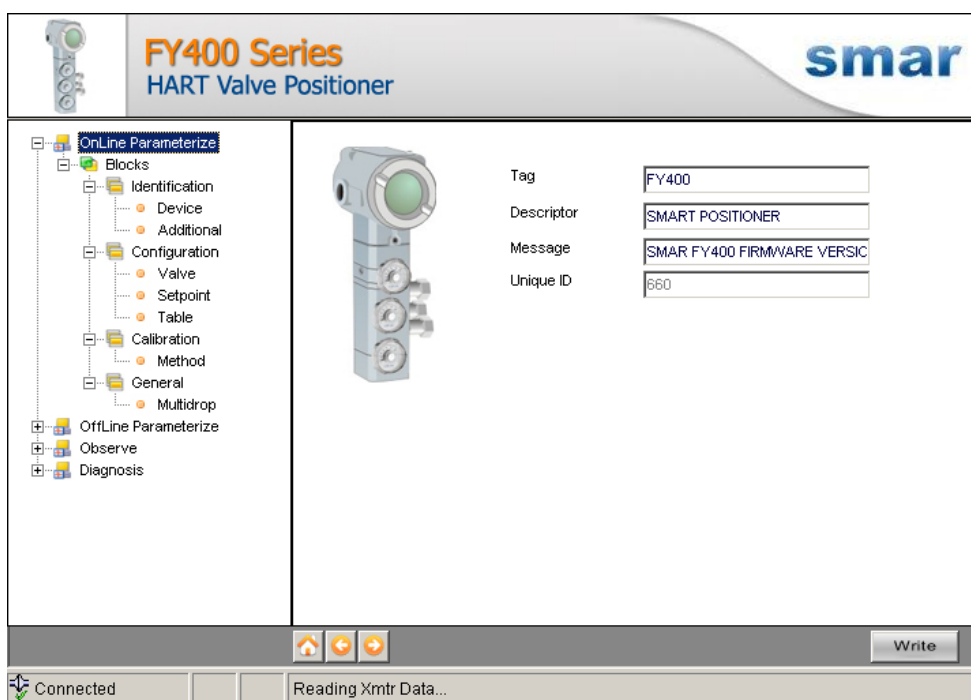


FY400DTM - Device Type Manager





Specifications and information are subject to change without notice.
Up-to-date address information is available on our website.

web: www.smar.com/contactus.asp

INTRODUCTION

FY400DTM is from the family of Smar's DTMs HART. With FY400DTM is possible to have access to many functionalities of FY400 positioner:

- ✓ Positioner Identification and Manufacturing Data.
- ✓ Pressure Trim.
- ✓ Current Trim.
- ✓ Table.
- ✓ Valve Automatic Setup.
- ✓ Diagnostic.
- ✓ Equipment Configuration.
- ✓ Equipment Maintenance.

For further details about topics above, refer to the FY400 manual.

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FY400DTM

Pre - Requirements

The user needs to be familiar with the use of frame application FDT (Field Device Tool).

Installation

To do the FY400DTM Installation and all Smar's DTMs, run **setup.exe** from CD "**Smar Device Library**". After ending the CD-ROM installation, get into DTMs catalog from frame application to update DTMs list.

The download of installation package of Smar's DTMs can be done at <http://www.smar.com/support.asp>. The user has to do a login at site.

FY400DTM could be integrated in all frame applications in compliance with the version 1.2 of the FDT/DTM standard.

Topology

After FY400DTM is installed and included at DTMs frame application catalog, a DTMs topology must be mounted (representing the devices physical topology).

On top must be inserted the communication DTM (responsible for communication between the computer and the first element from physical topology). The FY400DTM is the last element of topology (represents the FY400).

In some cases, is necessary a DTM gateway type (responsible for communication protocol conversion). The FY400DTM could be used with Communication DTM and Gateway DTM from other manufacturers, if they comply with the FDT 1.2 standard.



Figure 1 – “Add Device” Screen

Before changing FY400DTM to online, verify in the topology, if the address set in FY400DTM is the same of the FY400 device address. If it is not, change to the correct address through the communication DTM.

While the FY400DTM is offline (not connected), only the option **Offline Parameterize** will be enabled. After connected, will be possible to have online access to many functionalities of FY400:

- Online Parameterize
- Observe
- Diagnosis

Layout

The DTM's from Smar follow a standard layout. The parameters are distributed in many screens according to its functionality. The screens can be accessed by clicking the DTM options. Every time you click an option, all the screen parameters relative to the selected option will be read from the instrument.

Each DTM screen with parameters that can be written has a **Write** button. When any parameter is modified, the relative field will change its color. After writing, the DTM realizes the reading of the changed parameters and updates the screen.

In the figure below, the FY400DTM Online Parameterization navigation tree can be seen. The other options also appear.

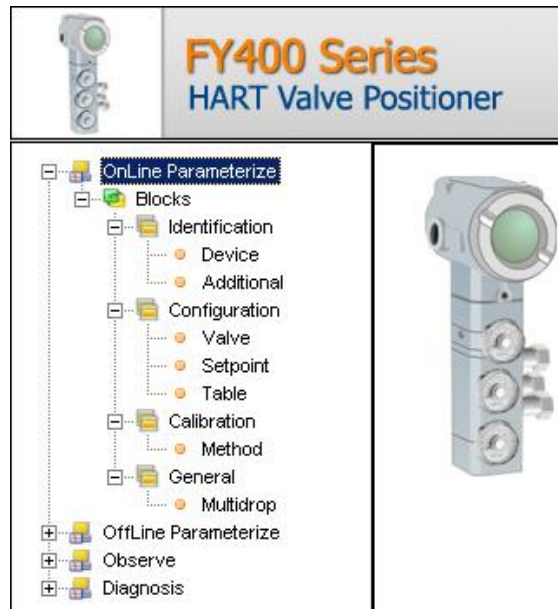


Figure 2 – FY400DTM navigation tree

In the window's bottom part the user has access to navigation buttons . They allow go to home page, back to previous page or go to next page, respectively.

The communication status can be verified - connected or disconnected:



Communication

FY400DTM sends the #0 command at each 4 seconds and in case FY400 does not answer after 2 tries, the following message will appear: *"Communication error detected. No response from device."* In this case, verify if any connection is broken or if the device is off.

Is not possible read / write any parameter in case the connected equipment is not FY400, not even the Universal Commands and Common Practice of HART protocol.

Response Code

When any writing or reading fails occurs, the FY400DTM displays a message coming from Response Code sent by FY400.

FY400DTM Functions

Below we have a brief description about each FY400DTM function.

1. **Online Parameterize** – This function is used to make the FY400 online parameterization, is enabled when the FY400DTM is online. The user access level for this function is “Operator” (read only) and “Maintenance” (complete access).

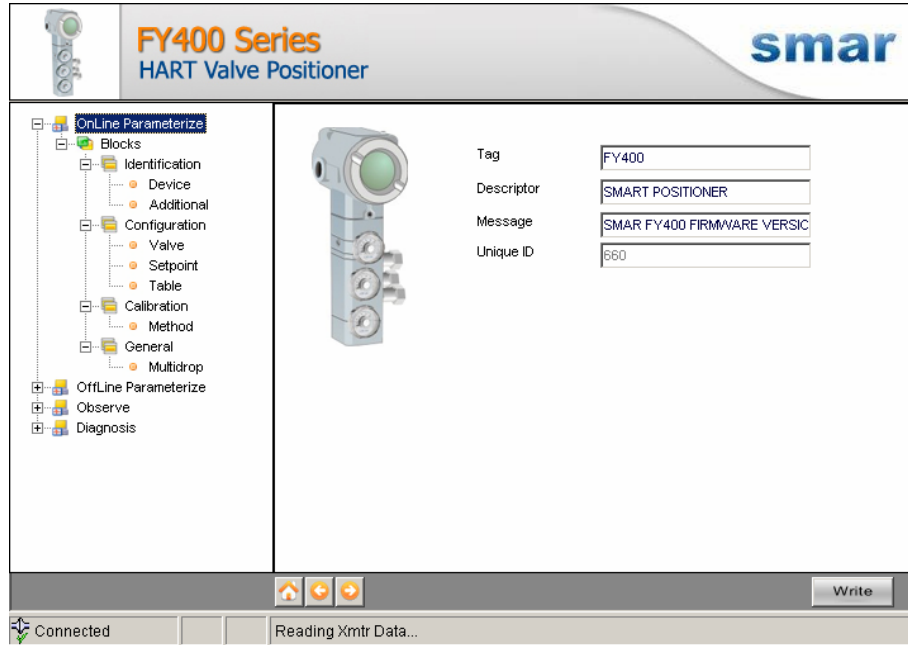


Figure 3 – FY400DTM “Online Parameterize” Screen

2. **Offline Parameterize** - This function is used to make the FY400 offline parameterization, the parameter values configured in this function can be written in FY400 through the **Download** function. The user access level for this function is “Maintenance”.



Figure 4 – FY400DTM “Offline Parameterize” Screen

3. **Observe** – Through this function is possible to monitor the FY400 process variables: Input (mA), Input (%), PV (%), SP (%). The user chooses four variables to monitor and have access to the graphics: Deviation, Load Factor, Travel Histogram, Analysis, Valve Signature and PST. This function is enabled when the FY400DTM is online. The user access level for this function is “Operator”.

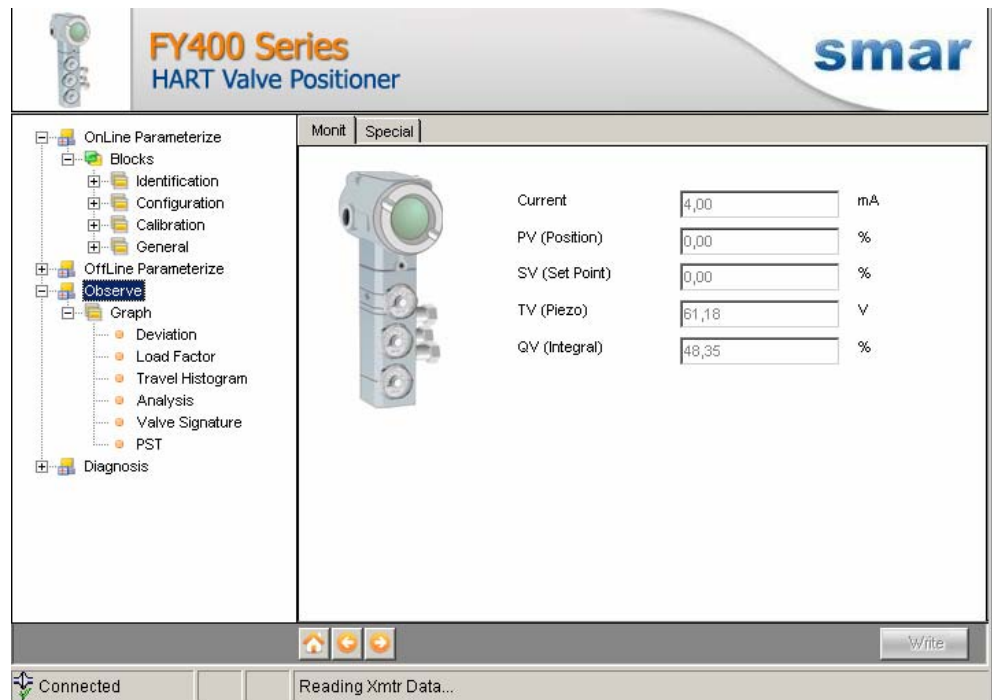


Figure 5 – FY400DTM “Observe” Screen

4. **Diagnosis** – Through this function the user has access to the FY400 diagnostic parameters. This function is enabled when the FY400DTM is online. The user access level for this function is “Operator”.

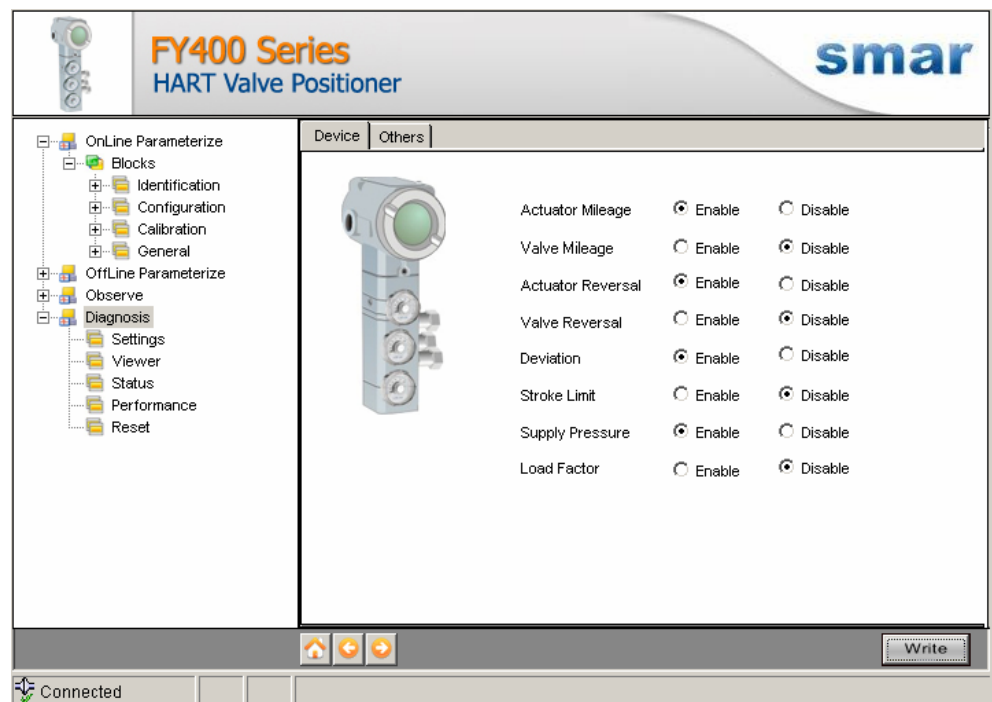


Figure 6 – FY400DTM “Diagnosis” Screen

5. **Upload** - This function reads the FY400 parameters and updates the FY400DTM database with the recent values. This function is enabled when the FY400DTM is online. The user access level for this function is "Maintenance".
6. **Download** - This function writes the parameters configured in the FY400 **Offline Parameterize** function. This function is enabled when the FY400DTM is online. The user access level for this function is "Maintenance".

