw Pulse > Counts > Raw Pulse for the sensor in the Launch Logger window. For these two loggers or the Pulse Input Adapters, click the Scaling button in the Launch Logger window. Choose the Pulse Scaling Assistant, and enter your scaling factor.