

## MidiVac Tango Python Class

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### MidiVac Class Identification :

Contact : at null - null  
 Class Family :  
 Platform :  
 Bus :  
 Manufacturer :  
 Manufacturer ref. :

### MidiVac Class Inheritance :

- [Tango::DeviceImpl](#)
  - MidiVac

### MidiVac Class Description :

This Device will manage the Varian MidiVac Ion Pump power supply through a SerialLine Tango Device Server.  
 Last update: srbio@cells.es, 2007/09/20

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## MidiVac Properties :

There is no class properties

Device Properties			
Name	Description	Type	Default Value
SerialLine	SerialLine Device Server to connect with	String	none
NChannels	Number of Pressure Channels available	int	5
NCombChannels	Number of Combination Channels available	int	2
Refresh	Period (in seconds) for the internal refresh thread.	double	0.5

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MidiVac Class Commands				
Name	Input type	Output type	Level	Description
<a href="#">State</a>	DEV_VOID	DEV_STATE	OPERATOR	This command gets the device state (stored in its <i>device_state</i> data member) and returns it to the caller.
<a href="#">Status</a>	DEV_VOID	CONST_DEV_STRING	OPERATOR	This command gets the device status (stored in its <i>device_status</i> data member) and returns it to the caller.
<a href="#">SendCommand</a>	DEV_STRING	DEV_STRING	OPERATOR	Sends a command directly to the device through the rs232 line
<a href="#">On</a>	DEV_VOID	DEV_VOID	OPERATOR	None.
<a href="#">Off</a>	DEV_VOID	DEV_VOID	OPERATOR	None.
<a href="#">Start</a>	DEV_VOID	DEV_VOID	OPERATOR	None.
<a href="#">Protect</a>	DEV_VOID	DEV_VOID	OPERATOR	None.
<a href="#">Set3KV</a>	DEV_VOID	DEV_VOID	OPERATOR	None.
<a href="#">Set5KV</a>	DEV_VOID	DEV_VOID	OPERATOR	None.
<a href="#">Set7KV</a>	DEV_VOID	DEV_VOID	OPERATOR	None.

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## Command State :

This command gets the device state (stored in its *device\_state* data member) and returns it to the caller.

State Definition		
Input Argument	Tango::DEV_VOID	none.
Output Argument	Tango::DEV_STATE	State Code
DisplayLevel	OPERATOR	..
Inherited	true	..
Abstract	true	..
Polling Period	Not polled	..
Command allowed for	All states	..

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### **Command Status :**

This command gets the device status (stored in its *device\_status* data member) and returns it to the caller.

Status Definition		
Input Argument	Tango::DEV_VOID	none.
Output Argument	Tango::CONST_DEV_STRING	Status description
DisplayLevel	OPERATOR	..
Inherited	true	..
Abstract	true	..
Polling Period	Not polled	..
Command allowed for	All states	..

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### **Command SendCommand :**

Sends a command directly to the device through the rs232 line

SendCommand Definition		
Input Argument	Tango::DEV_STRING	Command to send (literally)
Output Argument	Tango::DEV_STRING	Answer received (literally)
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..

Polling Period	Not polled	..
Command allowed for	All states	..

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**Command On :**

On Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

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**Command Off :**

Off Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

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**Command Start :**

Start Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

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### **Command Protect :**

Protect Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

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### **Command Set3KV :**

Set3KV Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

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**Command Set5KV :**

Set5KV Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
		..
Command allowed for	All states	..

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**Command Set7KV :**

Set7KV Definition		
Input Argument	Tango::DEV_VOID	
Output Argument	Tango::DEV_VOID	
DisplayLevel	OPERATOR	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
		..
Command allowed for	All states	..

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MidiVac Class Attributes							
Name	Inherited	Abstract	Attr. type	R/W type	Data type	Level	Description
I	false	false	Scalar	READ	Tango::DEV_DOUBLE	OPERATOR	
V	false	false	Scalar	READ	Tango::DEV_DOUBLE	OPERATOR	

<a href="#">SetPoint1</a>	false	false	Scalar	READ	Tango::DEV_DOUBLE	OPERATOR	
<a href="#">SetPoint2</a>	false	false	Scalar	READ	Tango::DEV_DOUBLE	OPERATOR	
<a href="#">OutputSetting</a>	false	false	Scalar	READ	Tango::DEV_DOUBLE	OPERATOR	
<a href="#">FirmwareVersion</a>	false	false	Scalar	READ	Tango::DEV_STRING	OPERATOR	
<a href="#">HVStatus</a>	false	false	Scalar	READ	Tango::DEV_STRING	OPERATOR	
<a href="#">SetPointStatus</a>	false	false	Scalar	READ	Tango::DEV_LONG	OPERATOR	
<a href="#">PROTECTCurrentValue</a>	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	

**There is no dynamic attribute defined.**

**Attribute I :**

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

Attribute Properties	
label	
unit	A?
standard unit	
display unit	
format	scientific;uppercase;setprecision(3)
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady	Not

event by user code	set
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**Attribute V :**

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

Attribute Properties	
label	
unit	KV
standard unit	
display unit	
format	scientific;uppercase;setprecision(3)
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

**Attribute SetPoint1 :**



Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

Attribute Properties	
label	
unit	
standard unit	
display unit	
format	
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

**Attribute SetPoint2 :**

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

Attribute Properties	
label	
unit	
standard unit	
display unit	
format	
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set

delta_time	
delta_val	

Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

**Attribute OutputSetting :**

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

Attribute Properties	
label	
unit	
standard unit	
display unit	
format	
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

**Attribute FirmwareVersion :**

Attribute Definition	

Attribute Properties	

Attribute Event Criteria	
Periodic	Not set

Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_STRING
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

label	
unit	
standard unit	
display unit	
format	
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

**Attribute HVStatus :**

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_STRING
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

Attribute Properties	
label	
unit	
standard unit	
display unit	
format	
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

**Attribute SetPointStatus :**

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_LONG
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

Attribute Properties	
label	
unit	
standard unit	
display unit	
format	
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set
Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

**Attribute PROTECTCurrentValue :**

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_DOUBLE
Display Level	OPERATOR
Inherited	false
Abstract	false
Polling Period	Not polled

Attribute Properties	
label	
unit	
standard unit	
display unit	
format	
max_value	
min_value	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
Absolute Change	Not set
Archive Periodic	Not set

Memorized	Not set
Read allowed for	All states
Write allowed for	All states

max_alarm
min_alarm
max_warning
min_warning
delta_time
delta_val

Archive Relative Change	Not set
Archive Absolute Change	Not set
Push Change event by user code	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

MidiVac Class States	
Name	Description
ON	Device running normally
OFF	Gauges switched off
UNKNOWN	It was imposible to communicate with the device
ALARM	Error in some channel/module of the device