

FlexSmart™ Analog Module

(Part No: S-FS-CVIA)



Quick Start Guide

Inside this package:

- FlexSmart Analog Module
- Detachable screw terminal connector
- Imprintable label
- This guide

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Manual Part No: MAN-S-FS-CVIA
Doc No: 10092-C

Note: Refer to the documentation provided with the Onset HOBO® Energy Logger Pro™ and HOBOWare® Pro software for additional information on using and configuring the FlexSmart Analog Module.

Introduction

Thank you for purchasing an Onset FlexSmart Analog Module. With proper care, it will give you years of accurate and reliable measurements.

The FlexSmart Analog module is an easy-to-configure, flexible DC signal-conditioning module for the Onset H22-001 HOBO Energy Logger Pro. This two-channel module can accept (and provide excitation power to) a wide range of Onset and third-party sensors/transducers with 0-20V or 0-20mA output, including devices with 4-20mA current loop interface, and sensors/transducers with 0-2.5, 0-5, and 0-10 V DC output.

The module features input protection and signal filtering, as well as delta-sigma A/D conversion and factory calibration.

The module also features extremely low-power operation, resulting in long battery life for unattended data logging applications.

Specifications

Input Channels	Two, single-ended
Field Wiring	Two- or three-wire via screw terminals on detachable connector, 16-24 AWG Replacement detachable connectors: Part of spares kit, Onset part no: A-FS-CVIA-7P-1
Input Range	User-configurable: 0-20 mA DC, 0-20 VDC (suitable for 2.5, 5, 10V sensors)
Minimum / Maximum Input Voltage	0 / 24 VDC
Minimum / Maximum Input Current	0 / 24 mA DC
Minimum Current Source Impedance	> 20 KΩ
Accuracy	+/- 0.25% of FSR from 50mV to FSV
ADC Resolution	12 bits
Power Requirements	+3.3V @ 3mA active, 6µA sleep
Sensor/Transducer Excitation Power	12 VDC @ 200mA max.

Module Connections

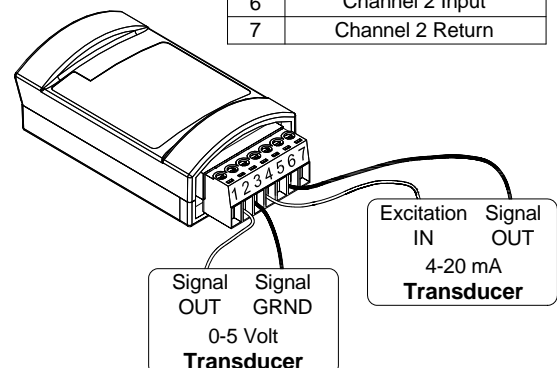
Tip: The module is a single-ended device. Pins 3 and 7 are connected to signal ground and to each other.

Sensors/transducers are connected to the module via a seven-pin Phoenix-style detachable screw terminal connector. Once the sensors/transducers are connected, the module can then be configured using HOBOWare Pro software (with the module installed on the HOBO Energy Logger Pro).

The diagram at right illustrates *typical* connections for a transducer with DC voltage output (requiring no excitation) and a transducer with DC current output (requiring excitation). For module connection instructions specific to sensors/transducers purchased from Onset, refer to the documentation provided with each sensor/transducer.

Note: Each channel of the module is individually configurable. Collected data can be scaled to produce meaningful engineering units that are consistent with the properties being measured.

Pin #	Function
1	Shield
2	Channel 1 Input
3	Channel 1 Return
4	Excitation Voltage
5	Excitation Return
6	Channel 2 Input
7	Channel 2 Return



Service and Support

HOBO products are easy to use and reliable. In the unlikely event that you have a problem with this instrument, contact the company where you bought the logger: Onset or an Onset Authorized Dealer. Before calling, you can evaluate and often solve the problem if you write down the events that led to the problem (are you doing anything differently?) and if you visit the Technical Support section of the Onset web site at www.onsetcomp.com/support.html. When contacting Onset, ask for technical support and be prepared to provide the product number and serial number for the logger and software version in question. Also completely describe the problem or question. The more information you provide, the faster and more accurately we will be able to respond.

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Mailing: PO Box 3450, Pocasset, MA 02559-3450
Phone: 1-800-LOGGERS (1-800-564-4377) or 508-759-9500
Fax: 508-759-9100
E-mail: loggerhelp@onsetcomp.com
Internet: www.onsetcomp.com

Warranty

Onset Computer Corporation (Onset) warrants to the original end-user purchaser for a period of **one year** from the date of original purchase that the HOBO® product(s) purchased will be free from defect in material and workmanship. During the warranty period Onset will, at its option, either repair or replace products that prove to be defective in material or workmanship. This warranty shall terminate and be of no further effect at the time the product is (1) damaged by extraneous cause such as fire, water, lightning, etc. or not maintained in accordance with the accompanying documentation; (2) modified; (3) improperly installed; (4) repaired by someone other than Onset; or (5) used in a manner or purpose for which the product was not intended.

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Returns

Please direct all warranty claims and repair requests to place of purchase.

Before returning a failed unit directly to Onset, you must obtain a Return Merchandise Authorization (RMA) number from Onset. You must provide proof that you purchased the Onset product(s) directly from Onset (purchase order number or Onset invoice number). Onset will issue an RMA number that is valid for 30 days. You must ship the product(s), properly packaged against further damage, to Onset (at your expense) with the RMA number marked clearly on the outside of the package. Onset is not responsible for any package that is returned without a valid RMA number or for the loss of the package by any shipping company. Loggers must be clean before they are sent back to Onset or they may be returned to you.

Repair Policy

Products that are returned after the warranty period or are damaged by the customer as specified in the warranty provisions can be returned to Onset with a valid RMA number for evaluation.

ASAP Repair Policy. For an additional charge, Onset will expedite the repair of a returned product.

Data-back™ Service. HOBO data loggers store data in nonvolatile EEPROM memory. Onset will, if possible, recover your data.

Tune Up Service. Onset will examine and retest any HOBO data logger.

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