**STEPS**

**STEP 1**
- **Cable HYDRAULICS**: E-A-SB-USB/OPT
- **AGND**
- **Q_INPUT+**
- **Isolator**
- **Q_MONITOR**
- **ENABLE/Q/Z**
- **V0**
- **Q_MONITOR**
- **FAULT/Z**
- **AGND/V0**

**STEP 2**
- **V0**: metallic
- **Q_MONITOR**: ENABLE/V/Z
- **Q_INPUT+**: V+ 2
- **EARTH NC**

**STEP 3**
- **INSTALLATION TOOLS ACCORDING TO VALVE MODEL**
- **P005**
- **FS178**
- **FS175**
- **DOWNLOAD AREA**
- **RELATED DOCUMENTATION**
- **DOWNLOAD**
- **FREE SOFTWARE**

**STEP 4**
- **ELECTRICAL**
- **WARNING**: Never apply power supply before any electrical or wiring operations.
- **WARNING**: A safety fuse is required in series to the power supply - 2.5 A time lag fuse.

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**COMPONENTS**

**Download Area**
- E-SW-BASIC
- Free basic software can be downloaded at www.atos.com

**Software**
- USB connection KIT
- USB cable connection KIT

**Interface**
- E-SW-BASIC
- Free basic software can be downloaded at www.atos.com

** REMARK**
- Atos software is designed for Windows based operating systems - Windows XP, SP3 or later

**ATTENTION**
- The purpose of this quickstart guide is show a logical sequence of basic operations. This guide does not cover all details or variants of Atos valves. All operations described in this document should be performed only by qualified personnel.
- For further information please refer to related documentation.

**CONTACT**
- Atos SpA - Italy: 21016 Sezio Calendoni
- www.atos.com
- support@atos.com

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**INSTALLATION**

**MECHANICAL**
- Fastening bolts
- Wrenches
- Main connectors
- see STEP 1 and STEP 3

**ELECTRICAL**
- Fastening bolts
- Wrenches
- Main connectors
- see STEP 1 and STEP 3

**HYDRAULICS**
- Fastening bolts
- Wrenches
- Main connectors
- see STEP 1 and STEP 3

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**ELECTRICAL WIRING EXAMPLES**

**MAIN CONNECTOR - VOLTAGE**
- REFERENCE INPUT - DIFFERENTIAL MODE
- REFERENCE INPUT - COMMON MODE

**MAIN CONNECTOR - CURRENT**
- REFERENCE INPUT - DIFFERENTIAL MODE
- REFERENCE INPUT - COMMON MODE

**MONITOR OUTPUT**
- REFERENCE INPUT - DIFFERENTIAL MODE
- REFERENCE INPUT - COMMON MODE

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**INFORMATION**

- Cabinet side main connector
- Cabinet side main connector
- Cabinet side main connector
- Cabinet side main connector

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**REFERENCE**

- Valve size ISO 4401: 4401-10-09-0-05
- DPZO-LEB-8 T-491-Z
- DPZO-LEB-8 T-491-Z
- DPZO-LEB-8 T-491-Z

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**SOFTWARE**
- Update 02-20
- Made in Italy
BIAS AND SCALE - 2 POSITION VALVES

Bias setting: apply input signal just over the Threshold value; increase the Bias until the actuator is start moving, then lightly reduce the Bias just to stop the actuator

Scale setting: apply the max input signal; adjust the Scale to obtain the max actuator speed

BIAS AND SCALE - 3 POSITION VALVES

Follow the same indications reported for 2 position valves for both valve’s solenoids

OFFSET AND SCALE - 3 POSITION VALVES, ZERO OVERLAP

Offset setting: supply the input signal equal to 0%; adjust the Offset until the actuator is stopped

Scale setting: apply the max input signal (positive/negative); adjust the Scale to obtain the max actuator speed in both directions

RAMPS

Ramp setting: select the required ramp configuration and adjust the ramp time to optimize the actuator’s acceleration and deceleration

No Ramp: no ramps selected

Single Ramp: setup Ramp 1

Four Ramps: setup Ramp 1, 2, 3 and 4 (only 3 way)

TROUBLESHOOTING

Valve vibration or noise
- presence of air in the solenoid; perform air bleeding procedure – see STEP 3

The valve does not follow the reference signal
- valve is powered off, verify presence of 24 Vdc power supply
- valve is disabled, verify presence of 24 Vdc on enable pin - only for I2 and I3 options
- input pressure exceeding the valve’s performance limits, verify that hydraulic operating conditions are in compliance with the valve’s characteristics
- wrong pilot/drain configuration – check if the pilot/drain configuration of the valve corresponds to the effective system layout
- missing pilot/hole configuration – check if the pilot/drain configuration of the valve corresponds to the effective system layout

Software parameters modifications are lost when valve is switched off
- parameter store operation was not performed, check store procedure – see STEP 4, section 4.3

Software parameters modifications have no effect on the valve
- valve is OFF LINE, check connection procedure – see STEP 4, section 4.1

After the modifications of software parameters the valve does not work properly
- valve is OFF LINE, check connection procedure – see STEP 4, section 4.1

- during tests, the current to the solenoid(s) will be temporarily switched to off
- factory parameters will be applied at next driver restart or after power off/on sequence

Parameter modifications will be stored into driver permanent memory

Parameter modifications will be stored into PC memory

WARNING: During valve parameters storing operations, the driver automatically shuts down the solenoid power supply for a short time. Do not perform any actuating command while the system is working.

NOTE: Bluetooth adapter available
For more info please refer to STARTUP-SET guide

REMARC: once the USB cable E-SW-BUS/M12 across the plastic protection cap P3 applying the correct tightening torque, in order to preserve valve’s IP protection characteristics

REMARC: once removed the USB cable E-SW-BUS/M12 across the plastic protection cap P3 applying the correct tightening torque, in order to preserve valve’s IP protection characteristics

Press Voltage Standard button to automatically set the analog input signal to voltage

Press Current 4...20 mA button to automatically set the analog input signal to current

Parameter modifications will be stored into driver permanent memory

Parameter modifications will be stored into PC memory

Press Memory Store button to access Driver - Memory Store window

Press Store User button to access parameters

Press Save button to access Computer SW Archive - Setting Files page

Setting File Name pop-up appears. Insert a valid name and press Ok button

WIZARD REFERENCE - E-SW level 2 functionality

Reference input signal is factory preset according to selected valve code, default are ±10 Vdc for standard and ±4...20 mA for I option. Input signal can be reconfigured via software selecting between voltage and current, browsing to Reference Analog Range page:

voltage Standard

Current 4...20 mA

REMARC: Voltage Standard or Current 4...20 mA button do not act on Monitor output signal configuration!
For Monitor output signal configuration browse to pages Others - Monitor Outputs

STEP 4 SOFTWARE

REMARC: proportional valves with integral electronics are factory preset with default parameter and ready to use after piping and electrical connections. (Pay with parameters is optional, not mandatory)