

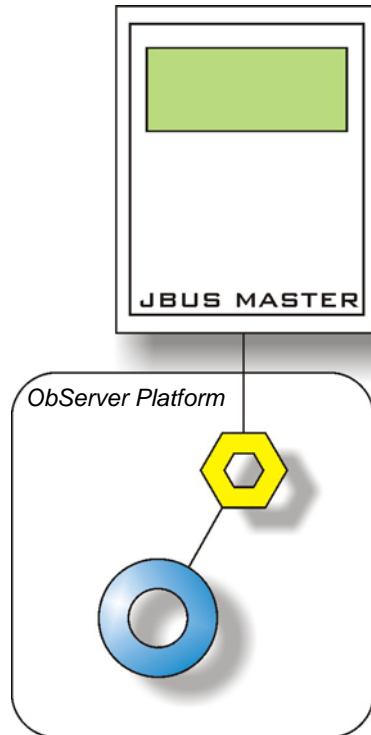
Product Engineering Guide

OSM v20 JDevMax v12

Introduction

The JDevMax OSM provides a gateway from systems supporting the standard J-Bus or Modbus protocol to ObServer. The OSM is a J-Bus device containing 1000 registers, which may be accessed by a J-Bus/Modbus master device. The JDevMax OSM does not allow values to be read from or written to a J-Bus device, for this the JBUS interface should be used.

Each register contains a destination object. If specified, the register will write its value to this object when it changes.



Supported Range

- The JDevMax OSM communicates with any system supporting the J-Bus or 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 registers within the JDevMax OSM may be read from or written to using any of the following supported function codes:

Description	Function Code	Notes
Read Output Status	01	Reads register value converted to an ON/OFF status
Read Input Status	02	Reads register value converted to an ON/OFF status
Read Output Register	03	Reads register value
Read Input Register	04	Reads register value
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 999. The read functions can access up to 100 registers in a single request.

The OSM J-Bus device 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 – Install OSM

The JDevMax OSM is installed automatically with all ObSys editions. Refer to the 'ObSys CD sleeve' for details on how to install ObSys.

Step 2 – Connect COM Port to JBus System

Using cable, connect the JBus network to a COM port of the PC. Refer to the section '*Cable*' below for details of the cable.

Step 3 – Plug in JDevMax OSM to ObServer

Use object engineering software to locate the ObServer Setup object. Assign the JDevMax OSM to an available channel. Refer to '[ObServer v20 Application Engineering Guide](#)'.

Note: After inserting the OSM, your engineering software may need to re-scan the ObServer object in order to view the OSM.

Step 4 – Configure JDevMax OSM

The COM port, baudrate, byte format, operating mode, device label, address on JBus network, alarm polling facilities, and alarm destination are configured using objects. Use object engineering software to view and modify the module objects within the OSM.

Step 5 – Access Objects within the JDevMax System

Values from the JDevMax OSM are made available as objects from ObServer. Any object software that is connected to the ObServer can access these objects.

Each of the 1000 registers within the JDevMax Compass device should be configured with a formula. This is then used when writing to/reading from the register value.

Engineering Reference

Cable Specification

For J-Bus units that operate on the RS232 platform, the cable 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.

If the JBus device operates on the RS485 platform a converter to RS232 is required.

Objects

When the OSM is loaded the following objects are created within ObServer, use object software to access these objects.

Object ^[1]	Label	R/W	Type
Sc	JBusDev System connected to channel <i>c</i>	-	[JDevMax v12]
Mc	JBusDev Module connected to channel <i>c</i>	-	[OSM v20\JDevMax v12]

Notes

[1] The ObServer channel number, *c*, is a number in the range 1...40.