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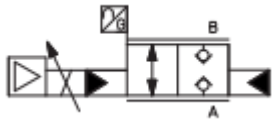
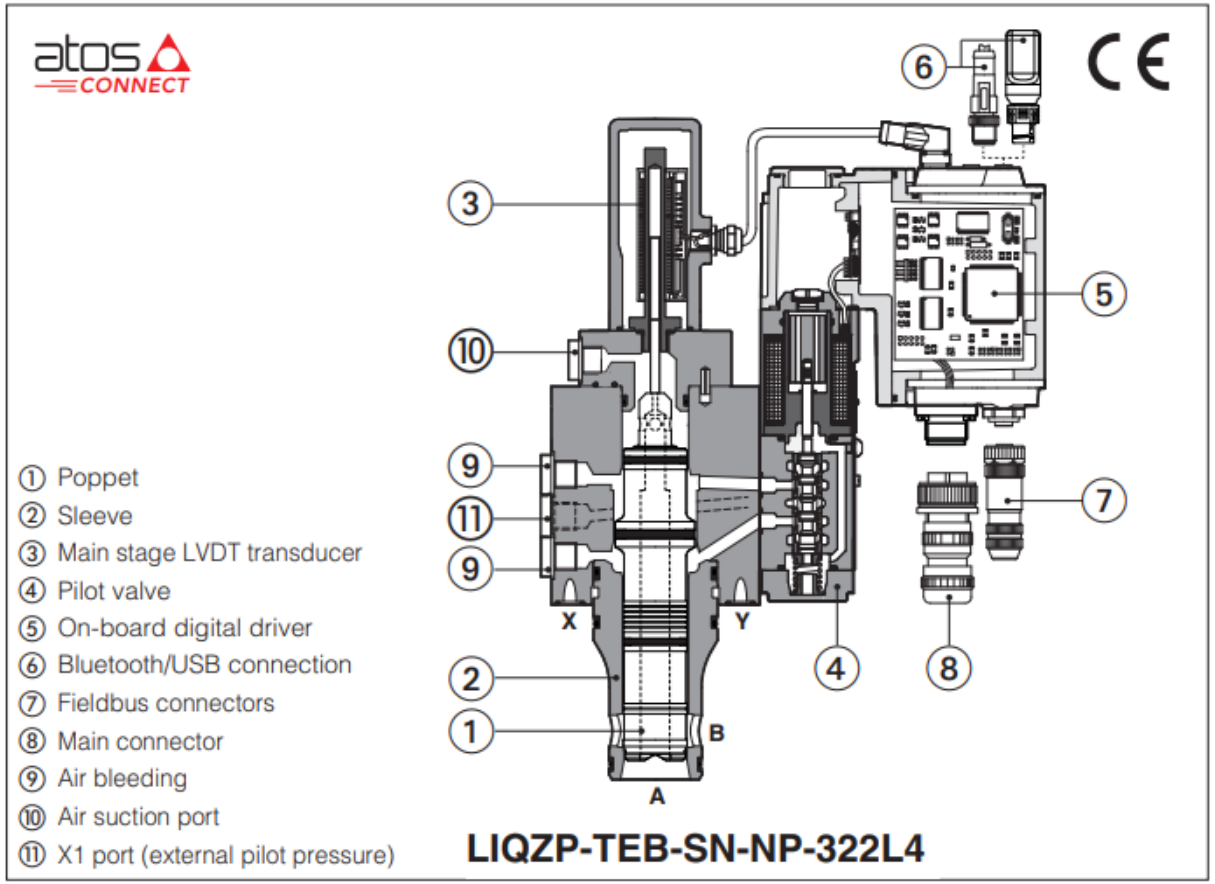
Service Center Training

Servoproportional cartridges

LIQZP-TEB-*2L4

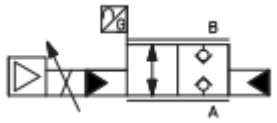


Digital proportional 2-way cartridges, piloted, with on-board driver and **one LVDT** transducers (main stage).



Size: **16** ÷ **100** - ISO 7368
Max flow: **600** ÷ **16000 l/min**
Max pressure: **420 bar**

LIQZP-LE*-*2L4



Digital servoproportional 2-way cartridges, piloted, with on-board driver and **two LVDT** transducers (main stage and pilot).

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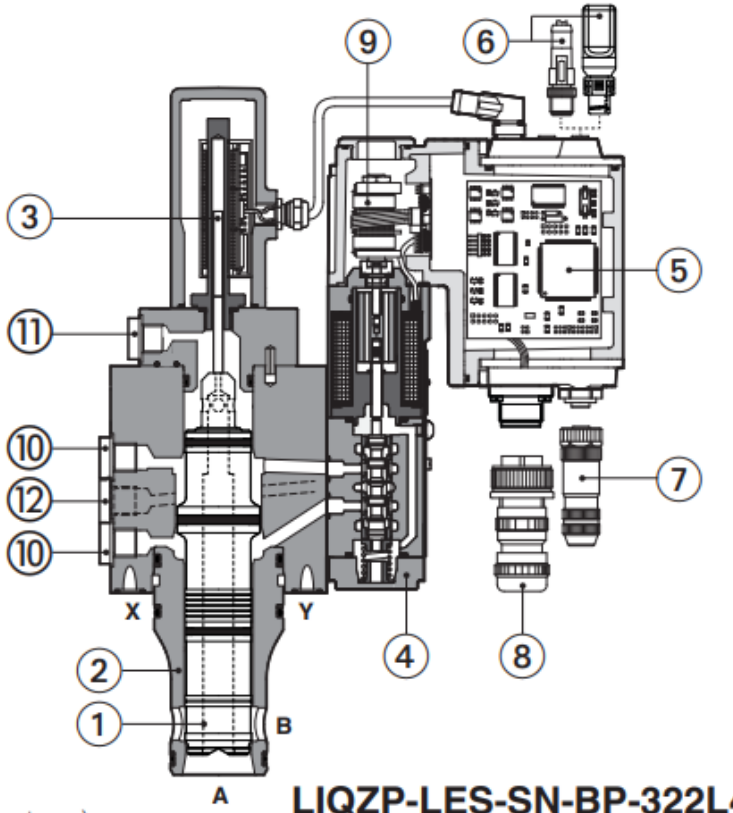
SMART TUNING



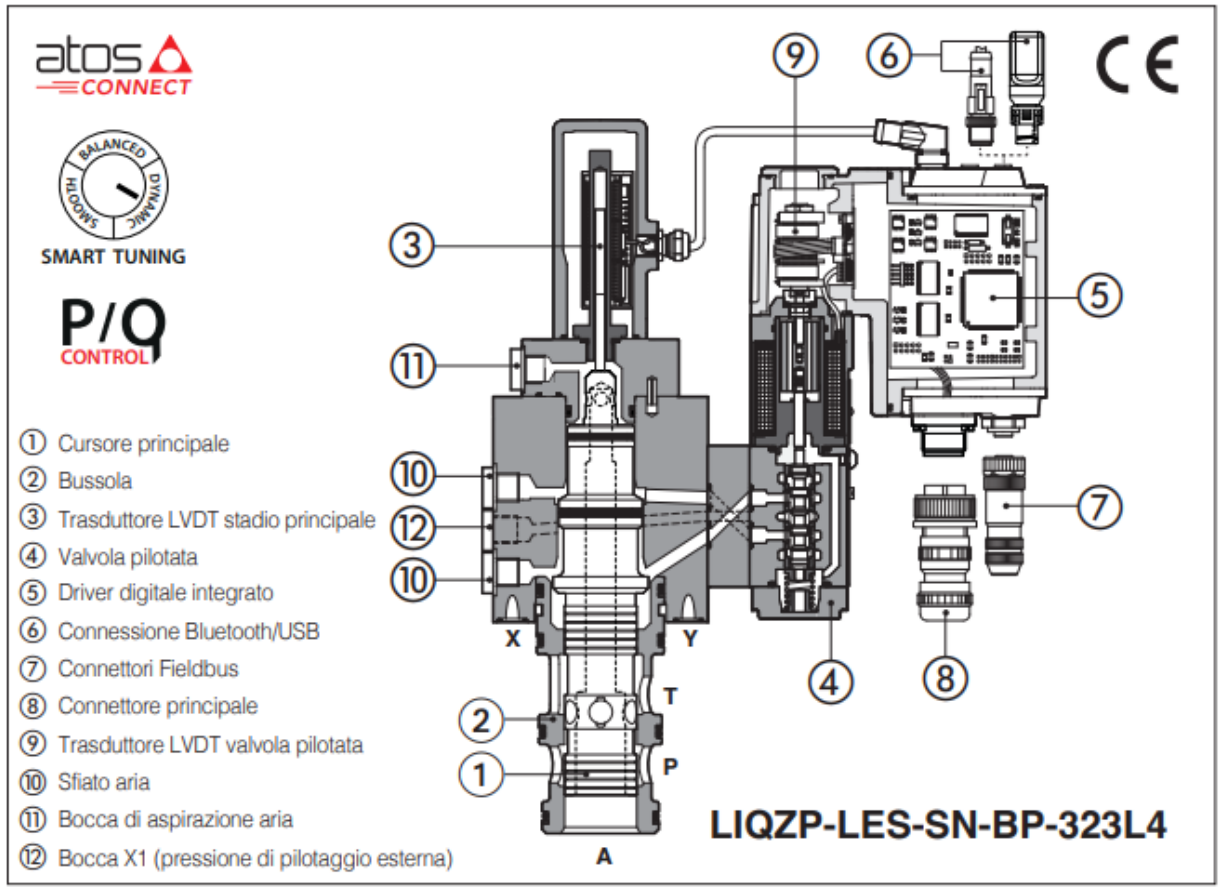
① Otturatore
② Bussola
③ Trasduttore LVDT stadio principale
④ Valvola pilota
⑤ Driver digitale integrato
⑥ Connessione Bluetooth/USB
⑦ Connettori Fieldbus
⑧ Connettore principale
⑨ Trasduttore LVDT valvola pilota
⑩ Sfiato aria
⑪ Bocca di aspirazione aria
⑫ Bocca X1 (pressione di pilotaggio esterna)

LIQZP-LES-SN-BP-322L4

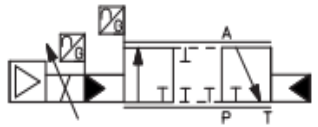
Dimensione: **16** ÷ **125** - ISO 7368
Portata massima: **600** ÷ **22000 l/min**
Pressione massima: **420 bar**

LIQZP-LE*-*3L4

Digital servoproportional 3-way cartridges, piloted, with on-board driver and **two LVDT** transducers (main stage and pilot).



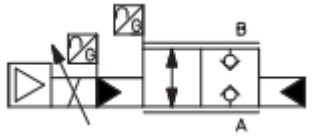
simbolo semplificato: **Standard**



opzione **/A**

Dimensione: **25 ÷ 80**
Portata massima: **500 ÷ 5000 l/min**
Pressione massima: **420 bar**

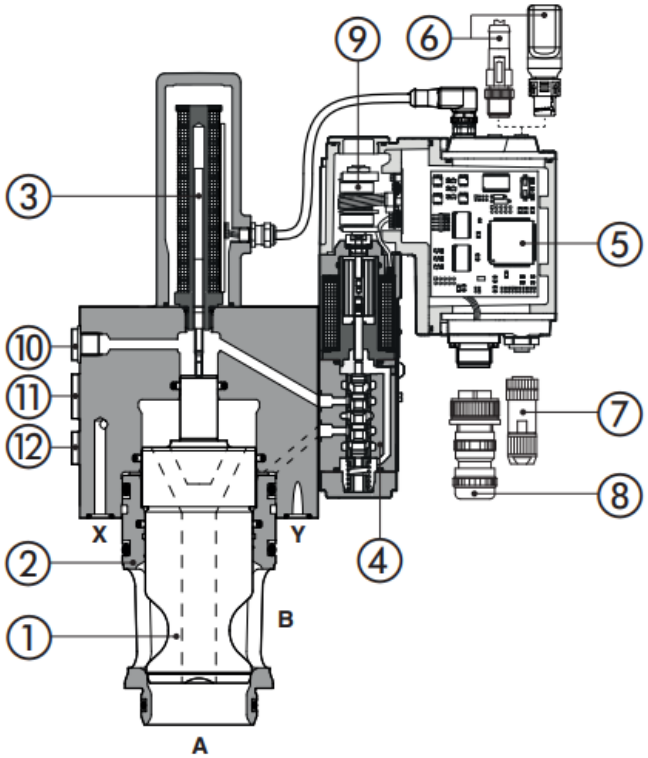
LIQZH-LE*-*2L4



Digital servoproportional 2-way cartridges, piloted, **high flow,** with on-board driver and **two LVDT** transducers (main stage and pilot).

atos CONNECT

SMART TUNING



① Poppet
② Sleeve
③ Main stage LVDT transducer
④ Pilot valve
⑤ On-board digital driver
⑥ Bluetooth/USB connection
⑦ Fieldbus connectors
⑧ Main connector
⑨ Pilot valve LVDT transducer
⑩ Air bleeding
⑪ Air suction port
⑫ External pilot port for accumulator

LIQZH-LES-SN-BP-502L4

Vibration damping option (1), see section 8 :
V = damping plate

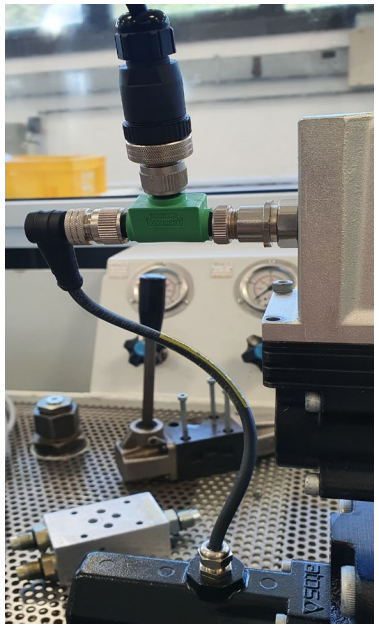
Bluetooth option (1), see section 4 :
T = Bluetooth adapter supplied with the valve

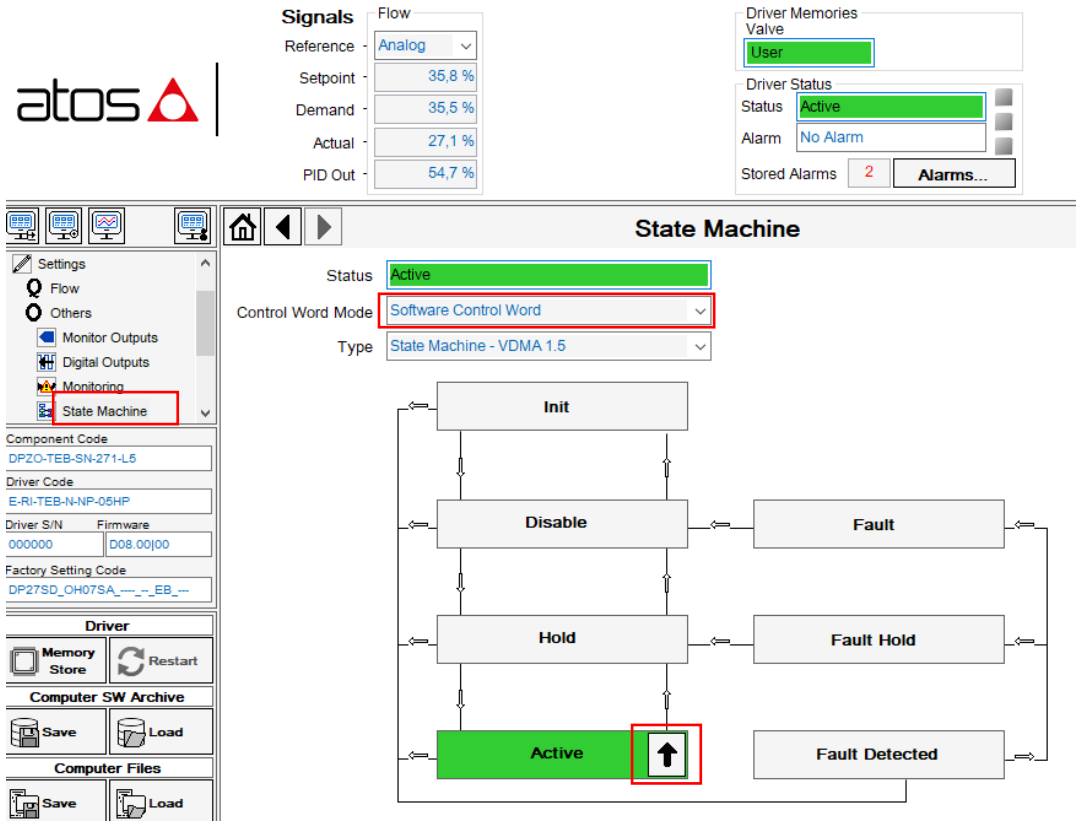
Size: **50** ÷ **100** - ISO 7368
Max flow: **5500** ÷ **25000 l/min**
Max pressure: **420 bar**

ZEROING OF LIQZ* CARTRIDGES

POSITIVE SPOOL OVERLAP – s.20 transducer

S.20 transducer connections

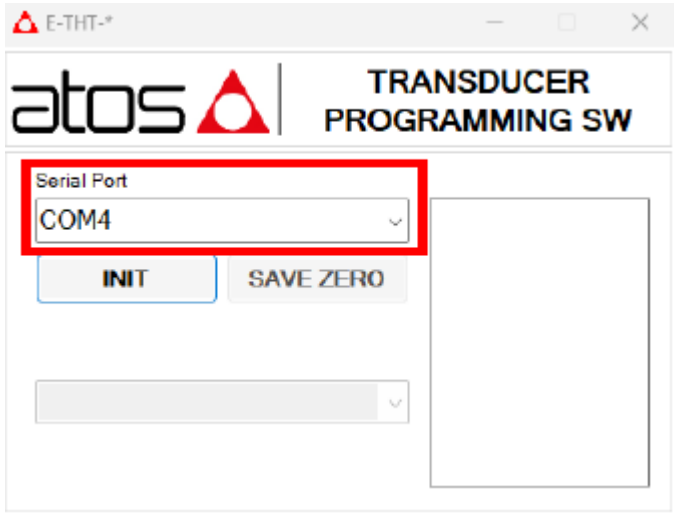


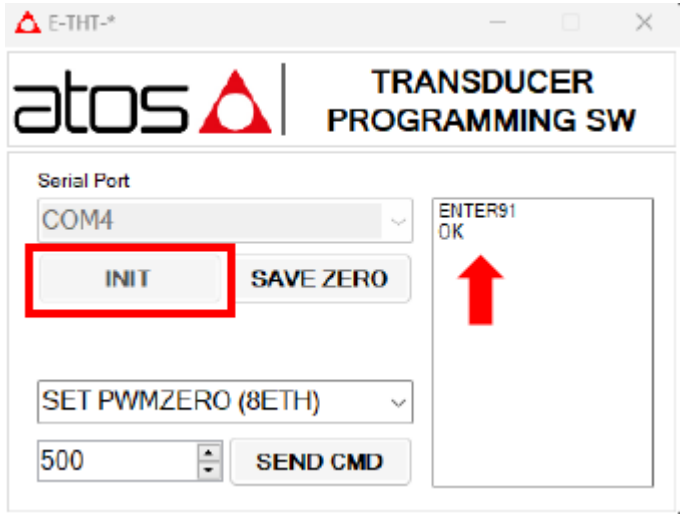


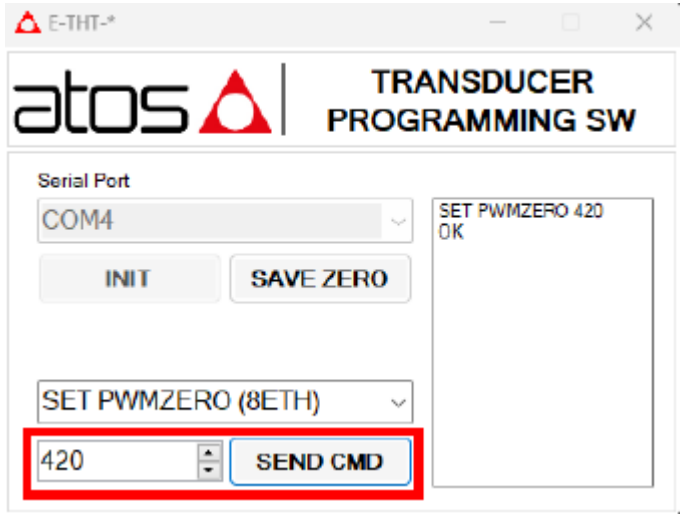
1. Connect properly transducer and driver
2. State machine: Init

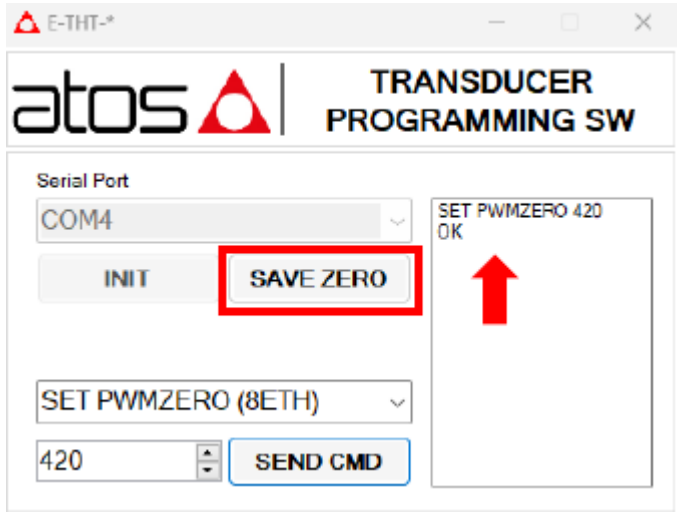
ZEROING OF LIQZ* CARTRIDGES

POSITIVE SPOOL OVERLAP – s.20 transducer







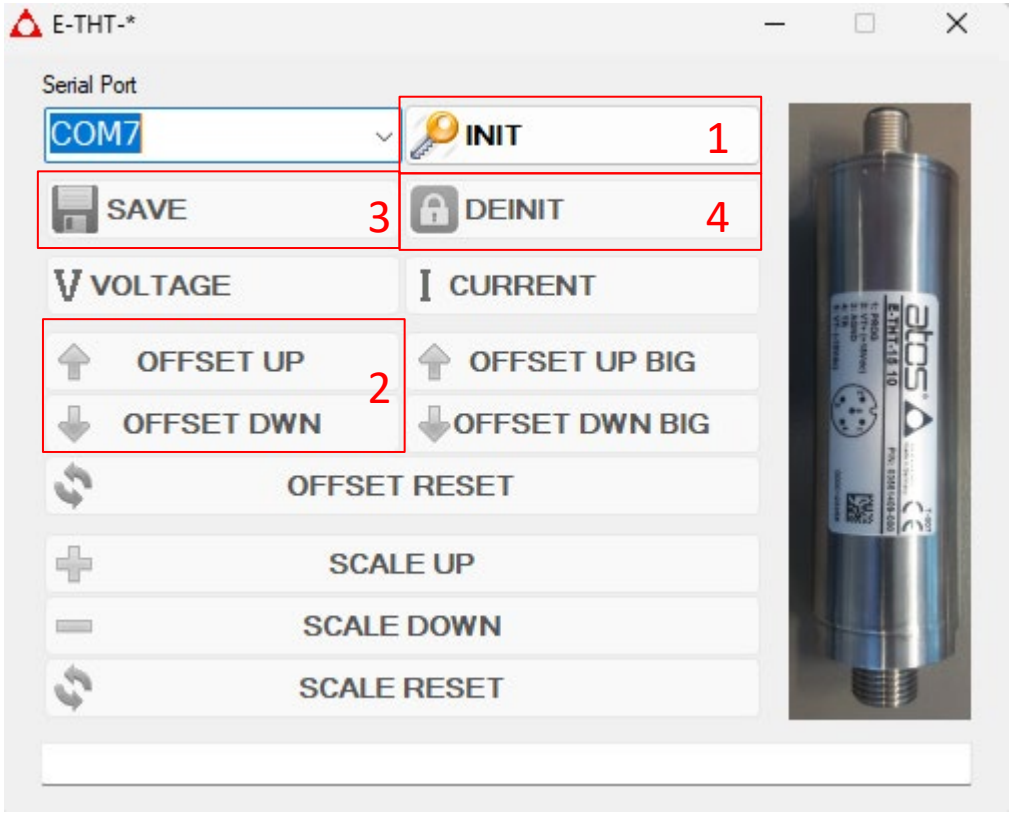


1. Connect properly transducer and driver
2. State machine: Init
3. Valve signal actual → 0%

ZEROING OF LIQZ* CARTRIDGES

POSITIVE SPOOL OVERLAP – s.12 meas transducer

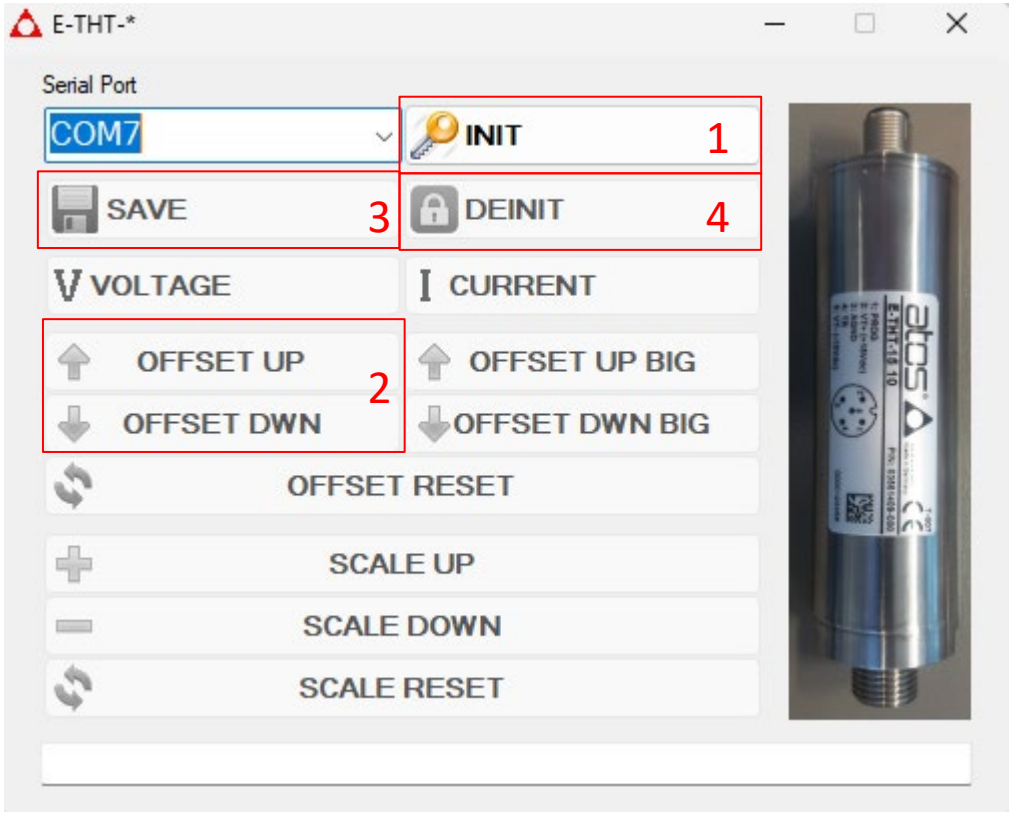
1. Static conditions
2. Set pressure = 100 bar
3. State machine: Init
4. Valve signal actual → 0%



ZEROING OF LIQZ* CARTRIDGES

ZERO SPOOL OVERLAP – s.12 meas transducer

1. Static conditions
2. Set pressure = 100 bar
3. INT RIF = 0%
4. Pressure (A) = Pressure (P) / 2



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E-THT-8 TRANSDUCER ANTI-ROTATION SYSTEM ASSEMBLY INSTRUCTIONS

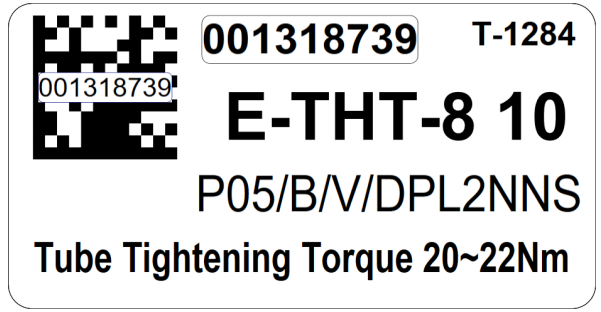
INTRODUCTION

Following the very few cases of leakage detected by ETHT-8 transducers, likely due to unexpected micromovement of this part, Atos identified an **anti-rotation system** useful to definitively avoid such phenomenon.

This additional improvement has already been introduced as per standard solution on LIQZP* valves up to Size 40 and to all the DPZO* proportional valves running production beginning from April 2024.

E-THT-8 10 PREVIOUS LABEL

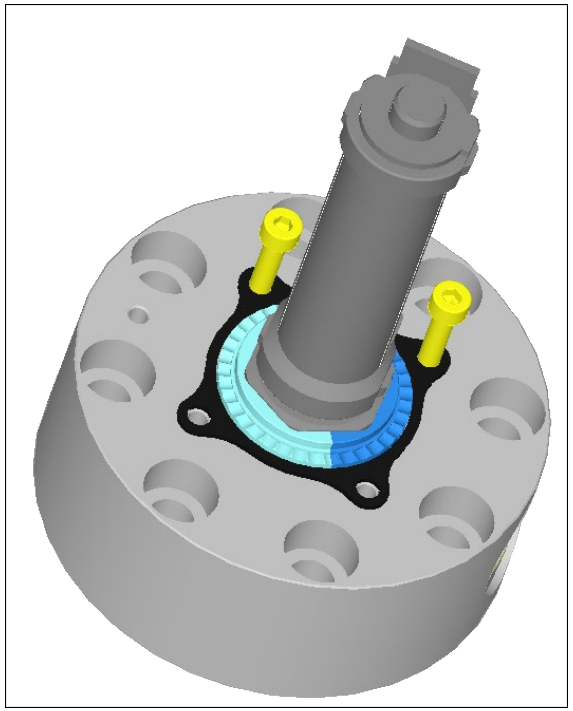
E-THT-8 10 NEW LABEL SINCE THE INTRODUCTION OF THE ANTI-ROTATION SYSTEM

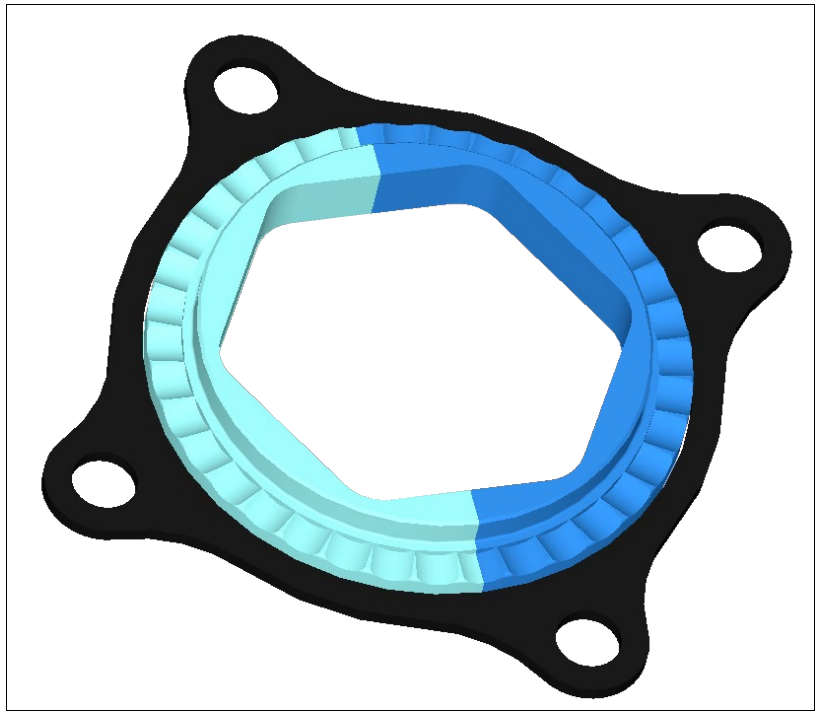


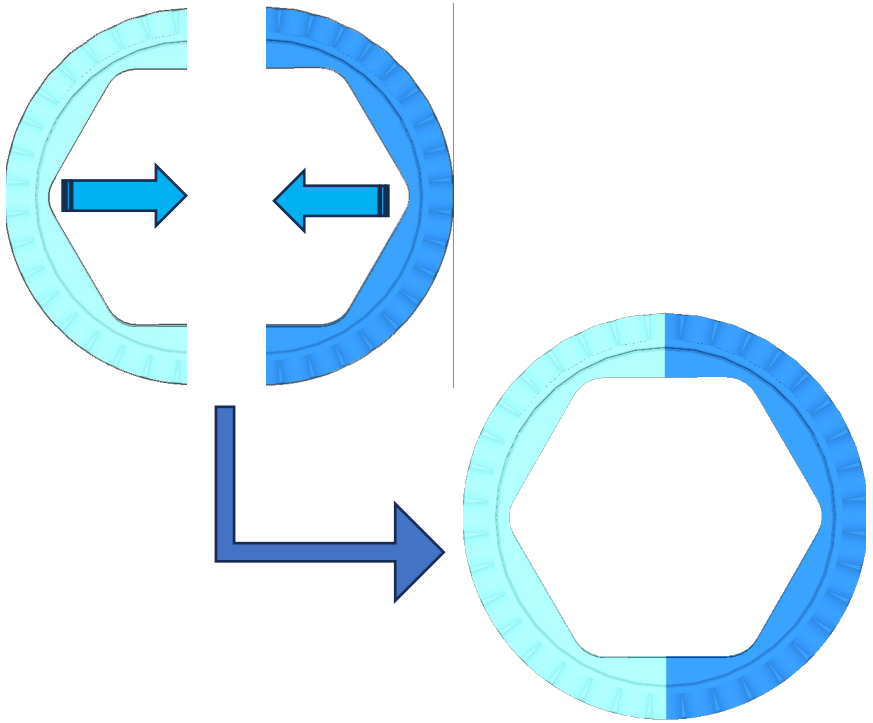
To be taken into account that this solution has been developed with the aim to be easily applied on the valves already in the Field to solve or to prevent possible leakages phenomenon.
Dedicated instructions below.

System technology

The anti-rotation solution is basically composed by **x2 knurled half-rings** with an internal hexagonal shape.
The whole system is kept in position and locked to the valve by the standard transducer protection.
Finally, a new shaped gasket replaces the previous O-ring to ensure IP protection.



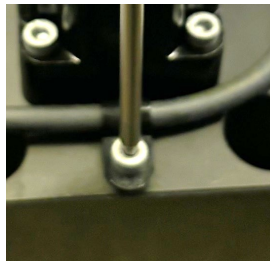




Assembly instructions

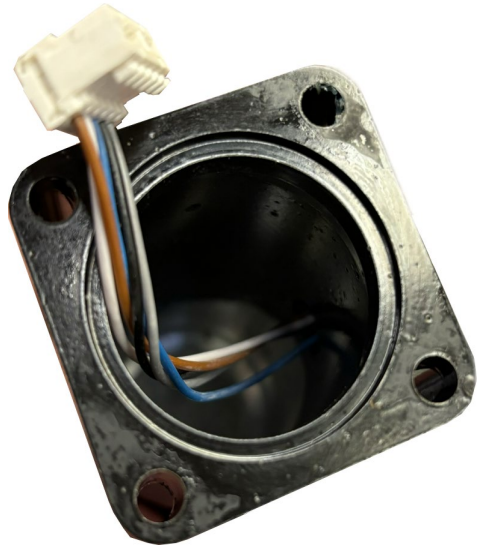
HOW TO ASSEMBLY THE ANTIROTATION SYSTEM ON AN ALREADY EXISTING VALVE

1. disconnect the transducer connector from the Driver
2. remove the transducer protection by unscrewing the x4 M4X20 fixing bolts



Remember to firstly remove the cable guide

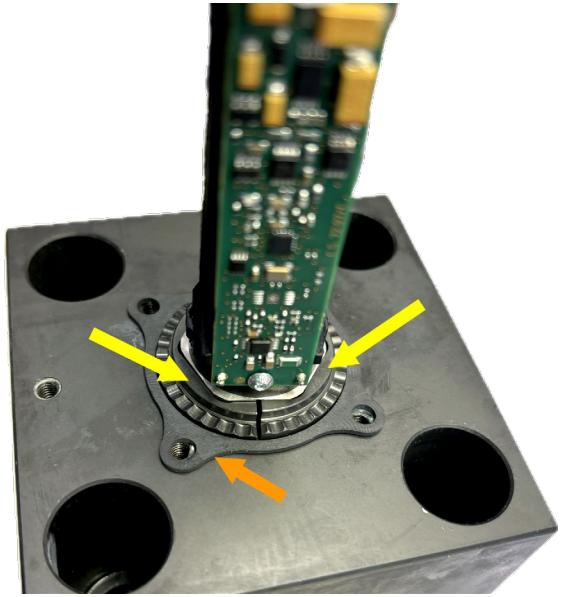
3. gently remove the transducer connector



Assembly instructions

4. WITHOUT REMOVE THE E-THT-8 TRANSDUCER, assembly the:

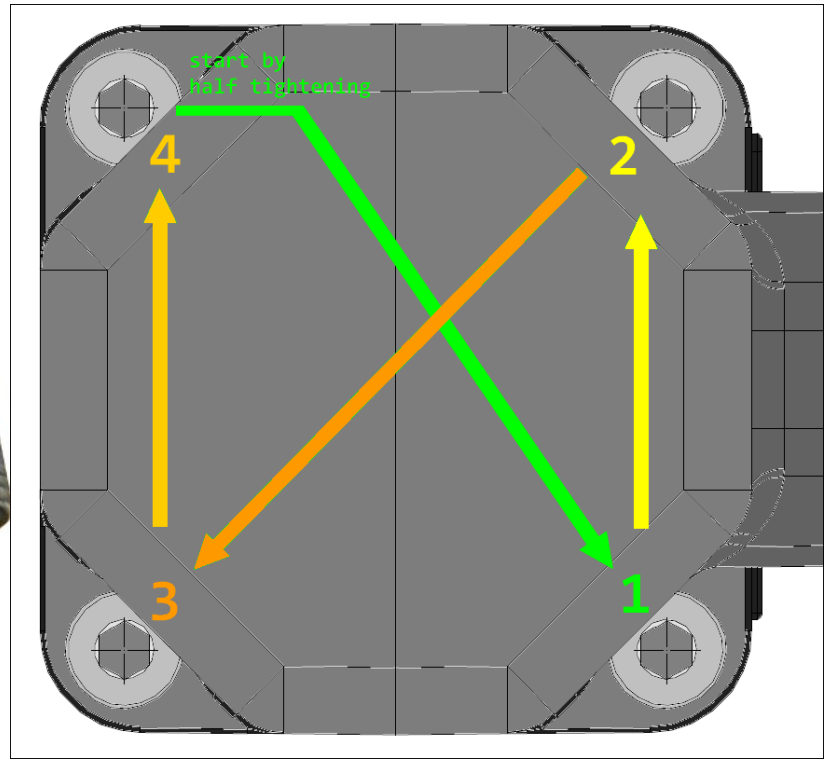
- x2 **knurled half-rings** around the hexagon without taking care of their position
- 1 shaped Rubber gasket taking care to align the x4 holes to the cap existing ones



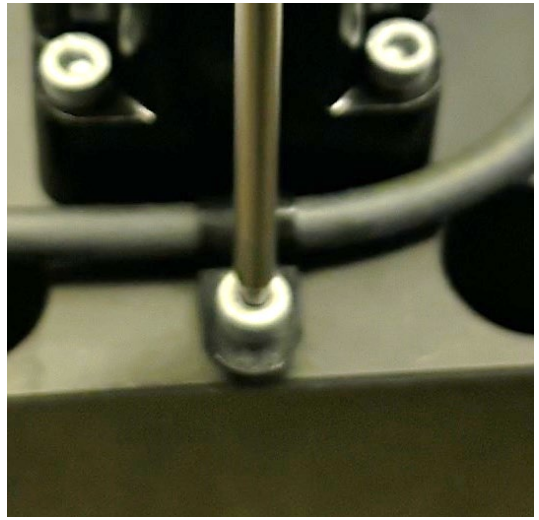
5. re-connect the transducer connector

Assembly instructions

6. re-assembly the transducer protection by using the original x4 M4X20 after having applied Loctite 242.
Apply 5÷5.5 Nm Torque Force, cross tightening the fixing screws



7. secure the cable guide



8. Record and share to Atos HQ the Matrix and the Serial number of the reworked valve /s

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