6.3 The Interface Modules IM 460-1; (6ES7460-1BA00-0AB0, 6ES7460-1BA01-0AB0) and IM 461-1; (6ES7461-1BA00-0AA0, 6ES7461-1BA01-0AA0)

Position of the Operator Controls and Indicators of the IM 460-1 and IM 461-1

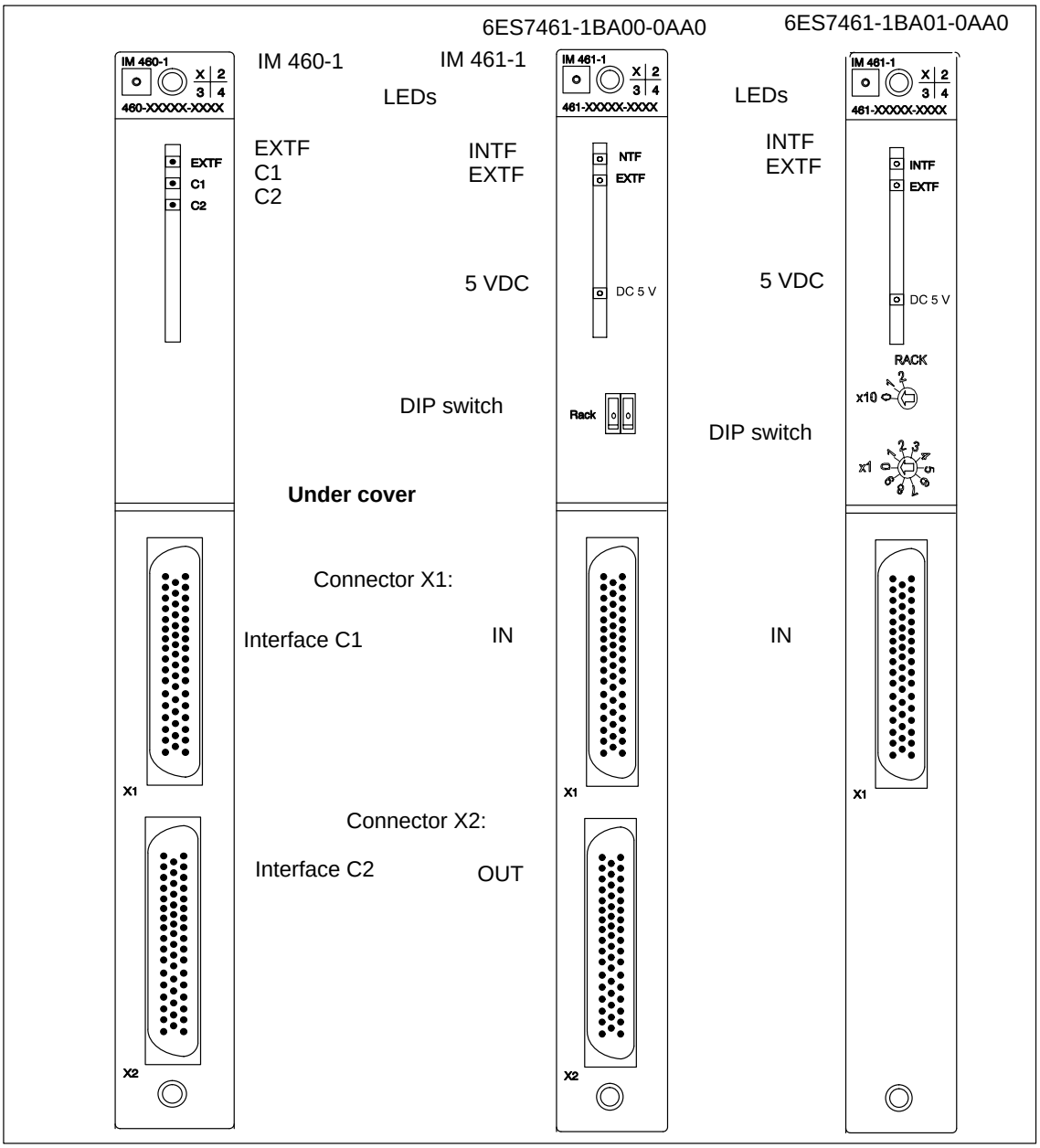

Figure 6-3 Position of the Operator Controls and Indicators of the IM 460-1 and IM 461-1

Function

The interface module pair IM 460-1 (send IM) and IM 461-1 (receive IM) are used for a local link (up to a maximum 1.5 m in total). A 5 V supply voltage is also transferred with these interface modules. Please particularly remember the following points:

- The current requirements of the module plugged into the EU must not exceed 5 V/5 A.
- You can only connect one EU per line.
- The modules in this mounting rack are not supplied with 24 V and are not backed up.
- The communication bus is not transferred with the interface module pair IM 460-1 and IM 461-1.
- You must not use a power supply module in the EU.

Note

If you connect an EU via a local link with 5 V transmission, ungrounded operation is prescribed for the EU (see *Installation Manual,* Chapter 4)

Parameter Assignment for the Mounting Rack Number

Using the DIP switch on the front panel of the module, you must set the number of the mounting rack in which the receive IM is installed. The permitted range is 1 to 21.

Setting/Changing the Number

Proceed as follows:

1. Put the power supply module in the CC into the position ⏻ (Output voltage 0 V).
2. Enter the number using the DIP switch.
3. Switch the power supply module on again.

Operator Controls and Indicators on the Send IM

EXTF LED (red)	Lights up in the event of an external fault Line 1 or line 2 is faulty (terminator missing or open circuit)
C1 LED (green)	Line 1 (via front connector X1, connection 1) is correct.
C1 LED (flashing green)	A module has not yet completed the initialization process
C2 LED (green)	Line 2 (via front connector X2, connection 2) is correct.
C2 LED (flashing green)	A module has not yet completed the initialization process
Front connectors X1 and X2	Connector (output) for line 1 and line 2 X1 = upper front connector; X2 = lower front connector

Operator Controls and Indicators of the Receive IM

INTF LED (red)	Lights up if a rack number > 21 or = 0 was set. Lights up if you have changed the rack number under voltage.
EXTF LED (red)	Lights up in the event of an external fault (line fault, for example, if the terminator is not inserted or if a module has not yet completed the initialization process, but not when the CC is switched off)
5 VDC (green)	Power supply in the EU is correct.
DIP switch	DIP switch to set the number of the mounting rack.
Front connector X1	Upper connector (input) for the connecting cable from the previous interface module.
Front connector X2	Lower connector (output) for terminator. The front connector X2 is no longer required for the IM 461-1 (order number 6ES7 461-1BA01-0AA0). The terminator (6ES7461-1BA00-7AA0) previously required is now integrated in the module.



Caution

Modules can be damaged.

If you want to connect an EU via the IM 461-1 interface module and use a power supply module in this EU, you might damage the modules.

Don’t use a power supply module in an EU that you want to connect to the CC via the IM 461-1 interface module.

Technical Specifications of the IM 460-1 and IM 461-1

Maximum line length (total)	1.5 m	
Dimensions W x H x D (mm)	25 x 290 x 280	
Weight • IM 460-1 • IM 461-1	 600 g 610 g	
Current consumption from the S7-400 bus 5 VDC • IM 460-1 • IM 461-1	 Typ. 50 mA Typ. 120 mA	 max. 85 mA max. 100 mA
Power loss • IM 460-1 • IM 461-1	 Typ. 250 mW Typ. 500 mW	 max. 425 mW max. 600 mW
Terminator	6ES7 461-1BA00-7AA0	
Power supply for EU	5 V/5 A per line	
Backup current	No	