MKS_MicrovisionIP_RGA Tango Cpp Class

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MKS_MicrovisionIP_RGA Class Identification :

Contact	: at esrf.fr - accelerator-control
Class Family	: Vacuum
Platform	: All Platforms
Bus	: Socket
Manufacturer	: MKS
Manufacturer ref.	: microvision

MKS_MicrovisionIP_RGA Class Inheritance :

- Tango::DeviceImpl
  - MKS_MicrovisionIP_RGA

MKS_MicrovisionIP_RGA Class Description :

This device server will control MKS Microvision IP Residual Gas Analyser.

MKS_MicrovisionIP_RGA Properties :

There is no class properties

Device Properties			
Name	**Description**	**Type**	**Default Value**
Socket_device	Name of the Socket device.	String	none
Timeout	Maximum time in ms to wait before getting the response of a command.	int	2000
Accuracy	Scanning accuracy at startup.	short	5
FilamentNumber	Filament number at startup.	short	1
DetectorIndex	Detector Index at startup.	short	0
StartMass	Start Mass used at startup for barchart and analog measurement modes.	short	1
EndMass	EndMass used at startup in barchart and analog measurement modes.	short	100
LeakCheckMass	Mass scanned in Single Peak measurement mode (LeakCheck mode).	double	28
Gain	Electronic gain Index used at startup.	short	2
MeasurementMode	Measurement Mode used at startup. Possible values are : - LeakCheck (SinglePeak) - Barchart - Analog	String	Barchart
Time_until_reinit	Time to wait (in seconds) before reinitialization of the server when no more data come from the RGA and release command was not used.	int	60
SourceIndex	Index of the source settings to use for measurement. The MicroVision IP supports up to 6 sets of ion source parameters which can be configured to suit the hardware configuration and environment where the sensor is used.	short	0
FilterMode	Specifies how each AMU should be scanned and turned into a single reading: - PeakCenter: Single point at the nominal peak center is measured - PeakMax: Central 1/2 AMU scanned and the max value reported - PeakAverage: Central 1/2 AMIU scanned and the average value reported	String	PeakCenter
Min_detectable_pressure	Minimum detectable pressure. If the pressure measured is under that value, the server will return a pressure equal to this min_detectable_pressure value.	double	1e-12
Degas_start_power	Percentage power to start at when degassing	short	10
Degas_end_power	Percentage power to ramp to when degassing	short	85
Degas_ramp_period	Time in seconds to ramp between degas_start_power and degas_end_power when degassing	short	90
Degas_max_power_period	Time to hold at EndPower when degassing	short	240
Degas_resettle_period	Time to return to default settings	short	30
StaticPressures		double[]	none

MKS_MicrovisionIP_RGA Class Commands				
Name	**Input type**	**Output type**	**Level**	**Description**
State	DEV_VOID	DEV_STATE	OPERATOR	This command gets the device state (stored in its *device_state* data member) and returns it to the caller.
Status	DEV_VOID	CONST_DEV_STRING	OPERATOR	This command gets the device status (stored in its *device_status* data member) and returns it to the caller.
On	DEV_VOID	DEV_VOID	OPERATOR	Switch On the selected filament.
Off	DEV_VOID	DEV_VOID	OPERATOR	Switch Off the selected filament.
Reset	DEV_VOID	DEV_VOID	OPERATOR	Reset the faults. If you want to initialise the unit in the predefined state and parameters, please use Init command.
SendCmd	DEV_STRING	DEV_STRING	EXPERT	This command will send the command given in parameter to the RGA and return the anwer from the RGA as it.
Release	DEV_VOID	DEV_VOID	EXPERT	Release the control of the RGA. Use this command only if you want to use another program than the Tango Device server to control the RGA.
StartDegas	DEV_VOID	DEV_VOID	EXPERT	Start the filament degassing process
StopDegas	DEV_VOID	DEV_VOID	EXPERT	Stop the filament degassing process.
StoreStaticPress	DEV_VOID	DEV_VOID	OPERATOR	store the static pressure. this is autorized only if the SR current is 0.

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

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

Command On :

Switch On the selected filament.

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	..

Command Off :

Switch Off the selected filament.

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	..

Command Reset :

Reset the faults.
If you want to initialise the unit in the predefined state and parameters, please use Init command.

Reset 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	..

Command SendCmd :

This command will send the command given in parameter to the RGA and return the anwer
from the RGA as it.

SendCmd Definition		
Input Argument	Tango::DEV_STRING	Command to send to RGA
Output Argument	Tango::DEV_STRING	Response from RGA
DisplayLevel	EXPERT	..
Inherited	false	..
Abstract	false	..
Polling Period	Not polled	..
Command allowed for	All states	..

Command Release :

Release the control of the RGA.
Use this command only if you want to use another program than the Tango Device server to control the RGA.

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

Command StartDegas :

Start the filament degassing process

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

Command StopDegas :

Stop the filament degassing process.

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

Command StoreStaticPress :

store the static pressure. this is autorized only if the SR current is 0.

StoreStaticPress 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	..

MKS_MicrovisionIP_RGA Class Attributes							
Name	Inherited	Abstract	Attr. type	R/W type	Data type	Level	Description
MeasurementMode	false	false	Scalar	READ_WRITE	Tango::DEV_STRING	OPERATOR	Possible values :\n-Barchart\n-LeakCheck\n-Analog
Accuracy	false	false	Scalar	READ_WRITE	Tango::DEV_USHORT	OPERATOR	Measurement accuracy\npossible values : 0 to 8 (best accuracy, minimum speed).
FilamentNumber	false	false	Scalar	READ_WRITE	Tango::DEV_USHORT	OPERATOR	Number of the active filament.
DetectorIndex	false	false	Scalar	READ_WRITE	Tango::DEV_USHORT	OPERATOR	Detector (Multiplier) Index.\npossible values : from 0 to 3.\nChanges the selected measurements detector index. Faraday is detector 0 and if the sensor has a multiplier then\nindexes 1,2 and 3 provide alternate settings for the multiplier voltage.
DetectorVoltage	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Detector Voltage.

StartMass	false	false	Scalar	READ_WRITE	Tango::DEV_USHORT	OPERATOR	Start Mass for Barchart scans.
EndMass	false	false	Scalar	READ_WRITE	Tango::DEV_USHORT	OPERATOR	End Mass for Barchart scans.
LeakCheckMass	false	false	Scalar	READ_WRITE	Tango::DEV_DOUBLE	OPERATOR	Mass scanned in Leakcheck mode.\n(SinglePeak scans).
Timeout	false	false	Scalar	READ_WRITE	Tango::DEV_LONG	EXPERT	Maximum time in ms to wait before getting the response of a command.
Gain	false	false	Scalar	READ_WRITE	Tango::DEV_USHORT	OPERATOR	Electronic gain Index to use for the measurements.
SourceIndex	false	false	Scalar	READ_WRITE	Tango::DEV_USHORT	OPERATOR	Index of the source settings to use for measurement.\nThe MicroVision IP supports up to 6 sets of ion source \nparameters which can be configured to suit the hardware \nconfiguration and environment where the sensor is used.
FilterMode	false	false	Scalar	READ_WRITE	Tango::DEV_STRING	OPERATOR	Specifies how each AMU should be scanned and turned into a single reading:\n- PeakCenter: Single point at the nominal peak center is measured\n- PeakMax: Central 1/2 AMU scanned and the max value reported\n- PeakAverage: Central 1/2 AMIU scanned and the average value reported
LeakCheckPressure	false	false	Scalar	READ	Tango::DEV_DOUBLE	OPERATOR	This is the pressure of the mass defined by the LeakCheckMass attribute.
DegasStatus	false	false	Scalar	READ	Tango::DEV_STRING	OPERATOR	Status of the degassing process
FilamentDegas	false	false	Scalar	READ_WRITE	Tango::DEV_BOOLEAN	EXPERT	When this attribute is set to true, it will start the degassing process on the \ncurrent selected filament.\nThe attribute will stay true until the filament degassing

							process will end.\nWhen this attribute is set to false, it will call the StopDegas command.
LifetimePressure	false	false	Scalar	READ	Tango::DEV_DOUBLE	OPERATOR	Apparent pressure contributing to the lifetime.\nThis is the weighted sum of partial pressures * Z^2
Masses	false	false	Spectrum	READ	Tango::DEV_DOUBLE	OPERATOR	
MassesHistory	false	false	Spectrum	READ	Tango::DEV_DOUBLE	EXPERT	This attribute is the same as the Masses attribute and was \ncreated to be able to have another polling period and a buffer history.
StaticPressures	false	false	Spectrum	READ	Tango::DEV_DOUBLE	EXPERT	spectrum of pressure taken when beam is at 0.

MKS_MicrovisionIP_RGA Class Dynamic Attributes							
Name	**Inherited**	**Abstract**	**Attr. type**	**R/W type**	**Data type**	**Level**	**Description**
MassScalarAttrib	false	false	Scalar	READ	Tango::DEV_DOUBLE	EXPERT	

Attribute MeasurementMode :

Possible values :\n- Barchart\n- LeakCheck\n- Analog

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
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	Measurement Mode
unit	
standard unit	
display unit	
format	
max_value	
min_value	
max_alarm	
min_alarm	
max_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

Write allowed for	All states

min_warning	
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 Accuracy :

Measurement accuracy\npossible values : 0 to 8 (best accuracy, minimum speed).

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

Attribute Properties	
label	Accuracy
unit	
standard unit	
display unit	
format	%1d
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 FilamentNumber :

Number of the active filament.

Attribute	

Attribute	

Attribute Event Criteria	

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

Properties	
label	Filament Number
unit	
standard unit	
display unit	
format	%1d
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

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 DetectorIndex :

Detector (Multiplier) Index.\npossible values : from 0 to 3.\nChanges the selected measurements detector index. Faraday is detector 0 and if the sensor has a multiplier then\nindexes 1,2 and 3 provide alternate settings for the multiplier voltage.

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

Attribute Properties	
label	Detector Index
unit	
standard unit	
display unit	
format	%1d
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	Not

code	set

Attribute DetectorVoltage :

Detector Voltage.

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

Attribute Properties	
label	Detector Voltage
unit	V
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 StartMass :

Start Mass for Barchart scans.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_USHORT
Display Level	OPERATOR

Attribute Properties	
label	Start Mass
unit	
standard unit	
display unit	

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

Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write allowed for	All states

format	%3d
max_value	100
min_value	1
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

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 EndMass :

End Mass for Barchart scans.

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

Attribute Properties	
label	End Mass
unit	
standard unit	
display unit	
format	%3d
max_value	100
min_value	1
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 LeakCheckMass :

Mass scanned in Leakcheck mode.\n(SinglePeak scans).

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

Attribute Properties	
label	LeakCheck Mass
unit	
standard unit	
display unit	
format	%5.2f
max_value	100
min_value	1
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 Timeout :

Maximum time in ms to wait before getting the response of a command.

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

Attribute Properties	
label	Timeout
unit	ms
standard unit	ms
display unit	ms
format	%5d
max_value	
min_value	1
max_alarm	
min_alarm	
max_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

Write allowed for	All states

min_warning	
delta_time	
delta_val	

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

Attribute Gain :

Electronic gain Index to use for the measurements.

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

Attribute Properties	
label	Gain
unit	
standard unit	
display unit	
format	%1d
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 SourceIndex :

Index of the source settings to use for measurement.\nThe MicroVision IP supports up to 6 sets of ion source \nparameters which can be configured to suit the hardware \nconfiguration and environment where the sensor is used.

Attribute Definition	

Attribute Properties	

Attribute Event Criteria	
Periodic	Not

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

label	Source
unit	
standard unit	
display unit	
format	%1d
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

	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 FilterMode :

Specifies how each AMU should be scanned and turned into a single reading:\n- PeakCenter: Single point at the nominal peak center is measured\n- PeakMax: Central 1/2 AMU scanned and the max value reported\n- PeakAverage: Central 1/2 AMIU scanned and the average value reported

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

Attribute Properties	
label	Filter Mode
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 LeakCheckPressure :

This is the pressure of the mass defined by the LeakCheckMass attribute.

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	Leakcheck Pressure
unit	mBar
standard unit	
display unit	
format	%.3e
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	true
Criteria checked by TANGO	false
Push Archive event by user code	false
Push DataReady event by user code	Not set

Attribute DegasStatus :

Status of the degassing process

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ
Data Type	Tango::DEV_STRING

Attribute Properties	
label	Degas Status
unit	
standard unit	

Attribute Event Criteria	
Periodic	Not set
Relative Change	Not set
	Not

~~Display Level~~ Inherited	~~OPERATOR~~ false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

display unit	
format	
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Absolute Change	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 FilamentDegas :

When this attribute is set to true, it will start the degassing process on the \ncurrent selected filament.\nThe attribute will stay true until the filament degassing process will end.\nWhen this attribute is set to false, it will call the StopDegas command.

Attribute Definition	
Attribute Type	Scalar
R/W Type	READ_WRITE
Data Type	Tango::DEV_BOOLEAN
Display Level	EXPERT
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states
Write allowed for	All states

Attribute Properties	
label	Filament Degas
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 LifetimePressure :

Apparent pressure contributing to the lifetime.\nThis is the weighted sum of partial pressures * Z^2

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	mB
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 Masses :

Attribute Definition	
Attribute Type	Spectrum (101)
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	Masses
unit	
standard unit	mBar
display unit	
format	%.3e
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 MassesHistory :

This attribute is the same as the Masses attribute and was \ncreated to be able to have another polling period and a buffer history.

Attribute Definition	
Attribute Type	Spectrum (101)
R/W Type	READ
Data Type	Tango::DEV_DOUBLE
Display Level	EXPERT
Inherited	false
Abstract	false
Polling Period	40000
Memorized	Not set
Read allowed for	All states

Attribute Properties	
label	Masses history
unit	
standard unit	mBar
display unit	
format	%.3e
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 StaticPressures :

spectrum of pressure taken when beam is at 0.

Attribute Definition	

Attribute Properties	

Attribute Event Criteria	
	Not

Attribute Type	Spectrum (101)
R/W Type	READ
Data Type	Tango::DEV_DOUBLE
Display Level	EXPERT
Inherited	false
Abstract	false
Polling Period	Not polled
Memorized	Not set
Read allowed for	All states

label	
unit	
standard unit	mBar
display unit	
format	%.3e
max_value	
min_value	
max_alarm	
min_alarm	
max_warning	
min_warning	
delta_time	
delta_val	

Periodic	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

Dynamic attribute MassScalarAttrib :

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

Attribute Properties	
label	
unit	mBar
standard unit	
display unit	
format	%.3e
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	true
Criteria checked by TANGO	false
Push Archive event by user code	true
Criteria checked by TANGO	true
Push DataReady event by user	

code	false

MKS_MicrovisionIP_RGA Class States	
Name	**Description**
ON	The RGA is scanning.
FAULT	The RGA is not scanning.
DISABLE	The RGA is currently in Use by another application.
INIT	The Unit is ready for use but is not yet scanning.