

## I/O Controller

Industrial I/O Controller for Ethernet I/O, RS485 I/O, or Modbus I/O



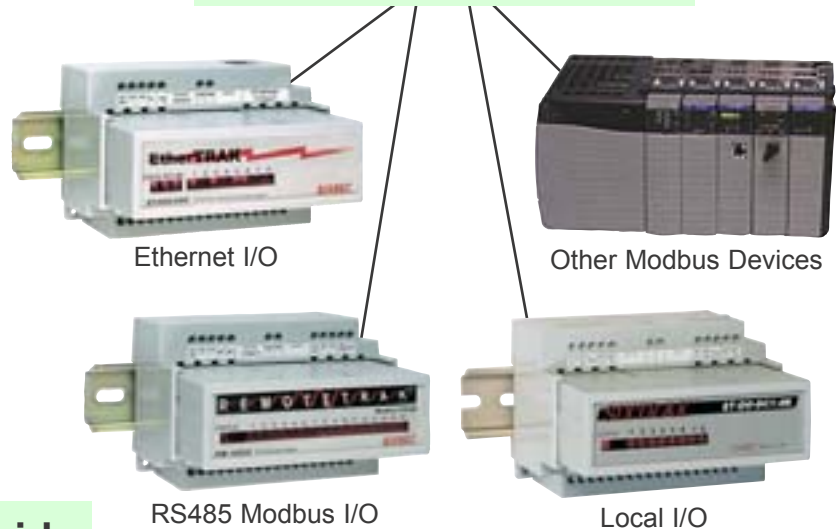
### Industrial I/O Controller for SIXNET and Modbus Systems

The SixTRAK I/O Controller (ST-GT-1210) can run an ISaGRAF IEC 61131-3 program, perform datalogging, and interface to thousands of I/O, all in real-time. Select this unit when you need a reliable way to control or monitor Ethernet, RS485, or local I/O, and then connect to a supervisory computer. It is perfectly suited for most control and data acquisition applications where some PLC-style programming is required.

This one I/O controller replaces most of SIXNET's legacy programmable SixTRAK I/O gateways (part numbers ST-GT-xxx-##P).

- **Process Control, SCADA, and RTU functionality**  
IEC 61131-3 programming with all five languages supported  
Datalogging and peer-to-peer I/O transfers
- **Ethernet, RS232, RS485, and local I/O expansion**  
Supports more than 40 SIXNET I/O module types  
Interface to other vendor's Modbus I/O
- **Flexible communications**  
Supports Open Modbus/TCP, ASCII, and RTU  
Supports telephone, wireless and other links
- **Compact DIN-rail industrial package**  
Zone 2, UL, CSA, CE, and DNV rated  
-30 to +70°C operating temperature range

### Control I/O from



### SIXNET I/O controller selection guide

Product	Description	Maximum Memory	LINUX Enabled	ISaGRAF Programs	Data-logging	Total Ports	232 Ports	485 Ports	Ethernet Ports
ET-GT-ST-2	I/O Concentrator	128K	—	—	—	3	1	1	1
ST-GT-xxx-##P	Legacy I/O Gateway *	2M	—	1	Yes	2	1	1	1
<b>ST-GT-1210</b>	<b>I/O Controller</b>	<b>512K &amp; 16M</b>	<b>OEM Only</b>	<b>1</b>	<b>Yes</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>
ST-IPM-####	Open Controller	2M & 16M+	Yes	4	Yes	3	1	1	1

\* Note: The ST-GT-1210 replaces the legacy SixTRAK programmable I/O gateways (ST-GT-xxx-##P).

## Performance Specifications

<b>General</b>	32-bit CPU
Memory for programming	8 Meg Flash and 16 Meg dynamic RAM
Memory for datalogging	512K battery-backed static RAM
I/O registers	Up to 50,000
Configuration & diagnostics	<b>SIXNET</b> I/O Tool Kit software
Datalogging support	Yes – <b>SIXNET</b> Sixlog
IEC 61131 programming	Yes – <b>SIXNET</b> ISaGRAF
<b>SixTRAK I/O (ST-BUS) port</b>	Up to 128 modules * (1,024 I/O)
SixTRAK I/O specs.	See individual data sheets
ST-BUS specs.	See user manual for details
<b>Ethernet port</b>	10/100BaseTx auto-sensing
Connection	RJ45 (TD,RD,CTS,RTS,CD,DTR,DSR,GND)
Isolation	1200 VRMS 1 minute
Protocols	Modbus and SIXNET over TCP or UDP
<b>Serial ports</b>	Up to 115,200 baud
RS232 port	RJ45 (TD,RD,CTS,RTS,CD,DTR,DSR,GND)
RS485 port	Screws (485+, 485-, GND) 2-wire half-duplex
RS485 network	Up to 32 (full-load) stations
RS485 distance	Up to 0.5 miles (1 Km)
Flow control	Hardware, software, half/full-duplex modem
Protocols	Modbus RTU, Modbus ASCII, and <b>SIXNET</b>
Modes	Master, slave, and passthru
<b>Environmental</b>	DIN rail or flat panel mount
Power	10-30 VDC; 3 watts typ. (less modules)
Temperature	-30 to +70°C (-40 to +85°C storage)
Humidity	5% to 95% RH (non-condensing)
Electrical Safety	UL 508, CSA C22.2/14; EN61010-1; <b>CE</b>
EMI emissions	FCC part 15, ICES-003, Class A; EN55022; EN61326-1; <b>CE</b>
EMC immunity	EN61326-1 (EN61000-4-2,3,4,6); <b>CE</b>
Surge withstand	IEEE-472 (ANSI C37.90)
Vibration	IEC68-2-6
Hazardous locations (Class 1, Div 2, Groups A,B,C,D)	UL 1604, CSA C22.2/213, Cenelec EN50021 Zone 2
Marine & Offshore	DNV (Det Norske Veritas)

\* Note: The first 20 modules can connect directly to the ST-GT-1210. For each additional 20 modules a ST-EX-001-20U I/O expander is required.

## Ordering Information

ST-GT-1210	SixTRAK I/O Controller
<b>Note: Replaces legacy programmable SixTRAK Gateways (ST-GT-xxx-##P).</b>	
<b>Accessories</b>	
Local I/O modules	See SixTRAK ordering guide
Ethernet I/O modules	See EtherTRAK ordering guide
RS485 I/O modules	See RemoteTRAK ordering guide
VT-MODEM-1WW	Industrial telephone modem for remote access
RM-PS-024-01F	Universal AC/DC to 24 VDC power supply
SXTOOLS-# **	<b>SIXNET</b> I/O Tool Kit software for configuration and diagnostics (Level 1 is free)
PAK####-### **	Complete Packaged System – ready for installation

\*\* Note: See separate **SIXNET** ordering guide for details.

