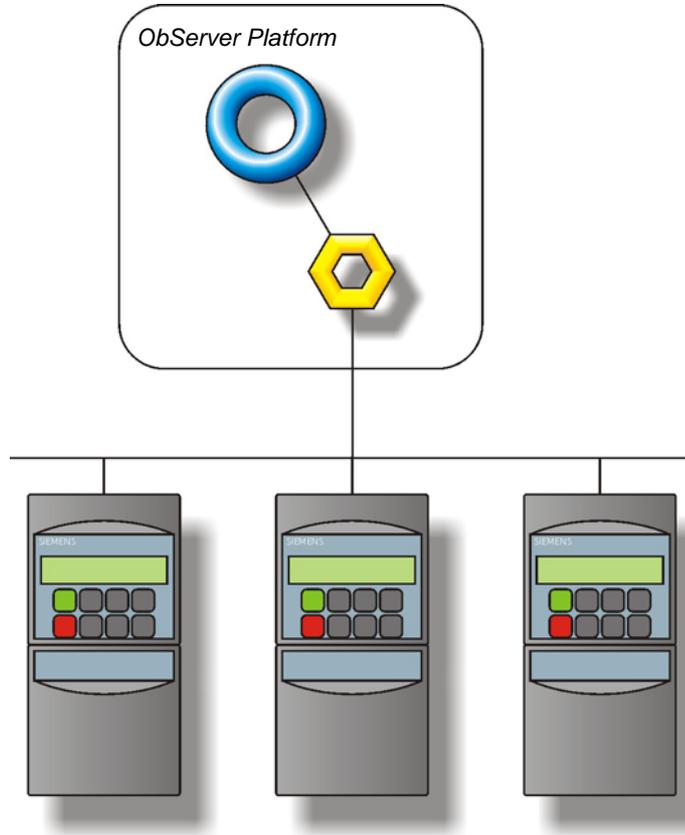# Product Engineering Guide

OSM v20 SiemensUss v10

Introduction

The SiemensUSS OSM links a network of Siemens' Variable Speed Drives to ObServer. Although the OSM was written for the SED2 range, as it uses Siemens' USS protocol (Universal Serial Interface Protocol) to communicate to the network, it is compatible with any system that uses the USS protocol.

Up to 31 Variable Speed Drives can be connected within a system, each of which contains a number of parameters that can be read from and written to, where applicable. Control over a VSD is achieved through the control word (STW) and the setpoint (HSW). For example, using the HSW allows the VSD to ramp-up or stop.

Supported Range

- Siemens SED2 Variable Speed Drives.
- Siemens USS protocol compatible Variable Speed Drives.

Notes

The Siemens system does not report alarms to ObServer. If alarms are needed then an AlarmGen device will be required.
The Siemens system does not provide logging facilities to ObServer. If logging of values is needed then logging device such as DataManager will be required.

Engineering

Step 1 – Install OSM

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

Step 2 – Configure the Siemens System

For each of the VSDs configure each a unique address (Parameter 2011[0]) and ensure they share the same baudrate (Parameter 2010[0]). Also note the state of Parameter 2009[0] as the HSW is interpreted as a percentage if this is 0, or as a decimal value if this is 1.

Step 3 – Connect COM Port to Siemens System

Using cable, connect the COM port of the PC via an RS485 converter to the VSD's RS485 network terminals. Refer to the section '*Cable*' below for details of the cable.

Step 4 – Plug in SiemensUss OSM to ObServer

Use object-engineering software, such as ObView, to locate the ObServer Setup object. Assign the SiemensUss OSM to an available channel. Refer to the '*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 5 – Configure SiemensUss OSM

The COM port, baud rate and device label are configured using objects. Use object-engineering software, such as ObView, to view and modify the objects within the OSM.

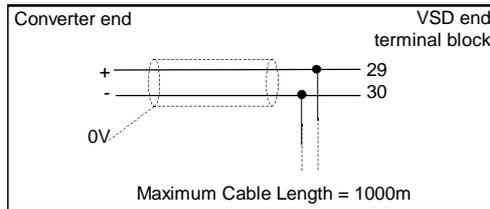### Step 6 – Access Objects within the Siemens System

Values from the Siemens' VSD system are made available as objects from ObServer. Any object software that is connected to the ObServer can access these objects.

Engineering Reference

Cable Specification

The cable between the RS232 to RS485 converter and the VSD terminals is as follows:

The earthing screen or braid of the cable should be connected **as close as possible** to the 0V terminal at one end only. **Do not connect the earthing braid of a single cable run to more than one unit, be it converter or device.**

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
S*c*	Siemens System	-	*[SiemensUss v10]* [2]
M*c*	SiemensUss Module	-	*[OSM v20\SiemensUss v10]*

Notes

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

[2]   This object has a variable content and as such requires scanning.

Notes

Revision History

Version	Build Date	Details
1.0	05/07/03	Released