

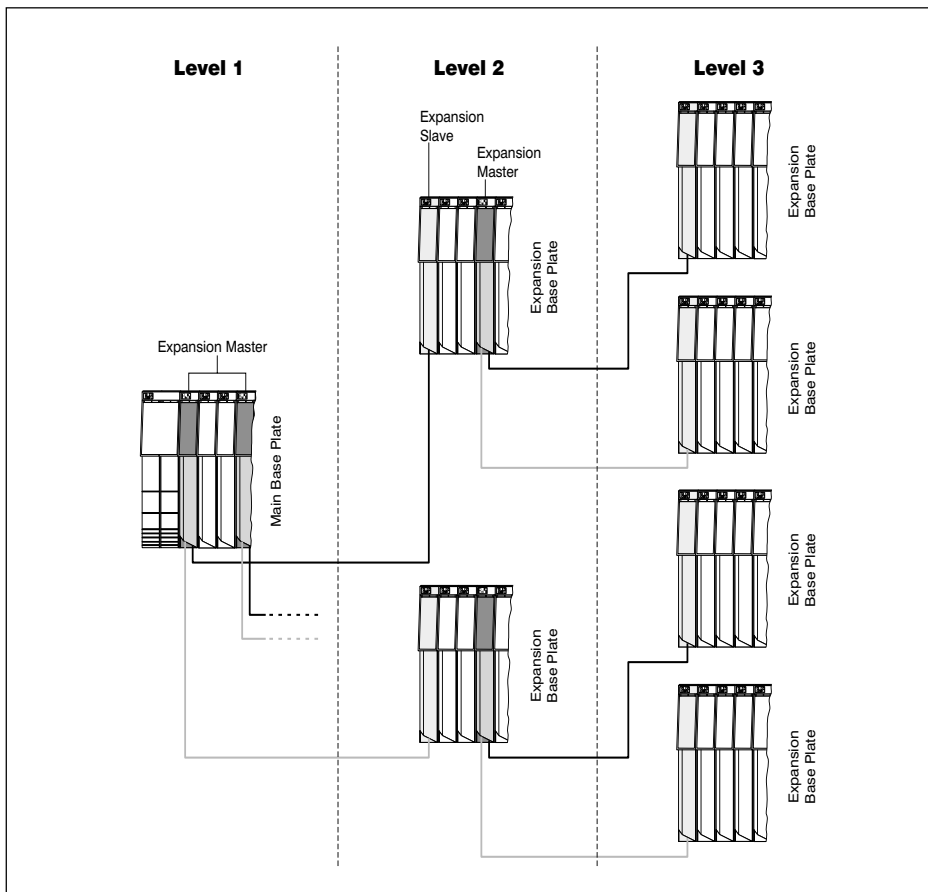
## 12 I/O BUS EXPANSION MODULE

### 12.1 GENERAL INFORMATION

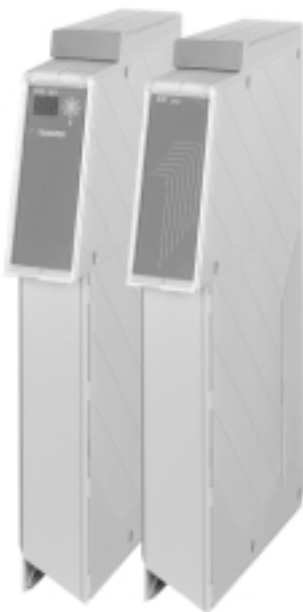
It is possible to address up to 99 I/O modules on a 2010 I/O bus. However, since a maximum of 20 I/O modules are allowed in any single row and 99 modules in a row would cause problems regarding space anyway (I/O bus 4 meters longer), the I/O bus can be split up into segments with an expansion master and expansion slave modules. The I/O bus can be divided into a maximum of 10 bus segments. This allows a maximum of 99 modules to be addressed from a single CPU (see Chapter "Planning and Installation" section "System Configuration and Power Supply").

For dividing the I/O bus into bus segments, the following should be checked:

- An Expansion Master can be operated in any slot on the bus segments situated in levels 1 and 2 (see diagram):
- The Expansion Slave is always located in the left-most slot of a bus segment.
- An extra base plate module (BP202) is required for the Expansion Slave.



## 12.2 TECHNICAL DATA



Module ID	EX301 Expansion Slave	EX302 Expansion Master
Model Number	2EX301.5	2EX302.5
Description	2010 Expansion Slave, I/O bus divided into segments, Order expansion cable separately!	2010 Expansion Master, I/O bus divided into segments, Order expansion cable separately!
C-UL-US Listed	Yes	Yes
B&R ID Code	\$18	\$19
Module Type	I/O module	I/O module
Base plate Module	BP202	BP200, BP201, BP210
Interfaces	1 (to connect an expansion master)	2 (to connect two expansion slaves)
Transfer Media 1 m 2 m	Expansion cable Model number: 0G0010.00-090 Model number: 0G0012.00-090	
Power Consumption	Max. 3 W	
Dimensions (H, W, D) [mm]	285, 40, 185	

### 12.3 STATUS LEDS EX302

The EX302 module is not equipped with operating elements or diagnosis elements (no Status LEDs).



### 12.4 STATUS LEDS EX301

**TRANSFER** This LED indicates that data is being transferred either to or from an expansion master.



### 12.5 NUMBER SWITCH

The 10s position module address of the expansion slave is set with a BCD number dial. The numbering of I/O module addresses starts with the set number. The address is set in sets of 10 (10, 20, ... 90). Please ensure that bus segment addressing does not overlap. The start address of the bus segment is shown on a 7 segment display.

### 12.6 CABLING

Information on connecting the expansion master and its expansion slaves, setting the module address and the placing of power supply modules on the bus segments can be found in Chapter "Planning and Installation" in section "System Configuration and Power Supply".