

# servosis

*Testing Machines*



## Hydraulic servoactuators CH4 SERIES



Servosis develops and manufactures CH4 servoactuators, specifically designed for static and pseudo-static tests up to 3 Hz.

Servosis, more than three decades of experience.

[www.servosis.com](http://www.servosis.com)

## HYDRAULIC ACTUATORS

Servosis develops several types of hydraulic actuators

All of them can be provided with fixing pieces, assembled on standard or personalized bearing systems, with control system, etc.

### CH-4 SERIE

The CH4 range is characterized by its versatility and reliability.

They are designed to work in static and pseudo-static tests, but they can also be used in cyclic tests up to 10 Hz.

Sealing system is based on low friction and high speed joints.

They have a drainage circuit to collect the small leaks that dynamic work normally causes.

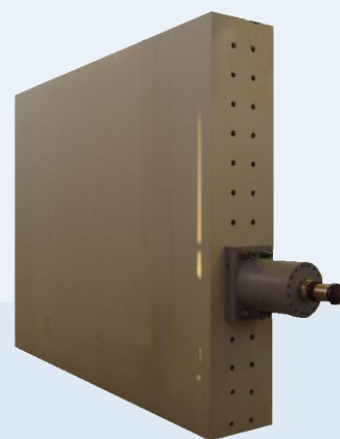
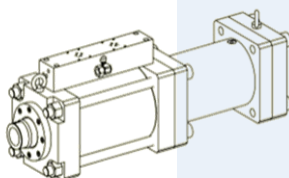
They can be mounted on a testing bench (forming a testing machine), or on any other testing structure, as a testing frame.

They can work individually or synchronized with other actuators, by using the control system PCD2K.

They can be manufactured with several forces and strokes, depending on the customer requirements.

Minimum stroke: 50 mm.

Minimum load capacity: 10 kN.



CH-4 1000 kN ACTUATOR  
HORIZONTAL MOUNTING ON A  
CONCRETE STRUCTURE, FOR  
WALL TESTS..



MUF 404/60 MACHINE WITH CH-4  
ACTUATOR, MOUNTED ON UPPER BRIDGE.

### BALANCED ACTUATORS (THE SAME CAPACITY IN TENSILE AND COMPRESSION SENSE)

MODEL (kN tensile/comp)	Working pressure (bar)	Maximum working frequency (Hz)	Peak frequency (Hz)	External Ø	Rod Ø (mm)	Female thread in the rod end	max/min length (mm)
CH4 30/30	200	3	10	□88*88	36	M20 X 1,5	1030/830
CH4 100/100				□140*140	60	M30 X 2	1060/860
CH4 150/150				□158*158	60	M30 X 2	1110/910
CH4 200/200				Ø250	60	M42 X 3	1110/910
CH4 250/250				Ø270	80	M42 X 3	1110/910
CH4 300/300				Ø270	80	M42 X 3	1110/910
CH4 500/500				Ø310	90	M60 X 2	1170/970
CH4 1000/1000				Ø400	160	M90 X 3	1340/1140

### UNBALANCED ACTUATORS (DIFFERENT CAPACITY FOR TENSILE AND COMPRESSION SENSE)

MODEL (kN tensile/comp)	Working pressure (bar)	Maximum working frequency (Hz)	Peak frequency (Hz)	External Ø	Rod Ø (mm)	Female thread in the rod end	max/min length (mm)
CH4 5/10	200	3	10	Ø48	25	M16	600/400
CH4 10/20				□78*78	30	M20 X 1,5	600/400
CH4 15/30				□78*78	36	M20 X 1,5	600/400
CH4 38/60				□88*88	36	M20 X 1,5	600/400
CH4 120/160				Ø188	50	M24 X 2	840/640
CH4 170/220				□158*158	60	M30 X 2	840/640
CH4 200/300				Ø228	80	M42 X 3	830/630
CH4 250/350				Ø250	80	M42 X 3	830/630
CH4 300/400				Ø260	80	M42 X 3	830/630
CH4 500/750				Ø320	130	M80 X 3	940/740
CH4 680/1000				Ø372	140	M 80 X 3	980/780

## SPECIFICATIONS

### ACCESORIES

DISPLACEMENT TRANSDUCER	LVDT	MAGNETOESTRICTIVE Digital output signal SSI	MAGNETOESTRICTIVE, Analog output signal +/-10 VDC
LOAD CELL	Standard commercial equipment, as HBM U10M or similar.	Servosis special designs.	
SERVOVALVE	MOOG. Drive signal in voltage or current. Optional: <ul style="list-style-type: none"><li>• Block for two servovalves, to work in high/low flow.</li><li>• Sandwich valves for chambers locking, pressure and return lock.</li><li>• Hydraulic accumulators for pressure and return lines.</li></ul>		
ASSEMBLY SYSTEMS	Designed for each project. Front or back flange, tilted systems, swivels.		

## REFERENCE

CH 4-

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C ---

P ---

#### MAXIMUM LOAD (kN/kN)

See table on page 3.

#### STROKE (mm)

NOTE: 100 = +/- 50mm

050/100/150/200/250/300/500  
Other strokes, please consult.

#### WORKING PRESSURE (BAR)

200  
Other pressures, please consult.