

General Servo H

Servo H series consists of a complete range of hand operated, pneumatic proportional valves, intended for remote control.

Servo H series are designed for many different applications, both mobile and industrial. Servo H series can be applied to control directional hydraulic spool valves and servo cylinders for hook arms systems, front and end loaders, mobile cranes and portal systems.

Other applications are speed control of air motor, assembling, sawing and cutting systems.

Design and function Servo H

The modular valve series Servo H can be easily combined with push buttons actuated Valve H series, and electric indicator modules. Each module can be assembled in random order for the best possible solution for the application and optimum ergonomics for operator. A connection flange for central air supply and central exhaust function makes the configuration very compact.

Robust design and choice of materials, sealing and production technique's makes Valve H series a reliable product. Servo modules are constructed from sections of two pressure reducing valves, with linear characteristics for proportional control.

Single Servo H series are available with lever in-line or lever 90° rotated. Depending on the application, the lever can be equipped with pneumatic or electric switch for "high flow" function. Double integrated servo modules are always 90° rotated and can be equipped with or without electric switch.

A stand-alone module can be chosen where space is at a premium. Stand-alone modules can not be combined with other modules.

Pneumatic and electric connections for outlet signals are located on bottom side of the modules. Modules will be standard delivered with push-in connectors Ø 4 mm for pneumatic signals. Electrical connections can be made via an electrical connection block.

Symbols for movements, servo function and on/off functions can be shown by using pictograms. Pictogram can be assembled into the knob of the servo or front of a module.

All components can be assembled in random order. Each module will be delivered with special connection screws. This gives you the freedom of assembling the unit as required. All modules are supplied with o-rings for a reliable leak free seal between modules.

Parker can deliver complete assembled units or single modules. This provides the best possible flexible delivery options for you. Ask your local Parker Sales offices for best possible solution.



lever in line

Servo H1

Pneumatic proportional valve. Available handle actuations:
- lever in line
- lever 90° rotated



lever 90° rotated

Servo H2

Pneumatic proportional valve, with pneumatic push-button integrated into the lever, for extra pneumatic signal. Available handle actuations:
- lever 90° rotated



stand alone

Servo H3

Pneumatic proportional valve, Stand-alone module, available in different version, normal actuation (H1), with electric switch integrated in lever (H5) and with mechanical lock (H4).



lever 90° rotated

Servo H4

Pneumatic proportional valve, with mechanical lock. Available handle actuations:
- lever in line
- lever 90° rotated



lever in line

Servo H5

Pneumatic proportional valve, with electrical switch integrated into the lever, for extra electric signal. Available handle actuations:
- lever in line
- lever 90° rotated



lever in line

Servo H6

Pneumatic proportional valve, with 3 position electric switch integrated in to lever. Available handle actuations:
- lever in line
- lever 90° rotated



Servo-double

Double proportional valve, both levers always 90° rotated. Each type of handle actuation is available.
- H1+H1
- H1+H5
- H1+H6



Ordering-key Servo H

1 2 3 4 5

SERVO - **H5** - **90** - **4** - -

Type of Servo Module	
H1	Single proportional valve
H2	Single proportional valve, pneumatic push button integrated in to lever (only 90° rotated)
H3	Single proportional valve, stand alone version
H4	Single proportional valve, mechanical lock for fixed preset position from lever
H5	Single proportional valve with electric switch integrated in to lever
H6	Single proportional valve with 3 positions electric switch
H1+H1	Double proportional valve
H1+H5	Double proportional valve, - one lever without extra button - one lever with electric switch,
H1+H6	Double proportional valve - one lever without extra button - one lever with 3 positions electric switch

Execution	
-	Standard
SU	Special execution

Port connections (outlet)	
11	1/8" BSP
4	Push in Ø 4 (standard)
6	Push in Ø 6

Assembling direction of lever	
0	in-line
90	Handle actuation 90° rotated

Standard order codes

Single	Order code	Double	Order code
Servo H1-0-4	3500600	Servo H1+H1-4	3501200
Servo H1-90-4	3501400	Servo H1+H5-4	3501900
Servo H2-90-4	3501500	Servo H1+H6-4	3522800
Servo H3+H1-0-4	3500800		
Servo H3+H4-0-4	3512900		
Servo H3+H5-0-4	3519300		
Servo H4-0-4	3500900		
Servo H4-90-4	3501600		
Servo H5-0-4	3501000		
Servo H5-90-4	3501700		
Servo H6-0-4	3514600		

For central air supply and exhaust of a module or complete pre-assembled Servo H-unit a connection flange is always required. More information can be found on page 8.



Accessoires

Type

Order code



Connection flange set

For central air supply and exhaust a connection flange is required. A set consists of inlet flange and blind flange. Inlet flanges are supplied with push-in connectors Ø 6 mm for both air supply and exhaust.

CFH6
CFH12

Ø 6 mm (standard)
G1/4"

3500200
3500300



Electric indicator unit

Electric indicator modules can be combined with Servo H and Valve H modules for detection of movements or safety position indication. Electric indicator modules are equipped with 2 LED's, 24V. Electric connections can be found on the bottom of the module.

EML-24-GR
EML-24-GO
EML-24-GG
EML-24-RR
EML-24-OO

green/red
green/yellow
green/green
red/red
yellow/yellow

3503200
3503300
3503400
3503100
3503500



Control cylinder for (proportional) hydraulic control block

The cylinders mounted on the hydraulic valve block shift valves are equipped with springs for centre positioning. By using dedicated cylinders with the correct spring forces, we are able to create the best possible control system. The type of cylinder depends on the dimensions of the hydraulic valveblock used.

REG 40/7+7

3095900



Roller valve DSA/VA

The "roller" valve is used for detecting movements or end position sensing. They are suitable for applications with extreme conditions and are resistant to dirt, rain, water, salt and high pressure steam used to clean trucks. To cope with such conditions the valve is made of brass and completely closed, to prevent water ingress. All the non-connected ports are equipped with check valves which prevents water and dirt from entering the valve.

3/2-way valve DSA 107-GR-SU
5/2-way valve VA 107-GR-SU

3050600
3050700



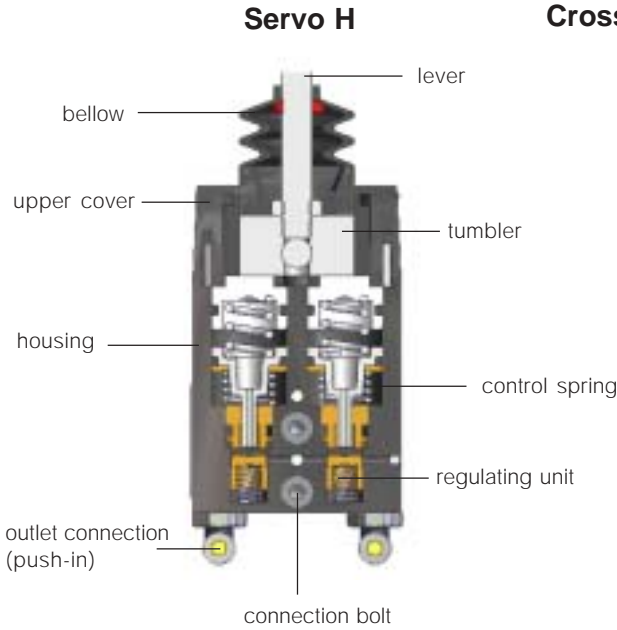
Pictogram

For a better recognition of control signals and movement of each module a set of pictogram can be ordered. Pictogram can be easily assembled into the lever or push-button

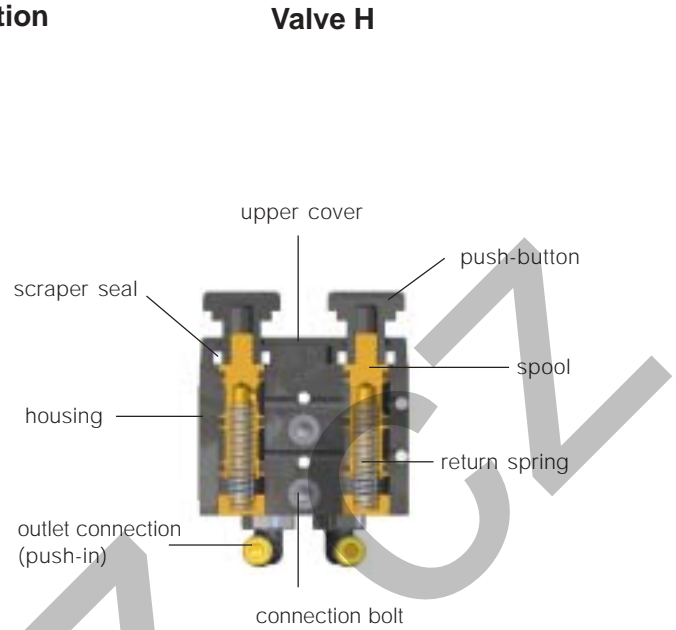
Pictogram set

3511500





Cross section



Valve H

Technical data

Pneumatic

Working medium : Compressed air
 Supply pressure : max. 8 bar
 Control pressure : 0-8 bar linear characteristics
 Flow rate : 187 l/min.
 Hysteresis : max. 1 bar
 Temperature ranges : -10°C / +70°C
 Air quality : Filtered to min. 50 micron, lubricated or non-lubricated, dried to dewpoint of +3°C. Once lubrication is applied, this must be maintained.

Lever force : 4 Nm fully actuated at 8 bar

Port connections inlet:

Central air supply (P) : Push-in connector $\varnothing 6$ mm
 Central exhaust (R) : Push-in connector $\varnothing 6$ mm

Port connections outlet:

Servo H : Push-in connector $\varnothing 4$ mm
 Valve H : Push-in connector $\varnothing 4$ mm
 : Other port connections on request

Weight:

Flange set : 0,22 kg
 Valve H : 0,26 kg
 Servo H : 0,38 kg
 Servo H-90 : 0,60 kg
 Servo H+H : 0,66 kg

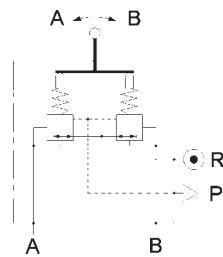
Electrical:

Two position contact : resistive load
 2A - 24 VDC
 5A - 250 VAC
 : inductive load
 3A - 250 VAC

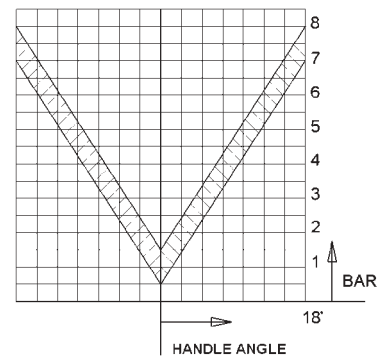
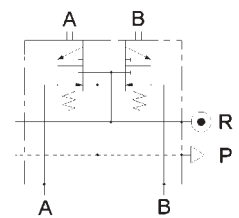
Materials:

Valve body : Anodised aluminium
 Top cover : Thermoplastic
 Knob : Thermoplastic
 Lever : Stainless steel
 Seals : Nitrile rubber
 Spool : Brass
 Screws : Stainless steel

Servo H

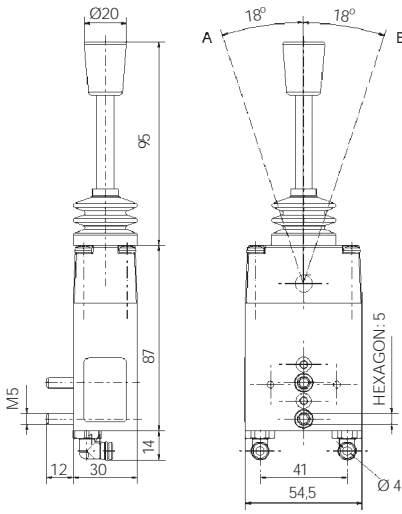


Valve H

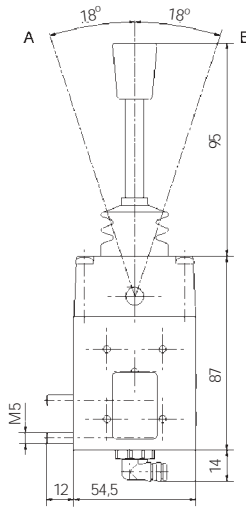


Dimensions

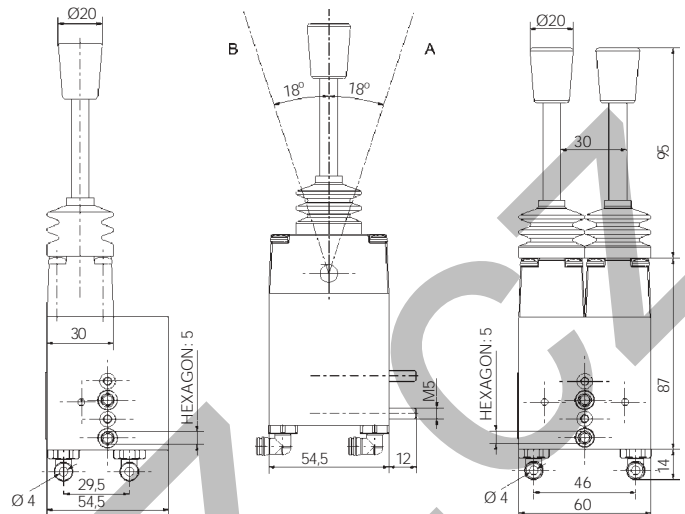
Servo H... in line



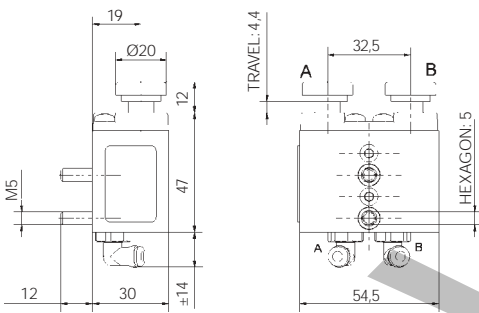
Servo H... 90° rotated



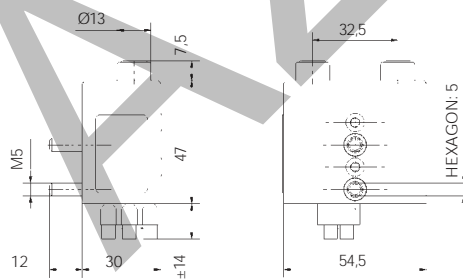
Servo double



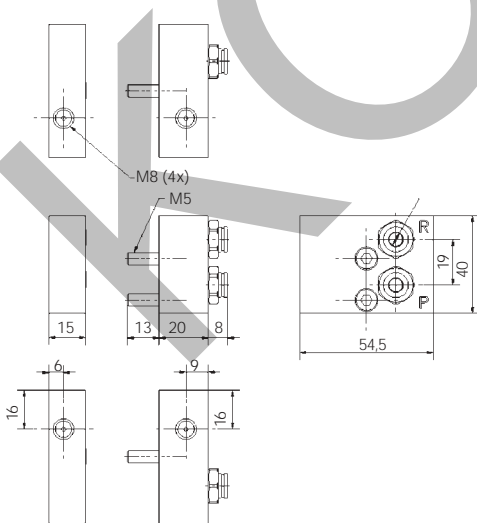
Valve H...



EML-24-GR



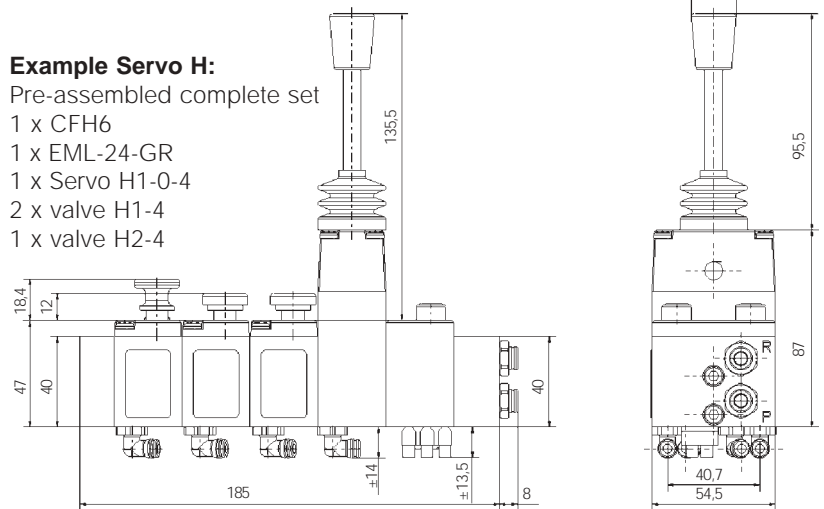
CFH6



Example Servo H:

Pre-assembled complete set

- 1 x CFH6
- 1 x EML-24-GR
- 1 x Servo H1-0-4
- 2 x valve H1-4
- 1 x valve H2-4



Parker can preassemble complete sets

Parker can pre-assemble a complete set of Servo H/Valve H for you. This gives you the benefit of ordering one complete item number for several Servo H/Valve H modules, pre-assembled and factory tested. Pre-assembled sets consist of a connection flange with servo module combined with several valve modules.

Description	Single	Order code	Description	Single	Order code
Servo H1-4+CFH6		3511700	Servo H5-4+CFH6		3513800
Servo H1-4+1xValve H1-4+CFH6		3511800	Servo H5-4+1xValve H1-4+CFH6		3513900
Servo H1-4+2xValve H1-4+CFH6		3511900	Servo H5-4+2xValve H1-4+CFH6		3514000
Servo H1-4+3xValve H1-4+CFH6		3512000	Servo H5-4+3xValve H1-4+CFH6		3514100
Servo H1-90-4+CFH6		3512100	Servo H5-90-4+CFH6		3514200
Servo H1-90-4+1xValve H1-4+CFH6		3512200	Servo H5-90-4+1xValve H1-4+CFH6		3514300
Servo H1-90-4+2xValve H1-4+CFH6		3512300	Servo H5-90-4+2xValve H1-4+CFH6		3514400
Servo H1-90-4+3xValve H1-4+CFH6		3512400	Servo H5-90-4+3xValve H1-4+CFH6		3514500
Servo H2-90-4+CFH6		3512500			
Servo H2-90-4+1xValve H1-4+CFH6		3512600			
Servo H2-90-4+2xValve H1-4+CFH6		3512700			
Servo H2-90-4+3xValve H1-4+CFH6		3512800			
Servo H4-4+CFH6		3513000			
Servo H4-4+1xValve H1-4+CFH6		3513100			
Servo H4-4+2xValve H1-4+CFH6		3513200			
Servo H4-4+3xValve H1-4+CFH6		3513300			
Servo H4-90-4+CFH6		3513400			
Servo H4-90-4+1xValve H1-4+CFH6		3513500			
Servo H4-90-4+2xValve H1-4+CFH6		3513600			
Servo H4-90-4+3xValve H1-4+CFH6		3513700			

Description	Double	Order code
Servo H1+H1-4+CFH6		3514800
Servo H1+H1-4+1xValve H1-4+CFH6		3514900
Servo H1+H1-4+2xValve H1-4+CFH6		3515000
Servo H1+H1-4+3xValve H1-4+CFH6		3515100
Servo H1+H5-4+CFH6		3515200
Servo H1+H5-4+1xValve H1-4+CFH6		3515300
Servo H1+H5-4+2xValve H1-4+CFH6		3515400
Servo H1+H5-4+3xValve H1-4+CFH6		3515500
Servo H1+H6-4+CFH6		3522900

Pre-assembled Servo H units not mentioned in the catalogue can be put together on request. Ask your local Parker Sales Office for information and available possibilities.

Spare parts / Repair kits

For each module spare parts and seal kits are available. They contain all the required parts needed for maintenance. Where required pre-assembled parts will be delivered for simple maintenance of the Servo/Valve H series. For easy recognition all modules will be labeled. When ordering seal kit / top cover, please refer to this code number.

Seal kit

Complete seal kits consisting of all components which are subjected to friction.

Description	Order code
Servo H1 / Servo H1-90 / Servo H3+H1	3515600
Servo H2-90	3515700
Servo H4 / Servo H4-90 / Servo H3+H4	3515800
Servo H5 / Servo H5-90 / Servo H3+H5	3515900
Servo H6	3514600
Servo H1+H1	3516100
Servo H1+H5	3501900
Valve H1	3516300
Valve H2	3516400
Valve H3	3516500

Top cover complete

Complete pre-assembled top covers can be ordered for easy maintenance of a servo module.

Description	Order code
Servo H1 / Servo H1-90 / Servo H3+H1	3516600
Servo H2-90	3516700
Servo H4 / Servo H4-90 / Servo H3+H4	3516800
Servo H5 / Servo H5-90 / Servo H3+H5	3516900
Servo H6	3517000

