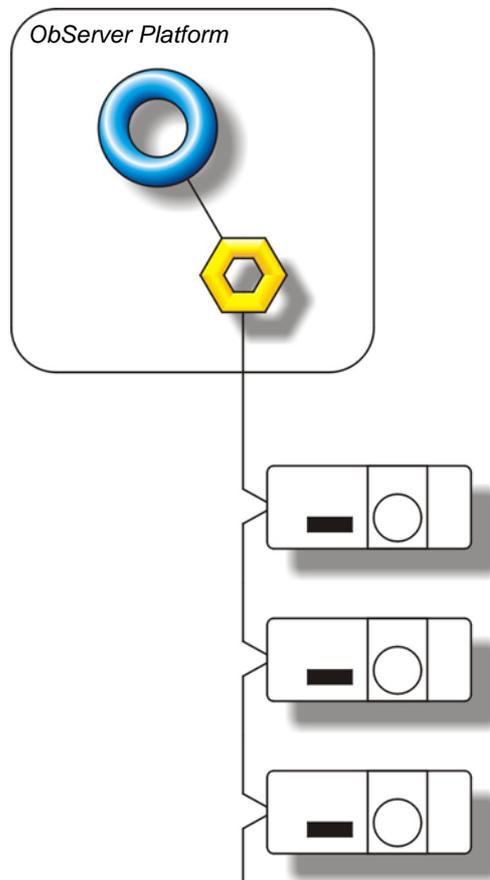


Product Engineering Guide

OSM v20 StfaSmrt v10

Introduction

The StfaSmrt OSM links a network of Staefa Smart I Controllers to ObServer, via an RS232 to RS485 converter and an AETI-485 from Atkinson Electronics. Up to 32 Smart I Controllers (SMC controller) can coexist on a single trunk bus and each can provide temperature and velocity readings for cooling and heating. Setpoints, local control and heating coefficients can be read/written and the controllers can be reset.



Supported Range

- Staefa Control Systems' Staefa Smart I Controllers - SMV93P, SMV223E, SMV223F, SMV3C, SMV33D, SMV923F, SMT93P, SMT223E, SMT223F, SMT923F, SMT3C, SMT33D. Up to 32 can exist on a trunk bus.

Notes

The Staefa Smart Compass Point requires AETI-485 Trunk Interface from Atkinson Electronics in order to communicate with the Staefa trunk bus, and an RS232 to RS485 converter to communicate with the AETI-485.

The Staefa system does not report alarms to the Compass Network. If alarms are needed then an AlarmGen device will be required.

The Staefa system does not provide logging facilities to the Compass Network. If logging of values is needed then a LogMax device will be required.

Engineering

Step 1 – Install OSM

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

Step 2 – Configure Staefa System

Each Controller on the trunk bus will have to have a unique address set up via dip-switches. Connect the AETI-485 to the Staefa trunk bus and determine the baud rate (default: 300).

The 8 switches located in the block are used as follows:

Switch	Setting
1 - 5 - Address	OFF=9600, ON=19200
6 - Normal	Always OFF
7 - not used	Always OFF
8 - Host	Always ON

The address of the controller is set by via dipswitches, with a binary address in the range 1...31.

Examples:

Address	switch				
	1	2	3	4	5
Address 1	OFF	ON	ON	ON	ON
Address 16	ON	ON	ON	ON	OFF
Address 28	ON	ON	OFF	OFF	OFF

Step 3 – Connect COM Port to Staefa System

Using cable, connect the AETI-485 to a COM port of the PC. Refer to the section 'Cable' below for details of the cable.

Step 4 – Plug in StfaSmrt OSM to ObServer

Use object engineering software to locate the ObServer Setup object. Assign the StfaSmrt 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 5 – Configure StfaSmrt OSM

The COM port, baudrate and device label are configured using objects. Use object engineering software to view and modify the module objects within the OSM.

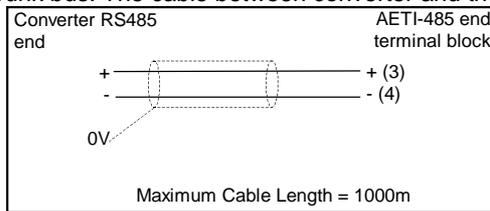
Step 6 – Access Objects within the Staefa System

Values from the Staefa 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 COM port is connected to the RS232 to RS485 converter, which is then connected to the AETI-485 interface, which in turn is connected to the Steafa trunk bus. The cable between converter and the AETI-485 interface 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 Compass Point 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
Sc	Staeafa Smart System connected to channel c	-	[StfaSmrt v10] ^[2]
Mc	Staeafa Smart Module connected to channel c	-	[OSM v20\StfaSmrt 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.