



# Capsule DDI Help - SalviaA 5.4.3.15

Salvia Medical; Elisa 300, Elisa 500, Elisa 600, Elisa 800, Elisa 800 VIT, Elisa Edition, NI 60

Common Help

[Introduction](#)  
[Revision History](#)  
[Known Issues](#)  
[Supported Devices](#)  
[Common Variables List](#)  
[Detailed Common Variables Description](#)  
[Variable Availability](#)  
[Waveform Output](#)  
[NonSignificant Value](#)  
[Unique Device Identifier](#)  
[Alarm Repetition](#)  
[Unit List](#)

## Introduction

The SalviaA DDI collects patient vital signs, device settings, alarms and waveforms from the serial interface of Salvia ventilators.

[Back to top](#)

## Revision History

DLL Name: SalviaA.dll

DDI Version	Setup Date	Change History
5.4.3.15	February 28th, 2025	<ul style="list-style-type: none"><li>Corrected an issue that could cause the driver to stop acquiring data. (C142812).</li><li>Corrected an issue that prevented the driver from communicating with older devices. (C136110).</li><li>Updated supported firmware versions for the Elisa 600 and 800 devices. (C131810, C138306, C140992 C145964)</li><li>Added variable 9998 (Watchdog Present).</li><li>Added a known issue regarding upgrades for this driver.</li><li>Upgraded internal framework.</li><li>Added support of new variables for Elisa 600, Elisa 800 and Elisa 800 VIT devices by adding Pressure variables 1425, 3425, 3668, 7498, 7519, 52341; Respiration variables 9145, 52112; SBT variables 6986, 9123; Airway</li></ul>

## 5.3.2

November 30th, 2022

variables 52252, 52253, 52254; Ventilation variables 1398, 5359, 7669, 9288, 52211, 52323, 54072, 1131102, 1131103; NIBP variable 7937; SpO2 variables 51052, 51107; CO2 variable 52515, 52517, 52865; Generic alarm variables 286, 294, 295, 296, 297, 298; Battery alarm variable 2120; Pressure alarms 3258, 3717, 72312, 72313, 1131203, 1131208; Respiration alarms 8023, 31060, 71063, 72111; Ventilation alarms 6992, 9891, 32210, 32220, 72210, 72220, 92611, 92612, 1131202, 1131206, 1131207; NIBP alarms 1131204, 1131205; Device Info variables 50203, 50212, 1131101 and 1131104. Added support of Ventilation mode variables 54013, 54021, 54022 and CO2 alarm variables 8024, 1131201 to all devices. Added support of variables 2879 (Device Software Revision) and 1913 (Device Serial Number) to Elisa 600, Elisa 800 and Elisa 800 VIT ventilators. Removed support of variable 8607 (Apnea Alarm Silence Status) from Elisa 600, Elisa 800 and Elisa 800 VIT devices. Updated Availability section in the Help File. Added support for the new cables (C85004).

- Added known issue explaining that firmware version 2.4.2 is not supported for Elisa 300, Elisa 500, Elisa 600, Elisa 800 and Elisa 800 VIT devices (C84015).
- Added Waveform variables 52911, 52912, 52913, 52921 and 52922 to all devices. Added Waveform Output and Modes section in the Help File.
- Added variable 50021 (Device Alarm Inactivation State) to all devices. Added Alarm Repetition Section in the Help File.
- Added support for Elisa 300 and Elisa 500 ventilators.
- To facilitate data integration, replaced unit 287 (L/min) with 32 (L/min) for variable 2326 (Expired Minute Volume), and unit 494 (cmH2O.s/L) with 106 (mbar/L/s) for variable 2554 (PSV Flow Support Level Setting).
- Added MeasurementTime attribute to all variables.
- Upgraded internal framework.
- Added support of firmware version V1.09.7 of the Elisa 600, Elisa 800, and Elisa 800 VIT (C58698)
- Fixed issue to allow variables 757 (Patient Weight), 2324 (Inspired Tidal Volume), 2325 (Expired Minutes

5.1.1	March 14th, 2018	<p>Volume) to output correctly when in neonate mode for the Elisa Edition</p> <ul style="list-style-type: none"> <li>Fixed issue to allow variable 1761 (Airway Resistance) to output correctly in firmware version 1.09.7 for the Elisa 600, Elisa 800, and Elisa 800 VIT. New variable 7871 (Truncated Value of Airway Resistance) should be used for firmware versions below 1.09.7</li> <li>Added variable 635 (Inspired O2 (FiO2)) to the Elisa Edition</li> <li>Removed NonSignificant attribute from variable 9476 (Percent of Leakage) for the Elisa 600, Elisa 800, and Elisa 800 VIT</li> <li>Corrected the LowerAlarmLimit attribute value of variable 635 (Inspired O2 (FiO2)) to report the actual minimal threshold of 18% as displayed by the Elisa 600, Elisa 800 and Elisa 800 VIT</li> <li>Upgraded internal framework</li> </ul>
5.1.0	March 6th, 2017	<ul style="list-style-type: none"> <li>Initial version (C38992, C50330, C52738)</li> </ul>

[Back to top](#)

## Known Issues

Device Name	Known Issues
Elisa 300	<ul style="list-style-type: none"> <li>Firmware version 2.04.02 is not supported as wrong information may be sent. It is recommended to upgrade the device to a most recent firmware.</li> <li>The value of the variable 1761 (Airway Resistance) is not available before firmware version 1.09.7. For previous firmware versions, a truncated value of the Airway Resistance is available in Variable 7871 (Truncated Value of Airway Resistance). The first digit of the Airway Resistance is truncated if the airway resistance value is greater or equal to 100.0. For example: An airway resistance value of "123.4" is outputted in variable 7871 (Truncated Value of Airway Resistance) as "23.4".</li> <li>Tidal Volume Setting is not exported correctly in Dynamic PSV ventilation mode for firmware versions below 1.09.7. In this case, the variable 1321 (Tidal Volume Setting) will be marked as non-significant and the value transmitted by the DDI will be "0".</li> <li>The ventilator screen indicates that the PEEP value is added to the Pmin value. However, variable 4164 (Minimum Airway Pressure Setting) will transmit only the value of Pmin, without adding the PEEP value. Please see description of variable 4164 for details.</li> <li>For variables 1383, 1395, and 1570 the ventilator will limit the maximum value transmitted to 9.9, even if the value on the screen is greater than 9.9. If a value of 9.9 is transmitted by the ventilator, the variable will not be output.</li> <li>Alarms displayed as active on the device screen are not exported as active by the DDI while they are silenced.</li> <li>Values exported by the driver can have slightly different precision from the values seen on the device.</li> <li>When upgrading the DDI from version 5.1.1, first the DDI must be upgraded to version 5.3.2 then the DDI can be upgraded to the latest version.</li> </ul>

## Elisa 500

- Firmware version 2.04.02 is not supported as wrong information may be sent. It is recommended to upgrade the device to a most recent firmware.
- The value of the variable 1761 (Airway Resistance) is not available before firmware version 1.09.7. For previous firmware versions, a truncated value of the Airway Resistance is available in Variable 7871 (Truncated Value of Airway Resistance). The first digit of the Airway Resistance is truncated if the airway resistance value is greater or equal to 100.0. For example: An airway resistance value of "123.4" is outputted in variable 7871 (Truncated Value of Airway Resistance) as "23.4".
- Tidal Volume Setting is not exported correctly in Dynamic PSV ventilation mode for firmware versions below 1.09.7. In this case, the variable 1321 (Tidal Volume Setting) will be marked as non-significant and the value transmitted by the DDI will be "0".
- The ventilator screen indicates that the PEEP value is added to the Pmin value. However, variable 4164 (Minimum Airway Pressure Setting) will transmit only the value of Pmin, without adding the PEEP value. Please see description of variable 4164 for details.
- For variables 1383, 1395, and 1570 the ventilator will limit the maximum value transmitted to 9.9, even if the value on the screen is greater than 9.9. If a value of 9.9 is transmitted by the ventilator, the variable will not be output.
- Alarms displayed as active on the device screen are not exported as active by the DDI while they are silenced.
- Values exported by the driver can have slightly different precision from the values seen on the device.
- When upgrading the DDI from version 5.1.1, first the DDI must be upgraded to version 5.3.2 then the DDI can be upgraded to the latest version.

## Elisa 600

- Firmware version 2.04.02 is not supported as wrong information may be sent. It is recommended to upgrade the device to a most recent firmware.
- The value of the variable 1761 (Airway Resistance) is not available before firmware version 1.09.7. For previous firmware versions, a truncated value of the Airway Resistance is available in Variable 7871 (Truncated Value of Airway Resistance). The first digit of the Airway Resistance is truncated if the airway resistance value is greater or equal to 100.0. For example: An airway resistance value of "123.4" is outputted in variable 7871 (Truncated Value of Airway Resistance) as "23.4".
- Tidal Volume Setting is not exported correctly in Dynamic PSV ventilation mode for firmware versions below 1.09.7. In this case, the variable 1321 (Tidal Volume Setting) will be marked as non-significant and the value transmitted by the DDI will be "0".
- The ventilator screen indicates that the PEEP value is added to the Pmin value. However, variable 4164 (Minimum Airway Pressure Setting) will transmit only the value of Pmin, without adding the PEEP value. Please see description of variable 4164 for details.
- For variables 1383, 1395, and 1570 the ventilator will limit the maximum value transmitted to 9.9, even if the value on the screen is greater than 9.9. If a value of 9.9 is transmitted by the ventilator, the variable will not be output.
- Alarms displayed as active on the device screen are not exported as active by the DDI while they are silenced.
- In firmware version 1.06.1 ALPV mode is not sent by the device, device is sending ? instead of the ventilation mode.
- Values exported by the driver can have slightly different precision from the values seen on the device.
- When upgrading the DDI from version 5.1.1, first the DDI must be

## Elisa 800

upgraded to version 5.3.2 then the DDI can be upgraded to the latest version.

- Firmware version 2.04.02 is not supported as wrong information may be sent. It is recommended to upgrade the device to a most recent firmware.
- The value of the variable 1761 (Airway Resistance) is not available before firmware version 1.09.7. For previous firmware versions, a truncated value of the Airway Resistance is available in Variable 7871 (Truncated Value of Airway Resistance). The first digit of the Airway Resistance is truncated if the airway resistance value is greater or equal to 100.0. For example: An airway resistance value of "123.4" is outputted in variable 7871 (Truncated Value of Airway Resistance) as "23.4".
- Tidal Volume Setting is not exported correctly in Dynamic PSV ventilation mode for firmware versions below 1.09.7. In this case, the variable 1321 (Tidal Volume Setting) will be marked as non-significant and the value transmitted by the DDI will be "0".
- The ventilator screen indicates that the PEEP value is added to the Pmin value. However, variable 4164 (Minimum Airway Pressure Setting) will transmit only the value of Pmin, without adding the PEEP value. Please see description of variable 4164 for details.
- For variables 1383, 1395, and 1570 the ventilator will limit the maximum value transmitted to 9.9, even if the value on the screen is greater than 9.9. If a value of 9.9 is transmitted by the ventilator, the variable will not be output.
- Alarms displayed as active on the device screen are not exported as active by the DDI while they are silenced.
- In firmware version 1.06.1 ALPV mode is not sent by the device, device is sending ? instead of the ventilation mode.
- Values exported by the driver can have slightly different precision from the values seen on the device.
- When upgrading the DDI from version 5.1.1, first the DDI must be upgraded to version 5.3.2 then the DDI can be upgraded to the latest version.

## Elisa 800 VIT

- Firmware version 2.04.02 is not supported as wrong information may be sent. It is recommended to upgrade the device to a most recent firmware.
- The value of the variable 1761 (Airway Resistance) is not available before firmware version 1.09.7. For previous firmware versions, a truncated value of the Airway Resistance is available in Variable 7871 (Truncated Value of Airway Resistance). The first digit of the Airway Resistance is truncated if the airway resistance value is greater or equal to 100.0. For example: An airway resistance value of "123.4" is outputted in variable 7871 (Truncated Value of Airway Resistance) as "23.4".
- Tidal Volume Setting is not exported correctly in Dynamic PSV ventilation mode for firmware versions below 1.09.7. In this case, the variable 1321 (Tidal Volume Setting) will be marked as non-significant and the value transmitted by the DDI will be "0".
- The ventilator screen indicates that the PEEP value is added to the Pmin value. However, variable 4164 (Minimum Airway Pressure Setting) will transmit only the value of Pmin, without adding the PEEP value. Please see description of variable 4164 for details.
- For variables 1383, 1395, and 1570 the ventilator will limit the maximum value transmitted to 9.9, even if the value on the screen is greater than 9.9. If a value of 9.9 is transmitted by the ventilator, the variable will not be output.
- Alarms displayed as active on the device screen are not exported as active by the DDI while they are silenced.
- In firmware version 1.06.1 ALPV mode is not sent by the device,

Elisa Edition	<p>device is sending ? instead of the ventilation mode.</p> <ul style="list-style-type: none"> <li>Values exported by the driver can have slightly different precision from the values seen on the device.</li> <li>When upgrading the DDI from version 5.1.1, first the DDI must be upgraded to version 5.3.2 then the DDI can be upgraded to the latest version.</li> <li>The DDI transmits the variable 2879 Device Software Revision as received, which differs from what is displayed on the device. See description of variable 2879 for details.</li> <li>For variable 9273, the ventilator will limit the maximum value transmitted to 99, even if the value on the screen is greater than 99. If a value of 99 is transmitted by the ventilator, the variable will not be output.</li> <li>For variable 1570, the ventilator will limit the maximum value transmitted to 9.9, even if the value on the screen is greater than 9.9. If a value of 9.9 is transmitted by the ventilator, the variable will not be output.</li> <li>Alarms displayed as active on the device screen are not exported as active by the DDI while they are silenced.</li> <li>Values exported by the driver can have slightly different precision from the values seen on the device.</li> <li>When upgrading the DDI from version 5.1.1, first the DDI must be upgraded to version 5.3.2 then the DDI can be upgraded to the latest version.</li> <li>The DDI transmits the variable 2879 Device Software Revision as received, which differs from what is displayed on the device. See description of variable 2879 for details.</li> </ul>
NI 60	<ul style="list-style-type: none"> <li>Alarms displayed as active on the device screen are not exported as active by the DDI while they are silenced.</li> <li>Values exported by the driver can have slightly different precision from the values seen on the device.</li> <li>When upgrading the DDI from version 5.1.1, first the DDI must be upgraded to version 5.3.2 then the DDI can be upgraded to the latest version.</li> </ul>

[Back to top](#)

## Supported Devices

Device Name	Category	Firmware Version
Elisa 300	Ventilator, Mechanical Ventilation	From V2.01.0 up to V2.16.x (V2.04.02 not supported)
Elisa 500	Ventilator, Mechanical Ventilation	From V2.01.0 up to V2.16.x (V2.04.02 not supported)
Elisa 600	Ventilator, Mechanical Ventilation	From V1.04.0 to V1.07.3, V1.09.7 up to V2.16.x (V2.04.02 not supported)
Elisa 800	Ventilator, Mechanical Ventilation	From V1.04.0 to V1.07.3, V1.09.7 up to V2.16.x (V2.04.02 not supported)
Elisa 800 VIT	Ventilator, Mechanical Ventilation	From V1.04.0 to V1.07.3, V1.09.7 up to V2.16.x (V2.04.02 not supported)




Elisa Edition	Ventilator, Mechanical Ventilation	V3.06.x
NI 60	Ventilator, Mechanical Ventilation	V1.80.x

[Back to top](#)

## Common Variables List

The table below lists variables common to all devices supported by this DDI. Click on the table headers to sort its contents.

Filter Labels:

ID 	Label	Unit	Description
<a href="#">538</a>	Device Language	unitless	<a href="#">Consult detailed help for more information on this variable</a>
<a href="#">584</a>	Ventilation Mode	unitless	<a href="#">Consult detailed help for more information on this variable</a>
635	Inspired O2 (FiO2)	%	This variable is associated with Lower and Upper Alarm Limit attributes. For Elisa 300, Elisa 500, Elisa 600, Elisa 800, and Elisa 800 VIT: The LowerAlarmLimit attribute of this variable is limited to a minimum value of 18% to be consistent with the device screen. For Elisa Edition, Elisa 300, Elisa 500, Elisa 600, Elisa 800, and Elisa 800 VIT: The UpperAlarmLimit and LowerAlarmLimit attributes of this variable will not be output if they are set to off.
<a href="#">801</a>	Generic Device Status	unitless	<a href="#">Consult detailed help for more information on this variable</a>
<a href="#">802</a>	Generic Device Status 2	unitless	<a href="#">Consult detailed help for more information on this variable</a>
<a href="#">803</a>	Generic Device Status 3	unitless	<a href="#">Consult detailed help for more information on this variable</a>
<a href="#">804</a>	Generic Device Status 4	unitless	<a href="#">Consult detailed help for more information on this variable</a>
808	Preoxygenation Status	unitless	0 = pre-oxygenate off 1 = pre-oxygenate on

809	Postoxygenation Status	unitless	0 = post-oxygenate off 1 = post-oxygenate on
955	Battery Running Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
1188	Low Expired Tidal Volume Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
1190	I:E Ratio	unitless	Format: x:y, i.e, 1:y if E > I, x:1, if I>E, and 1:1 if I = E. This means useless leading or ending "0" or "." is not transmitted, and the maximum digits after the floating point is 2.
1310	Compliance	mL/cmH2O	This variable is associated with Lower and Upper Alarm Limit attributes. For Elisa Edition: The LowerAlarmLimit attribute of this variable will not be output if it is set to off.
1314	Spontaneous Respiration Rate	1/min	
1318	Static Compliance	mL/cmH2O	
1319	Static Resistance	cmH2O/L/s	
1320	Mandatory Respiration Rate Setting	1/min	For Elisa 300, Elisa 500, Elisa 600, Elisa 800, and Elisa 800 VIT: In firmware versions below 1.09.7, the value of Tidal Volume Setting is not exported by the device when in Dynamic PSV ventilation mode. In this case, this variable will be marked as non-significant and the value transmitted by the DDI will be "0".
1321	Tidal Volume Setting	mL	
1347	Inspiratory Time	s	0 = nebulizer off 1 = nebulizer on
1348	Expiratory Time	s	
1360	Nebulizer Activation Status	unitless	0 = suction off 1 = suction on
1361	O2 Suction Status	unitless	
1370	Battery Low Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
1381	Inspiratory Flow Setting	L/min	The value of this variable is rounded to the nearest 1st decimal place, while the value displayed on the ventilator screen will be more precise.  The value of this variable is rounded to the nearest 1st decimal place, while the value displayed on the ventilator screen will be more precise.
1383	Inspiratory Flow Trigger Setting	L/min	For Elisa 300, Elisa 500, Elisa 600, Elisa 800, Elisa 800VIT: The ventilator will limit the maximum value to 9.9 L/min. If a value greater than or equal to 9.9 L/min is displayed on the device screen, then this variable will not be output.



1408	Inspiratory Rise Time Setting	s	For Elisa 600, Elisa 800, Elisa 800 VIT: The value of this variable is rounded to the nearest 1st decimal place, while the value displayed on the ventilator screen will be more precise.
<a href="#">1410</a>	Patient Category (Ventilator)	unitless	<a href="#">Consult detailed help for more information on this variable</a>
1414	Peak Airway Pressure	cmH2O	This variable is associated with UpperAlarmLimit attribute.
1415	Mean Airway Pressure	cmH2O	
1569	Minimum Airway Pressure	cmH2O	
1657	Expiratory Trigger Level Setting	%	
1761	Airway Resistance	cmH2O/L/s	For Elisa 300, Elisa 500, Elisa 600, Elisa 800, and Elisa 800 VIT: This variable is only available with firmware version 1.09.7. For previous firmware versions, please see variable 7871.
1763	Static Plateau Airway Pressure	cmH2O	Possible values : 0 : Alarm OFF 1 : Alarm ON
1816	Air Pressure Sensor Alarm	unitless	
1817	O2 Pressure Sensor Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
1889	Device Standby Status	unitless	Possible values : 0 : Device ventilation mode 1 : Device in Standby mode
1913	Device Serial Number	unitless	
<a href="#">1959</a>	Patient Breathing Status	unitless	<a href="#">Consult detailed help for more information on this variable</a>
2092	Inspired Minute Volume	L	The value of this variable is rounded to the nearest 1st decimal place, while the value displayed on the ventilator screen will be more precise.
2102	Inspiratory Time Setting	s	
2104	Positive End Expiratory Pressure (PEEP) Setting	cmH2O	For the Elisa 600, Elisa 800, Elisa 800 VIT: The value of this variable is rounded to the nearest integer, while the value displayed on the ventilator screen will be more precise.
2117	High Airway Pressure Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
2119	Generic Gas Supply Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
			Possible values : 0 : Alarm OFF

2122	Device Hardware Error	unitless	1 : Alarm ON
2132	AC Power Supply Failure Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
2255	Device Date/Time	unitless	Format : YYYYMMDDhhmmss
2324	Inspired Tidal Volume	mL	For Elisa Edition, Elisa 300, Elisa 500, Elisa 600, Elisa 800, and Elisa 800VIT devices, this variable won't be outputted if variable 1410 (Patient Category) is empty or has not been received. For Elisa Edition, Elisa 300, Elisa 500, Elisa 600, Elisa 800, and Elisa 800VIT devices, this variable won't be outputted if variable 1410 (Patient Category) is empty or has not been received. This variable is associated with Lower and Upper Alarm Limit attributes. The value of the UpperAlarmLimit and LowerAlarmLimit attributes of this variable are rounded to the nearest integer, while the value displayed on the ventilator screen will be more precise. The LowerAlarmLimit attribute of this variable will not be output if it is set to off. For Elisa Edition, Elisa 300, Elisa 500, Elisa 600, Elisa 800, Elisa 800 VIT: The UpperAlarmLimit attribute of this variable will not be output if it is set to off.
2325	Expired Tidal Volume	mL	This variable is associated with Lower and Upper Alarm Limit attributes. The value of the UpperAlarmLimit and LowerAlarmLimit attributes of this variable are rounded to the nearest 1st decimal place, while the value displayed on the ventilator screen will be more precise. For the Elisa Edition, Elisa 600, Elisa 800, Elisa 800 VIT: The LowerAlarmLimit attribute of this variable will not be output if it is set to off. For the Elisa 600, Elisa 800, Elisa 800 VIT: The UpperAlarmLimit attribute of this variable will not be output if it is set to off.
2326	Expired Minute Volume	L/min	
2432	Expired Spontaneous Tidal Volume	mL	
2434	Spontaneous Expired Minute Volume	L	
2446	Apnea Activation Status	unitless	Possible values : 0 : Apnea Detection OFF 1 : Apnea Detection ON
2546	Low Expired Minute Volume Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
2583	I:E Ratio Setting	unitless	Format: x:y, i.e, 1:y if E > I, x:1, if I>E, and 1:1 if I = E. This means useless leading or ending "0" or

2759	Support Pressure Setting	cmH2O	<p>“.” is not transmitted, and the maximum digits after the floating point is 2.</p> <p>This variable transmits absolute support pressure value that is the sum of delta setting above PEEP and PEEP value. For example, if pressure support (PS) is set to 10 cmH2O on ventilator display screen and PEEP is set to 5 cmH2O, this variable will send 15 cmH2O.</p> <p>For Elisa 600, Elisa 800, Elisa 800 VIT: The value of this variable is rounded to the nearest integer, while the value displayed on the ventilator screen will be more precise.</p>
2782	Inspired O2 (FiO2) Setting	%	
2879	Device Software Revision	unitless	<p>This variable output the MajorMinor firmware version without dots and leading zeros with the format "0001-9999".</p> <p>For example, firmware version “1.10.02” will be exported as “0110”.</p> <p>For the complete firmware revision number, see variable 50212 (Device Software Revision).</p>
2968	Plateau Airway Pressure	cmH2O	
2973	Patient Disconnected Alarm	unitless	<p>Possible values :</p> <p>0 : Alarm OFF</p> <p>1 : Alarm ON</p>
2987	Inspired Pressure Setting	cmH2O	<p>This variable transmits absolute inspired pressure value that is the sum of delta setting above PEEP and PEEP value. For example, if inspired pressure is set to 10 cmH2O on ventilator display screen and PEEP is set to 5 cmH2O, this variable will sent 15 cmH2O.</p> <p>For the Elisa 600, Elisa 800, Elisa 800 VIT: The value of this variable is rounded to the nearest integer, while the value displayed on the ventilator screen will be more precise.</p>
2994	Device Alarm Audio Volume	unitless	Possible values: 1-5
<a href="#">2996</a>	Drive Gas Type	unitless	<p><a href="#">Consult detailed help for more information on this variable</a></p>
3907	Control Breath Status	unitless	0 = new breath is non mechanical 1 = new breath is mechanical
3981	Battery Remaining Time	min	
4289	Battery Charge Alarm	unitless	<p>Possible values :</p> <p>0 : Alarm OFF</p> <p>1 : Alarm ON</p>
4390	Device Alarm Silence Status	unitless	<p>Possibles values :</p> <p>0 : Alarms not Silenced</p> <p>1 : Alarms Silenced</p>
4987	Apnea Ventilation Delay	s	<p>For the Elisa 600, Elisa 800, Elisa 800 VIT: The</p>

4992	Maximum Inspired Pressure Setting	cmH2O	value of this variable is rounded to the nearest integer, while the value displayed on the ventilator screen will be more precise.
5029	Pressure Ramp Setting (ASB Ramp)	s	For Elisa 300, Elisa 500, Elisa 600, Elisa 800, Elisa 800 VIT: The value of this variable is rounded to the nearest 1st decimal place, while the value displayed on the ventilator screen will be more precise.
5374	Expiratory Time Constant (RCexp)	s	
5647	Ventilation Bias Flow Setting	L/min	
5945	Total Respiration Rate	1/min	
5972	Next Ventilation Action Delay Setting	s	
6287	Patient Circuit Leak Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
<a href="#">6388</a>	Endotracheal Tube Type	unitless	<a href="#">Consult detailed help for more information on this variable</a>  Possible values : 0 : Alarm OFF 1 : Alarm ON
6501	O2 Replacement Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
6507	Device Display Failure	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
7540	Circuit Leak Rate (Auto Mode)	mL/min	
7629	O2 Sensor Disconnected Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
7914	Device Model	unitless	All devices will transmit the value 'c', which corresponds to 'Salvia device'. Possible values : 0 : Alarm OFF 1 : Alarm ON
7974	Low Airway Pressure Alarm	unitless	Low Circuit O2 Possible values : 0 : Alarm OFF 1 : Alarm ON
8024	Circuit O2 Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
8304	Front Panel Button Error	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
8382	Peak Inspiratory Pressure Setting	cmH2O	
8545	Device Displayed Unit Code of Pressure	unitless	Possible values: c for cmH2O (available in all devices) m for Mbar (not available in Elisa Edition and NI 60)

8546	Device Displayed Unit Code of Flow	unitless	Fixed value "m" for L/min
8556	Airway Pressure Measurement Source	unitless	Fixed value 'i' for Internal
8557	Flow Measurement Source	unitless	Fixed value 'i' for Internal
8558	O2 Measurement Source	unitless	Fixed value 'i' for Internal
8559	Patient Circuit Leak Alarm Limit	%	
8562	End Flow Setting	%	
8577	Sub-Atmospheric Paw Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
8578	Pmax Reached Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
8579	Plimit Reached Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
8580	PIP Not Achieved Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
8582	Circuit Occlusion Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
8584	Inspiration Stopped Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
8591	Volume Apnea Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
8596	Low FiO2 Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
8597	High FiO2 Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
8598	Low Respiration Rate Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
8599	High Respiration Rate Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
			Possible values :

8606	Battery Failure Alarm	unitless	0 : Alarm OFF 1 : Alarm ON
8611	Fan Failure	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
8612	Heater Failure	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
9277	Circuit Compliance Level Setting	mL/cmH2O	
9278	ASB End of Flow Setting	%	
9285	Inspiratory Flow Due to Nebulizer	L/min	
9584	High Expired Minute Volume Alarm	unitless	Possible values : 0 : Alarm OFF 1 : Alarm ON
9998	Watchdog Present	unitless	This variable is exported with a value of 1. The purpose of the variable is to indicate that the DDI is connected and communicating with the device.
<a href="#">50021</a>	Device Alarm Inactivation State	unitless	<a href="#">Consult detailed help for more information on this variable</a>
52911	Airway Flow Waveform	L/min	
52912	Airway Volume Waveform	mL	
52913	Airway Pressure Waveform	cmH2O	
52921	Airway CO2 Concentration Waveform	%	
52922	Airway O2 Concentration Waveform	%	
<a href="#">54013</a>	Ventilation Mode	unitless	<a href="#">Consult detailed help for more information on this variable</a>
<a href="#">54021</a>	Ventilation Mode Primary	unitless	<a href="#">Consult detailed help for more information on this variable</a>
<a href="#">54022</a>	Ventilation Mode Options	unitless	<a href="#">Consult detailed help for more information on this variable</a>
1131201	High Circuit O2 Alarm	unitless	High Circuit O2. Possible values : 0 : Alarm OFF 1 : Alarm ON

[Back to top](#)

## Detailed Common Variables Description

---

### Variable 538

Variable Value	Variable Description
0	English
1	Spanish
2	German
3	Kanji
4	Dutch
5	Swedish
6	French
7	Italian
8	Danish
9	Polish
A	Chinese
B	Czech
C	Hungarian
D	Russian
E	Portuguese
F	Other
G	Greek
H	Finnish
I	Turkish
J	Norwegian
K	Serbian
L	Slovenian

### Variable 584

General description (optional)

Variable Value	Variable Description	Elisa Edition	Elisa 300	Elisa 500	Elisa 600	Elisa 800	Elisa 800 VIT	NI 60
'v'	volume control mode (VCV, CMV)	Y	Y	Y	Y	Y	Y	
'p'	pressure control mode (PCV)	Y	Y	Y	Y	Y	Y	
's'	SIMV, SIMV-VC	Y	Y	Y	Y	Y	Y	
'i'	SIMV-PC	Y	Y	Y	Y	Y	Y	
'bb'	BiLevel	Y	Y	Y	Y	Y	Y	
'gg'	BiLevel-VG / Dyn.BiLevel	Y	Y	Y	Y	Y	Y	
't'	BiLevel-ST	Y	Y	Y	Y	Y	Y	
'c'	CPAP, CPAP/PSV	Y	Y	Y	Y	Y	Y	
'a'	CPAP/Apnea	Y						



'n'	CPAP, CPAP/PSV (NIV)	Y						Y
'ii'	SIMV_P (NIV)	Y						Y
'nn'	BiLevel (NIV)	Y						Y
'tt'	BiLevel-ST (NIV)	Y						Y
'pp'	pressure control mode (PCV) (NIV)	Y						
'aa'	CPAP / Apnea (NIV)	Y						Y
'hh'	Highflow (NIV)		Y	Y	Y	Y	Y	Y
'mm'	Mandatory BiLevel		Y	Y	Y	Y	Y	
'vv'	PC-APRV		Y	Y	Y	Y	Y	
'dd'	Duales Bilevel		Y	Y	Y	Y	Y	
'oo'	Optional BiLevel		Y	Y	Y	Y	Y	
'ff'	Flexible BiLevel		Y	Y	Y	Y	Y	
'cc'	Optional VCV		Y	Y	Y	Y	Y	
'ee'	Flexible VCV		Y	Y	Y	Y	Y	
'yy'	Dynamic PSV		Y	Y	Y	Y	Y	
'rr'	Mandatory PSV		Y	Y	Y	Y	Y	
'jj'	Post-operative PSV		Y	Y	Y	Y	Y	
'kk'	Volume adaptive BiLevel		Y	Y	Y	Y	Y	
'qq'	Propotional PSV		Y	Y	Y	Y	Y	
'uu'	Dyn. BiLevel-ST		Y	Y	Y	Y	Y	
'ww'	Dual BiLevel-St		Y	Y	Y	Y	Y	
'll'	CPR		Y	Y	Y	Y	Y	
'l'	APLV		Y	Y	Y	Y	Y	
'xx'	PAPS		Y	Y	Y	Y	Y	
'zz'	WOBOV		Y	Y	Y	Y	Y	
'd'	NCPAP		Y	Y	Y	Y	Y	
'e'	nBilevel		Y	Y	Y	Y	Y	
'f'	BiLevelNrv		Y	Y	Y	Y	Y	

## Variable 801

BitField	BitField Description
bit0	not used
bit1	Gas Supplies OK
bit2	AC Mains Power OK
bit3	Battery Charge OK
bit4	Manual Circuit Leak OK
bit5	Vent Circuit Leak OK
bit6	Flow Controls OK
bit7	not used

## Variable 802

BitField	BitField Description
bit0	not used
bit1	Vent Delivery OK
bit2-bit3	not used
bit4	Circuit O2 Cell Checked
bit5-bit7	not used

### Variable 803

BitField	BitField Description
bit0	Airway Pressure Sensor OK
bit1	Barometric Pressure OK
bit2	Safety Valve OK
bit3	Exhalation Valve OK
bit4	O2 Conc. Sensor OK
bit5	O2 Flow Sensor OK
bit6	Air Flow Sensor OK
bit7	not used

### Variable 804

BitField	BitField Description
bit0	Expiratory Flow Sensor OK
bit1	Inspiratory Flow Sensor OK
bit2-bit7	not used

### Variable 1410

Variable Value	Variable Description	Elisa Edition	Elisa 300	Elisa 500	Elisa 600	Elisa 800	Elisa 800 VIT	NI 60
'a'	adult	Y	Y	Y	Y	Y	Y	Y
'p'	pediatric	Y	Y	Y	Y	Y	Y	
'n'	neonate	Y	Y	Y	Y	Y	Y	

### Variable 1959

Variable Value	Variable Description
0	new breath is not triggered
1	new breath is triggered mandatory
2	new breath is triggered Spontaneous

### Variable 2996

Variable Value	Variable Description	Elisa Edition	Elisa 300	Elisa 500	Elisa 600	Elisa 800	Elisa 800 VIT	NI 60
'O'	oxygen	Y	Y	Y	Y	Y	Y	Y

'A'	air	Y	Y	Y	Y	Y	Y	Y
'B'	both		Y	Y	Y	Y	Y	

### Variable 6388

Variable Value	Variable Description	Elisa Edition	Elisa 300	Elisa 500	Elisa 600	Elisa 800	Elisa 800 VIT	NI 60
'e':	Endotracheal		Y	Y	Y	Y	Y	
't':	Tracheal	Y	Y	Y	Y	Y	Y	Y
'h':	Helmet		Y	Y	Y	Y	Y	Y
'n':	Nasal		Y	Y	Y	Y	Y	
'm':	mask		Y	Y	Y	Y	Y	Y

### Variable 50021

Variable Value	Description
enabled	Audio enabled, device in normal state.
audio-paused	Audio paused temporarily, often for 2 or 3 minutes and often can be interrupted by higher priority or critical alarms. It is often done by pushing the Mute/Silence function key on the device.

### Variable(s): 54013, 54021, 54022

Ventilation Mode Description	Ventilation Mode Primary (Value of Variable 54021)	Ventilation Mode Options (Value of Variable 54022)	Full Ventilation Mode (Value of variable 54013)
BiLevel-VG /Dyn.BiLevel	MAN PC Bilevel	+VG	MAN PC Bilevel +VG
Volume adaptive BiLevel	MAN PC Bilevel	+VG	MAN PC Bilevel +VG
BiLevel (NIV)	MAN PC Bilevel	None	MAN PC Bilevel
BiLevel	MAN PC Bilevel	None	MAN PC Bilevel
BiLevel-ST (NIV)	MAN PC Bilevel	None	MAN PC Bilevel
BiLevel-ST	MAN PC Bilevel	None	MAN PC Bilevel
Mandatory BiLevel	MAN PC Bilevel	None	MAN PC Bilevel
Duales Bilevel	MAN PC Bilevel	None	MAN PC Bilevel
Dyn. BiLevel-ST	MAN PC Bilevel	None	MAN PC Bilevel
Flexible BiLevel	MAN PC Bilevel	None	MAN PC Bilevel
Optional BiLevel	MAN PC Bilevel	None	MAN PC Bilevel
Dual BiLevel-St	MAN PC Bilevel	None	MAN PC Bilevel
nBilevel	MAN PC Bilevel	None	MAN PC Bilevel
BiLevelNrv	MAN PC Bilevel	None	MAN PC Bilevel
CPAP, CPAP/PSV (NIV)	SPN CPAP	None	SPN CPAP
CPR (Reanimation Mode)	SPN CPAP	None	SPN CPAP
CPAP /Apnea (NIV)	SPN CPAP	None	SPN CPAP

CPAP/Apnea	SPN CPAP	None	SPN CPAP
CPAP, CPAP/PSV	SPN CPAP	None	SPN CPAP
WOBOV (Work Of Breathing Optimized Ventilation)	SPN CPAP	None	SPN CPAP
NCPAP	SPN CPAP	None	SPN CPAP
Highflow (NIV)	O2THERAPY	None	O2THERAPY
volume control mode (VCV, CMV, PLV)	MAN VC CMV	None	MAN VC CMV
Optional VCV	MAN VC CMV	None	MAN VC CMV
Flexible VCV	MAN VC CMV	None	MAN VC CMV
pressure control mode (PCV)	MAN PC CMV	None	MAN PC CMV
pressure control mode (PCV) (NIV)	MAN PC CMV	None	MAN PC CMV
SIMV, SIMV-VC	MAN VC SIMV	None	MAN VC SIMV
SIMV-PC	MAN PC SIMV	None	MAN PC SIMV
SIMV_P (NIV)	MAN PC SIMV	None	MAN PC SIMV
PC-APRV	MAN PC APRV	None	MAN PC APRV
Dynamic PSV	SPN PPS	None	SPN PPS
Mandatory PSV	SPN PPS	None	SPN PPS
Postoperative PSV	SPN PPS	None	SPN PPS
Propotional PSV	SPN PPS	None	SPN PPS
ALPV (Adaptive Lung Protection Ventilation)	AC ADPC	None	AC ADPC
PAPS (Proportional Adaptive Pressure Support)	MAN ADPC CMV	None	MAN ADPC CMV

[Back to top](#)

## Variable Availability

For Elisa New Generation devices, some variables are available only in specific versions. See table below for details.

Variable ID	Software version
All variables except the variables below	V1.04.0 and above
2092, 584 (value 'I'), 1649, 2553, 4164, 5005	V1.04.4 and above
584 (value 'I'), 9150	V1.07.0 and above
570, 571, 572, 573, 574, 575	V1.07.2 and above
538 (values 'K' and 'L')	V1.09.7 and above

1410 (value 'n')	V1.09.7 and above
7498, 7519, 7669, 9288, 52254, 52323, 54072	V1.10.0 and above
50203	V2.02.0 and above
3425, 7937, 51052, 51107, 52112, 52252, 52253, 52865	V2.05.0 and above
3668	V2.06.0 and above
286, 294, 295, 296, 297, 298, 1425, 3258, 6992, 8023, 9891, 31060, 32210, 32220, 50212, 71063, 72111, 72210, 72220, 72312, 72313, 1131202, 1131203, 1131204, 1131205, 1131206, 1131207, 1131208	V2.08.0 and above
92611, 92612	V2.09.2 and above
1131101, 1131104, 52515 and 52517	v2.09.3 and above
1398, 6986, 9123, 9145, 52211, 52341, 1131102, 1131103	v2.09.7 and above
5359	v2.10.0 and above

[Back to top](#)

## Waveform Output

This DDI supports the export of waveforms from all devices. By default waveform output is disabled. Please refer to the “Modes” section in each device specific pages for information on how to configure the waveform output.

The sample rates of all waveforms are sent in the attribute "SamplesInterval" in the unit of millisecond. For the sample rate of 25 samples/second, the attribute will have the value "40".

VariableID	Sample Interval (ms)	Applied Model
All variables in group "Waveforms"	40	All

[Back to top](#)

## NonSignificant Value

Some variables are associated with a NonSignificant attribute. Please see the table below for details.

Variable ID	Variable Value	Value Description	Devices
4958, 7538, 9279			Elisa Edition
7579			NI 60
780, 2103, 2988, 8563			Elisa Edition, NI 60
756, 1252, 1649, 2553, 2554, 4164, 7452, 9150			Elisa 300, Elisa 500, Elisa 600, Elisa 800, Elisa 800 VIT

757, 1395, 8560	0	Parameter not set	Elisa Edition, Elisa 300, Elisa 500, Elisa 600, Elisa 800, Elisa 800 VIT
1320, 1321, 1381, 1383, 1408, 1657, 2102, 2104, 2759, 2782, 2987, 4987, 4992, 5029, 5647, 5972, 6389, 8382, 8559, 8562, 9150, 9277, 9278			All
584, 1410	"_"		
2583	"-----"		
7452	"_"		Elisa 300, Elisa 500, Elisa 600, Elisa 800, Elisa 800 VIT
584	"?"	See known issue regarding ALPV mode in firmware version 1.06.1	Elisa 600, Elisa 800, Elisa 800 VIT

[Back to top](#)

## Unique Device Identifier

This driver sends a variable which can be used as Unique Device identifier. Please see the table below for more details.

Device	Variable ID	Value Format	Value Description
All	1913	"xxxxxxxxxxxxxxxxx"	system serial number

[Back to top](#)

## Alarm Repetition

Alarms displayed as active on the device screen are not exported as active by the DDI while they are silenced.

Please see the table below for the approximate repetition intervals for active alarms.

VariableID	Alarm Output Frequency	Device Models
All variables in group "Alarms"	Approximately 10 seconds	All Models

[Back to top](#)

## Unit List

This table defines the unit codes for this DDI.

UnitCode	Short Description	Long Description
1	1/min	events per minute
2	h	hour
3	min	minute

4	s	second
9	mmHg	millimeter of mercury
19	%	percent
23	mm	millimeter
26	mL	milliliter
29	mL/min	milliliter per minute
31	L	liter
32	L/min	liter per minute
39	cmH <sub>2</sub> O	centimeter of water
42	kPa	kilopascal
44	mbar	millibar
50	mL/cmH <sub>2</sub> O	milliliter per centimeter of water
51	cmH <sub>2</sub> O/L/s	centimeter of water per liter per second
74	cm	centimeter
76	kg	kilogram
106	mbar/L/s	millibar per liter per second
139	unitless	unitless
158	J/L	joule per liter
243	mL/kg	milliliter per kilogram
445	mL/kg/min	milliliter per kilogram per minute
526	mbar/L	millibar per liter

[Back to top](#)

© 2025, Capsule Technologies, Inc. and/or its subsidiaries. All rights reserved.

Capsule MDIP and other associated trademarks or logos are trademarks or registered trademarks of Capsule Technologies, Inc. and/or its subsidiaries.

All other trademarks, servicemarks, registered trademarks, and registered servicemarks are the property of their respective owners.