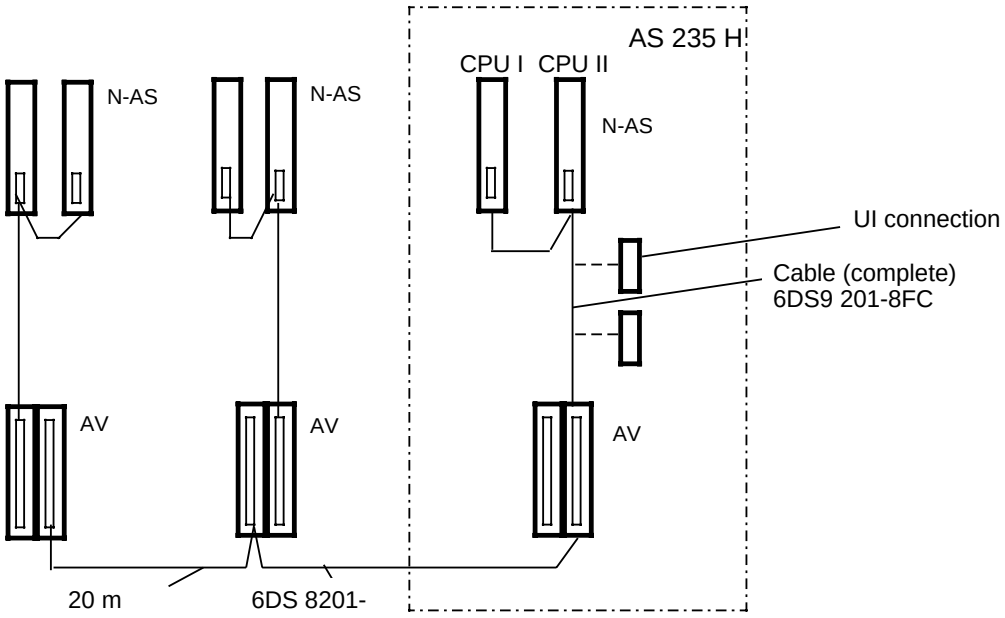
4.5 Using the Bus Components

The CS 275 bus system enables information exchange between the devices of the TELEPERM M process control system over a distance of 20 m (local bus) or 4 km (remote bus). The local bus is redundant in its standard version; the remote bus can be made redundant if required.

> **Caution**
>
> The maximum distance between devices on the local bus is 20 m; the earth potential difference between the systems may not exceed 0.2 V.

Further remote systems can be interconnected via the 4-km remote bus (inductive connection). Up to 32 local buses with up to 99 participants can communicate with each other.More details concerning the CS 275 bus system in the Manual CS 275,
Order No. C79000-G8076-C006.

4.5.1 Local Bus



AV = Connection distribution in the SES

Fig. 4.13 Local bus connection

The AS may be linked with other AS or OS systems via the local bus interface module 6DS1223-8AA (N-AS) or 6DS1220-8AA (N8-H) and the connection distribution unit. The connecting cable between the systems has only a connector at one side; the open end must be connected to the connector of the next connecting cable (1:1 with regard to core color code and number of rings). A single front connector 6DS9 200-8AA must be connected to the open end of the last connecting cable.

> **Caution**
>
> The S11 and S12 switches must be set to EIN [ON] position if N-AS/N8-H is used. Both switches must be set to AUS [OFF] if an N-AS/N8-H module has not been installed.

The S11 and S12 switches on the basic unit backplane are accessible from the front if the N-AS module has not been installed.

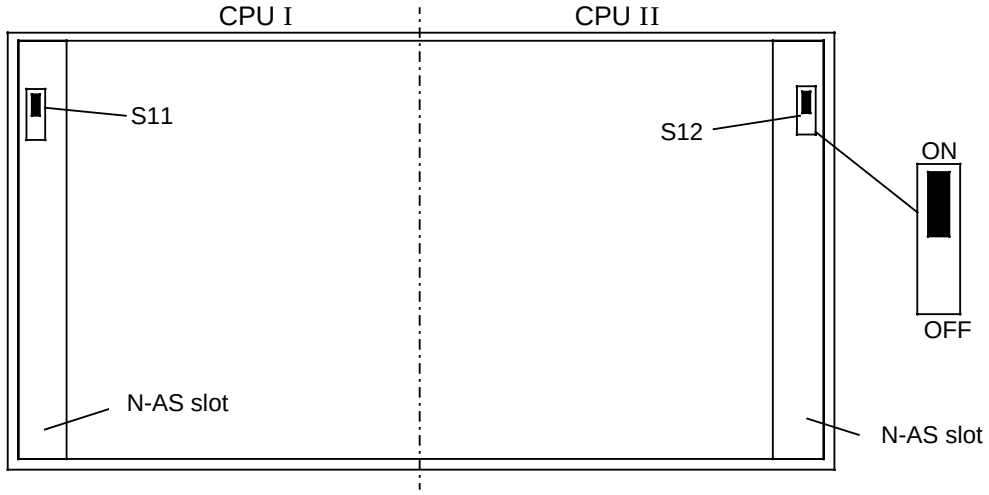


Fig. 4.14 Location of the S11 and S12 switches

4.5.2 Remote Bus

- UI bus converter unit

The inductive bus converter unit (UI) 6DS4400-8AB is the active element on the remote bus of the CS 275 bus system. It is the link between the remote bus and the local bus line which converts the remote bus protocol into the local bus protocol and vice versa.

Up to two inductive bus converter units (and two remote bus connector boards) are possible in an AS 235 H automation system. This enables operation in a redundant bus system.

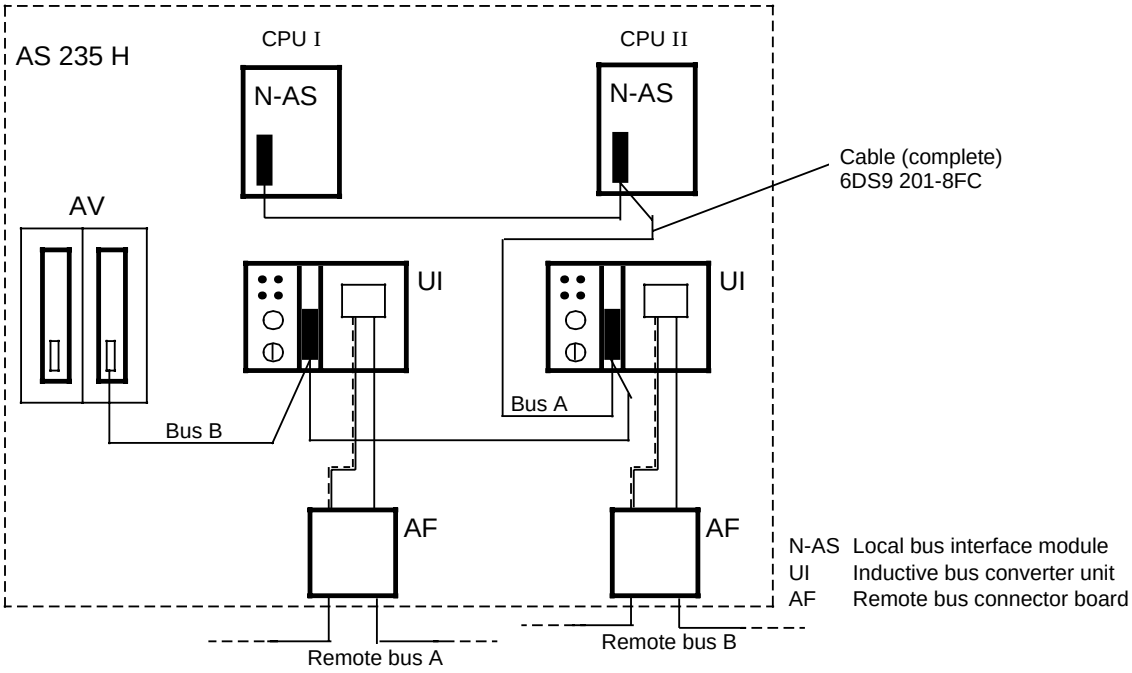


Fig. 4.15 Redundant bus configuration