Remote control
Servo H / Valve H

Pneumatic proportional remote control valve series

Catalogue PDE 2513TCUK-ab



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Parker solutions for the Truck and Trailer Industry



Parker's many years of experience in designing pneumatic products and systems for the truck and trailer industry has produced a depth of "industry specific" knowledge unrivalled in the market place, with a wealth of products, both standard and custom built ideally suited to a wide range of applications.

Throughout Europe Parker has a team of Application Engineers and Design and System Engineers who work closely with customers to understand their requirements and to ensure the optimum engineering solution is provided.

Parker is certified of the Quality System SS-EN ISO9000:2000, ISO14000. Parker's key road transport products are proven in the Industry main conform to ISO TS 16949, DOT fmvss106, DIN 74324 NFR-12632

The principal application areas that Parker have experience in include:

- **PTO control systems**
- **Lower/raiser applications**
- **Axle liftsystems**
- **Cargo door opening systems**
- **Gear shift applications**
- **Refuse truck applications**
- **Fire truck applications**
- **Heavy duty products**
- **Container handling systems**
- **Fuel systems**
- **Seat adjustments**

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Pneumatic Remote Control

The Servo H/Valve H series is a pneumatic proportional pilot pressure reducing valve, especially designed to control position cylinders built into hydraulic proportional remote control systems.

Servo H/Valve H valve series is designed for both, mobile and industrial applications, like hookloaders, skiploaders, frontloaders, small cranes control, forklift trucks, proportional speed control in both directions of airmotors, in short anywhere a pneumatic proportional movement is needed.

The program consists of a range of double acting proportional pressure reducing valves, with or without a pneumatic push button or electric switch integrated into the lever of the Servo valve. Pneumatic push button controlled 3/2-way valves, electric lamp modules and electric switch units can be easily combined with proportional Servo H series. Detection of movements or end positions can be shown easily by using an electric indicator module. The modular design of Servo H series, allows the combination of multiple functions into one compact design.

By using proven sealing techniques, manufacturing methods and the experience of former Servo series, makes the Servo-H/Valve H products a reliable series with an high life expectation.

Catalogue Layout

This catalogue has been designed to give a brief overview of the Servo H/Valve H valve series. This catalogue should give you the opportunity to make a choice from the different servo and valve functions available, so that Parker can provide the best solution in accordance with your wishes for the application.

General information, design functions and ordering-keys are given first for Servo H modules, followed by general information design and function and ordering keys for Valve H modules. Information about available accessories technical data, dimension drawings complete assemled units and repair kits are at the back of the catalogue.

How to order

If specifing a Servo H or Valve H module combined with accessories, to suit a specific application, use the ordering codes for Servo H, Valve H or accessories. Below the ordering code charts are the most popular standard order codes.

Parker can pre-assembled a complete unit of Servo H. This gives you the benefit of receiving a pre-assembled module, which has been factory tested by Parker for function. By this you will save assembling time and costs.

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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 of without electric switch.

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



Servo H1
Pneumatic proportional valve.
Available handle actuations:
- lever in line
- lever 90° rotated



Servo H2
Pneumatic proportional valve, with pneumatic push-buttton integrated into the lever, for extra pneumatic signal. Available handle actuations:
- lever 90° rotated



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).



Servo H4
Pneumatic proportional valve, with mechanical lock.
Available handle actuations:
- lever in line
- lever 90° rotated



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



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

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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

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Standard order codes

Single	Order code
Servo H1-0-4	**3500600**
Servo H1-90-4	**3501400**
Servo H2-90-4	**3501500**
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**

Double	Order code
Servo H1+H1-4	**3501200**
Servo H1+H5-4	**3501900**
Servo H1+H6-4	**3522800**

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.

General Valve H

Valve H series consists of a complete range of push-button controlled 3/2-way valves, intended for remote control.

Valve H series are designed for many different applications, both mobile and industrial. Servo H series can be applied to control directional hydraulic spool valves for safety pins, lock's and actuators, for hook arms systems, front and end loaders, mobile cranes and portal systems.

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

Design and function Valve H

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

Robust design, choice of materials, seals and production technique's makes Valve H series a reliable product.
Valve H modules are available in different version's, double 3/2-way, push button controlled, spring return into one module, single 3/2-way push button controlled, spring return and single push/pull button controlled 3/2 way, two positions. Electric switches modules are under development. Ask your local Parker Sales offices for possibilities.

Pneumatic connections for outlet signals are located on bottom side of valve modules. Modules will standard be delivered with push-in connectors ∅4 mm.

Symbols for movements functions and on/off functions can be the bottom valve modules. Modules are supplied as standard with push-in Ø4 mm connectors.

All components can be assembled in random order.
Each module is supplied with special connection screws. This provides the freedom to assemble a unit consisting of different Valve H and Servo H modules as required.

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.



Valve H1
Double push-button controlled 3/2-way valve, spring return



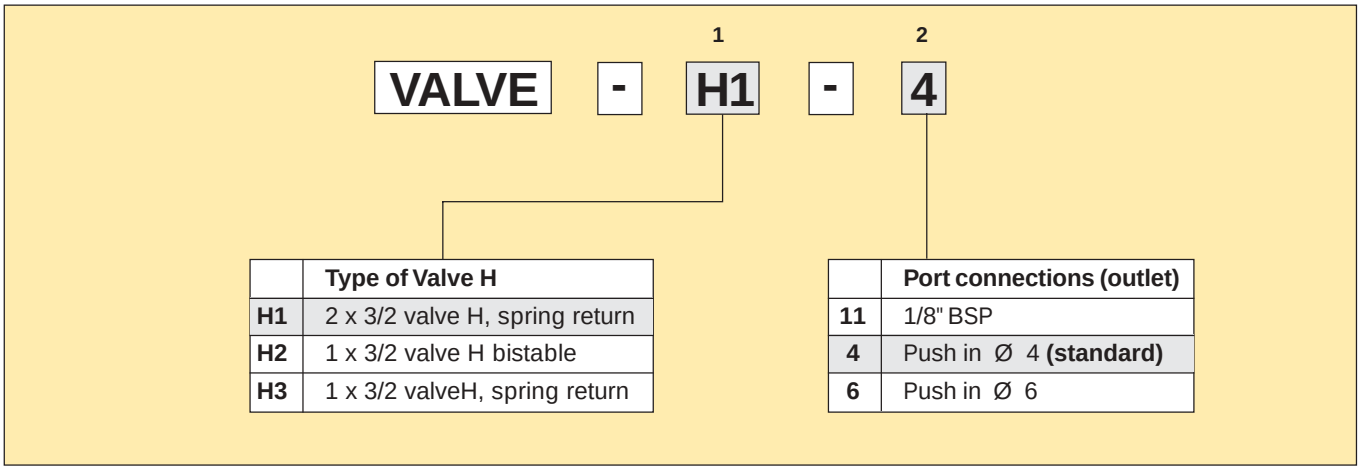
Valve H2
Single push/pull-button controlled 3/2-way valve, two positions



Valve H3
Single push-button contolled 3/2-way valve, spring return

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Ordering-key Valve H



	Type of Valve H
H1	2 x 3/2 valve H, spring return
H2	1 x 3/2 valve H bistable
H3	1 x 3/2 valveH, spring return

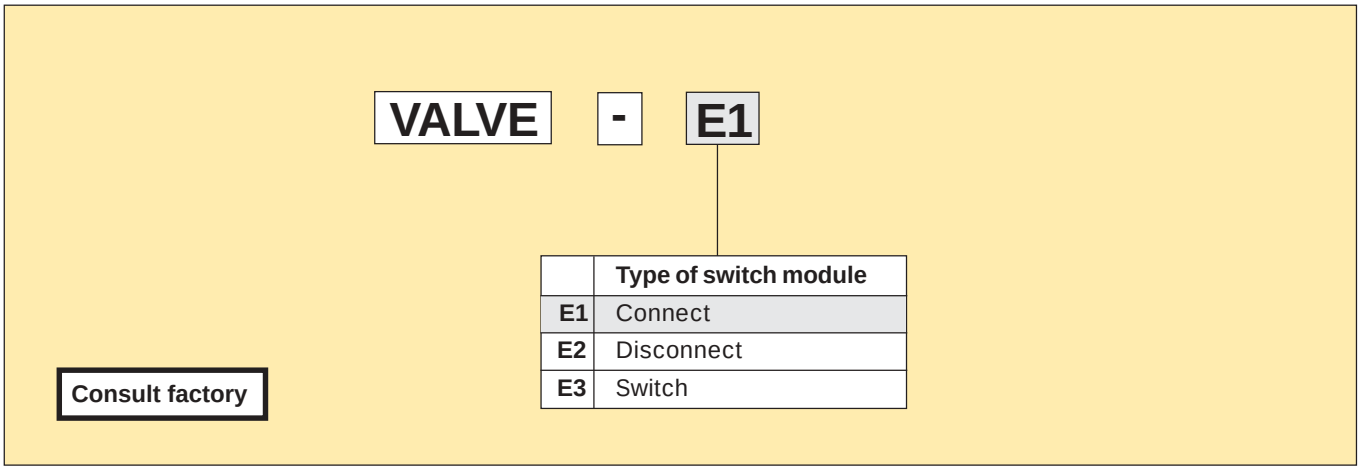
	Port connections (outlet)
11	1/8" BSP
4	Push in Ø 4 **(standard)**
6	Push in Ø 6

Ordering codes / Available standard order codes

Single	Order code
Valve H1-4	**3500500**
Valve H2-4	**3500400**
Valve H3-4	**3503700**

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Electrical switch unit



	Type of switch module
E1	Connect
E2	Disconnect
E3	Switch

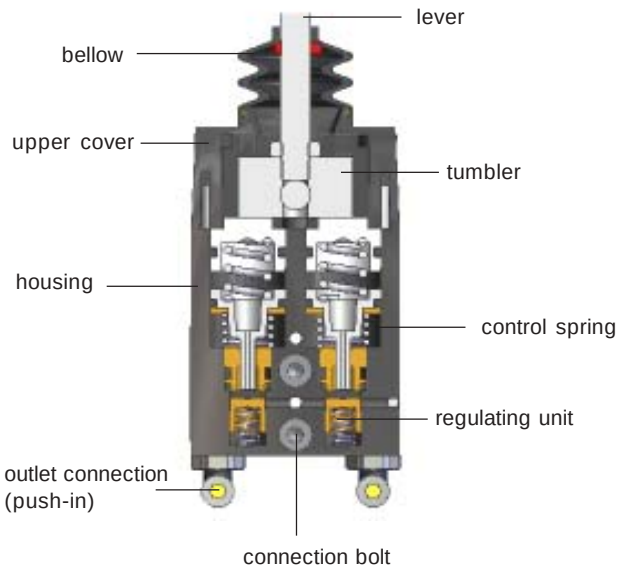
Consult factory

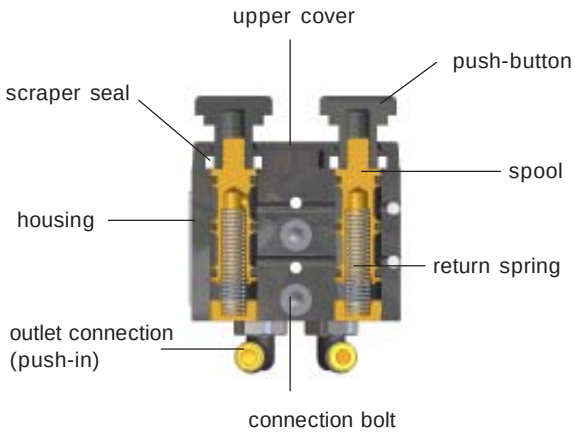
For central air supply and exhaust of a module or complete pre-assembled Servo H-unit a connection flange is always required. More information can be found on page 8.

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 ∅ 6 mm for both air supply and exhaust.	CFH6 CFH12	∅ 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 equiped 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**

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Servo H **Cross section** **Valve H**





Technical data

Pneumatic

Working medium	: Compressed air
Supply pressure	: max. 8 bar
Controlpressure	: 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 drewpoint 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 ø6 mm
Central exhaust (R)	: Push-in connector ø6 mm

Port connections outlet:

ServoH	: Push-in connector ø4 mm
Valve H	: Push-in connector ø4 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

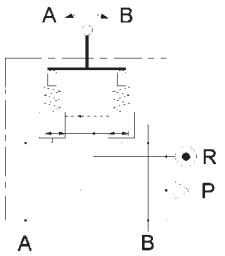
Electrical:

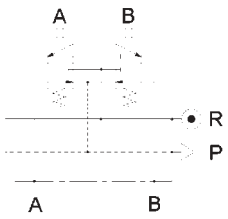
Two position contact	: resistive load 2A - 24 VDC 5A - 250 VAC
	: inductive load 3A - 250 VAC

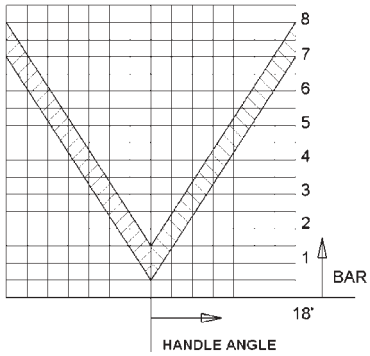
Materials:

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

Servo H **Valve H**



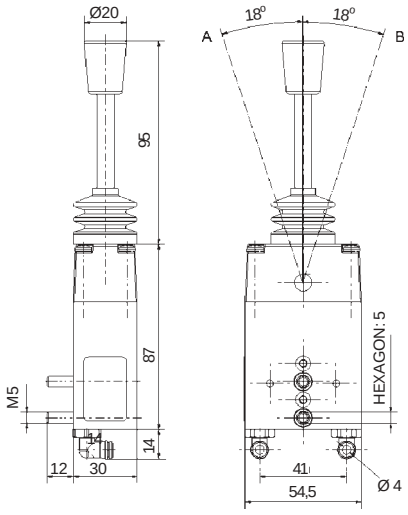




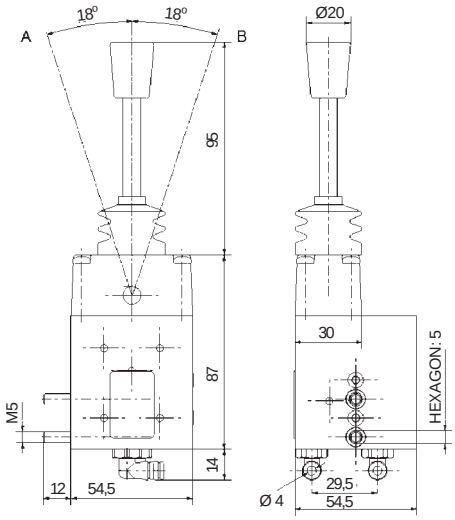
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Dimensions

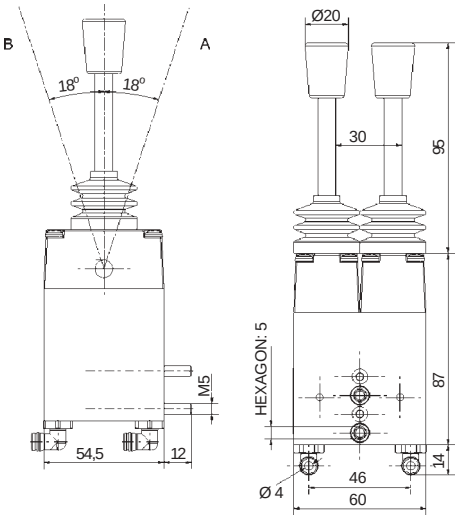
Servo H... in line



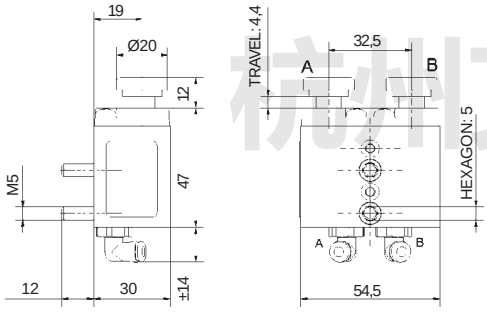
Servo H... 90° rotated



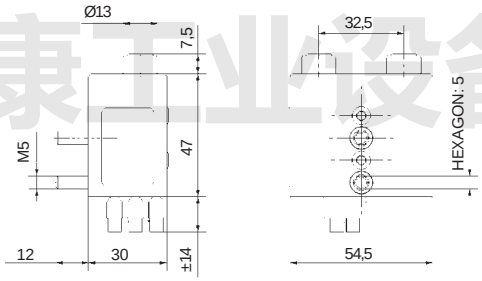
Servo double



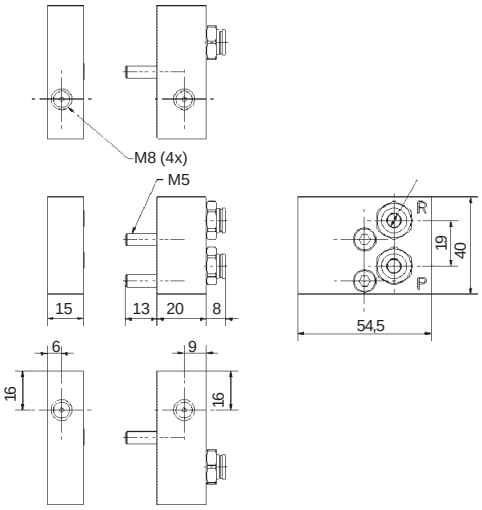
Valve H...



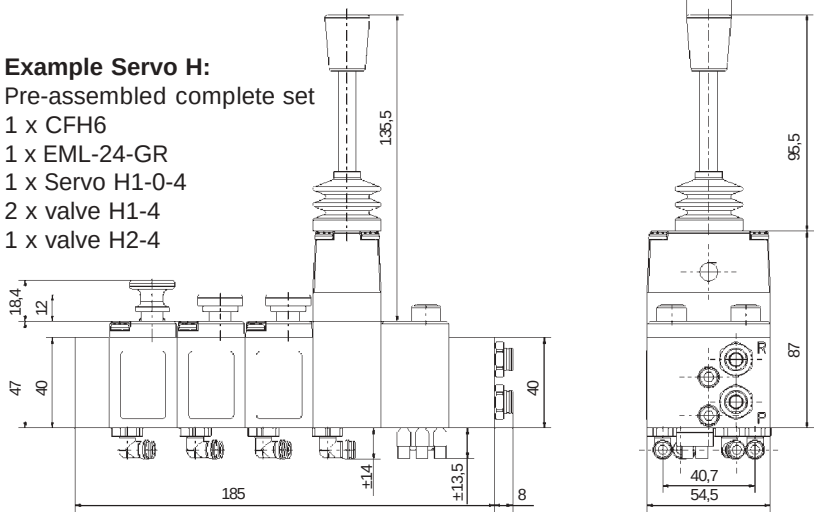
EML-24-GR



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



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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
Servo H1-4+CFH6	**3511700**
Servo H1-4+1xValve H1-4+CFH6	**3511800**
Servo H1-4+2xValve H1-4+CFH6	**3511900**
Servo H1-4+3xValve H1-4+CFH6	**3512000**
Servo H1-90-4+CFH6	**3512100**
Servo H1-90-4+1xValve H1-4+CFH6	**3512200**
Servo H1-90-4+2xValve H1-4+CFH6	**3512300**
Servo H1-90-4+3xValve H1-4+CFH6	**3512400**
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 Single	Order code
Servo H5-4+CFH6	**3513800**
Servo H5-4+1xValve H1-4+CFH6	**3513900**
Servo H5-4+2xValve H1-4+CFH6	**3514000**
Servo H5-4+3xValve H1-4+CFH6	**3514100**
Servo H5-90-4+CFH6	**3514200**
Servo H5-90-4+1xValve H1-4+CFH6	**3514300**
Servo H5-90-4+2xValve H1-4+CFH6	**3514400**
Servo H5-90-4+3xValve H1-4+CFH6	**3514500**

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**

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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-assembed top covers can be ordered for easy maintenance of a ervo 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**

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We reserve the right to make alterations without prior notification.
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