



## Quick Install Guide

**This Quick Install Guide is applicable for SmartTrak® models: 100, 101, and 140.**

A copy of this Quick Install Guide, the GSD file, 3 bit map files and the SmartTrak® 100 Profibus DP manual and the SmartTrak 100 Series product manual are included on the digital communication information CD included in your shipment. The information is also available for [download](#).

### Connecting to a Profibus DP Network

You will need the following to connect Profibus to your device:

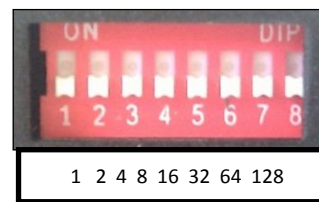
1. The Profibus network which consists of a Profibus DP master; the software your master uses for configuration and the Profibus cabling.
2. A General Station Description (GSD) file which contains the instrument specifications, telling the master configuration software which facilities/features the instrument offers to the Profibus system (<http://www.sierrainstruments.com/userfiles/file/SIER0E12.GSD>).  
Note: Sierra does not currently support Device Type Managers (DTM's).
3. [Bit map files](#), used to enhance the GSD file with images.  
A power supply for the flow meter. Sierra recommends our 100-T8D (100-T10D for HF models). This prewired power will plug into the 15- pin Sub D connector on the SmartTrak 100. See [Power Supply and Cabling Options](#) document.
4. Network connection cables (see the SmartTrak 100 Profibus DP Manual, Chapter 2). Cables must conform to the Profibus standards. Termination resistors are required at both ends of the network. Sierra recommends Profibus DB9 connectors which are available from several sources. Most have built-in switchable terminators and test plugs. A detailed cabling guide can be found at: [http://verwertraining.com/wp-content/uploads/InstallationGuideV9\\_2.pdf](http://verwertraining.com/wp-content/uploads/InstallationGuideV9_2.pdf).  
Note: You can buy cables and accessories for your SmartTrak 100 from our purchase [online site](#), if you did not purchase them in your original order.

### Installation Steps

1. Install your DP master hardware and supporting software.
2. Load the GSD files and bitmap files and update your catalog.
3. Set the slave address with the binary dip switches under the cover plate on the right side of the unit. The default address is factory set to 126 for software addressing.



**Figure 1: Unscrew dip switch access cover to access dip switches, remove cover.**



**Figure 2: Addressing**

4. Make physical connections with network and power supply cables.
5. Apply power to the SmartTrak 100.  
Note: Dip switch address is only set on power up.
6. With your software, configure your master and then the SmartTrak 100 slave.
7. Setup your software for the cyclic address and data types per the matrix on the next page.

## LED Status Matrix

LED Status Matrix	
Active	Description
Flashing green/red	Initializing
Steady green	Device operational
Flashing red	Recoverable hardware failure
Steady red	Hardware failure – attention required
NET	Description
Off	Not online – waiting for configuration
Steady green	Data exchange
Flashing red	Connection lost



Figure 3: LED Status

## Module 1 Cyclic Data Addressing

Input Data Address	Description	Size (bytes)	Format	Output Data	Description	Size (bytes)	Format
				Address			
0	Flow	4	REAL	0	Set point	4	REAL
4	Set point	4	REAL	4	Valve mode	2	INT
8	Valve mode	2	INT	6	User full scale	4	REAL
10	Valve power	2	INT	10	Flow unit	2	INT
12	User full scale	4	REAL	12	Set point source	2	INT
16	Factory full scale	4	REAL	14	Gas span	4	REAL
20	Flow unit	2	INT	18	Gas index	2	INT
22	Set point source	2	INT	20	Zero unit	2	INT
24	Gas span	4	REAL	22	Factory reset	2	INT
28	Gas index	2	INT				
30	Status	2	INT				

## Module 2 Cyclic Data Addressing

Data Address		Size (bytes)	Format
32	Serial number	8	ASCII
40	Device type (set to 100)	2	INT
42	Firmware revision	4	REAL