



Fig 1: Communication structure of the SIGMA AIR MANAGER option Send/Receive

The following points should be noted when making a SIGMA AIR MANAGER Send/Receive connection \*\*:

## 1. General

- **Only one** communication connection can be made from SIGMA AIR MANAGER at any time (**point-to-point connection**).  
Communication with a redundant system is, therefore, not possible.
- In communication terms SIGMA AIR MANAGER represents a passive subscriber that accepts communications commands (FETCH/WRITE or SEND/RECEIVE) from active peers.
- The connection development in SIGMA AIR MANAGER is fixed and cannot be changed.
- The ISO transport protocol is not supported by SIGMA AIR MANAGER.
- SAM supports a user data record of maximum 120 data words per block (240 data bytes).
- The following data can be read out from the SIGMA AIR MANAGER:
  - Air supply system data and primary data from the compressors (SAM process image, 120 data words).
  - Individual data from each SIGMA CONTROL compressor (SC process image, 96 data words per SC). This is exactly the data exchanged between SIGMA CONTROL and SIGMA AIR MANAGER by Profibus (32 data words SAM => SC + 64 data words SC => SAM).
- The following data can be written in the SIGMA AIR MANAGER (15 data words):
  - System ON/OFF, MANUAL/AUTOMATIC operation, timer ON/OFF, message acknowledge, compressor selection 1-16, reserve compressor group A-D, pressure setpoint, group sequence.

## 2. FETCH/WRITE

The following data can be read **in addition** to that described under "1. General" above:

- Arbitrary data words from the SIGMA AIR MANAGER (maximum 120 data words per block).

## Notes on SIEMENS WINCC

The following adjustments must be made in the WinCC server for communication with the SAM.

- A fixed IP address corresponding to the process network must be assigned to the PC card (CP1613) or the standard Ethernet card (Softnet). If, for example, the SAM has the IP address 169.254.100.100 in a class B network, the CP1613 or the standard Ethernet card must have an IP address 169.254.xxx.xxx corresponding to the class B definition.
- The connection driver "Simatic S5 Ethernet Layer 4" must be included and configured in the WinCC buildup. The driver is contained as standard in the WinCC.

\*\* For details see the SIGMA AIR MANAGER SEND/RECEIVE service manual.