



TANGO
Device
Server

WaterFlowMeter User's Guide

WaterFlowMeter Class

**Revision: release_1_0_1 - Author: coquet
Implemented in C++**

Introduction:

Retrieves the state of a water flowmeter

Class Inheritance:

- Tango::Device_3Impl
 - WaterFlowMeter

Properties:

Device Properties

Property name	Property type	Description
Url	Tango::DEV_STRING	Device name of the PLC Server
DBNumber	Tango::DEV_LONG	Device representative DataBlock number
InputOffset	Tango::DEV_LONG	Input offset of the beginning of the data in the DB
InputLength	Tango::DEV_SHORT	Input length of the data in the DB
OutputOffset	Tango::DEV_LONG	Output offset of the beginning of the data in the DB
OutputLength	Tango::DEV_SHORT	Output length of the data in the DB
HardwarePollingTime	Tango::DEV_LONG	variables will be refreshed by hardware reading every HardwarePollingTime. given in : 1/10 sec. example : 34 sec gives 3.4 sec between hardware reading accesses Default : 10 (1 second

Device Properties Default Values:

Property Name	Default Values
Url	No default value
DBNumber	No default value
InputOffset	No default value
InputLength	No default value
OutputOffset	No default value
OutputLength	No default value
HardwarePollingTime	No default value

There is no Class properties.

States:

States	
Names	Descriptions
UNKNOWN	Communication is broken
ALARM	The water flow is below the normal value. Read from BSV_Alarme
ON	The water flow is normal. (BSV_Alarme= False

Attributes:

Scalar Attributes			
Attribute name	Data Type	R/W Type	Expert
OutgoingSecurity: Read from BSV_SecuriteSortante = 1 security ON	DEV_SHORT	READ_WRITE	No
isOutGoingSecurityEnabled: true if outgoing security is enabled the waterflow meter can generate a vacuum interlock	DEV_BOOLEAN	READ	No
isAlarmActive: true if alarm is active	DEV_BOOLEAN	READ	No

Commands:

More Details on commands....

Device Commands for Operator Level		
Command name	Argument In	Argument Out
Init	DEV_VOID	DEV_VOID
State	DEV_VOID	DEV_STATE
Status	DEV_VOID	CONST_DEV_STRING
EnableOutGoingSecurity	DEV_VOID	DEV_VOID
DisableOutGoingSecurity	DEV_VOID	DEV_VOID

1 - Init

- **Description:** This commands re-initialise a device keeping the same network connection.
After an Init command executed on a device, it is not necessary for client to re-connect to the device.
This command first calls the device *delete_device()* method and then execute its *init_device()* method.
For C++ device server, all the memory allocated in the *nit_device()* method must be freed in the *delete_device()* method.
The language device desctructor automatically calls the *delete_device()* method.
- **Argin:**
DEV_VOID : none.
- **Argout:**
DEV_VOID : none.
- **Command allowed for:**
 - Tango::UNKNOWN
 - Tango::ALARM

- Tango::ON

2 - State

- **Description:** This command gets the device state (stored in its *device_state* data member) and returns it to the caller.
- **Argin:**
DEV_VOID : none.
- **Argout:**
DEV_STATE : State Code
- **Command allowed for:**
 - Tango::UNKNOWN
 - Tango::ALARM
 - Tango::ON

3 - Status

- **Description:** This command gets the device status (stored in its *device_status* data member) and returns it to the caller.
- **Argin:**
DEV_VOID : none.
- **Argout:**
CONST_DEV_STRING : Status description
- **Command allowed for:**
 - Tango::UNKNOWN
 - Tango::ALARM
 - Tango::ON

4 - EnableOutGoingSecurity

- **Description:** Declares the flowmeter as a security element Acts on BSC_SeuriteSortante
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::UNKNOWN
 - Tango::ALARM
 - Tango::ON

5 - DisableOutGoingSecurity

- **Description:** Removes the flowmeter from the security elements list Acts on BSC_SeuriteSortante
 - **Argin:**
DEV_VOID :
 - **Argout:**
DEV_VOID :
 - **Command allowed for:**
 - Tango::UNKNOWN
 - Tango::ALARM
 - Tango::ON
-

ESRF - Software Engineering Group



TANGO
Device
Server

WaterFlowMeter User's Guide

WaterFlowMeter Class

Revision: release_1_0_1 - Author: coquet
Implemented in C++

Introduction:

Retrieves the state of a water flowmeter

Class Inheritance:

- Tango::Device_3Impl
 - WaterFlowMeter

Properties:

Device Properties

Property name	Property type	Description
Url	Tango::DEV_STRING	Device name of the PLC Server
DBNumber	Tango::DEV_LONG	Device representative DataBlock number
InputOffset	Tango::DEV_LONG	Input offset of the beginning of the data in the DB
InputLength	Tango::DEV_SHORT	Input length of the data in the DB
OutputOffset	Tango::DEV_LONG	Output offset of the beginning of the data in the DB
OutputLength	Tango::DEV_SHORT	Output length of the data in the DB
HardwarePollingTime	Tango::DEV_LONG	variables will be refreshed by hardware reading every HardwarePollingTime. given in : 1/10 sec. example : 34 sec gives 3.4 sec between hardware reading accesses Default : 10 (1 second

Device Properties Default Values:

Property Name	Default Values
Url	No default value
DBNumber	No default value
InputOffset	No default value
InputLength	No default value
OutputOffset	No default value
OutputLength	No default value
HardwarePollingTime	No default value

There is no Class properties.

States:

States	
Names	Descriptions
UNKNOWN	Communication is broken
ALARM	The water flow is below the normal value. Read from BSV_Alarme
ON	The water flow is normal. (BSV_Alarme= False

Attributes:

Scalar Attributes			
Attribute name	Data Type	R/W Type	Expert
OutgoingSecurity: Read from BSV_SecuriteSortante = 1 security ON	DEV_SHORT	READ_WRITE	No
isOutGoingSecurityEnabled: true if outgoing security is enabled the waterflow meter can generate a vacuum interlock	DEV_BOOLEAN	READ	No
isAlarmActive: true if alarm is active	DEV_BOOLEAN	READ	No

Commands:

More Details on commands....

Device Commands for Operator Level		
Command name	Argument In	Argument Out
Init	DEV_VOID	DEV_VOID
State	DEV_VOID	DEV_STATE
Status	DEV_VOID	CONST_DEV_STRING
EnableOutGoingSecurity	DEV_VOID	DEV_VOID
DisableOutGoingSecurity	DEV_VOID	DEV_VOID

1 - Init

- **Description:** This commands re-initialise a device keeping the same network connection.
After an Init command executed on a device, it is not necessary for client to re-connect to the device.
This command first calls the device *delete_device()* method and then execute its *init_device()* method.
For C++ device server, all the memory allocated in the *nit_device()* method must be freed in the *delete_device()* method.
The language device desctructor automatically calls the *delete_device()* method.
- **Argin:**
DEV_VOID : none.
- **Argout:**
DEV_VOID : none.
- **Command allowed for:**
 - Tango::UNKNOWN
 - Tango::ALARM

- Tango::ON

2 - State

- **Description:** This command gets the device state (stored in its *device_state* data member) and returns it to the caller.
- **Argin:**
DEV_VOID : none.
- **Argout:**
DEV_STATE : State Code
- **Command allowed for:**
 - Tango::UNKNOWN
 - Tango::ALARM
 - Tango::ON

3 - Status

- **Description:** This command gets the device status (stored in its *device_status* data member) and returns it to the caller.
- **Argin:**
DEV_VOID : none.
- **Argout:**
CONST_DEV_STRING : Status description
- **Command allowed for:**
 - Tango::UNKNOWN
 - Tango::ALARM
 - Tango::ON

4 - EnableOutGoingSecurity

- **Description:** Declares the flowmeter as a security element Acts on BSC_SeuriteSortante
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::UNKNOWN
 - Tango::ALARM
 - Tango::ON

5 - DisableOutGoingSecurity

- **Description:** Removes the flowmeter from the security elements list Acts on BSC_SeuriteSortante
 - **Argin:**
DEV_VOID :
 - **Argout:**
DEV_VOID :
 - **Command allowed for:**
 - Tango::UNKNOWN
 - Tango::ALARM
 - Tango::ON
-

ESRF - Software Engineering Group

Frame Alert

This document is designed to be viewed using the frames feature. If you see this message, you are using a non-frame-capable web client.
[Link to Non-frame version.](#)



TANGO
Device
Server

WaterFlowMeter

Device Commands Description

WaterFlowMeter Class

Revision: release_1_0_1 - Author: coquet

1 - Init

- **Description:** This commands re-initialise a device keeping the same network connection. After an Init command executed on a device, it is not necessary for client to re-connect to the device.
This command first calls the device *delete_device()* method and then execute its *init_device()* method.
For C++ device server, all the memory allocated in the *nit_device()* method must be freed in the *delete_device()* method.
The language device desctructor automatically calls the *delete_device()* method.
- **Argin:**
DEV_VOID : none.
- **Argout:**
DEV_VOID : none.
- **Command allowed for:**
 - Tango::UNKNOWN
 - Tango::ALARM
 - Tango::ON

2 - State

- **Description:** This command gets the device state (stored in its *device_state* data member) and returns it to the caller.
- **Argin:**
DEV_VOID : none.
- **Argout:**
DEV_STATE : State Code

- **Command allowed for:**
 - Tango::UNKNOWN
 - Tango::ALARM
 - Tango::ON

3 - Status

- **Description:** This command gets the device status (stored in its *device_status* data member) and returns it to the caller.
- **Argin:**
DEV_VOID : none.
- **Argout:**
CONST_DEV_STRING : Status description
- **Command allowed for:**
 - Tango::UNKNOWN
 - Tango::ALARM
 - Tango::ON

4 - EnableOutGoingSecurity

- **Description:** Declares the flowmeter as a security element Acts on BSC_SeuriteSortante
- **Argin:**
DEV_VOID :
- **Argout:**
DEV_VOID :
- **Command allowed for:**
 - Tango::UNKNOWN
 - Tango::ALARM
 - Tango::ON

5 - DisableOutGoingSecurity

- **Description:** Removes the flowmeter from the security elements list Acts on BSC_SeuriteSortante
- **Argin:**
DEV_VOID :

- **Argout:**
DEV_VOID :

- **Command allowed for:**
 - Tango::UNKNOWN
 - Tango::ALARM
 - Tango::ON

ESRF - Software Engineering Group