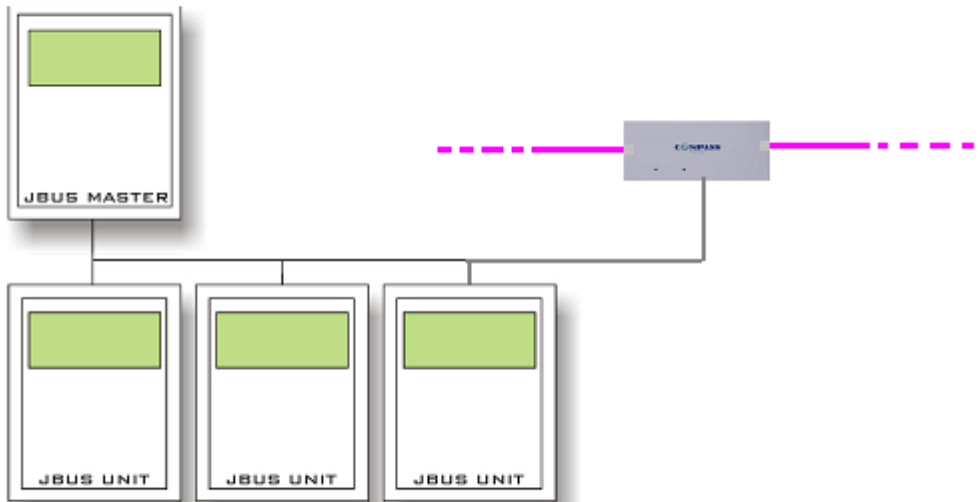


Product Engineering Guide

Compass v22 JBusDev v12 RS232

Introduction

The JBusDev Compass Point provides a gateway from systems supporting the standard J-Bus protocol to the Compass Network. The JBusDev Compass Point is a J-Bus device containing 100 registers, which may be accessed by a J-Bus/Modbus master device (therefore the JBusDev Compass Point is a slave and can not read/write values from the master).



Supported Range

- The JBusDev Compass Point communicates with any system supporting J-Bus/Modbus protocol in either binary (RTU) or ASCII mode.

Notes

The device supports a JBus address, selectable baud rate, character parity, number of stop bits and transmission modes (RTU or ASCII). User or pre-defined formulae can be applied to each register if necessary.

The JBusDev Compass Point does not allow the Compass Network to read/write values from the J-Bus system, for this the JBus driver should be used.

The registers within the JBusDev Compass Point may be read from or written to using any of the functions below.

The JBusDev Compass Point supports the following function codes:

Description	Function Code	Notes
Read Output Status	01	Reads up to 100 registers converted to an ON/OFF status
Read Input Status	02	Reads up to 100 registers converted to an ON/OFF status
Read Output Register	03	Reads up to 100 registers
Read Input Register	04	Reads up to 100 registers
Force Single Coil	05	This can force a single register to ON or OFF
Preset Single Register	06	Writes to a single register

All functions support register addresses in the range 0 to 99.

The JBusDev Compass Point can generate the following exception responses:

Description	Function Code	Notes
Illegal Function	01	The message function received is not an allowable action.
Illegal Data Address	02	The address referenced in the data field is not allowable.
Illegal Data Value	03	The value referenced in the value field is not allowable.

Engineering

Step 1 – Mount the Compass Point

Refer to the 'Mounting' section within the '[Compass Point RS232 Installation Guide](#)' document for details on how to mount the Compass Point securely to a wall or within a cabinet.

Step 2 – Connect Compass Point to JBus System

Using cable, connect the JBus network to the RS232 port of the Compass Point. Refer to the section '[Cable](#)' below for details of the cable.

Step 3 – Apply Power to the Compass Point

Refer to the 'Power' section within the '[Compass Point RS232 Installation Guide](#)' document. Once power is applied, the green LED should be lit continuously to show that the Compass Point is working correctly on the Compass Network.

Step 4 – Configure the JBusDev driver within Compass Point

The baudrate, byte format, operating mode, formula, and the Compass Points address on the JBus network are configured using objects. Use object engineering software to view and modify the objects within the Compass Point.

Step 5 – Access Objects within the JBusDev System

Values from the JBusDev Compass Point are made available as objects on the Compass Network. Any object software that is connected to the Compass Network can access these objects.

Each of the 100 registers within the JBusDev Compass device should be configured with a formula. This is then used when writing to/reading from the register value.

The red LED near the RS232 port of the Compass pulses when a valid message is transmitted or received by the Compass Point.

Step 6 – Configure the Transfers within the Compass Point

Compass Point transfers are also configured using objects. Refer to the '[Introduction to Compass Transfers](#)' document for more details.

Step 7 – Configure the Alarm Handling within the Compass Point

Compass Point alarm handling is also configured using objects. Refer to the '[Introduction to Compass Alarms](#)' document for more details.

Engineering Reference

Cable Specification

The cable from the Compass Point to the device cannot be described here, but must be determined by the engineer by analysing the documentation covering the equipment. The cable should be as short as possible, and not greater than 15m. Connect the cable to the RS232 connector.

Objects

When the Compass Point is powered-up the following objects are created on the Compass Network, use object software to access these objects.

Object	Label	R/W	Type
$Dn^{[1]}$	J-Bus Device	-	[JBusDev v12]
$Pp^{[2]}$	J-Bus Dev Compass Point	-	[Compass v22\JBusDev v12]

Notes

- [1] The Device Number, n , is a number in the range 0...63.
- [2] If the Compass Point has its device number configured the Point address, p , is a number in the range 1...63. If no device number is set the Point address, p , is the Compass Point serial number in the range 1000000...99999999