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SE-330/SE-330AU/SE-330HV ETHERNET INTERFACE

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1. GENERAL

This document describes the Anybus Ethernet IT features supported by the SE-330/SE-330AU/SE-330HV. The Ethernet module supports the Modbus/TCP protocol and the IT functionality enables the module to work as a FTP Server, Telnet Server and HTTP Server. The module's file system can hold 1.4 Mbytes of data.

The IT features allow uploading custom web pages to access and display data. A default web page is included to demonstrate the IT functionality.

2. ETHERNET CONFIGURATION

2.1 CONFIGURATION SETTINGS

The Ethernet address can be set using the configuration switches or by using configuration software. The configuration switches allow setting the IP address from 192.168.0.1 to 192.168.0.254 with Subnet mask 255.255.255.0. If an IP address other than this range is required, use the configuration software.

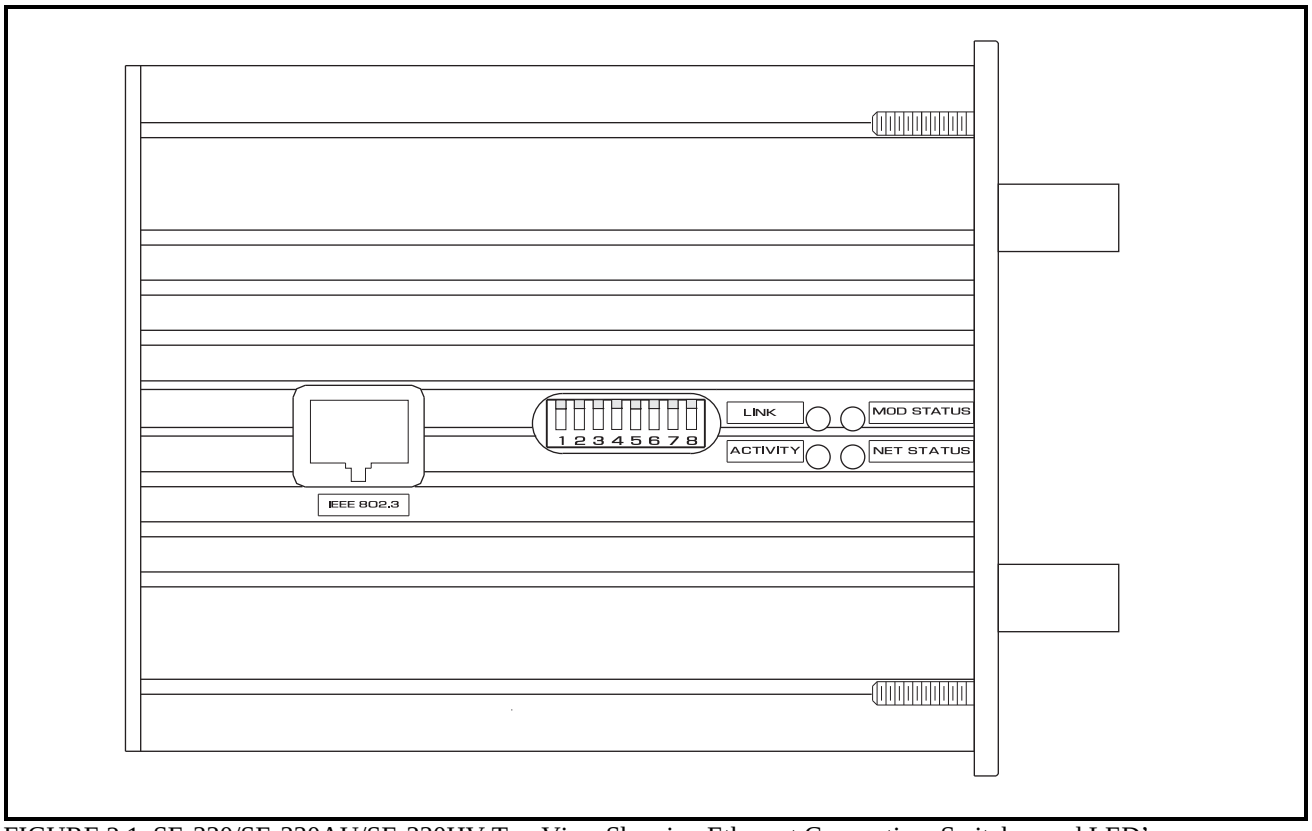


FIGURE 2.1 SE-330/SE-330AU/SE-330HV Top View Showing Ethernet Connection, Switches and LED's.

2.1.1 CONFIGURATION SWITCHES

The configuration switch provides an easy way to configure the module for intranet use. The switch represents the binary value of the last byte in the IP address (n). Both 0 and 255 are reserved and cannot be used. The module will use the settings described below.

IP address: 192.168.0.n
Subnet mask: 255.255.255.0
Gateway address: 0.0.0.0 (No gateway set)

Subnet mask and Gateway address settings are fixed to the above values when using the configuration switches.

TABLE 2.1 CONFIGURATION SWITCH SETTINGS

n	S1	S2	S3	S4	S5	S6	S7	S8
0	0	0	0	0	0	0	0	0
1	0	0	0	0	0	0	0	1
.	.	.	.	.	.	.	.	.
.	.	.	.	.	.	.	.	.
255	1	1	1	1	1	1	1	1

1 = ON (Switch Down)
0 = OFF (Switch Up)

NOTE: The node address associated with a Modbus device is not used. Device selection is done using only the IP address.

2.1.2 CONFIGURATION SOFTWARE

The IP address is set using the IPConfig330 program available at www.littelfuse.com/protectionrelays.

Set the address switches to 0. Connect the SE-330/SE-330AU/SE-330HV to an Ethernet network and run the IPConfig330 software. All module addresses for connected Anybus modules will be displayed. The MAC address is used to identify a specific SE-330/SE-330AU/SE-330HV.

2.1.2.1 TROUBLESHOOTING

If the SE-330 will not connect using the configuration switches try using IPConfig330 software. Set the configuration switches to address 0 and use IPConfig330 to view the connected units. Double click on the unit data to set the address. If the configuration switch address is used, IPConfig330 can be used to temporarily set a different IP address. On a subsequent power-on sequence, however, the IP address will revert to the configuration switch address.

2.2 LED INDICATION

The module contains four LED indicators.

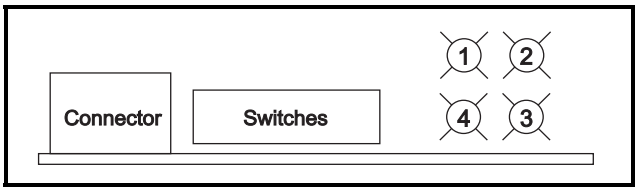


FIGURE 2.2 LED Indicators.

LED 1 - Link

Indicates that the module is connected to an Ethernet network.

TABLE 2.2 LED 2 - MODULE STATUS

STATE	DESCRIPTION
Steady Off	No Power
Steady Green	Device Operational
Flashing Green	Standby
Flashing Red	Minor Fault
Steady Red	Major Fault
Flashing Green/Red	Self-Test

TABLE 2.3 LED 3 - NETWORK STATUS

STATE	DESCRIPTION
Steady Off	No Power or No IP Address
Steady Green	Connected
Flashing Green	No Connections
Flashing Red	Connection Timeout
Steady Red	Duplicate IP
Flashing Green/Red	Self-Test

LED 4 - Activity LED

Flashes green each time a packet is received or transmitted.

2.3 FILE SYSTEM

The module contains a file system to support IT functionality. The file system is a fixed-size storage area with a hierarchical directory structure. Any data, user, or application can be stored in files within the file system. Files can be grouped in directories for readability.

The file system features two security levels. Depending on security level, different users can have access to different files and directories. The application however, always has unrestricted access to the file system.

The file system is accessible via FTP, Telnet, HTTP, and from the application using mailbox commands.

The file system is case sensitive. This means that the file 'AnyBus.txt' is not identical to the file 'AnyBus.TXT'. Filenames can be a maximum of 48 characters long. Pathnames can be 256 characters in total, filename included.

3. ATTRIBUTE DEFINITIONS

The SE-330/SE-330AU/SE-330HV attribute table contains the attributes that are referenced in the following sections. Where bit descriptions are used, Bit 0 is the least significant bit of a byte or word value.

TABLE 3.1 SE-330/SE-330AU/SE-330HV ATTRIBUTE DEFINITIONS

ATTRIBUTE NAME	DESCRIPTION
Trip Status Pre-Trip Status	Bit string of fault bits Bit 0, EF/GF: 1 = Earth/Ground Fault Trip 0 = No Trip Bit 1, RF: 1 = Resistor Fault Trip 0 = No Trip Bit 2, CAL: 1 = Calibration Error (1) 0 = No Error Bit 3, ADC: 1 = A/D Error (1) 0 = No Error Bit 4, GRV: 1 = Voltage Trip 0 = No Trip Bit 5, EE: 1 = EEPROM Error 0 = No Error Bit 6, SYS: 1 = Internal Fault 0 = No Internal Fault (Will cause a EF/GF and RF trip) Bit 7, RMT: 1 = Remote Trip 0 = No Trip (Will cause a EF/GF and RF trip)
Pending Trips	Bit string of status bits Bit 0, EF/GF: 1 = EF/GF Current > Set Point 0 = EF/GF Current < Set Point Bit 1, RF: 1 = NER/NGR Resistance Exceeding Limits 0 = NER/NGR Resistance Within Limits Bit 2, CAL: 1 = Calibration Error (1) 0 = No Error Bit 3, ADC: 1 = A/D Error (1) 0 = No Error Bit 4, GRV: 1 = Voltage Trip 0 = No Trip Bit 5, EE: 1 = EEPROM Error 0 = No Error Bit 6, CT Error: 1 = CT Open Detected (2) 0 = No Error Bit 7, CT Latch 1 = CT Error caused trip (2) 0 = No Error (1) These bits do not activate the EF/GF indication relay. (2) These bits are only applicable to SE-330AU model.
Relay Status	Bit string indicating the state of output relays Bit 1, K3: 1 = RF Indication Relay Energized 0 = Not Energized Bit 2, K2: 1 = EF/GF Indication Relay Energized 0 = Not Energized Bit 3, K1: 1 = Trip/Pulse Relay Energized 0 = Not Energized

<table>
<tr><th>ATTRIBUTE NAME</th><th>DESCRIPTION</th></tr>
<tr><td>Switches</td><td>Bit string indicating the state of the configuration switches
Bit 0, S4: 1 = RF Latch
0 = RF Not Latched
Bit 1, S3: 1 = EF/GF Latched
0 = EF/GF Not Latched
Bit 2, S5: 1 = 20 k Sensor (200 k for SE-330HV)
0 = 100 k Sensor
Bit 3, S6: 1 = 50 Hz
0 = 60 Hz
Bit 4, S2: 1 = Fail Safe Trip-Relay Operation
0 = Non Fail Safe Operation
S2 is not used on SE-330AU
Bit 5, S1: 1 = Trip Configuration (K1)
0 = Pulsing Configuration (K1)
S1 is not used in SE-330AU or SE-330HV</td></tr>
<tr><td>Record x
(x = 0 to 9)</td><td>Up to 10 trip records are stored in a circular (ring) buffer (FIFO)
A trip record consists of the following:
Trip Status
Pre-trip Current
Pre-trip Voltage
Pre-trip Resistance Change
Record Head points to last trip record. See Sec. 4.1.</td></tr>
<tr><td>Command</td><td>Specifies the command sent to the SE-330/SE-330AU/SE-330HV.
Modbus TCP:
Reset Command: Transition from 0 to 256
Remote Trip: Transition from 0 to 512
Clear Event Records: Transition from 0 to 1024
Ethernet/IP:
Reset Command: Transition from 0 to 1
Remote Trip: Transition from 0 to 2
Clear Event Records: Transition from 0 to 4</td></tr>
<tr><td>EF/GF Trip Time</td><td>Positions on front-panel EF/GF Trip Time selector
<table>
<tr><th>Position</th><th>SE-330/SE-330HV</th><th>SE-330AU</th></tr>
<tr><td>0</td><td>100 ms</td><td>100 ms</td></tr>
<tr><td>1</td><td>200 ms</td><td>120 ms</td></tr>
<tr><td>2</td><td>300 ms</td><td>140 ms</td></tr>
<tr><td>3</td><td>400 ms</td><td>160 ms</td></tr>
<tr><td>4</td><td>500 ms</td><td>180 ms</td></tr>
<tr><td>5</td><td>700 ms</td><td>200 ms</td></tr>
<tr><td>6</td><td>1 s</td><td>250 ms</td></tr>
<tr><td>7</td><td>2 s</td><td>300 ms</td></tr>
<tr><td>8</td><td>3 s</td><td>350 ms</td></tr>
<tr><td>9</td><td>5 s</td><td>400 ms</td></tr>
<tr><td>10</td><td>10 s</td><td>500 ms</td></tr>
</table></td></tr>
</table>

<table>
<tr><th>ATTRIBUTE NAME</th><th>DESCRIPTION</th></tr>
<tr><td>EF/GF Level</td><td>Positions on front-panel EF/GF Trip Level selector

<table>
<tr><th>Position</th><th>SE-330/SE-330HV</th><th>SE-330AU EFCT-x</th><th>SE-330AU CS30-x</th></tr>
<tr><td>0</td><td>2% CT Rating</td><td>125 mA</td><td>0.75 A</td></tr>
<tr><td>1</td><td>4% CT Rating</td><td>250 mA</td><td>1.5 A</td></tr>
<tr><td>2</td><td>6% CT Rating</td><td>300 mA</td><td>1.8 A</td></tr>
<tr><td>3</td><td>8% CT Rating</td><td>400 mA</td><td>2.4 A</td></tr>
<tr><td>4</td><td>10% CT Rating</td><td>500 mA</td><td>3.0 A</td></tr>
<tr><td>5</td><td>15% CT Rating</td><td>750 mA</td><td>4.5 A</td></tr>
<tr><td>6</td><td>20% CT Rating</td><td>1 A</td><td>6.0 A</td></tr>
<tr><td>7</td><td>40% CT Rating</td><td>2 A</td><td>12.0 A</td></tr>
<tr><td>8</td><td>60% CT Rating</td><td>3 A</td><td>18.0 A</td></tr>
<tr><td>9</td><td>80% CT Rating</td><td>4 A</td><td>24.0 A</td></tr>
<tr><td>10</td><td>100% CT Rating</td><td>5 A</td><td>30.0 A</td></tr>
</table></td></tr>
<tr><td>Pulse Time
(Not Applicable to SE-330HV or SE-330AU)</td><td>Positions on front-panel Pulse Period selector

0 = 1.0 s
1 = 1.2 s
2 = 1.4 s
3 = 1.6 s
4 = 1.8 s
5 = 2.0 s
6 = 2.2 s
7 = 2.4 s
8 = 2.6 s
9 = 2.8 s
10 = 3.0 s</td></tr>
<tr><td>NER/NGR Current
Pre-Trip Current</td><td>NER/NGR current reading in percent of CT Primary Rating</td></tr>
<tr><td>NER/NGR Voltage
Pre-Trip Voltage</td><td>NER/NGR voltage reading in percent of Vn trip level setting on the front panel</td></tr>
<tr><td>NER/NGR Change
Pre-Trip Change</td><td>Resistance deviation from calibrated setting.
Signed 16-bit value.</td></tr>
<tr><td>Record Head</td><td>Pointer to the latest of 10 pre-trip records. 255 indicates no trips recorded. Range 0 to 9.</td></tr>
<tr><td>Fault Reset</td><td>0 to 1 transition causes a reset</td></tr>
<tr><td>Remote Trip</td><td>0 to 1 transition causes a remote trip</td></tr>
</table>

4. MODBUS/TCP PROTOCOL

The SE-330/SE-330AU/SE-330HV Ethernet module can handle up to 8 simultaneous connections. It supports all of the Modbus/TCP class 0 and class 1 and some of the class 2 commands.

Although word addressing (4xxxx) is recommended, both bit and word addressing is supported. A 16-bit word can be read as a single word using word addressing and can also be read as bits by using bit addressing. The bit address is 16 times the word address. For example, a value at word address 34 has its most significant bit located at bit address 16x34 or 544. The use of the Modbus prefix 0, 1, 3, and 4 is a function of the master and may not be required. Check the master's documentation.

TABLE 4.1 FUNCTION CODES

FUNCTION CODE	FUNCTION NAME	CLASS	AFFECTS AREA	ADDRESSING METHOD	MODBUS GROUP
1	Read coils	1	IN/OUT	Bit	0xxxx
2	Read input discretes	1	IN/OUT	Bit	1xxxx
3	Read multiple registers	0	IN/OUT	Word	4xxxx
4	Read input registers	1	IN/OUT	Word	3xxxx
5	Write coil	1	OUT	Bit	0xxxx
6	Write single register	1	OUT	Word	4xxxx
7 *	Read exception status	1	-	-	-
15	Force multiple coil	2	OUT	Bit	0xxxx
16	Force multiple registers	0	OUT	Word	4xxxx
22	Mask write register	2	OUT	Word	-
23	Read/Write registers	2	IN/OUT	Word	-

* Exception Code 01: Illegal Function
Exception Code 02: Illegal Data Address
Exception Code 03: Illegal Data Value

4.1 MODBUS/TCP MEMORY ADDRESSING

The IN area contains data that can be read using Function Codes 1, 2, 3, 4, and 23. It is not possible to write to the IN area.

The data is available in 16-bit format and starts at memory address 160 (Modbus 40081)

TABLE 4.2 IN AREA: 16-BIT FORMAT

BYTE MEMORY ADDRESS (Modbus Address)	ATTRIBUTE
160 (40081)	Revision
162 (40082)	Trip Status
164 (40083)	Pending Trips
166 (40084)	EF/GF Time
168 (40085)	EF/GF Level
170 (40086)	Pulse Time [2]
172 (40087)	NER/NGR Current
174 (40088)	NER/NGR Voltage
176 (40089)	NER/NGR Change[1]
178 (40090)	Relay Status
180 (40091)	Switches
182 (40092)	Record Head[3]
Record 0	
184 (40093)	Pre-Trip Status
186 (40094)	Pre-Trip Current
188 (40095)	Pre-Trip Voltage
190 (40096)	Pre-Trip Change[1]
Record 1	
192 (40097)	Pre-Trip Status
194 (40098)	Pre-Trip Current
196 (40099)	Pre-Trip Voltage
198 (40100)	Pre-Trip Change[1]
Record 2	
200 (40101)	Pre-Trip Status
202 (40102)	Pre-Trip Current
204 (40103)	Pre-Trip Voltage
206 (40104)	Pre-Trip Change[1]
Record 3	
208 (40105)	Pre-Trip Status
210 (40106)	Pre-Trip Current
212 (40107)	Pre-Trip Voltage
214 (40108)	Pre-Trip Change[1]
Record 4	
216 (40109)	Pre-Trip Status
218 (40110)	Pre-Trip Current
220 (40111)	Pre-Trip Voltage
222 (40112)	Pre-Trip Change[1]
Record 5	
224 (40113)	Pre-Trip Status
226 (40114)	Pre-Trip Current
228 (40115)	Pre-Trip Voltage
230 (40116)	Pre-Trip Change[1]

TABLE 4.2 IN AREA: 16-BIT FORMAT

BYTE MEMORY ADDRESS (Modbus Address)	ATTRIBUTE
Record 6	
232 (40117)	Pre-Trip Status
234 (40118)	Pre-Trip Current
236 (40119)	Pre-Trip Voltage
238 (40120)	Pre-Trip Change[1]
Record 7	
240 (40121)	Pre-Trip Status
242 (40122)	Pre-Trip Current
244 (40123)	Pre-Trip Voltage
246 (40124)	Pre-Trip Change[1]
Record 8	
248 (40125)	Pre-Trip Status
250 (40126)	Pre-Trip Current
252 (40127)	Pre-Trip Voltage
254 (40128)	Pre-Trip Change[1]
Record 9	
256 (40129)	Pre-Trip Status
258 (40130)	Pre-Trip Current
260 (40131)	Pre-Trip Voltage
264 (40132)	Pre-Trip Change[1]

[1] Signed value
[2] Not applicable to SE-330HV or SE-330AU
[3] Points to last trip record. Counts 0 to 9 and repeats.

OUT AREA

The out area is used to send a remote trip or remote reset command. These commands are sent to the first byte of the OUT area using function code 6. The out area is located at byte address 2048, or Modbus word address 41025.

To perform a reset in Modbus word format, the command register at 41025 must transition from 0 to 256.

To issue a remote trip, the command register must transition from 0 to 512.

To issue a clear event records, the command register must transition from 0 to 1024.

5. ETHERNET/IP OBJECTS

The module supports the following vendor specific objects:

TABLE 5.1 SE-330/SE-330AU/SE-330HV OBJECTS

CLASS	ATTRIBUTE
0x04	Assembly
0xB0	Input Parameters
0xB1	Output Parameters

5.1 ASSEMBLY OBJECT

Assembly Class (4), Instance (0) Attributes

ATTRIBUTE NUMBER	ATTRIBUTE NAME	SERVICES	DESCRIPTION	DEFAULT, MINIMUM, MAXIMUM	DATA TYPE
1 0x01	Revision	Get_Attribute_Single	Revision of this object	1, 1, 1	UINT

Assembly Class (4), Instance (100), Attribute (3) – Input 1 (9 Bytes)

BYTE	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0
0	Remote Trip	Internal Error	EEPROM Error	NER/NGR Volts	ADC Error	CAL Error	RF Trip	EF/GF Trip
1							RF Detect	EF/GF Detect
2	EF/GF Trip Time Selector (Position 0 to 10)							
3	EF/GF Trip Level Selector (Position 0 to 10)							
4	Pulse Period Selector (Position 0 to 10), Not Applicable to SE-330HV or SE-330AU							
5	NER/NGR Current (% of CT Rating)							
6	NER/NGR Voltage (% of Setting)							
7	Delta Ohms (Low) (ohms)							
8	Delta Ohms (High) (ohms)							

Assembly Class (4), Instance (101), Attribute (3) – Input 2 (2 Bytes)

BYTE	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0
0	Remote Trip	Internal Error	EEPROM Error	NER/NGR Volts	ADC Error	CAL Error	RF Trip	EF/GF Trip
1							RF Detect	EF/GF Detect

Assembly Class (4), Instance (102), Attribute (3) – Input 3 (51 Bytes)

BYTE	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0
0	Record Head							
1	Remote Trip	Internal Error	EEPROM Error	NER/NGR Volts	ADC Error	CAL Error	RF Trip	EF/GF Trip
2	NER/NGR Current (% of CT Rating)							
3	NER/NGR Voltage (% of Setting)							
4	Delta Ohms (Low) (ohms)							
5	Delta Ohms (High) (ohms)							
6	Remote Trip	Internal Error	EEPROM Error	NER/NGR Volts	ADC Error	CAL Error	RF Trip	EF/GF Trip
7	NER/NGR Current (% of CT Rating)							
8	NER/NGR Voltage (% of Setting)							
9	Delta Ohms (Low) (ohms)							
10	Delta Ohms (High) (ohms)							
11	Remote Trip	Internal Error	EEPROM Error	NER/NGR Volts	ADC Error	CAL Error	RF Trip	EF/GF Trip
12	NER/NGR Current (% of CT Rating)							
13	NER/NGR Voltage (% of Setting)							
14	Delta Ohms (Low) (ohms)							
15	Delta Ohms (High) (ohms)							
16	Remote Trip	Internal Error	EEPROM Error	NER/NGR Volts	ADC Error	CAL Error	RF Trip	EF/GF Trip
17	NER/NGR Current (% of CT Rating)							
18	NER/NGR Voltage (% of Setting)							
19	Delta Ohms (Low) (ohms)							
20	Delta Ohms (High) (ohms)							

Assembly Class (4), Instance (102), Attribute (3) – Input 3 (51 Bytes) (Continued)

BYTE	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0
21	Remote Trip	Internal Error	EEPROM Error	NER/NGR Volts	ADC Error	CAL Error	RF Trip	EF/GF Trip
22	NER/NGR Current (% of CT Rating)							
23	NER/NGR Voltage (% of Setting)							
24	Delta Ohms (Low) (ohms)							
25	Delta Ohms (High) (ohms)							
26	Remote Trip	Internal Error	EEPROM Error	NER/NGR Volts	ADC Error	CAL Error	RF Trip	EF/GF Trip
27	NER/NGR Current (% of CT Rating)							
28	NER/NGR Voltage (% of Setting)							
29	Delta Ohms (Low) (ohms)							
30	Delta Ohms (High) (ohms)							
31	Remote Trip	Internal Error	EEPROM Error	NER/NGR Volts	ADC Error	CAL Error	RF Trip	EF/GF Trip
32	NER/NGR Current (% of CT Rating)							
33	NER/NGR Voltage (% of Setting)							
34	Delta Ohms (Low) (ohms)							
35	Delta Ohms (High) (ohms)							
36	Remote Trip	Internal Error	EEPROM Error	NER/NGR Volts	ADC Error	CAL Error	RF Trip	EF/GF Trip
37	NER/NGR Current (% of CT Rating)							
38	NER/NGR Voltage (% of Setting)							
39	Delta Ohms (Low) (ohms)							
40	Delta Ohms (High) (ohms)							
41	Remote Trip	Internal Error	EEPROM Error	NER/NGR Volts	ADC Error	CAL Error	RF Trip	EF/GF Trip
42	NER/NGR Current (% of CT Rating)							
43	NER/NGR Voltage (% of Setting)							
44	Delta Ohms (Low) (ohms)							
45	Delta Ohms (High) (ohms)							
46	Remote Trip	Internal Error	EEPROM Error	NER/NGR Volts	ADC Error	CAL Error	RF Trip	EF/GF Trip
47	NER/NGR Current (% of CT Rating)							
48	NER/NGR Voltage (% of Setting)							
49	Delta Ohms (Low) (ohms)							
50	Delta Ohms (High) (ohms)							

Assembly Class (4), Instance (150), Attribute (3) – Output 1 (1 Byte)

BYTE	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0
0						Clear Event Records	Remote Trip	Fault Reset

5.2 INPUT PARAMETER OBJECT

Input Parameter Class (0xB0), Instance (0) Attributes

ATTRIBUTE NUMBER	ATTRIBUTE NAME	SERVICES	DESCRIPTION	DEFAULT, MINIMUM, MAXIMUM	DATA TYPE
1	Revision	Get	Revision of this object	1, 1, 1	UINT

Input Parameter Class (0xB0), Instance (1) Attributes

All attributes in this instance are read-only and support the Get_Attribute_Single service using Explicit Messaging.

ATTRIBUTE NUMBER	ATTRIBUTE NAME	SERVICES	DESCRIPTION	DEFAULT, MINIMUM, MAXIMUM	DATA TYPE
1	Revision	Get	SE-330 Revision	0, 0, 255	USINT
2	Trip Status	Get	Bits defines trips	0, 0, 255	USINT
3	Pending Trips	Get	Bits define pending trips	0, 0, 3	USINT
4	EF/GF Time	Get	Detent position	0, 0, 10	USINT
5	EF/GF Level	Get	Detent position	0, 0, 10	USINT
6	Pulse Time [1]	Get	Detent position	0, 0, 10	USINT
7	NER/NGR Current	Get	Percent of CT rating	0, 0, 255	USINT
8	NER/NGR Voltage	Get	Percent of V_N setting	0, 0, 255	USINT
9	NER/NGR Change	Get	Deviation from calibrated value	0, -32k, +32k	INT
10	Relay Status	Get	Bits indicate output relay state	0, 0, 15	BYTE
11	Switches	Get	Front panel switch state	0, 0, 255	BYTE
12	Record Head	Get	0 to 9 or 255	0, 0, 255	USINT
13	Pre-Trip Status	Get	Trip status for last record	0, 0, 255	BYTE
14	Pre-Trip Current	Get	Percent of CT rating	0, 0, 255	USINT
15	Pre-Trip Voltage	Get	Percent of V_N setting	0, 0, 255	USINT
16	Pre-Trip Change	Get	Deviation from calibrated value	0, -32k, +32k	INT

[1] Not applicable to SE-330HV or SE-330AU

5.3 PARAMETER OUTPUT OBJECT

This object allows parameters to be written to the SE-330/SE-330AU/SE-330HV

Class (0xB1), Instance (0) Attributes

ATTRIBUTE NUMBER	ATTRIBUTE NAME	SERVICES	DESCRIPTION	DEFAULT, MINIMUM, MAXIMUM	DATA TYPE
1	Revision	Get_Attribute_All	Revision of this object	1, 1, 1	USINT

Class (0xB1), Instance (1) Attributes

ATTRIBUTE NUMBER	ATTRIBUTE NAME	SERVICES	DESCRIPTION	DEFAULT, MINIMUM, MAXIMUM	DATA TYPE
1	Command	Get/Set	Sends reset or remote trip command. 0 = No action (IDLE) 1 = Transition from 0 to 1 causes a trip reset. 2 = Transition from 0 to 2 causes a remote trip. 4 = Transition from 0 to 4 causes event records to clear.	0, 0, 2	USINT