Siemens IMMULITE 2000/2000 XPi

Overview

This section provides information about use of the IMMULITE 2000/2000 XPi Analyzer connected to LAS (Laboratory Automation System) by means of the Siemens VersaCell X3 and Siemens IMMULITE 2000/2000 XPi Interface Module (IM).

The VersaCell X3 is equipped with a "Pick and Place" robotic device designed to transfer sample tubes to and from Siemens IMMULITE 2000/2000 XPi Analyzer.

Observe the following instruction to ensure proper processing of the samples when using the Analyzer IMMULITE 2000/2000 XPi:

Table 6.1: Allowable Sample Tube Types

Nominal Measures (with closure) [mm]	Capped	Centrifuged	Source	Notes
13x75 13x100	No	Yes	Automation System	None
16x75 16x100				
Refer to specific Analyzer Operations Manual		Manual Load	Refer to specific Analyzer Operations Manual	

For more information about labels meaning refer to specific section about Safety Labels.

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Figure 6.1: VersaCell X3 Solution - IMMULITE 2000/2000 XPi Analyzer

- 1- Automation Track
- 3- IMMULITE 2000/2000 XPi Analyzer
- 2- VersaCell X3 Solution

Interface Module Components

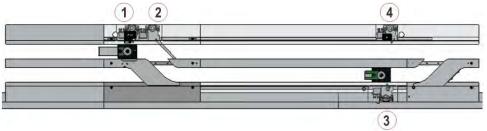
The IMMULITE 2000/2000 XPi Interface Module is designed to allow the robot of the VersaCell X3 t to move sample tubes to the IMMULITE 2000/2000 XPi Analyzer and vice versa.

When a carrier with a sample tube included in the IMMULITE 2000/2000 XPi worklist approaches the Interface Module, the Divert Gate (or the NSD device in case of high throughput configuration) diverts the carrier to the Secondary Lane towards the Load/Unload Gate.

The Laboratory Automation System (LAS) notifies the presence of a full or empty carrier at the Load/Unload Gate to the VersaCell X3 in order to manage the sample tubes incoming/outbounding the IMMULITE 2000/2000 XPi Analyzer.

The sample tube is then released. The Stop Gate placed on the Main Lane allows the sample tube to return to the Automation track, avoiding possible collision with the carries coming along the lane. In case of high throughput configuration, the ATR device moves the carrier to the Main Lane.

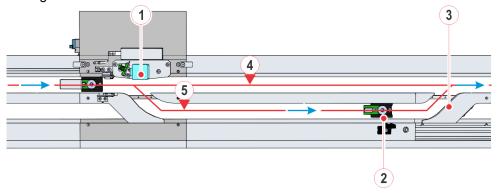
Figure 6.2: IMMULITE 2000/2000 XPi Interface Module - standard configuration



- 1- Tube presence sensor at Divert Gate
- 3- Load/Unload Gate

- 2- Divert Gate
- 4- Stop Gate

Figure 6.3: IMMULITE 2000/2000 XPi Interface Module - high throughput configuration



- 1- NSD device
- 3- ATR device
- 5- Secondary Lane

- 2- Load/Unload Gate
- 4- Main Lane

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Status, diagnostics and settings

To access the information about status, diagnostics and setting related to the Interface Module, select:

- 1. Overview"
- 2. "Immulite 2000"



NOTE: Common Function buttons are also available in the following screens.

Status

Select "Status" from the Interface Module option menu.

Table 6.2: Status listbox

Item	Description
Node ID	Identifier assigned to the Module during the Automation System configuration.
Room for Empty Carriers	Number of empty carriers that can currently enter the Interface Module.
Room for Routine Samples	Number of routine sample tubes that can currently enter the Interface Module.
Room for STAT samples	Number of priority sample tubes that can currently enter the Interface Module.

Table 6.3: Status function buttons

Screen	Function button	Access level	Description
IMMULITE 2000/2000 XPi - Status	Clear Tubes	Operator	Allows to consider as empty of sample tubes the specified node. IMPORTANT: Press this button when all sample tubes have been removed from the Interface Module.

Gates

Select "Gates" from the Interface Module option menu.

Table 6.4: Gates listbox

Item	Description
Divert Gate	Displays the carrier RF-ID and sample tube ID currently at Divert Gate.
Error code	Error code related to the Interface Module.
Load/Unload Gate	Displays the carrier RF-ID and sample tube ID currently at Load/Unload Gate.
Rack Barcode Reader	Displays the carrier ID, if any. NOTE: Only for standard configuration.

Table 6.5: Gates function buttons

Screen	Function button	Access level	Description	
IMMULITE 2000/2000 XPi - Gates	Pass	Supervisor	Release a single carrier at the selected gate.	
	Divert	Supervisor	Diverts a single carrier at the selected gate or perform diagnostics command on NSD device (if present).	
	Close	Supervisor	Closes the Stop Gate preventing carriers routing on the Main Lane. NOTE: Only for standard configuration.	
	Open	Supervisor	Opens the Stop Gate restoring carriers routing on the Main Lane. NOTE: Only for standard configuration.	
	Active Return	Supervisor	Allows to turn On/Off the ATR belt motor. NOTE: Only for high throughput configuration.	

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Diagnostics

Select "Diagnostics" from the Interface Module option menu.

Table 6.6: Diagnostics listbox

Item	Description
Error code	Error code related to the Interface Module.

Table 6.7: Diagnostics function buttons

Screen	Function button	Access level	Description
IMMULITE 2000/2000 XPi - Diagnostics	Abort	FSE	Forces the release of the carrier from the Load/Unload Gate. IMPORTANT: Ensure the VersaCell X3 is stopped before executing this command.

Firmware Versions

The "Firmware Versions" screen might be present depending on the configuration.

Select "Firmware Versions" Interface Module option menu. Screen list box displays values related to the Firmware Version currently running on the Interface Module. The information is for FSE use only.

Table 6.8: Firmware Versions listbox

Item	Description
Error code	Error code related to the Interface Module.