Veris 480 Volt, 100 Amp, 3-Phase kW Power Transducer Connection Instructions
For use with HOBO® H22, U12, U30 series data loggers, and HOBO data nodes

Applies to this Veris kW Power Transducer:

Onset Part No.	Rating	Output	Veris Part No.
T-VER-8044-100	208-480 Volt, 100 Amp	4-20mA representing 0 to 83.14 kW	8044-0100-2

⚠ DANGER!—HIGH VOLTAGE HAZARD ⚡

Installing transducer in an energized electrical enclosure or on any energized conductor can result in severe injury or death. This transducer is for installation by qualified personnel only. To avoid electrical shock, do not perform any installation or servicing of this transducer unless you are qualified to do so. Disconnect and lock-out all power sources during installation and servicing. Please read transducer user's manual for instructions and use.

This document provides instructions on connecting the Veris kW Power Transducer listed above to each of the following:

- FlexSmart™ Analog Module used with HOBO H22 series data loggers
- Analog Sensor Port used with HOBO U30 series data loggers
- 4-20mA cable used with the U12 series data loggers and ZW series data nodes

It also lists configuration values used by HOBOware® Pro software to configure the logger for the transducer. **Note:** For information on connecting the kW power transducer to the power source, and other transducer details, refer to the documentation provided by Veris.

Veris kW Power Transducer

Required:
- Veris kW Power Transducer listed above
- HOBO H22, U12, or U30 series data logger, or HOBO data node (ZW series)
- 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 U12 or ZW 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)
- Customer-supplied length of 18 AWG, shielded, twisted pair cable (Belden 1120A or equivalent recommended)

Configuring the Data Logger for the kW Power Transducer, using HOBOware Pro Software:
HOBOware Pro software provides a configuration file for the transducer. To load this configuration file, follow the steps below. For additional information on configuration files, refer to the software documentation.

Channel Name	Warm Up	Measurement Type	Raw Value 1	Raw Value 2	Raw Units	Scaled Value 1	Scaled Value 2	Scaled Units
Power	0.1 sec	Current	4	20	mA	0	83.14	kW

Note: Excitation power provided by the FlexSmart Analog Module (Onset Part No. S-FS-CVIA) with H22; by the Analog Sensor Port with U30; and by power adapter (Onset Part No. AC-SENS-1) with ZW or U12

Connecting the Veris kW Power Transducer to the Analog Module or Port:
See the following pages for applicable connection diagrams that correspond to your electrical power configuration.

H22 Typical 240 VAC Single-Phase Three-Wire Connection
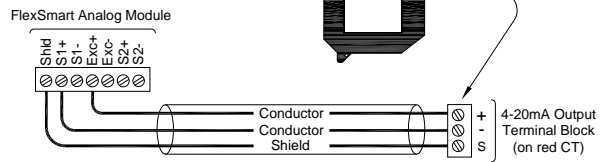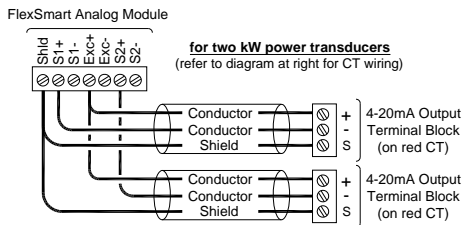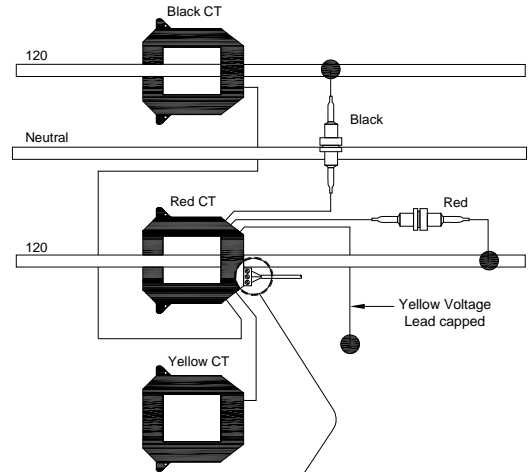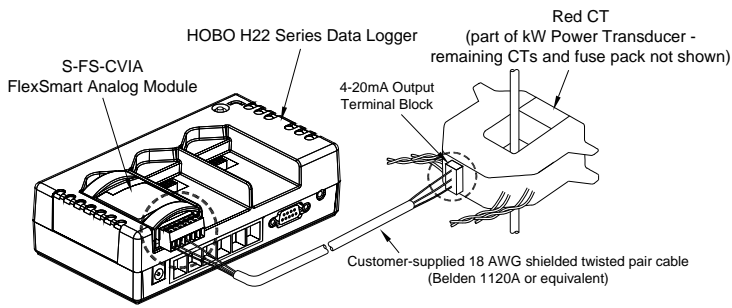
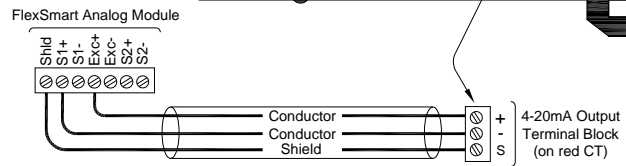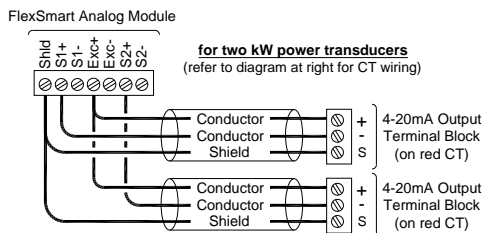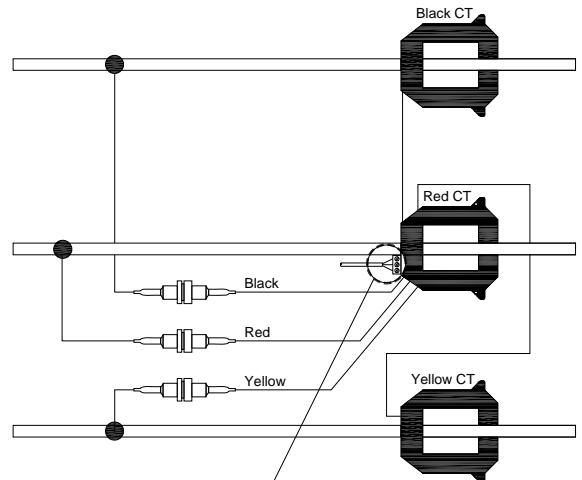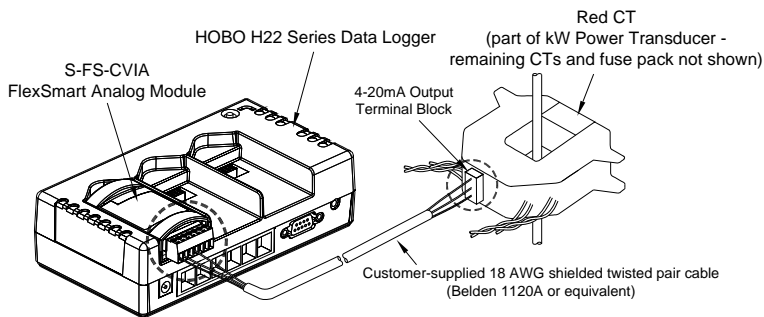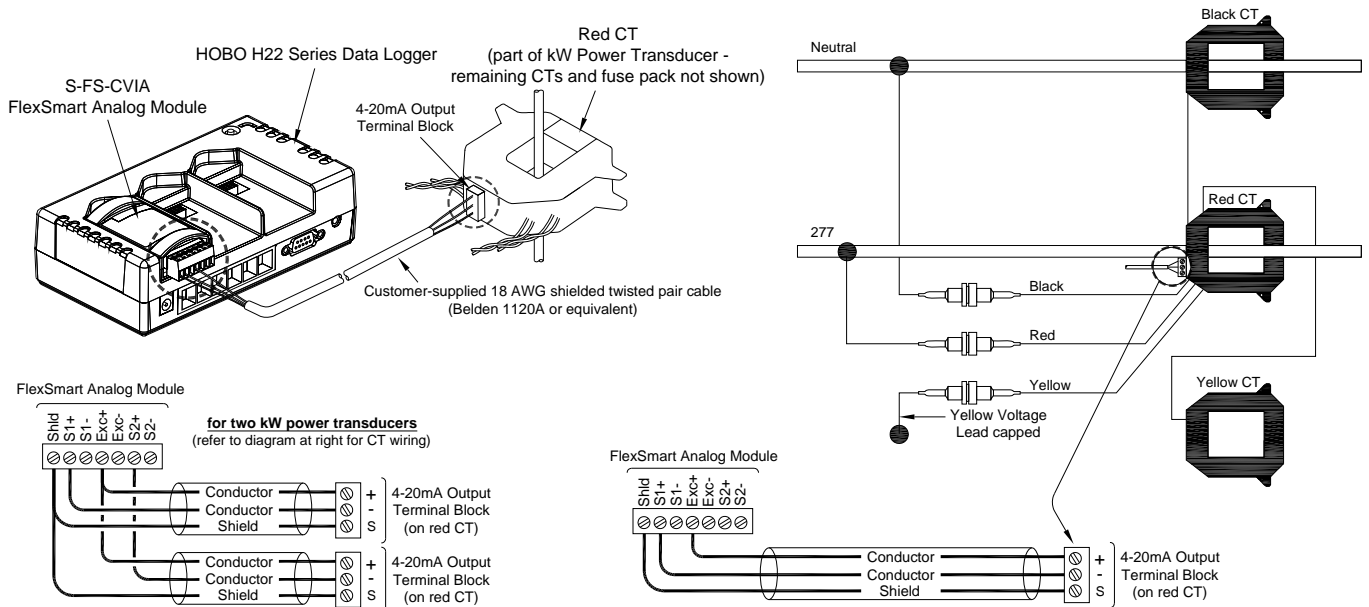## H22 Typical 208 or 480 VAC Three-Phase Three/Four-Wire Connection

H22 Typical 277 VAC Single-Phase Two-Wire Connection

HOBO H22 Series Data Logger

S-FS-CVIA
FlexSmart Analog Module

4-20mA Output
Terminal Block

Red CT
(part of kW Power Transducer -
remaining CTs and fuse pack not shown)

Black CT

Neutral

277

Black

Red

Yellow

Yellow Voltage
Lead capped

Red CT

Yellow CT

Customer-supplied 18 AWG shielded twisted pair cable
(Belden 1120A or equivalent)

FlexSmart Analog Module

Shld S1+ S1- Exc+ Exc- S2+ S2-

for two kW power transducers
(refer to diagram at right for CT wiring)

Conductor
Conductor
Shield
+ - S
4-20mA Output
Terminal Block
(on red CT)

Conductor
Conductor
Shield
+ - S
4-20mA Output
Terminal Block
(on red CT)

FlexSmart Analog Module

Shld S1+ S1- Exc+ Exc- S2+ S2-

Conductor
Conductor
Shield
+ - S
4-20mA Output
Terminal Block
(on red CT)

U30 Connection
**(also refer to the appropriate CT wiring diagram in the H22
connection section for your particular electrical power configuration)**

HOBO U30 Series Data Logger

Analog Sensor Port

4-20mA Output
Terminal Block

Red CT
(part of kW Power Transducer -
remaining CTs and fuse pack not shown)

Customer-supplied 18 AWG shielded twisted pair cable
(Belden 1120A or equivalent)

Analog Sensor Port

Analog Sensor Port

Shield Ch1 Signal Ch1 Return Exc Out   Shield Ch2 Signal Ch2 Return Ext Return

Conductor
Conductor
Shield
+ - S
4-20mA Output
Terminal Block
(on red CT)

for single kW Power Transducer

Analog Sensor Port

Shield Ch1 Signal Ch1 Return Exc Out   Shield Ch2 Signal Ch2 Return Ext Return

Conductor
Conductor
Shield
+ - S
4-20mA Output
Terminal Block
(on red CT)

Conductor
Conductor
Shield
+ - S
4-20mA Output
Terminal Block
(on red CT)

for two kW Power Transducers

ZW and U12 Connection

**(also refer to the appropriate CT wiring diagram in the H22
connection section for your particular electrical power configuration)**

HOBO ZW Series Wireless Data Node or U12 Series Data Logger
(ZW shown)

Red CT
(part of kW Power Transducer -
remaining CTs and fuse pack not shown)

4-20mA Output
Terminal Block

Connect to analog port

AC-SENS-1*

CABLE-4-20MA

AC-SENS-1*

(+)
(-)

+
-
S

4-20mA Output
Terminal Block
(on red CT)

Blue (-)

Yellow (+)

CABLE-4-20MA

Use appropriate termination for
connection (denoted with ●)

*CAUTION: Polarity is very
important! Before plugging
AC-SENS-1 into AC power,
make sure the correct
polarity lead connections to
device are made as shown!