

# 100% digital electrohydraulics

Atos digital proportionals offer a powerful mix of innovative features

Complete range of valves and controls with rugged design and outstanding performance



# Digital range

The outstanding performances of Atos digital proportionals are the result of long lasting R&D activities

## Basic B silver execution:

- digital performances at analog price
- analog commands signal
- rugged design - up to 50g
- temperature range  $-40^{\circ}\text{C} \div +60^{\circ}\text{C}$
- water & dust proof - IP66/67
- 200 h in salt spray

## Full S black execution:

- wide range of fieldbus interfaces
- P/Q control function
- TÜV certified safety functions

- 1 high performance proportional
- 2 direct & pilot operated servoproportionals
- 3 pilot operated servoproportional, size 35

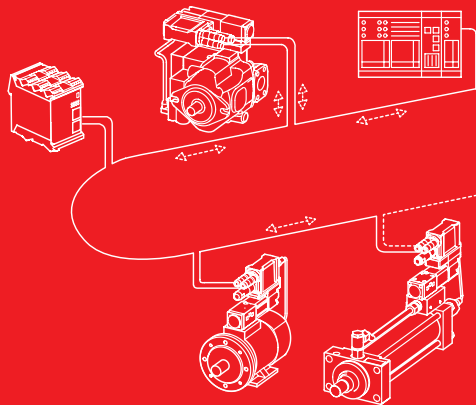


**LOOKS ANALOG  
WORKS DIGITAL**



# Fieldbus

- BC CANopen
- BP PROFIBUS DP
- EH EtherCAT
- EW POWERLINK
- EI EtherNet/IP
- EP PROFINET

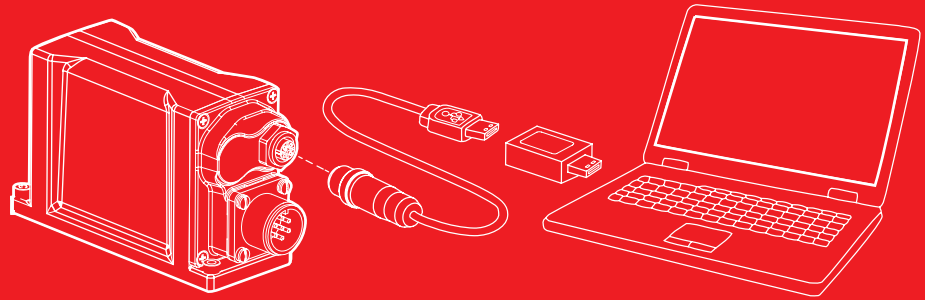


Real time access to valves' parameters and diagnostics

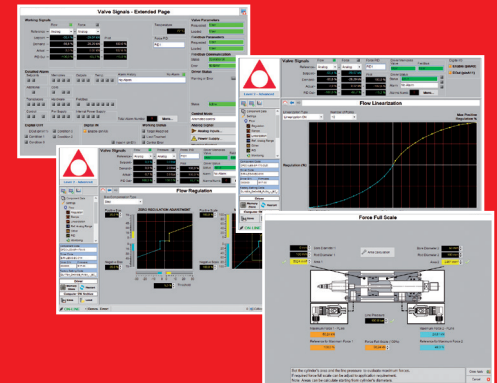
# Software

E-SW programming software allows to set the electronic driver's functional parameters

**Basic** version is available by free web download



- graphics organized in pages and levels
- numerical optimization of factory preset parameters
- real time monitoring
- advanced diagnostics
- internal oscilloscope



## TEZ servoproportionals with axis control

Servoproportional valves with LVDT transducer, on-board digital driver & axis card perform position, speed and force controls of any electrohydraulic axis

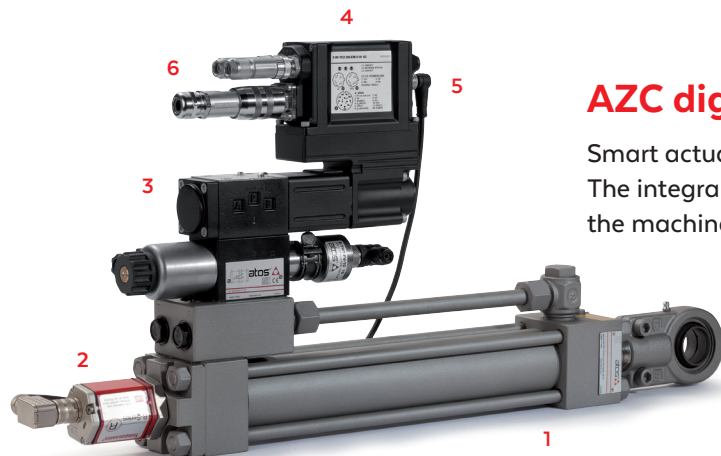
Axis cards are also available for cabinet installations in off-board execution, with or without driver function



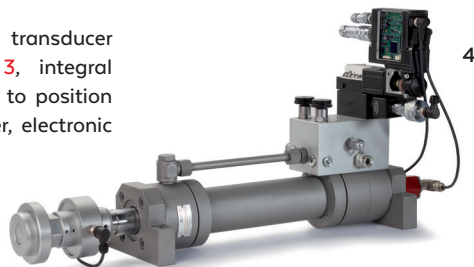
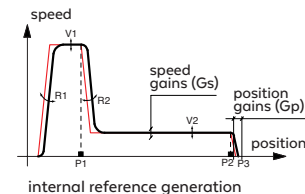
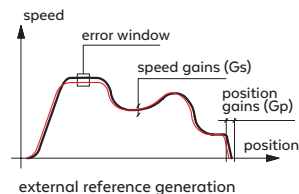
## AZC digital servoactuators

Smart actuators performing the complete axis motion cycle

The integral construction improves the performance and simplifies the machine's wiring



servocylinder 1 with position transducer 2, servoproportional valve 3, integral TEZ controller 4, connections to position transducer 5, to electric power, electronic signals and fieldbus 6



- 4 AZC servoactuator with flow/force control by load cell
- 5 Z-BM-TEZ off-board digital axis card with driver function

# TEB & TES proportionals with LVDT transducer

Directional and flow control valves with on-board digital driver

Off-board digital drivers are available for cabinet installation



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## High Performance proportionals

With positive overlap spool and central rest position

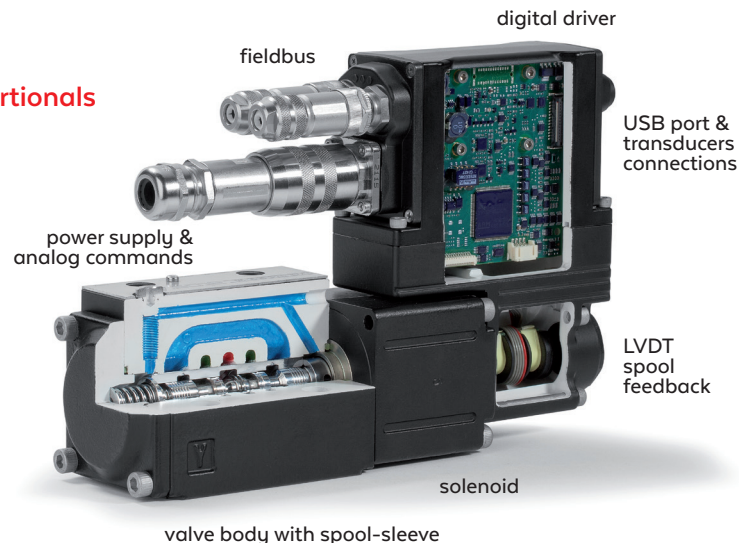
## Servoproportionals

Sleeve execution with zero overlap spool for accurate closed loop position controls & fail safe function

Pilot operated directional control valves 6 & high dynamic servocartridges 7 are equipped with 2 position transducers



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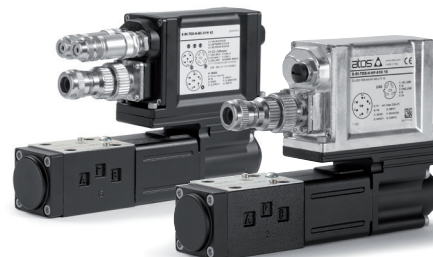


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8 E-BM-TES off-board digital driver, DIN rail mounting

9 TEB & TES servoproportionals



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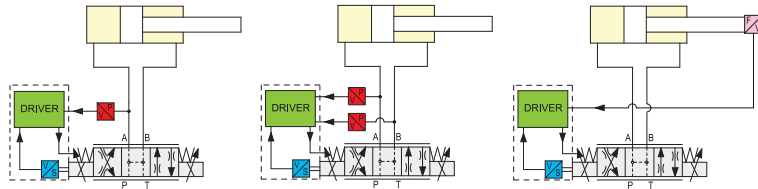


## P/Q options for TES & TEZ proportionals

**SP, SF, SL** options add pressure (force) closed loop control combined to the flow (speed) regulation of proportional directional control valves

### Functional schemes

**SP** - 1 pressure transducer    **SF** - 2 pressure transducers    **SL** - load cell



■ electronic driver

■ valve position transducer

■ pressure transducer

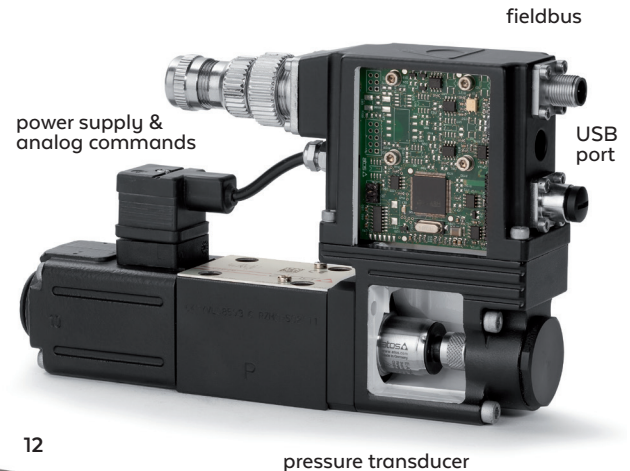
■ load cell

## REB & RES pressure controls

Relief or reducing proportionals with pressure closed loop to ensure best accuracy and repeatability

These on board digital drivers offer four preset dynamic configurations:

**1** fast - **2** standard - **3** smooth - **4** open loop



**10** PES axial piston pump with P/Q control

**11** TES servoproportional with SF option

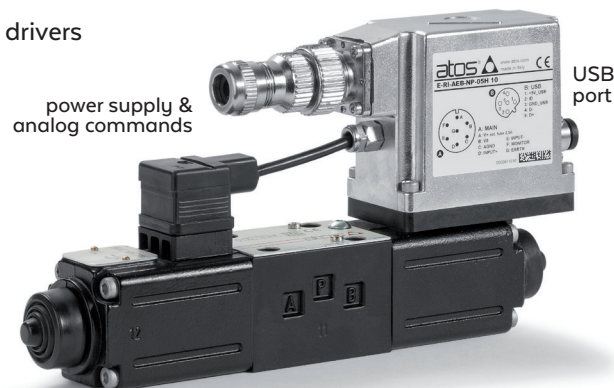
**12** E-BM-RES digital driver, DIN rail mounting

## AEB & AES proportionals without LVDT transducer

Directional, flow and pressure control valves with on-board digital drivers



- 13 AEB directional proportional
- 14 AES pilot operated pressure control
- 18 DHZO-A directional proportional
- 19 AGMZE-A pilot operated pressure control



## Digital off-board drivers

DIN rail mounting for cabinet installation

- E-BM-AS** cost-effective solution 15
- E-BM-AES** high performance with fieldbus 16
- W** option adds max power limitation PxQ



## ZO-A & ZE-A proportionals

Directional, flow and pressure control valves without LVDT transducer & electronic driver:

- ZO-A** high performance
- ZE-A** cost-effective solution
- E-MI-AS** digital driver, coil mounting 17





Atos regularly hold technical training courses on digital electrohydraulics  
Our specialists are available for on-site technical support at customer locations



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