

SIXTRAK and VersaTRAK interface with TCP Quickpanels

Abstract: This technical note provides instructional tips for interfacing SIXTRAK gateways and VersaTRAK RTUs with Quickpanels operator interfaces from Total Control Products using Modbus protocol.

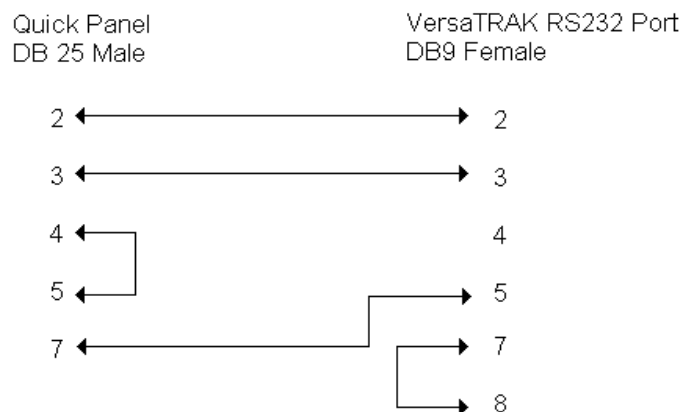
Pyramid Controls, Inc., a SIXNET distributor has created the following tutorial for integrating Total Control Quickpanels with SIXTRAK gateways and VersaTRAK RTUs. This interface allows users to access inputs and outputs in the SIXNET intelligent controller directly without first passing the data through a computer. This makes the system more versatile by allowing quick and easy interfacing directly on the plant floor site where both the SIXNET and TCP equipment resides.

Compatible Models

All models of Quick Panel will work with SIXTRAK gateways and VersaTRAK RTUs. Every model of both the SIXNET and TCP equipment is also connected in the same fashion, making the products universally compatible.

Communications and Hardware Setup

To make the hardware connection, you will need a cable that connects a DB25 male port with an RS-232 female connection. TCP sells this cable as Part No. HMI-CAB-58, or you may construct your own.



The Quickpanel also requires a 24-volt power source, which can be tapped from the same power source running the SIXNET equipment.

Software Settings

Quick Panel Port Settings **(Configure in TCP Software)**

PLC	Modicon Modbus
Electrical Format	RS232C
Baud	9600
Data Bits	8
Parity	None
Stop Bits	1
Handshake	None

SIXTRAK or VersaTRAK **(Configure RS232 Port In Plant Floor)**

PLC	Modbus RTU Slave
Baud	9600
Data Bits	8
Parity	None
Stop Bits	1
Flow Control	None

I/O Addressing

<u>Data Type</u>	<u>Gateway/RTU Address</u>	<u>Modbus Address</u>	<u>TCP Address</u>
Discrete Input (X)	0 – 9999	10001 – 20000	ID0001 – ID9999
Discrete Output (Y)	0 – 9999	00001 – 10000	OD0001 – OD9999
Analog Input (AX)	0 - 9999	30001 – 40000	IR0001 – IR3000 IR3000 – IR5000
Analog Output (AY)	0 - 2999	40001 – 43000	OR0001 – OR5000 OR0001 – OR2000
Long Integers (32 bit)	0 - 1999	45001 – 47000	IR5000 – IR7000 OR5000 – OR7000
Floating Point Numbers*	0 - 2999	47001 – 50000	IR7001 – IR9999 OR7001 – OR9999

** If Modbus Daniels extensions commands are used to communicate with the registers for floating point numbers then firmware from TCP (modified July 1998) is needed to ensure the desired results are achieved. The SIXTRAK Gateway or VersaTRAK RTU can be set to use Daniels extensions or not.*