10001/1/1 & 10001/R/1 Vertical bus driver (VBD)

Description

The Central Part (CP) of the FSC system is connected to the I/O level via the vertical bus driver (VBD) modules, which are located in the Central Part rack. A maximum of 14 vertical bus drivers can be installed per Central Part. Each vertical bus driver can support up to 10 horizontal bus driver (HBD) modules.

The maximum distance between a vertical bus driver and any I/O rack on the vertical bus is 5 m (16.4 ft).

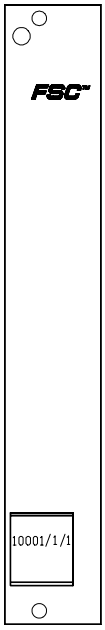

Figure 1
Front view (10001/1/1)

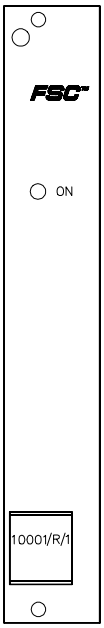

Figure 2
Front view (10001/R/1)

The 10001/1/1 and 10001/R/1 modules consist of two parts (see Figure 3):

- electronic part (mainboard), and
- wiring part (10001/A/1).

The bolts on the 96-pin connector are used to secure the 10001/A/1 part of the VBD to the 19-inch rack. This allows exchange of the electronic part of the VBD without disconnecting the vertical bus flatcable.

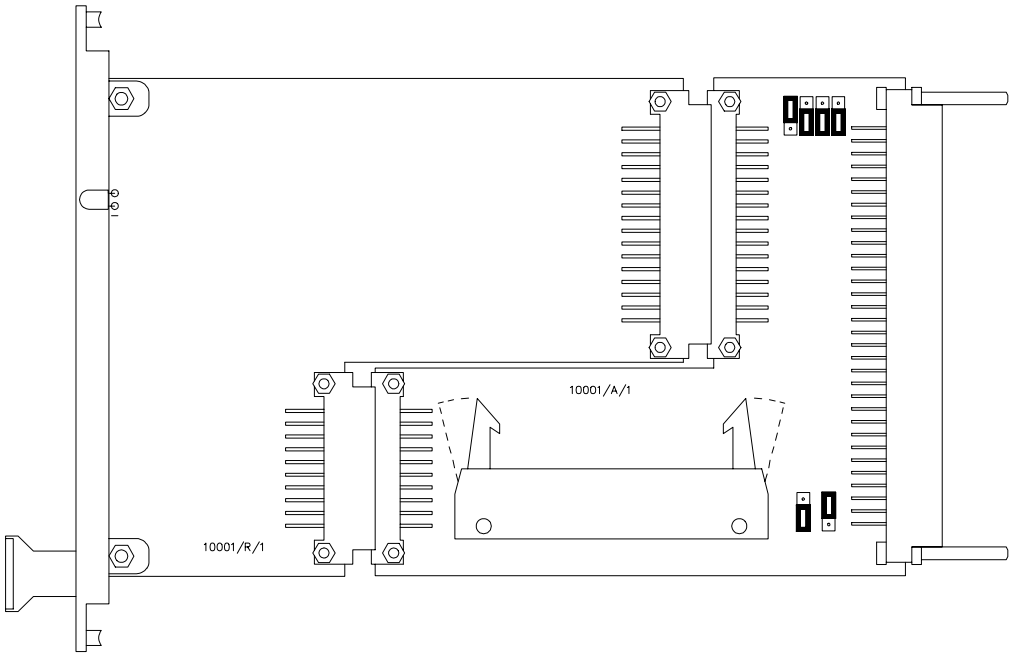

Figure 3 Layout of 10001/R/1 module

Jumpers

Jumpers J1 to J4 on the wiring part (10001/A/1) are used to set the VBD number (see Figure 4).
Jumpers J5 and J6 on the wiring part (10001/A/1) are used to set the Central Part (CP) number (see Figure 4).

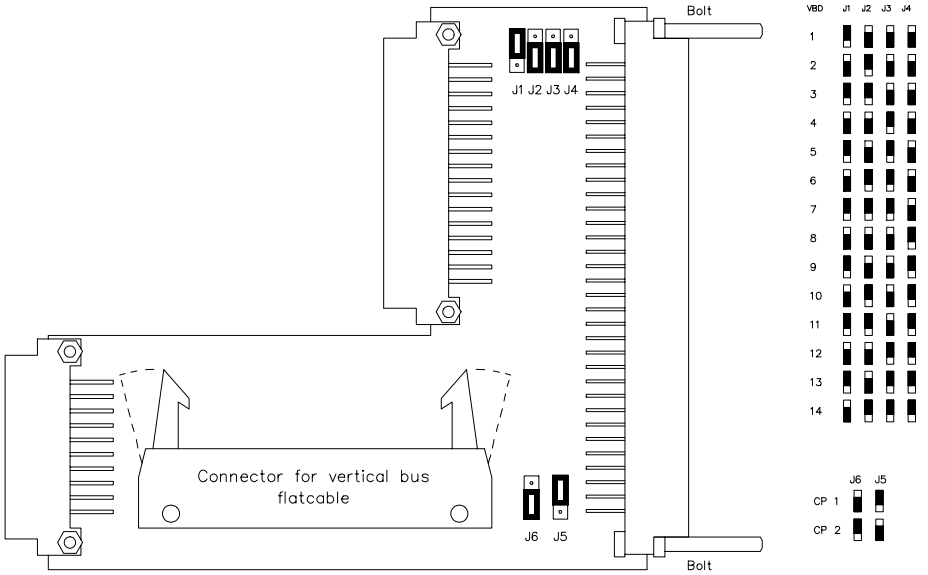

Figure 4 Jumper setting on 10001/A/1 module for CP 1, VBD 1

Applications

Table 1 below shows which vertical bus drivers can be used in the various configurations.

Table 1 Application of 10001/1/1 & 10001/R/1 VBDs

	Non-redundant CP	**Redundant CP**
Non-redundant I/O	10001/1/1 or 10001/R/1	10001/R/1
Redundant I/O	10001/1/1 or 10001/R/1	10001/1/1 or 10001/R/1

Configurations with redundant Central Parts and non-redundant I/O require 10001/R/1 VBDs, because the relay on the 10001/R/1 disconnects the VBD from the vertical bus in case of a Central Part shutdown (via an on-board watchdog on the VBD or via software).

Vertical bus

The vertical bus flatcable connects the vertical bus drivers (VBDs, 10001/1/1 or 10001/R/1) to the horizontal bus drivers (HBDs, 10100/1/1 or 10100/2/1). For details on vertical buses refer to the 'V-Buses' data sheet.