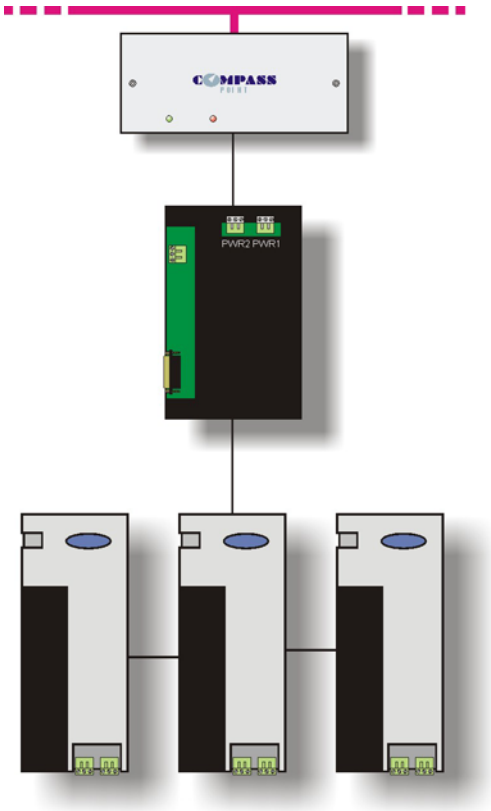
Product Engineering Guide

Compass v22 CcnDp1 v12 RS232

Introduction

The CcnDp1 Compass Point links the Carrier Data Port 1 Module to the Compass Network. The Carrier Data Port 1 Module contains a database of 900 points from up to 15 Carrier Controllers. There is also a driver for the Carrier Data Port 2.



Supported Range

- Carrier CCN range of controllers.

Notes

When a device object is requested the driver requests the data from the Data Port. After a delay of several seconds the Data Port sends values for all data within the controller. The driver is unable to store all these values so stores the value requested and the following nine values as a data 'block' for the time specified in the Point object Buffer Life. The driver can store the values of up to 8 blocks of such data.
The first time a device object is requested it may fail because of the time taken to receive a reply back from the Data Port. Request the object again and the driver should reply with the value stored in its buffer.
The following are recommended to optimise transfers reading from the Data Port:

- Keep requests from the same controller consecutively;
- Request values in the order the Data Port stores them (this can be checked using a terminal program);
- Repeat objects to allow the Data Port time to send its values;

The Carrier controller does not report alarms to Compass. If alarms are needed then an AlarmGen device will be required.
The Carrier controller does not provide logging facilities to Compass. If logging of values is needed then a LogMax device will be required.

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 the Carrier Data Port 1 Module

Using cable, connect the Carrier Data Port 1 Module 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 CcnDp1 driver within Compass Point

The baudrate, device number and buffer life are configured using objects. Use object engineering software to view and modify the objects within the Compass Point.

Step 5 – Access Objects within the Carrier Data Port 1 Module

Values from the Carrier Data Port 1 Module are made available as objects on the Compass Network. Any object software that is connected to the Compass Network can access these objects.

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

When a device object is requested the CcnDp1 Compass Point requests the data from the Data Port. After a delay of several seconds, the Data Port sends values for all data within the controller. The CcnDp1 Compass Point is unable to store all these values so stores the value requested and the following nine values as a data 'block' for the time specified in the Point object Buffer Life. The CcnDp1 Compass Point can store the values of up to 8 blocks of such data.

The first time a device object is requested it may fail because of the time taken to receive a reply back from the Data Port. Request the object again and the CcnDp1 Compass Point should reply with the value stored in its buffer.

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.

The following are recommended to optimise transfers reading from the Data Port:

- Keep requests from the same controller consecutively;
- Request values in the order the Data Port stores them (this can be checked using a terminal program);
- Repeat objects to allow the Data Port time to send its values;

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 between the Compass Point and the Carrier Data Port 1 Module is as follows:

Compass end 25-male D-type		Data Port end 25-male D-type
2	———	3
3	———	2
7	———	7

Maximum Cable Length = 15m

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***
D*n* [1]	Carrier System	-	*[CCNDP1 v12]*
P*p* [2]	Carrier Compass Point	-	*[Compass v22\CCNDP1 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

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