

# **Z-SW RELEASE NOTES**

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FOR AXIS CONTROLS



## Z-SW 3.6 (February 2021)

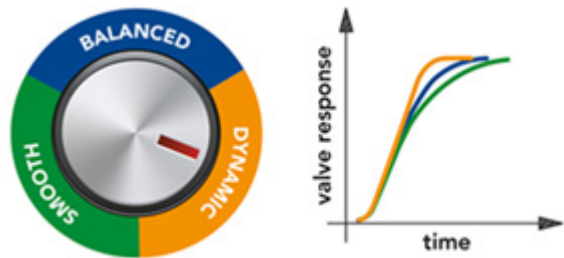
Main new features:

### 1. Support for DPZO piloted proportionals with SMART TUNING functionality

The innovative functionality Smart tuning is now available also for DPZO piloted proportionals with on-board electronics LEZ !

Smart tuning consists in multiple dynamic configuration that allows Atos proportionals to adapt their functional characteristics to any application or specific phase of the working cycle, thus simplifying the system start up:

- **DYNAMIC** fast response time and high sensitivity for best dynamic performances. This is the default setting, and it corresponds to the current configuration of the valves with on-board electronics LEZ
- **BALANCED** average response time and sensitivity suitable for several not particularly demanding applications
- **SMOOTH** attenuated response time and sensitivity to improve control stability in critical applications or in environments with electrical disturbances



## Z-SW 3.7 (February 2022)

Main new features:

### 1. Support for P/Q logics optimization for axis controls with SF, SL executions

Support for new improved P/Q algorithm which adds the “Only Pull” mode in order to allow force limitation just with negative flow reference, introduced from firmware version Z22 for TEZ/LEZ and K22 for Z-BM-KZ.

### 2. Minor bug fixes and improvements

## Z-SW 3.8 (January 2023)

Main new features:

### 1. New asymmetric Velocity Feed Forward for axis position control

Added support for asymmetric Velocity Feed Forward from firmware versions Z23.0 for all TEZ/LEZ executions and K23.0 for Z-BM-KZ. This new functionality allows to have a different gain for forward and backward movement increasing axis position control performance.

### 2. Minor bug fixes and improvements

## Z-SW 4.0 (October 2023)

Main new features:

### 1. New Autotuning for axis position control

Added support for Smart Start-up procedure with Position Autotuning from firmware versions Z24.0 for all TEZ/LEZ executions and K24.0 for Z-BM-KZ. This new procedure does not require any specific knowledge in PID tuning to perform the axis control commissioning.

The Smart Start-up is composed by three main guided phases:

- **GENERAL SETTING:** It assists the user in system data setup, as like cylinder stroke, diameters, load mass, configure analog/digital signals and communication interface, position transducer setup.
- **SYSTEM CHECK:** It automatically executes position open loop movements to set axis control parameters, position transducer calibration and verify cylinder stroke.
- **POSITION AUTOTUNING:** It automatically determines the optimal PID parametrization of the position control adapting the dynamic response to guarantee control precision and axis stability. Once the procedure is started, the control performs few automatic position open loop movements of the actuator, during which control parameters are calculated and stored.

### 2. Minor bug fixes and improvements

## Z-SW-SETUP 5.0 (July 2024)

The Z-SW-FULL software is now being replaced by a version named **Z-SW-SETUP**.

Z-SW-SETUP is completely free of charge and it no longer requires an activation code, the user has just to register to MyAtos and download it.

Main new features:

### 1. Support for the new E-A-BTH Bluetooth adapter

E-A-BTH adapter can be left permanently installed on the valves to allow the Bluetooth connection at any time, since is an IP 66/67 device. The adapter can be purchased either as a single item or as part of the valve.

### 2. New Connection page

The graphics on the initial Connection page have been updated to simplify use and the wizard has been optimized to reduce the time required to connect to the valve/axis controls.

### 3. Home Page

The home page has been redesigned for a better user experience.

### 4. Minor bug fixes and improvements

## Z-SW-SETUP 5.1 (October 2024)

Main new features:

### 1. **Dynamic Bluetooth scanning**

During the search, Atos Bluetooth devices are displayed as soon as they are detected. It is no longer necessary to wait for the search to end, but you will be able to connect to the desired device as soon as it is detected.

### 2. **Minor bug fixes and improvements**

