



**sercos**  
the automation bus

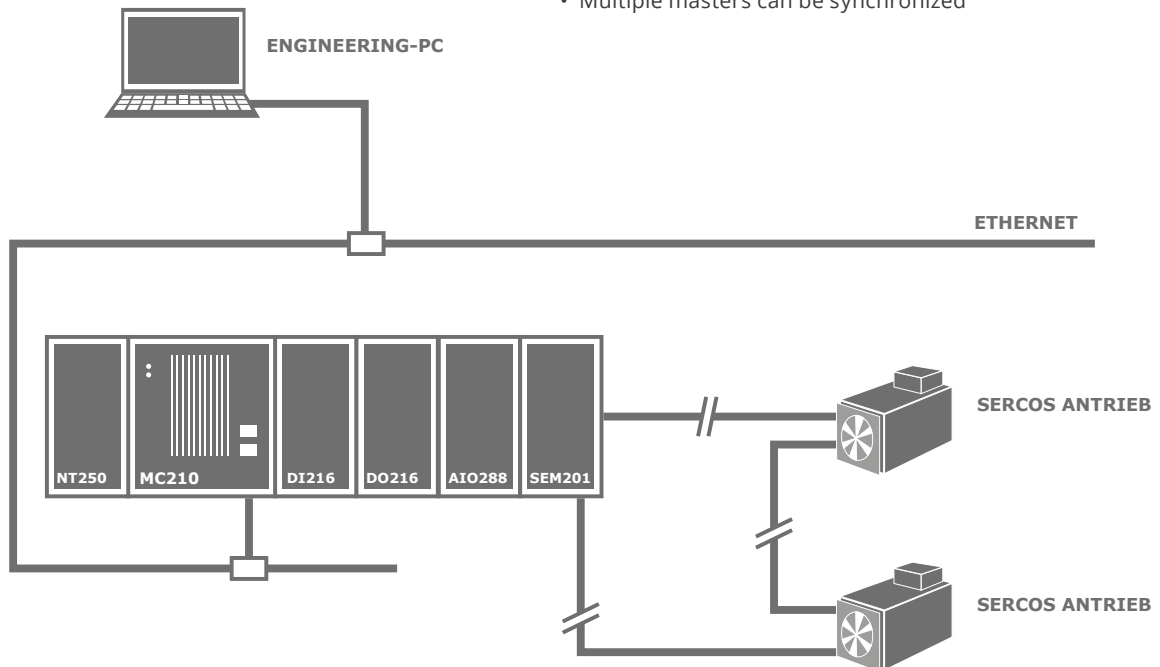
## SEM201 SERCOS Master Module

SERCOS (Serial Realtime Communication System) is a dedicated bus system for activation of high-quality electric drives and servo amplifiers. Communication is configured on the controller and distributed to the drives when the system boots. The process data of the drive is available in standardized form and makes not only the numeric values available via appropriate services, but it also makes meta information, such as symbolic names, input limits and units, available. Via service channel accesses, in addition to the cyclic process data, acyclic parameters at runtime from the application program can also be changed or transferred from a list of initial parameters at system start.

The SERCOS (Serial Real-time Communication System) master module SEM201 is capable of controlling up to 32 drives. The bus has a ring structure and offers a high level of interference immunity thanks to the fibre optic technology.

| Item   | Item-No.    |
|--------|-------------|
| SEM201 | 00011756-00 |

- SERCOS 2 Standard IEC 61491
- Fiber optic technology
- Bus with ring structure
- 2 Kb x 32 DPRAM
- Transfer rates: 2 / 4 / 8 / 16 Mbaud
- Cycle times: 62.5 µs to 65 ms
- Multiple masters can be synchronized



Possible topology: SERCOS

**SEM201****Description**

|                                |   |
|--------------------------------|---|
| Channels / drives              | Fiber optic ring with max. 32 drives, 2 kB x 32 DPRAM |
| Modules per controller         | Max. 12   |
| Transfer rate                  | 2 / 4 / 8 / 16 Mbaud                                  |
| Cycle times                    | 62.5 µs to 65 ms                                      |
| Synchronization                | Multiple masters can be synchronized                  |
| Certified by                   | SI – Sercos International (formerly IGS)              |
| Galvanic isolation from system | Yes, via fiber optic cable                            |

**Approvals / Certificates**

|         |                |
|---------|----------------|
| General | CE, cULus, CCC |
|---------|----------------|

**Ambient conditions**

|                         |  |
|-------------------------|--|
| Operating temperature   | 0 to +60 °C  |
| Rel. humidity operation | 5 to 95 % without condensation                     |
| Storage temperature     | -40 to +85 °C                                      |
| Rel. humidity storage   | 5 to 95 % without condensation                     |
| Pollution degree        | 2 (without condensation; according to IEC 60664-1) |

**Order Codes**

| Item   | Item No.    | Description   |
|--------|-------------|---|
| SEM201 | 00011756-00 | Sercos master module; 2/4/8/16MBaud; SERCOS II; FO interface 2x FSMA (In/Out) |