



INFOGRAPHIC

# EMA and EHA for hydraulic systems

## Electromechanical Actuator

## Electrohydraulic Actuator

### CONFIGURATION FLEXIBILITY DUE TO COST- AND SPACE-SAVING DESIGN

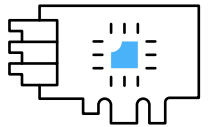


- Cost-effective, tolerance-friendly spool overlap possible in the directional control valve

- Direct actuation of the spool in the directional control valve means there is no need for hydraulic pilot control
- Simply designed principal stage, without cavities, transverse boreholes or intersecting boreholes

- Pilot control valves and control electronics integrated in a single assembly

### SIMPLIFIED COMMISSIONING AND ELECTRIFICATION OF DIRECTIONAL CONTROL VALVES



- Integrated on-board electronics include control logic of the directional control valve
- Intelligent actuator for systems without hydraulic pilot control

- Elimination of elaborate parameterization and coordination for the avoidance of valve oscillations in operation
- Direct mechanical interfacing with the directional control valve

- Can be configured with many different types of valve from the Thomas modular valve system

### DIGITAL ACTUATION FOR THE AUTOMATION OF WORKFLOWS

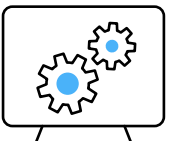


- Direct actuation via the CAN-bus signal



- Closed control loop due to directional sensor

### PERFORMANCE CAPABILITY MAXIMUM PRECISION, SPEED, AND CONTROL QUALITY



- Extensive status and diagnosis options

- Stepping motor with precise repeatability of motion sequences
- Hysteresis-free and insensitive to oscillations

- Hydraulic pilot control allows high actuator forces and high dynamics
- No hysteresis in the pilot control hydraulics due to closed loop control

### RELIABLE ACROSS THE ENTIRE FIELD OF APPLICATION



- Can be used in a very wide range of temperatures (from -40°C to +100°C)
- Maintenance-free

- No dependence on oil viscosities in the area of pilot control
- Thermal overload protection

- Oil viscosities and ambient temperatures have little influence on dynamics

### USE IN SAFETY-RELEVANT APPLICATIONS POSSIBLE



- Actuator certified to comply with DIN EN ISO 13849

- Stepping loss detection ensures safe response in the event of an error, even with sensorless design

- Directional measurement sensor for continuous verification of actual spool position