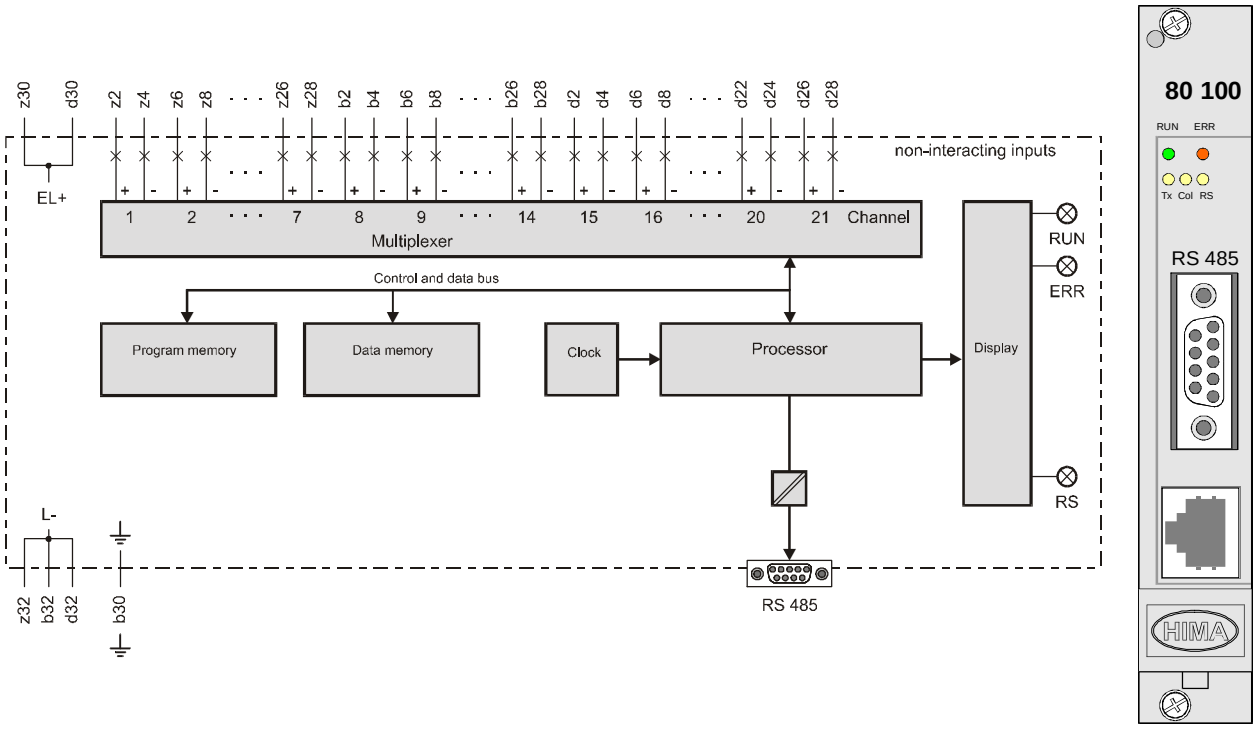
80 100

Communication Module 80 100
for data transfer from the Planar4 System
via MODBUS



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 with this module is made via MODBUS, connector RS 485.

The data transfer via MODBUS is described in the chapter “Communication” in the Planar4 system manual.

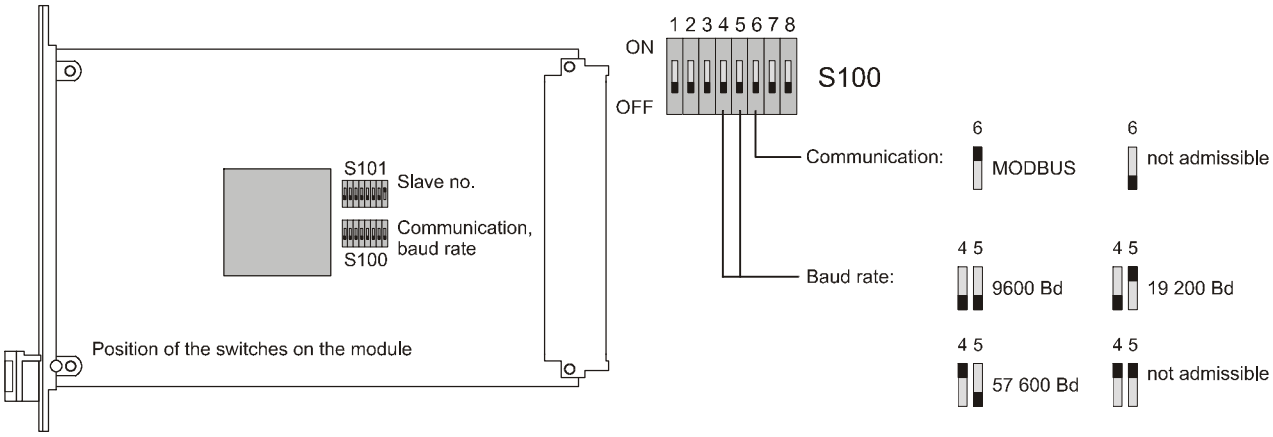
Processor	32 bit
Main memory	4...16 MB
Connections	RS 485 (semi-duplex)
	RJ-45 (not used)
Operating data	24 V DC / 300 mA
Space requirement	3 U high, 4 SU

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.

LED displays

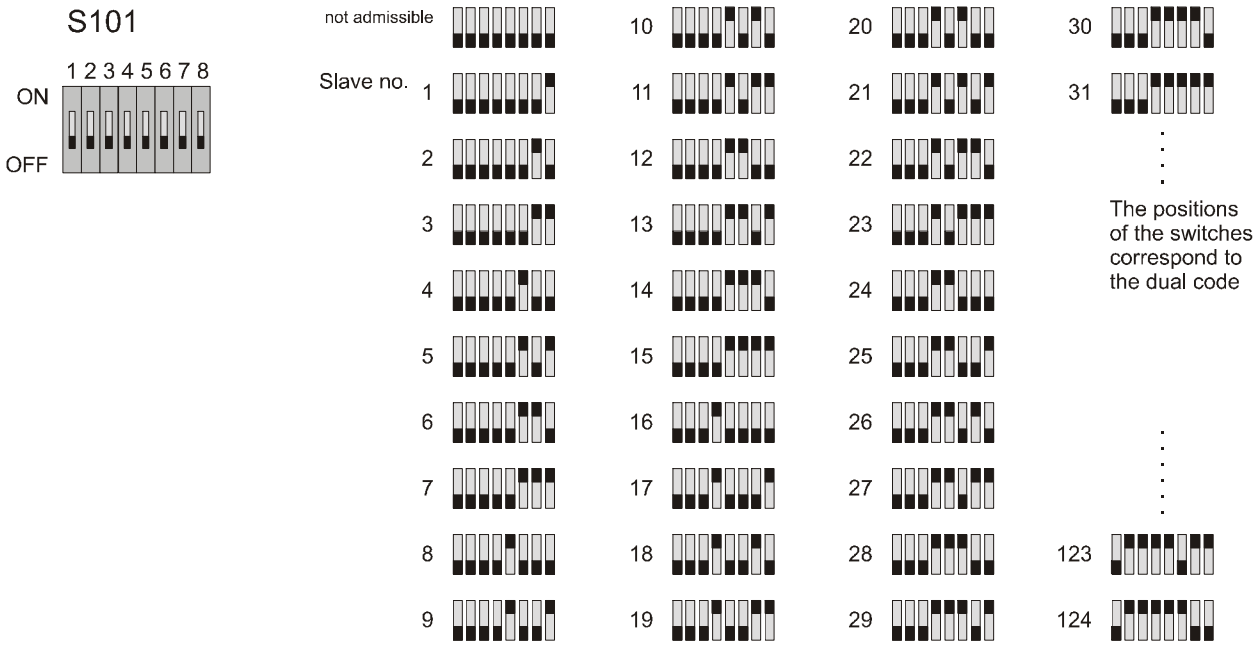
RUN	Module is ready for operation or in operation without error
ERR	Module is in an error state
Tx	not used
Col	not used
RS	Interface RS 485 in operation

Switches for settings



Communication via MODBUS

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



Setting of the MODBUS 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 MODBUS 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