



## BR 31a · Quarter-turn actuator with adjustable hydraulic damping

Version HCD DAP / HCD SRP



### Applications

Single-acting or double-acting piston actuators for butterfly valves, ball valves and other final control elements with rotary closure members. Particularly suitable for high process requirements in chemical plants:

- Opening angle 90°
- Temperatures -20°C to +50°C



## Attachments

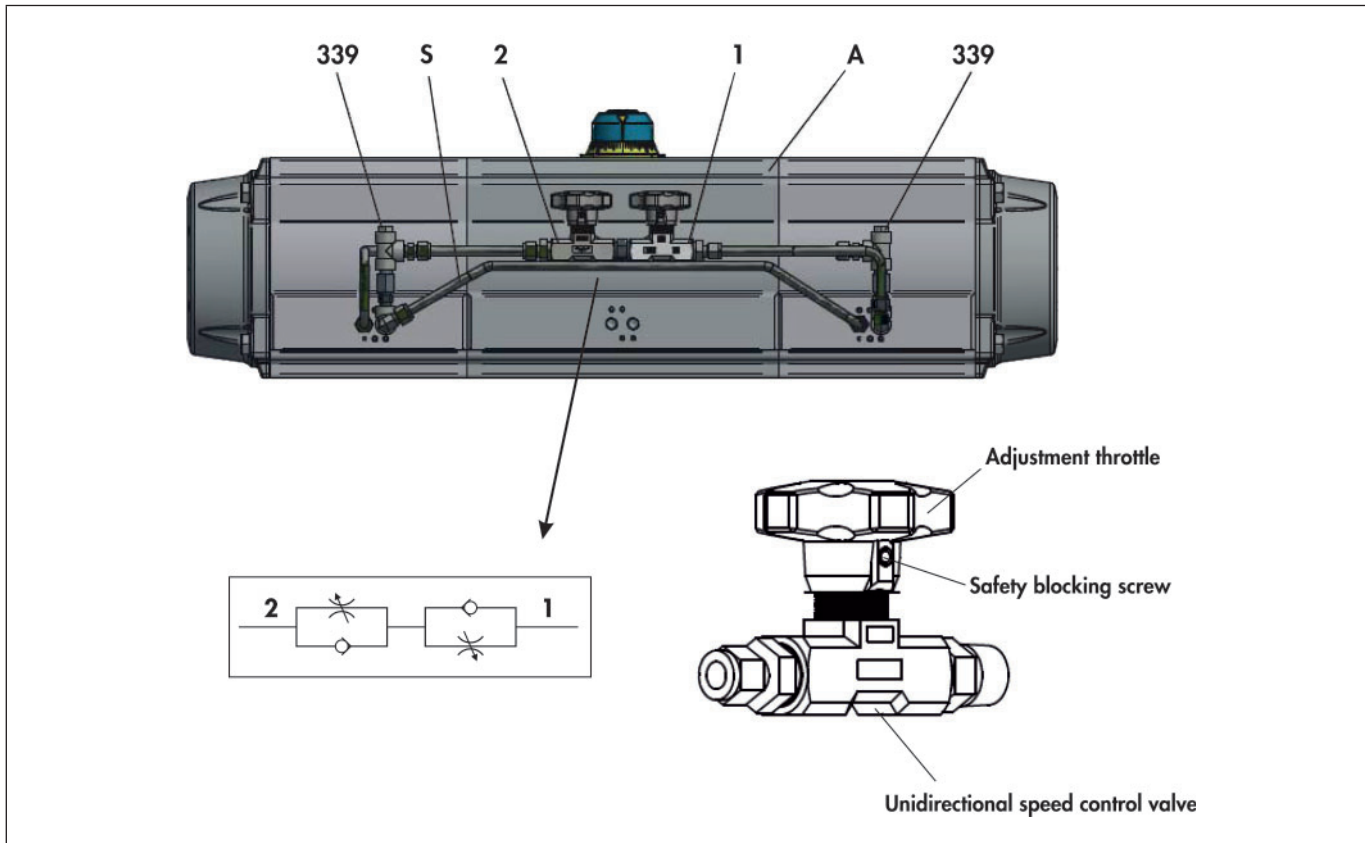


Fig.1: Quarter-turn actuator with adjustable hydraulic damping

Tabelle 1: Parts list

Item	Description	Qty.
A	HCD BR 31a SRP xxxxx Pneumatic actuator	1
1	Stainless steel Unidirectional speed control valve	1
2	Stainless steel Unidirectional speed control valve	1
S	Stainless steel tubing	-
339	Stainless steel plug	2

## Functions

The HCD actuator with hydraulic circuit permits to adjust the actuator opening and closing time, operating the unidirectional speed control valves: one valve adjusts the opening operation and the other valve the closing operation.

## Specifications

- Max. supply pressure: 6,5 bar (95 psi)
- Temperature: -20°C to +50°C
- Hydraulic fluid: biodegradable
- Other dimensions: see data sheet of standard actuator
- Pneumatic operating media: see manual instruction

## Circuit scheme

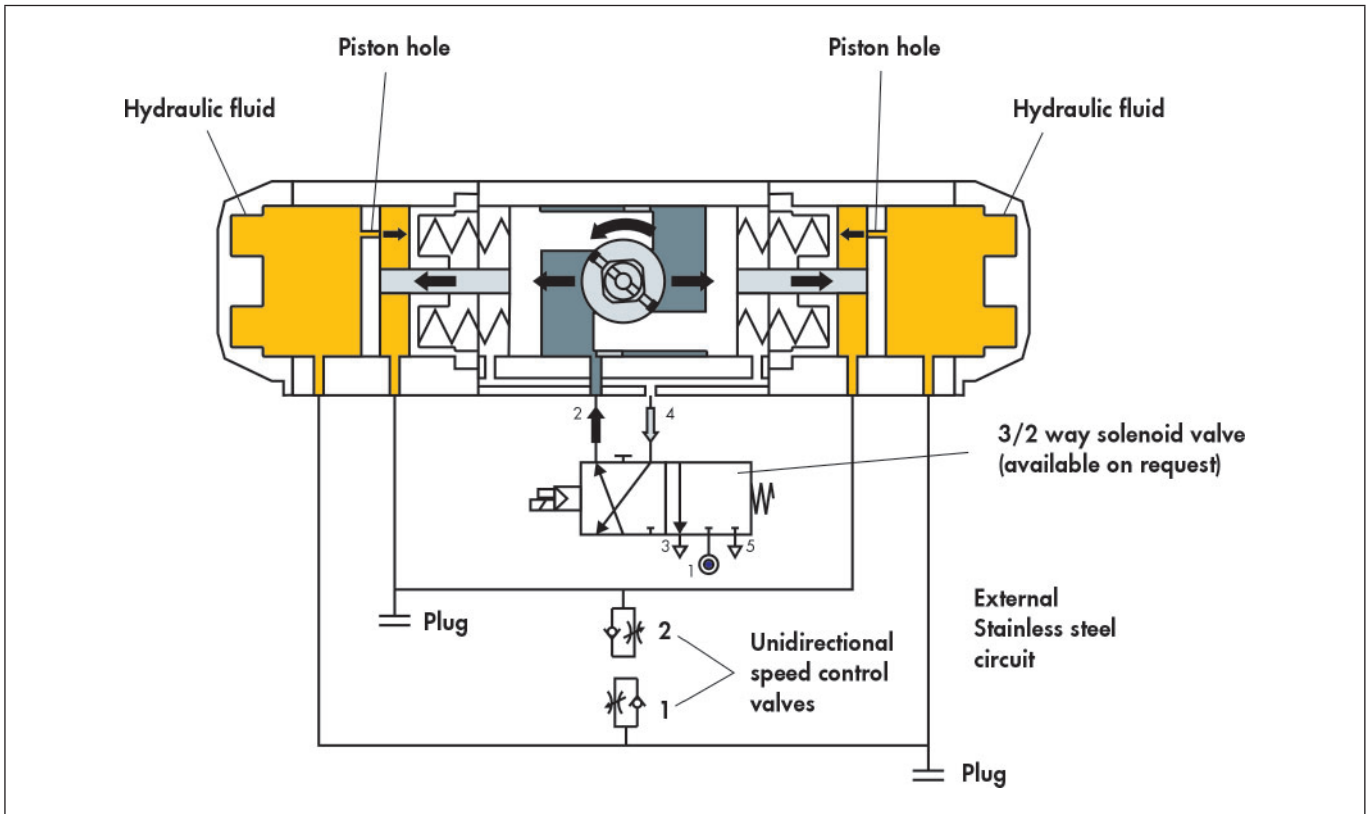


Fig.2: Pneumatic / Hydraulic circuit scheme (Top view)

## Approx. Operating time for 90° rotation

Operating time test conditions:

- Ambient temperature (approx. 20°C).
- Spring set S09.
- 90° Stroke rotation.
- Air supply with proper flow capacity.
- Medium: clean air supply pressure 4,5 bar.
- Actuator without external load resistance.

### **i** Note

For a correct functioning of this kind of actuator, the actuator torque must be at least 30% higher than the valve torque.

Tabelle 2: Operating times

Actuator Type	min. approx. seconds	max. approx. seconds
HCD SRP 150	6	180
HCD SRP 300	12	140
HCD SRP 600	16	115
HCD SRP 1200	22	135
HCD SRP 2000	25	100
HCD SRP 3000	35	155
HCD SRP 4000	35	160

## Dimensions and Wights

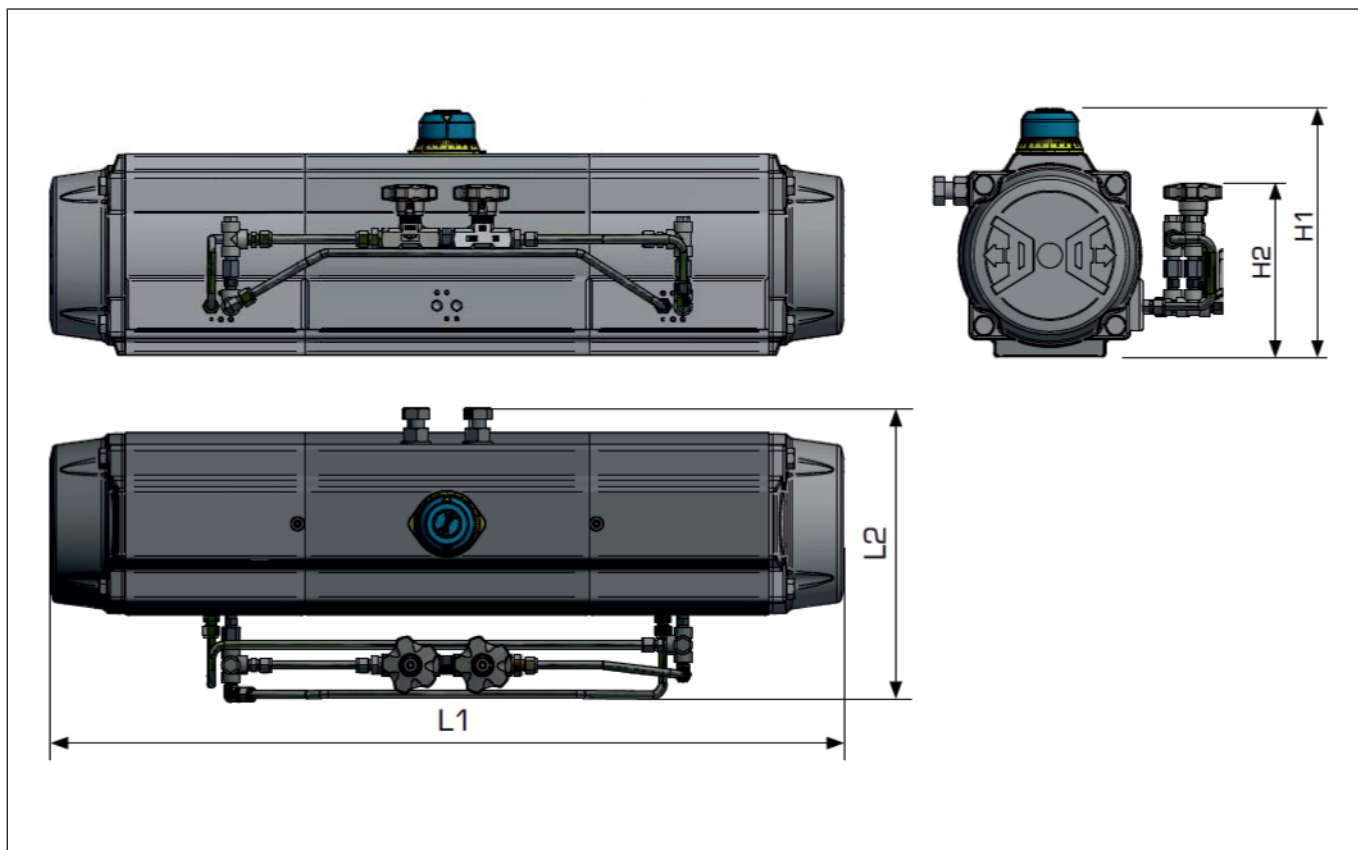


Fig.3: Dimensional drawing

Tabelle 3: Dimensions in mm and Weights in kg

Actuator Type	L1	L2	H1	H2	Approx Weight (Set S09)	Unidirectional speed-flow control valve (Item 2)
HCD SRP 150	537	220	147	150	12 kg	G 1/4"
HCD SRP 300	315	250	187	180	23 kg	G 1/4"
HCD SRP 600	761	280	226	175	50 kg	G 3/8"
HCD SRP 1200	964	360	295	230	84 kg	G 1/2"
HCD SRP 2000	1089	447	349	277	130 kg	G 1/2"
HCD SRP 3000	1300	505	380	355	180 kg	G 3/4"
HCD SRP 4000	1394	550	433	450	260 kg	G 3/4"