

## I/O Concentrator

Compact interface for Ethernet I/O, RS485 I/O, or Local I/O



### Universal I/O Interface for SIXNET and Modbus Systems

The EtherTRAK I/O Concentrator (ET-GT-ST-2) is an universal interface for your **SIXNET** and Modbus I/O. It provides transparent bridges between your Ethernet, RS232 or RS485 communications. It can poll your I/O modules or Modbus devices over one communication link and then make the data available over another.

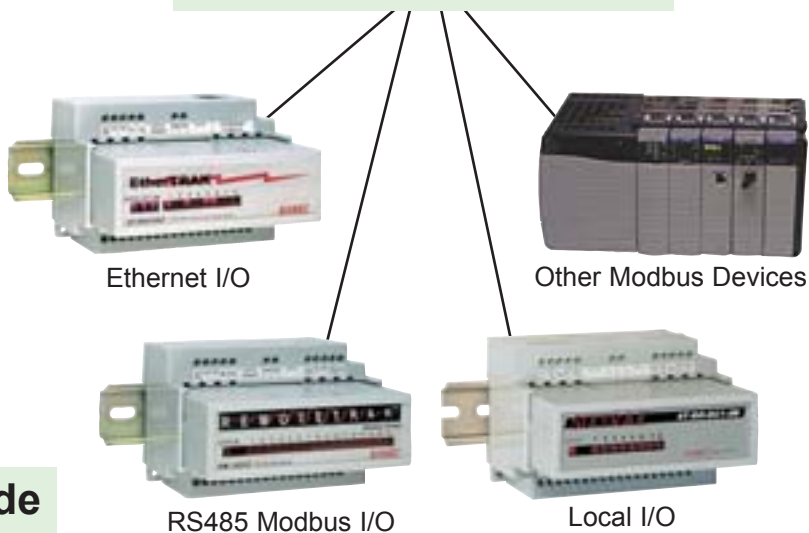
This one I/O Concentrator replaces **SIXNET's** legacy non-programmable SixTRAK Gateways (ST-GT-xxx-02N) and EtherTRAK Ethernet I/O Expander (ET-GT-ST-1).

### Common applications

- Ethernet to SixTRAK or RemoteTRAK I/O interface
- Ethernet to third party Modbus I/O interface
- Ethernet to Legacy **SIXNET** hardware

- **Ethernet, RS232, RS485, & local I/O expansion**  
 Four ports to connect thousands of I/O  
 Choose from over 40 **SIXNET** I/O module types  
 Interface to other vendors Modbus I/O
- **Flexible Communications**  
 Supports Open Modbus/TCP, ASCII, & RTU  
 Supports telephone, wireless, and other links  
 Master, Slave, and Passthru functionality
- **Powerful configuration software**  
 All features completely configurable  
 Absolutely no programming required
- **Compact DIN-rail industrial package**  
 Zone 2, UL, CSA, CE, and DNV rated  
 -30 to +70°C operating temperature range

### Concentrate 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
ST-GT-xxx-02N	Legacy I/O Gateway *	64K	-	-	-	2	1	1	1
ET-GT-ST-1	Ethernet I/O Expander *	128K	-	-	-	2	1	-	1
<b>ET-GT-ST-2</b>	<b>I/O Concentrator</b>	<b>128K</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>1</b>	<b>1</b>	<b>1</b>
ST-GT-1210	I/O Controller	512K & 16M	OEM Only	1	Yes	3	1	1	1
ST-IPM-####	Open Controller	2M & 16M+	Yes	4	Yes	8	2	1	5

\* Note: These legacy models have been replaced by the ET-GT-ST-2.

## Performance Specifications

<b>General</b>	I/O Concentrator
Maximum I/O registers	2,048 each of analog, floats, & longs; 8,000 each of discrete inputs & outputs
Configuration & diagnostics	SIXNET I/O Tool Kit software
<b>SixTRAK I/O (ST-BUS) port</b>	Up to 128 modules *
SixTRAK I/O channels	Up to 1,024
SixTRAK I/O specs.	See individual data sheets
ST-BUS specs.	See user manual for details
<b>Ethernet port</b>	RJ45, 10BaseT at 10Mbps
Isolation	1200 VRMS 1 minute
Protocols	Modbus and SIXNET over TCP or UDP
<b>Serial ports</b>	Up to 38,400 baud
RS232 port	RJ45 (TD, RD, CTS, RTS, DTR, 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 <i>SIXNET</i>
Modes	Master, slave, and passthru
<b>Environmental</b>	DIN rail or flat panel mount
Input voltage	18-30 VDC
Power (less modules)	1.6 watts
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 (IEC1010); <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 ET-GT-ST-2. For each additional 20 modules a ST-EX-001-20U I/O expander is required.

## Ordering Information

ET-GT-ST-2	EtherTRAK I/O Concentrator
<b>Note: Replaces legacy non-programmable SixTRAK Gateways (part numbers ST-GT-xxx-02N) and the EtherTRAK I/O Expander (ET-GT-ST-1).</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-1	Industrial telephone modem for remote access
RM-PS-024-01F	Universal AC/DC to 24 VDC power supply
SXTOOLS-# **	<i>SIXNET</i> 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.

