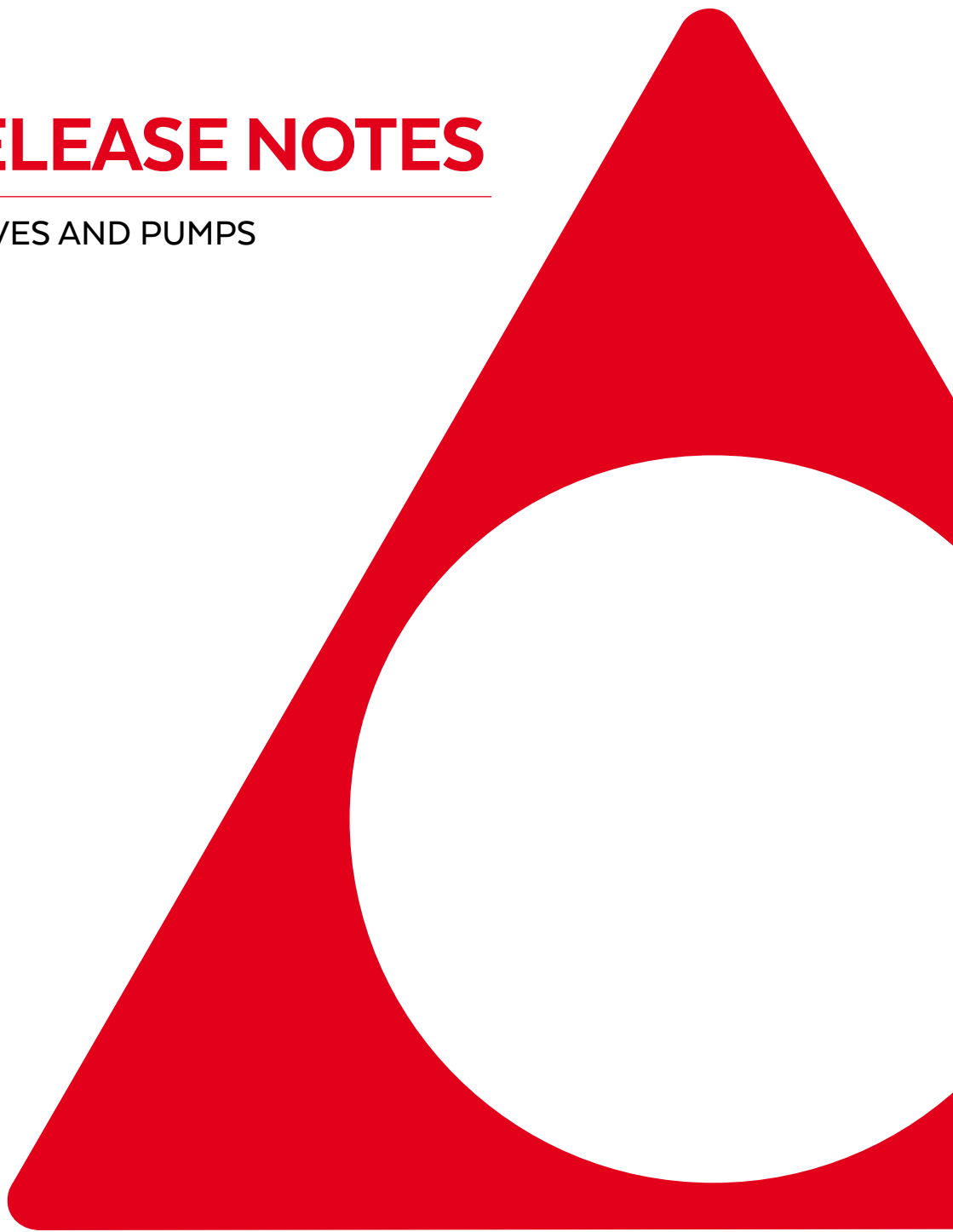


# **E-SW RELEASE NOTES**

---

FOR DIGITAL VALVES AND PUMPS



## E-SW 9.0 (February 2021)

Main new features:

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

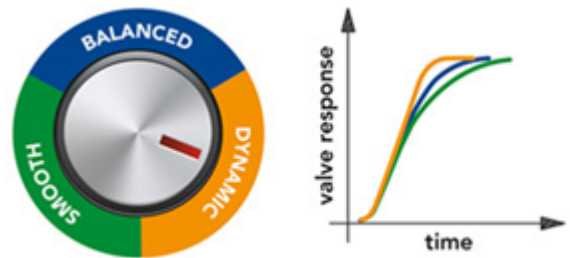
The innovative functionality Smart tuning is now available also for DPZO piloted proportionals with on-board electronics LEB / LES !

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 LEB / LES

**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



## E-SW 9.1 (February 2022)

Main new features:

### 1. Support for TEB/LEB valves with new IO-Link communication

The IO-Link overcomes the limits of analog connections in hydraulics by using a point-to-point communication through a single unshielded molded cable for valve power supply and digital communication with the machine central unit. A smart technology that reduces commissioning time, simplifies diagnostics and meets Industry 4.0 requirements simultaneously.

Servoproportional & high performance directionals plus flow control valves available with new IO-Link communication are DLHZO/DLKZOR, DHZO/DKZOR, QVHZO/QVKZOR, DPZO and LIQZP.

### 2. Support for P/Q logics optimization for valves with SP, SF, SL executions

Support for new improved P/Q algorithm which adds the “Only Pull” mode in order to allow pressure / force limitation just with negative flow reference, introduced from firmware version S22 for TES/LES.

### 3. Minor bug fixes and improvements

## E-SW 9.2 (September 2022)

Main new features:

### 1. Support for “LIQZO compatibility” functionality for new LIQZP 2 way, sizes 25÷40

The new LVDT main stage transducer with Pmax 420 bar and rugged design equips LIQZP proportional cartridges sizes 16÷40 and DPZO pilot operated directional valves.

The new LVDT transducer offers better linearity than the previous one, but this involves a difference in the regulation characteristic compared to the LIQZO.

In fact, due to the non-linear characteristic of the previous LVDT version, **for low reference signals** the new LIQZP cartridges perform a more gradual opening of the poppet which corresponds to a smaller flow rate. This difference is progressively reduced as the reference signal increases, until it is zeroed at the maximum opening of the valve, where LIQZO and LIQZP perform the same flow rate.

This phenomenon is particularly evident for **LIQZP 2-way sizes 25÷40**, while for other versions there are no significant variations with LIQZO. In order to minimize any interchangeability problem, **a new firmware / software feature has been created for LIQZP 2-way size 25÷40 to reproduce the flow regulation curve of corresponding LIQZO.**

When the LIQZP 2 way (sizes 25÷40) is connected via USB or Bluetooth to the E-SW at Level 2, the software shows in the Home Page the selection "**LIQZO compatibility**". When this functionality is activated, the new LIQZP will behave like the LIQZO. Default setting of the functionality is “OFF”, but customers will be able to switch it “ON” any time.

For DPZO the above functionality haven't been introduced as there are no appreciable differences in the regulation characteristic between the new and the old series.

Only for DPZO-6 and 8 the difference is slightly more evident, but it can be compensated by means of the “Linearization” software functionality, if required.

### 2. Software level change for the frequently used features

The most frequently used functionalities has been moved from software level 2 to level 1, in order to provide a simpler and faster access to them. The functionalities added at level 1 are:

- Reference Analog Range
- Monitor Output
- Alarm Management
- Smart Tuning

### 3. Minor bug fixes and improvements

## E-SW 9.3 (January 2023)

Main new features:

### 1. Support for new drivers E-BM-TEB/LEB series 20

E-BM-TEB/LEB series 20 are basic digital driver with analog reference/monitor, designed to drive directional & flow proportional valves with LVDT transducers, direct or pilot operated. They replace current executions of E-BM-TEB/LEB series 10 and E-BM-TID/LID series 10, which will be moved to phase-out status from January 2023.

E-BM-TEB/LEB series 20 performance and options are unchanged respect series 10, while it has different electrical pinout and a width of 23 mm shorter.

### 2. Minor bug fixes and improvements

## E-SW-SETUP 10.0 (July 2024)

The E-SW-BASIC, E-SW-BASIC/PQ, E-SW-FIELDBUS, E-SW-FIELDBUS/PQ software are now being replaced by a single version named **E-SW-SETUP**.

E-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 AEB and REB valves with IO-Link communication

The IO-Link communication has been extended to AEB proportional directional, flow, pressure valves and REB high performance pressure valves, for both direct and pilot operated executions!

They complete the proportional IO-Link valve range by joining TEB/LEB servoproportional & high performance directionals.

The IO-Link overcomes the limits of analog connections in hydraulics by using a point-to-point communication through a single unshielded moulded cable for valve power supply and digital communication with the machine central unit. A smart technology that reduces commissioning time, simplifies diagnostics and meets Industry 4.0 requirements simultaneously.

### 2. 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, since by specifying /T option in the model code the adapter will be included in valve package.

**NOTE: option /T is NOT available for Indian market due to local regulations**, thus in India E-A-BTH adapter has to be purchased separately from valve.

### 3. 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/driver.

### 4. Home Page

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

### 5. Minor bug fixes and improvements

## E-SW-SETUP 10.1 (October 2024)

Main new features:

### 1. Dynamic Bluetooth scanning

During the search, Atos Bluetooth adapters 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

