

# Minol Pulse Output Water Flowmeter Connection Instructions

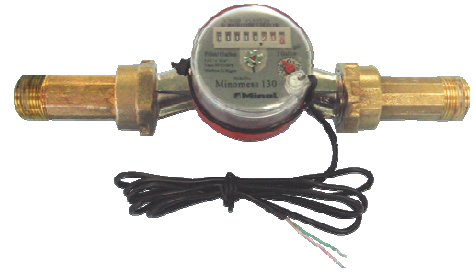
For use with HOBO® H21, H22, U30, UX90, and UX120 series data loggers, and HOBO data nodes

## Applies to this Minol Flowmeter:

Onset Part No.	Output	Flow Rate (GPM)			Max. Pressure	Max. Temp.	Minol Part No.
		Min.	Cont.	Max.			
T-MINOL-130-NL	Pulses representing 1 US gal/pulse	0.25	11.0	22.0	150 psi	90°C (194°F)	Minomess 130 NL

This document provides instructions on connecting the Minol Pulse Output Water Flowmeter listed above to HOBO H21, H22, U30, UX90, and UX120 series data loggers and to ZW series data nodes. **Note:** The manufacturer documentation for the Minol Flowmeter is posted at [www.onsetcomp.com/products/sensors/t-minol-130](http://www.onsetcomp.com/products/sensors/t-minol-130) (click the Documentation tab on that page).

T-MINOL-130-NL is lead-free and is NSF-61 Certified.



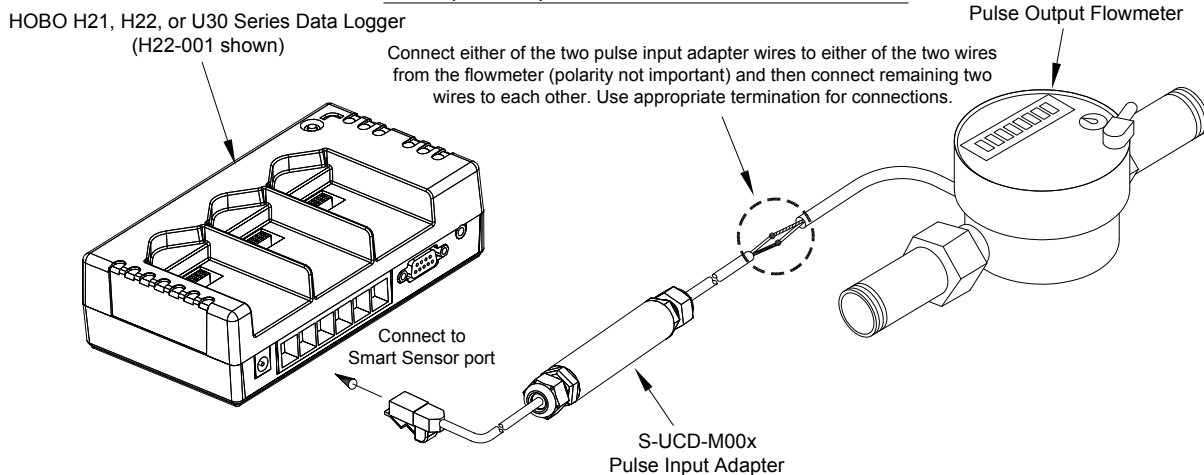
Minol Pulse Output Water Flowmeter

## Required:

- Minol Pulse Output Water Flowmeter listed above
- HOBO H21, H22, U30, UX90, or UX120 series data logger, or HOBO data node (ZW series)
- Pulse input adapter, Onset Part No. S-UCD-M00x for H21, H22, and U30 series
- 22 AWG twisted pair wire (customer supplied) for UX120 series
- Adapter cable, Onset Part No. CABLE-2.5-STEREO for ZW series and UX90 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; 3.2 or higher for UX120 series, 3.3 or higher for UX90 series)

## Connecting the Pulse Output Flowmeter to the Logger or Data Node:

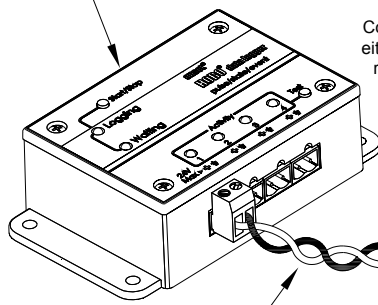
### H21, H22, and U30 Connection



## Minol Pulse Output Water Flowmeter Connection Instructions

### UX120 Connection

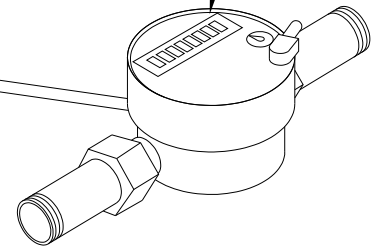
HOBO UX120 Series Data Logger



Customer-supplied  
22 AWG twisted pair

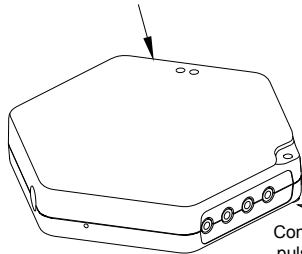
Connect either the (+) or the ground ( $\pm$ ) terminal from the UX120 terminal block to either of the two wires from the flowmeter (polarity not important) and then connect remaining two wires to each other. Use appropriate termination for connections.

Pulse Output Flowmeter



### ZW Connection

HOBO ZW Series Wireless Data Node

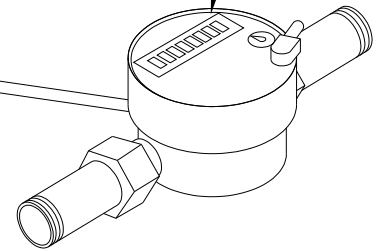


Connect to  
pulse port

Connect either the black or the white CABLE-2.5-STEREO wire (red wire not used) to either of the two wires from the flowmeter (polarity not important) and then connect remaining two wires to each other. Use appropriate termination for connections.

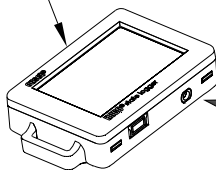
CABLE-2.5-STEREO

Pulse Output Flowmeter



### UX90-001/M Connection

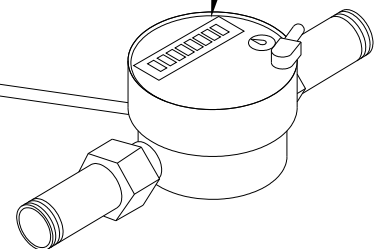
HOBO UX90-001/M Data Logger



CABLE-2.5-STEREO

Connect either the black or the white CABLE-2.5-STEREO wire (red wire not used) to either of the two wires from the flowmeter (polarity not important) and then connect remaining two wires to each other. Use appropriate termination for connections.

Pulse Output Flowmeter



#### **Data Interpretation:**

Each pulse from the Minol flowmeter represents one US gallon. The data recorded in the logger or data node will be the number of counts (pulses) per logging interval. For conversion to other units, the data must be exported from the HOBOWare Pro software.

**Note:** For complete information on using HOBOWare Pro, refer to the software documentation.