



TAC Xenta 913

LonWorks Gateway

The TAC Xenta 913 is a cost-effective way to integrate a large variety of products into a TAC network. The TAC Xenta 913 supports the most commonly-used open protocols, like Modbus, BACnet and LonWorks. It also supports some manufacturer-specific protocols, like I/NET and Clipsal C-bus.

The TAC Xenta 913 acts as a gateway and transfers data point values from one network to another. Configuration is carried out using the TAC XBuilder programming tool.

TECHNICAL DATA

Supply voltage. 24 V AC $\pm 20\%$, 50/60 Hz or 19–40 V DC
 Power consumption. max. 5 W
 Transformer sizing. 5 VA

Ambient Temperature

Storage. $-20\text{ }^{\circ}\text{C}$ to $+50\text{ }^{\circ}\text{C}$ ($-4\text{ }^{\circ}\text{F}$ to $+122\text{ }^{\circ}\text{F}$)
 Operation. $\pm 0\text{ }^{\circ}\text{C}$ to $+50\text{ }^{\circ}\text{C}$ ($+32\text{ }^{\circ}\text{F}$ to $+122\text{ }^{\circ}\text{F}$)
 Humidity. max. 90% RH non-condensing

Mechanical

Enclosure. ABS/PC
 Enclosure rating. IP 20
 Flammability class, materials. UL 94 V-0
 Dimensions. see Fig. 1
 Weight. 0.2 kg (0.44 lb.)

Real Time Clock

Accuracy at $+25\text{ }^{\circ}\text{C}$ ± 12 minutes per year
 Power failure protection. 72 h

Communication

A: RS232. 2400 – 57600 bps, RJ45, 8-p
 A: RS485. 2400 – 57600 bps, async. terminal block
 B: RS232. RJ10, 4-p
 C: RS485. sync. (SDLC) terminal block
 LonWorks. TP/FT-10, terminal block
 Ethernet. TCP/IP, 10Base-T, RJ45

Agency Compliances

Emission:
 CE. EN 61000-6-3
 C-tick. C-Tick N1831
 FCC. FCC Part 15, Subpart B, Class B

Immunity:

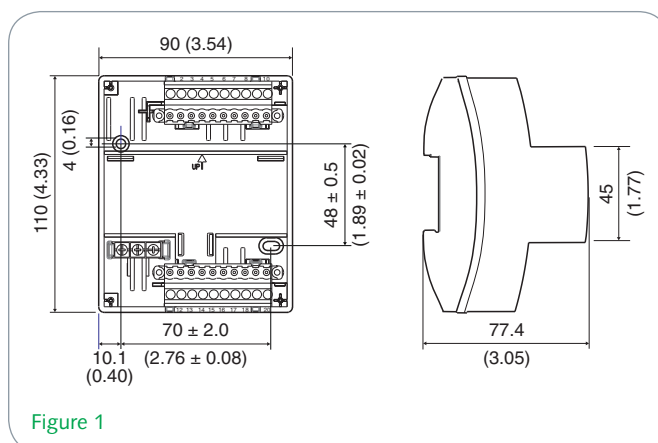
CE. EN 61000-6-2

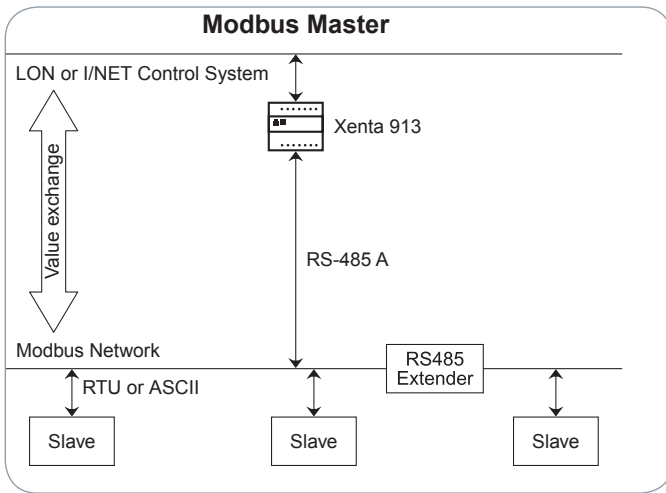
Safety:

CE. EN 61010-1
 UL 916. C-UL US Listed
 RoHS directive. 2002/95/EG

Part Numbers

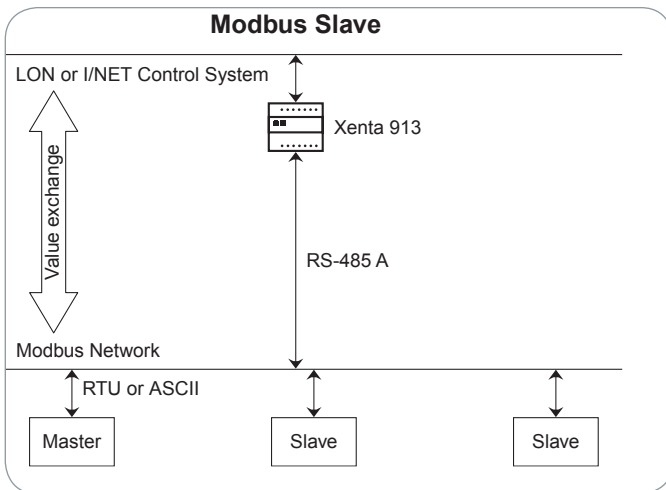
TAC Xenta 913. 007308351
 Terminal part TAC Xenta 400. 007309020
 TAC Xenta: Programming Serial Kit. 007309200





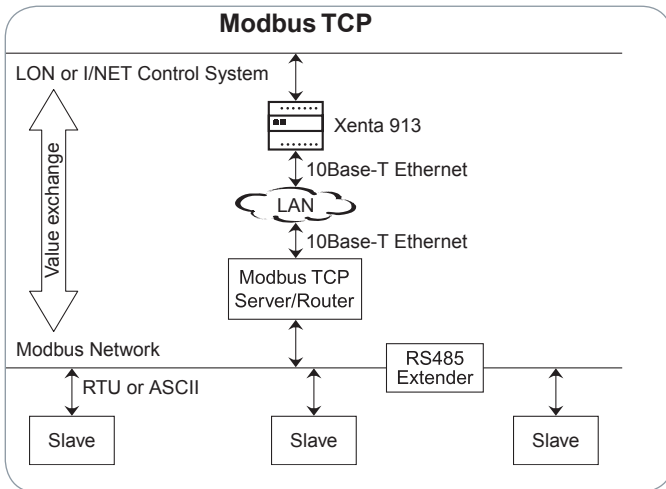
The Xenta 913 can be configured to act as the sole master on a Modbus and/or J-Bus serial network to allow monitoring and control of one or more slave devices via an I/NET or LON control system. Both the RTU and ASCII protocol formats are supported.

A number of Modbus registers can be connected to a corresponding set of LON network variables or I/NET points to allow one or more slave devices to be monitored and controlled. The Xenta 913 can act as the sole network targeted master, exchanging the required register values with the targeted slave devices.



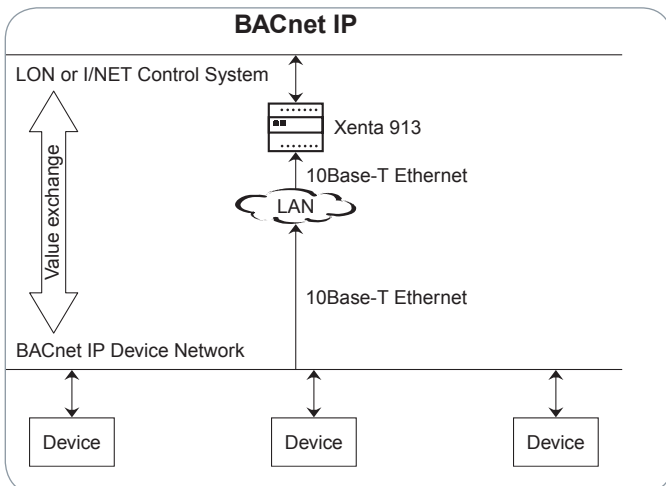
The Xenta 913 can be configured to act as a slave on a Modbus and/or J-Bus serial network to allow an external master to read and write values from an I/NET or LON control system. Both the RTU and ASCII protocol formats are supported.

A number of Modbus registers can be connected to a corresponding set of LON network variables or I/NET points to allow the master device to exchange values with the BMS via the Xenta 913, which acts as one or more slaves to reflect BMS values as Modbus registers.



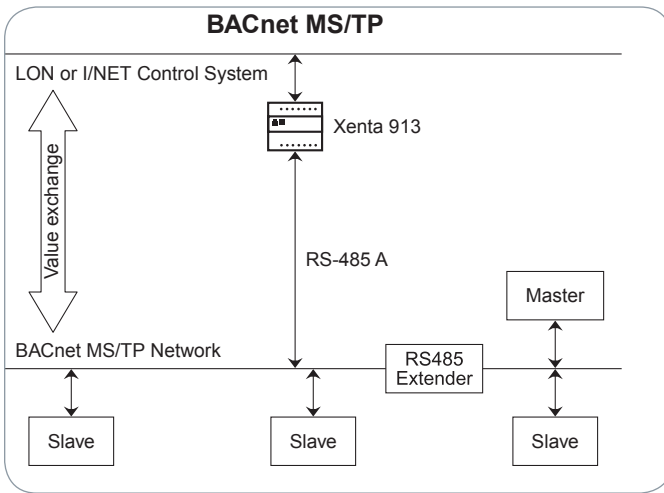
The Xenta 913 can be configured to act as a client to a Modbus TCP server to allow monitoring and control of one or more slave devices via an I/NET or LON control system. Both the RTU and ASCII protocol formats are supported.

A number of Modbus registers can be connected to a corresponding set of LON network variables or I/NET points to allow one or more slave devices to be monitored and controlled. The Xenta 913 acts as a network client, exchanging the required register values with the slaves via a Modbus TCP server.



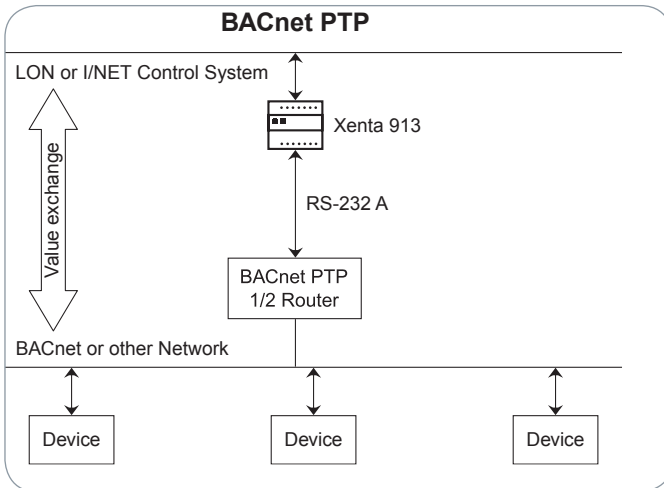
The Xenta 913 can be configured to connect to one or more target BACnet IP devices to allow values within them to be monitored and controlled via an I/NET or LON control system.

A number of BACnet objects can be connected to a corresponding set of LON network variables or I/NET points to allow one or more target devices to be monitored and controlled. The Xenta 913 acts as a network client, exchanging the required I/O values with the target devices via a TCP/IP network. Each target device acts as a server to one or more BACnet IP clients, including the Xenta 913.



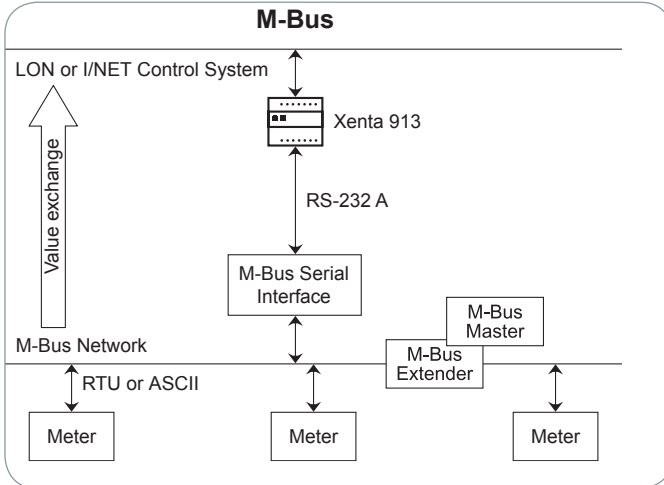
The Xenta 913 can be configured to connect to a BACnet MS/TP serial network to allow monitoring and control of one or more devices via an I/NET or LON control system.

A number of BACnet objects can be connected to a corresponding set of LON network variables or I/NET points to allow one or more master or slave devices to be monitored and controlled. The Xenta 913 acts a master, but is designed to coexist with other masters on the MS/TP network if present.



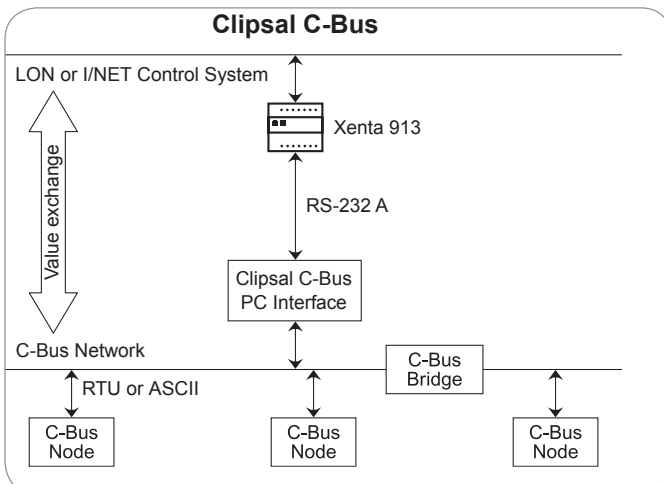
The Xenta 913 can be configured to connect to a target network through a BACnet PTP half router to allow monitoring and control of one or more devices via an I/NET or LON control system.

A number of BACnet objects can be connected to a corresponding set of LON network variables or I/NET points to allow one or more target devices to be monitored and controlled. The target devices can be connected to the router via another type of BACnet protocol such as MS/TP or IP, or via any other type of network supported by the router and target devices.



The Xenta 913 can be configured to communicate with an M-Bus serial adaptor to allow meter monitoring via an I/NET or LON control system.

A number of M-Bus metered values can be connected to a corresponding set of LON network variables or I/NET points to allow one or more M-Bus meters to be monitored. The Xenta 913 is able to cooperate with either a temporary or permanent M-Bus application master.



The Xenta 913 can be configured to connect to a Clipsal C-Bus serial adaptor to allow monitoring and control of a lighting system via an I/NET or LON control system.

A number of C-Bus group variables can be connected to a corresponding set of LON network variables or I/NET points to allow C-Bus lighting groups to be monitored and/or controlled. These group variables may be distributed amongst one or more C-Bus applications as applicable.

PROTOCOL DRIVER LIST

Protocol	Description/Model	Driver Description
BACnet	BACnet IP / MS-TP / PTP	BACnet is a standard protocol for building automation developed by ASHRAE. Supports BACnet ReadProperty and WriteProperty Messages. Max. no. of devices: IP: 10, MS-TP: 30, PTP: 10.
Modbus/J-Bus	Modbus Master / Slave / TCP	Commonly-used protocol supported by many PLCs and other equipment manufacturers. <ul style="list-style-type: none"> • Uses Poll-on-demand to extract data. • RTU or ASCII Formats. • Supports 01, 02, 03, 04, 05, 06 and 10 Modbus functions. Max. no. of devices: As Master: 31 Slaves, as Slave: 1 Master, TCP: 100.
M-Bus	Metering bus	M-Bus is a standard protocol for meters. Requires a hardware converter between RS-232 and M-Bus like Level-Converter PW 20 from Relay GmbH. Max. no. of devices: 200.
C-Bus	Clipsal bus	C-Bus is a proprietary communication protocol for Clipsal lighting control systems. Max. no. of devices: 50.
LonWorks	FT-10	LonWorks is a standard protocol for building automation developed by Echelon SNVT (up to 400 SNVTs). Public variables in TAC Xenta 280/300/400.
I/NET	Host LAN/Controller LAN	I/NET is a proprietary protocol for I/NET systems from TAC.

SNMP

TAC Xenta 913 can communicate using Simple Network Management Protocol (SNMP) which allows the exchange of management information between network devices. It is part of the TCP/IP protocol suite.

CONFIGURING

The TAC Xenta 913 is configured using the TAC XBuilder software.

SECURITY

The TAC Xenta 913 uses a secure interface for configuration with username and password logon.

WEB INTERFACE

TAC Xenta 913 uses a web interface to configure the network, time, servers and ports, for instance.

INSTALLATION/CONNECTION

Modular Jacks

- RS232 A: Modem connection. Connection using hardware signals for modem communication.
- RS232 B: PC ("Console") connection. Connection using basic signals, primarily intended for a PC during configuration.
- 10Base-T: Connection for a LAN (Ethernet) cable and commissioning.

MMC

Connection for a MultiMedia Card (extra memory card). MMC is not available for TAC Xenta 913.

LEDs

A number of light-emitting diodes in the electronics part of the TAC Xenta 913 indicate that the application program is running and when communication is in progress.

"Reset Button"

Shorting terminals 9 and 10 ("Fail-safe") at restart will inhibit programs from hanging and put the internal program in a fail-safe state.

Terminal Connections

There is a label on the front of the module showing both the numbers and the names of the terminals (1 G, 2 G0 and so on). The numbers are also shown in the plastic of the terminal part.

Term.	Term. No.	Description Name
1	G	24 V AC (or DC+)
2	G0	Ground
3	C1	LonWorks TP/FT-10
4	C2	LonWorks TP/FT-10
5	RX/TX+	RS485 A
6	RX/TX-	RS485 A
7	RX+	RS485 A
8	RX-	RS485 A
9	G0	
10	Fail-safe	
-		
-		
19	RX/TX+	RS485 C (SDLC)
20	RX/TX-	RS485 C (SDLC)