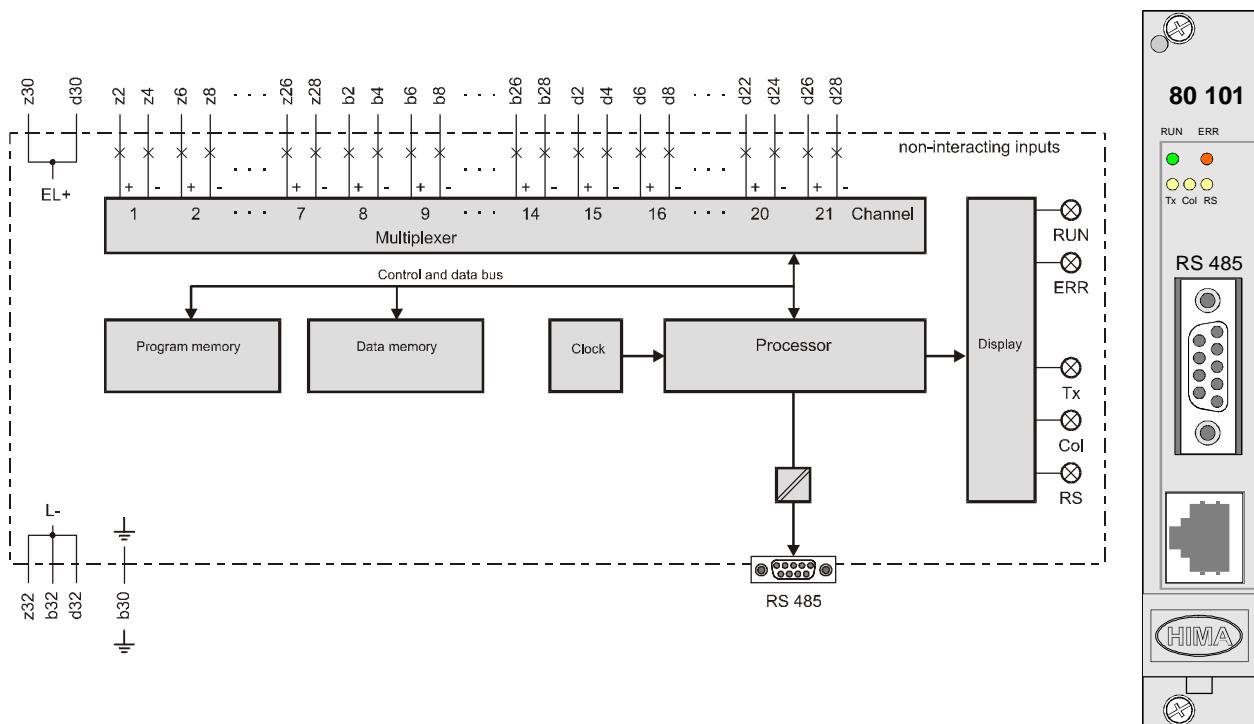$C \in$

80 101

Communication Module 80 101
for data transfer from the Planar4 System
via Profibus-DP

The communication module is used to transfer data from the modules of the Planar4 System to other systems.

Up to 21 modules of the Planar4 System can be connected to the input channels (z2-z4, z6-z8, ... d26-d28) for internal communication. For this application the Planar4 subracks with bus PCB should be used which already contain the necessary connections. The module locations 1...20 of these subracks are provided for Planar4 modules, the 21st location is reserved for the communication module.

The data transfer to other systems is made via Profibus-DP, connector RS 485.

The data transfer via Profibus-DP is described in the chapter "Communication" in the Planar4 system manual.

Processor	32 bit
Main memory	4...16 MB
Connections	RS 485 (semi-duplex)
	RJ-45 (not used)
Operating data	24 V DC / 300 mA
Space requirement	3 U high, 4 SU

After switching on the power supply a memory test is proceeded; during this time the displays RUN and ERR are flashing synchronously. If RUN is on and ERR is flashing, there is a communication error between the Planar4 modules and the communication module.

Display Readings During Operation (LED)

LED	LED	Operation Mode
RUN=ON	ERR=OFF	Communication active
RUN=flashg.	ERR=flashg.	Booting of communication module
RUN=OFF	ERR=ON	Error in communication module
RUN=OFF	ERR=flashg.	Error in communication module Uploading of errors ***Do not unplug communication module!***
RS=OFF		No Profibus-DP activity of slave on bus
RS=flashg.		Slave waiting for parameterization from Profibus-DP master
RS=ON		Data exchange of slave with Profibus-DP master

Switches for settings

Position of the switches on the module
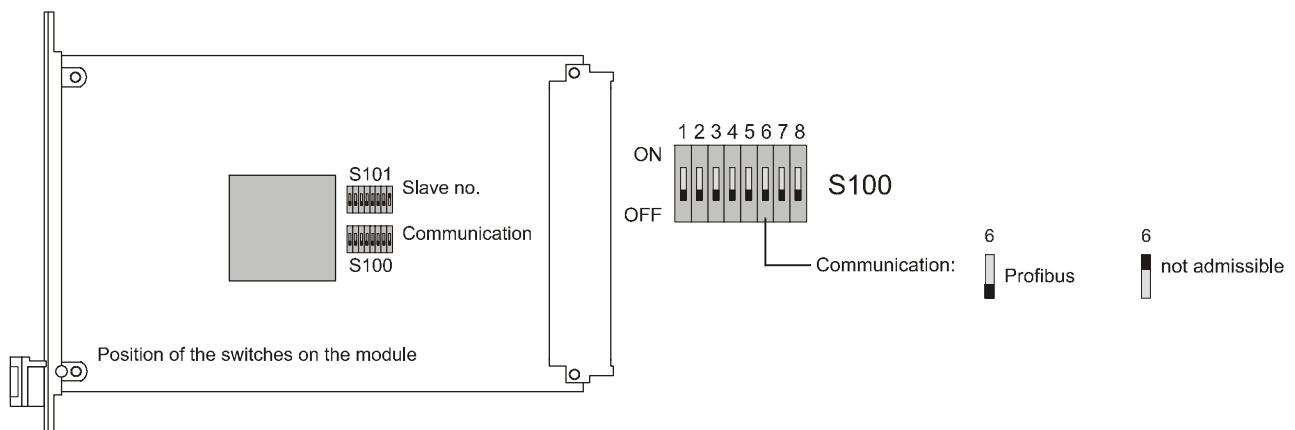
Communication via Profibus-DP

The communication modules are connected to a bus system via an interface RS 485. Each module is a Profibus slave with an own slave number; the setting of the number is made with switches on the module.

S101
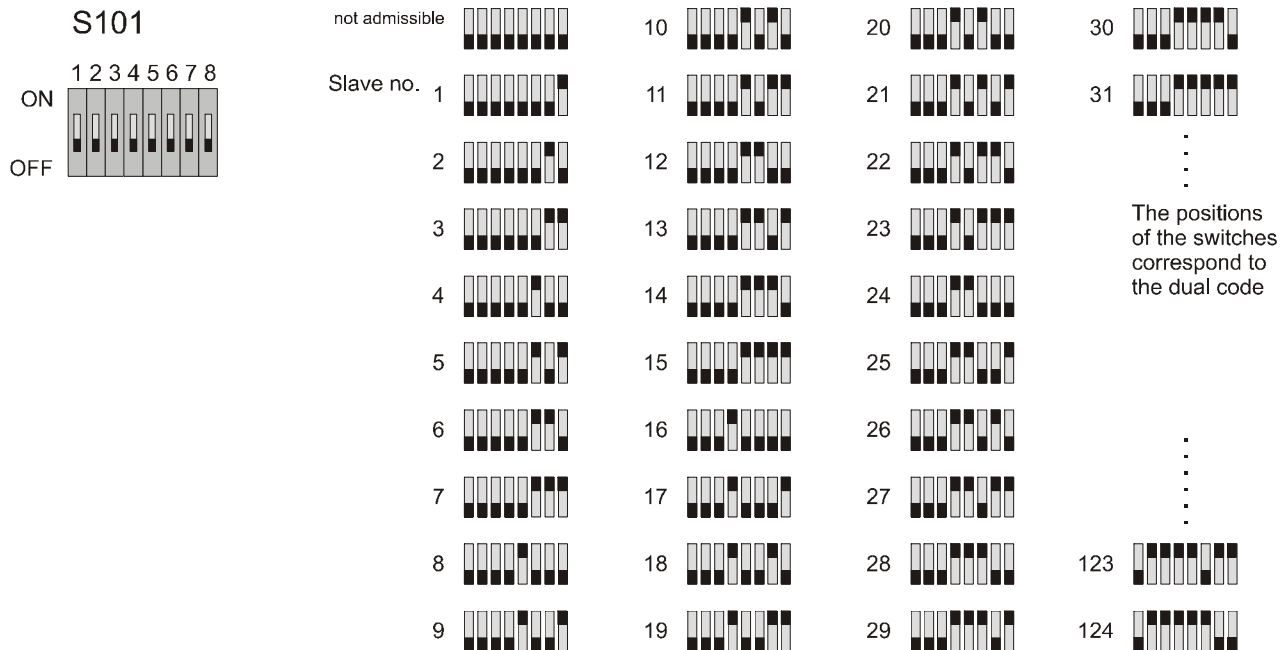
Setting of the Profibus slave no.

The quantity of slaves connected to a bus segment is limited to 31; by means of repeaters the system can be extended to four segments. With that the entire quantity of slaves is limited to 124.

For Profibus data transfer the module has a standard setting to: 1 stop bit, parity bit even. This setting cannot be changed.

Pin occupation of the interface RS 485

Pin	RS 485	Signal	Function
1	-	Screen	Screening, protective earth
2	-	RP	5 V, decoupled by diodes
3	A/A'	RxD / TxD-A	Receive/Transmit data A
4	-	CNTR-A	Control signal A
5	C/C'	DGND	Data ground
6	-	VP	5 V, positive pole of supply voltage
7			not used
8	B/B'	RxD / TxD-B	Receive/Transmit data B
9	-	CNTR-B	Control signal B

Note

For using the communication module outside a Planar4 subrack with bus PCB it is important for the wiring that the communication lines between the Planar4 modules and the communication module are twisted in pairs and additionally screened if possible. The line must be connected with correct polarity and may not exceed the length of one meter. The screens must have a single-end connection to earth.

For your notes