



1.3.1

EHG SERIES

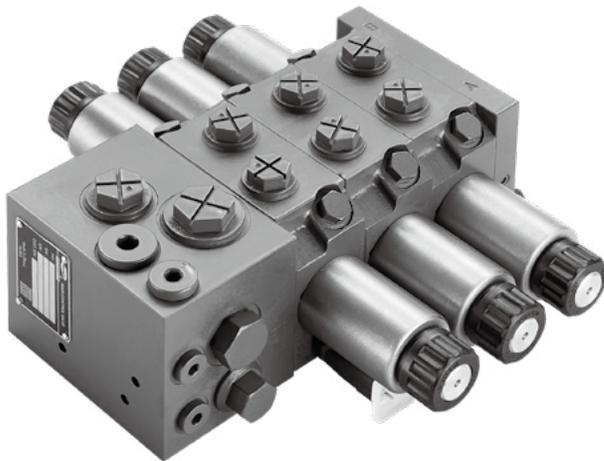
LOAD SENSING PROPORTIONAL CONTROL VALVE

EHG:

Specification:	04
Rated pressure(bar):	350 (pump side) 350 (actuator side)
Rated flow(L/min):	40

Benefits:

- Small and light
- High-performance
- Low pressure drop, more energy-efficient
- Precise control, good micro motion property



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Features

1. System

Load pressure independent flow distribution

Open center, for fixed displacement pump system

Closed center, for variable piston pump system

- Priority function
- Less control pressure, $\Delta P=12\text{bar}$
- High flow accuracy
- Electrical on/off and electrical proportional control

2. Structure

- Sandwich plate of design
- Max. 12 middle section

3. Pressure

- Primary and secondary pressure relief valve
- LS relief valve (With LS pressure relief valve in each section)

4. Flow

- Load pressure compensated
- Quick response
- Low hysteresis

5. Applications



Aerial work platform



Forklift

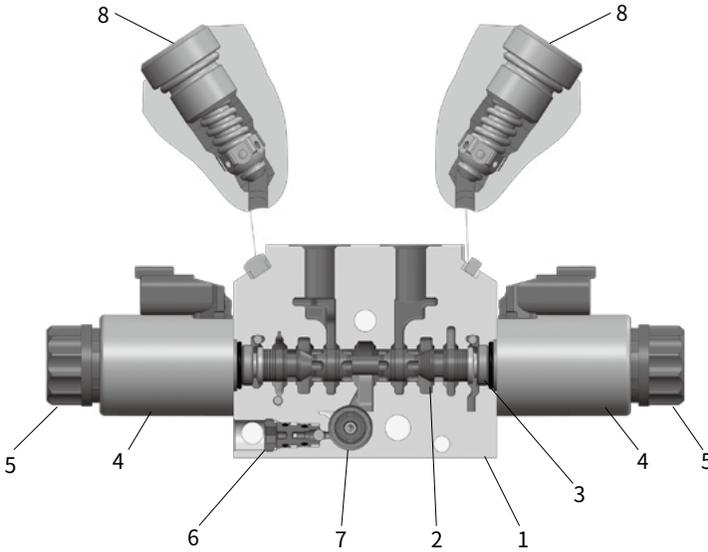


Concrete pump truck



Municipal vehicle

Section view



1. Valve block

2. Main spool

3. Spring

4. Coil

5. Ring nut

6. LS shuttle valve

7. Pressure compensator

8. Relief valve with anticavitation
or anticavitation only

Technical data

General

Specification	04		
Structure	Stackable, load sensing, pre-compensated		
Type of connection	ISO BSP thread, metric thread (with SAE thread option per SAE J1626)		
Mass (kg)	Inlet element	Open center	4.2
		Closed center	3.1
	Middle section	Electrical on/off	1.9
		Electrical proportional	1.9
End element	1.3		

Hydraulic

Specification	04	
Rated flow Q (L/min)	With 4 bar compensation pressure	32
	With 6 bar compensation pressure	40
Max. operating pressure at port (bar)	P	350
	LS	350
	A/B	350
	T	210

Electric

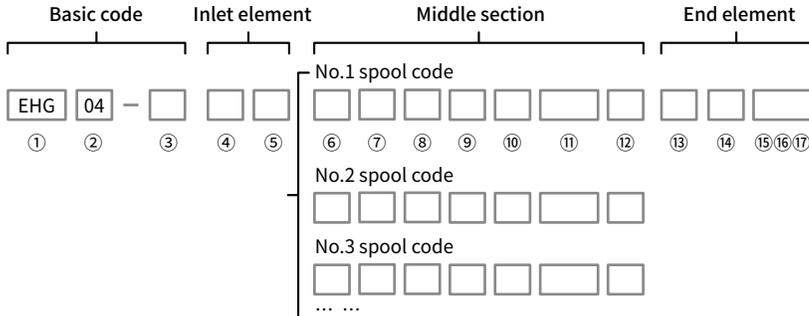
Normal E-H operation	<ul style="list-style-type: none"> · Electrical on/off valve · Connection: Deutsch DT04-2P · Protection class: IP67k · Supply voltage: 12 or 24VDC 	<ul style="list-style-type: none"> · Electrical proportional valve · Dither frequency required: 120Hz · Hysteresis: Less than 3% · Connection: Deutsch DT04-2P · Protection class: IP67k · Control current @24VDC: 0~800mA; @12VDC: 0~1800mA
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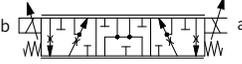
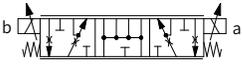
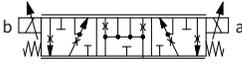
Using environment

Hydraulic fluid	Mineral oil (HL, HLP) according to DIN 51524. Other hydraulic fluids, such as HEES (Synthetic Ester) according to VDMA 24568.
Hydraulic fluid temperature range (°C)	-30 to +100
Viscosity range ν (mm ² /s)	20 to 380
Maximum permissible degree of contamination of the pressure fluid cleanliness class to ISO 4406 (c)	Class 20/18/15, we therefore recommend a filter with a minimum retention rate of $\beta_{10} \geq 75$

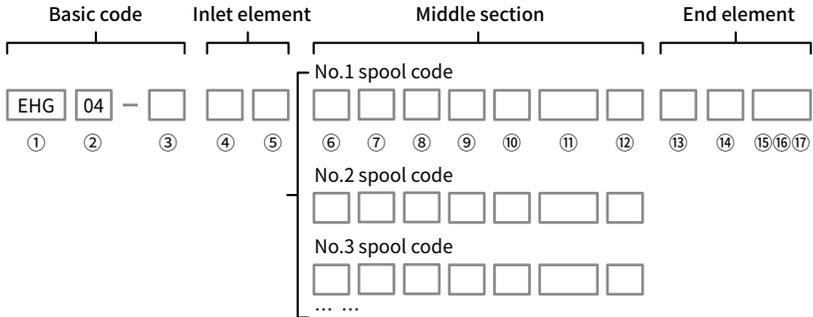
(For applications outside above mentioned parameters, please consult our sales dept.)

Ordering code



Basic code	① Structure	EHG	Stackable, load sensing, pre-compensated
	② Specification		04
	③ Number of blocks	..	0-12
Inlet element	④ Circuit types	J	Closed center, for variable piston pump system
	⑤ Main relief valve	P	Open center, for fixed displacement pump system
Middle section	⑥ Spool function	Q	Without main pressure relief valve(not for open center)
		...	With main pressure relief valve,(pressure in bar, 3-digits)
	⑦ LS relief valve	S	With pressure compensator
		QMQ	With LS pressure relief plug, with LS measuring port
		...M...	With LS pressure relief valve, with LS measuring port (pressure in bar, 3-digits)
		...MQ	Only with A port LS pressure relief valve, with LS measuring port (pressure in bar, 3-digits)
		QM...	Only with B port LS pressure relief valve, with LS measuring port (pressure in bar, 3-digits)
		...R...	With remote LS pressure relief valve, decreasing characteristic curve, with LS measuring port (pressure in bar, 3-digits)
	...L...	With remote LS pressure relief valve, increasing characteristic curve, with LS measuring port (pressure in bar, 3-digits)	
	⑧ Spool symbol	E	
J			
Q			
⑨ A/B flow	...—...		Flow in l/min, 3-digits, e.g. 50-50

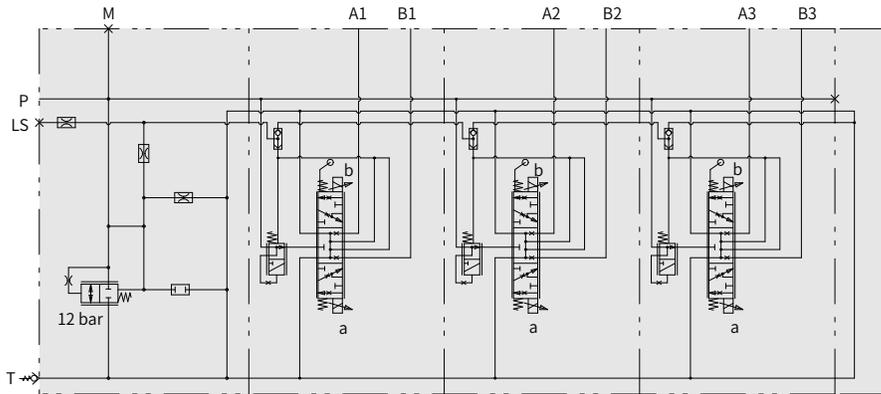
Ordering code



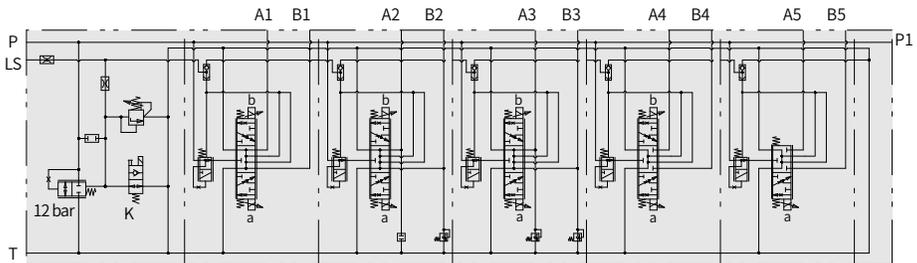
Middle section	⑩ Cover	W21	Electrical proportional control, 24V
		W23	Electrical proportional control, 12V
		W41	Electrical on/off control, 24V
		W43	Electrical on/off control, 12V
	⑪ Emergency handle	Blank	Without emergency handle
		1	With emergency handle
⑫ A/B port relief valve	QQ	Plug, without relief valve (port relief valve can be added)	
	GG	Check valve, for anti-cavitation function	
	H...H...	H320H320, pressure in bar, pressure details of port relief valve in 3 digits	
End element	⑬ LS unload	LZ	Without LS unload function
		LA	With LS unload function
	⑭ Additional P port	Blank	Without additional P port
PT		With additional P port	
Others	⑮ Sealing type	V	FKM
		N	NBR
	⑯ Design code	001	
	⑰ Special application	Blank	Without special requirement
*	Other request		Further requirement in the clear text

Hydraulic diagram

•The valve with 3 working sections

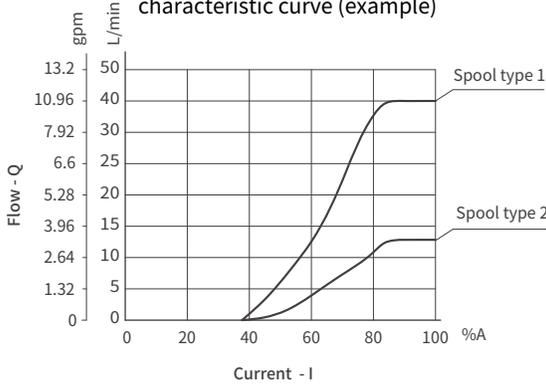


•The valve with 5 working sections

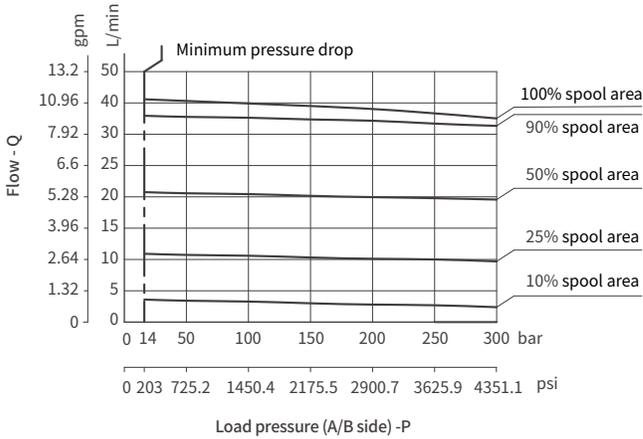


Characteristic curves

Flow and control current characteristic curve (example)



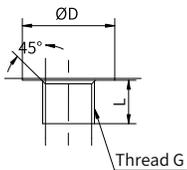
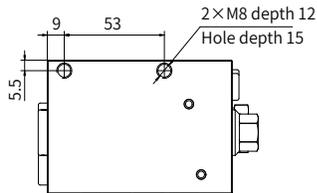
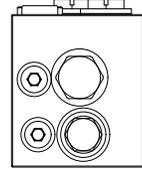
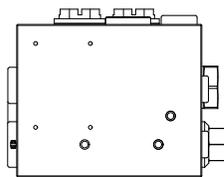
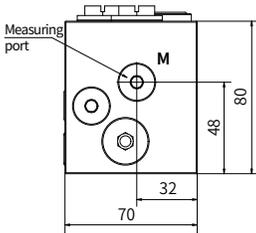
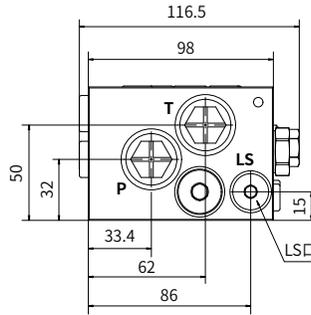
Flow - Pressure compensated characteristic curve



01

Inlet element - Open center

· EHG 04



Port dimension

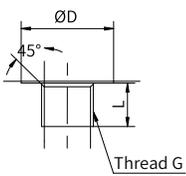
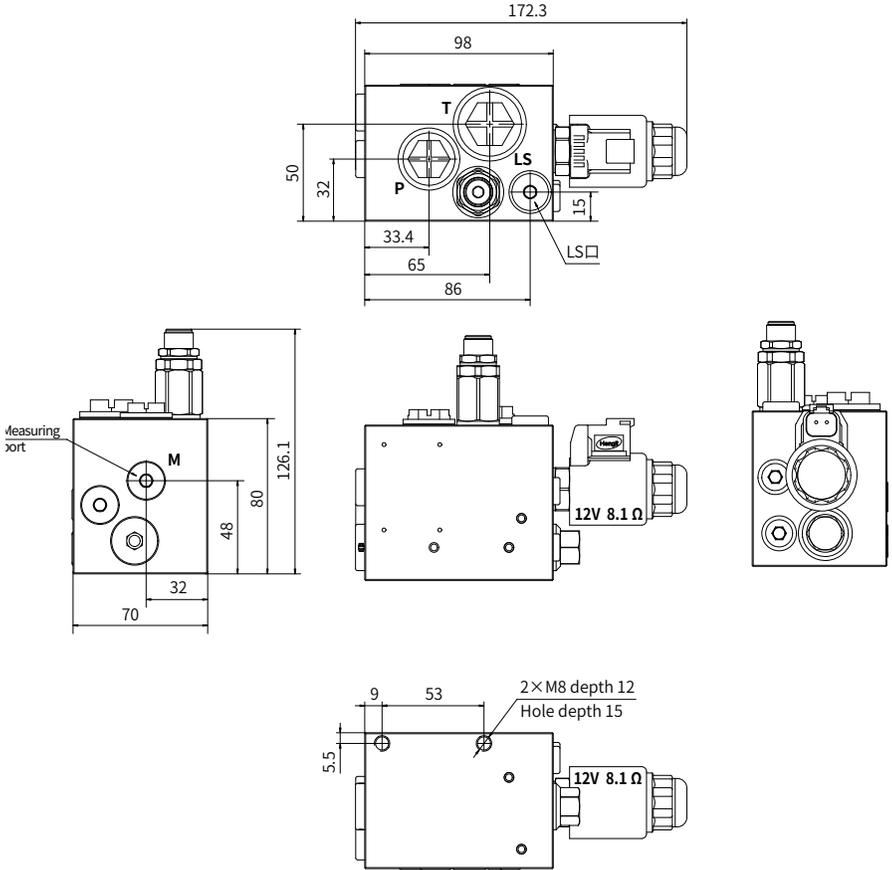
P port:	G1/2
T port:	G1/2
LS port:	G1/4
Thread dimensions:	G1/4

Thread dimensions

G1/2:	$\varnothing D 30$	L 15
G1/4:	$\varnothing D 24$	L 12

Inlet element - With LS solenoid operated unloading valve and relief valve

• EHG 04

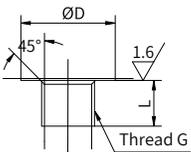
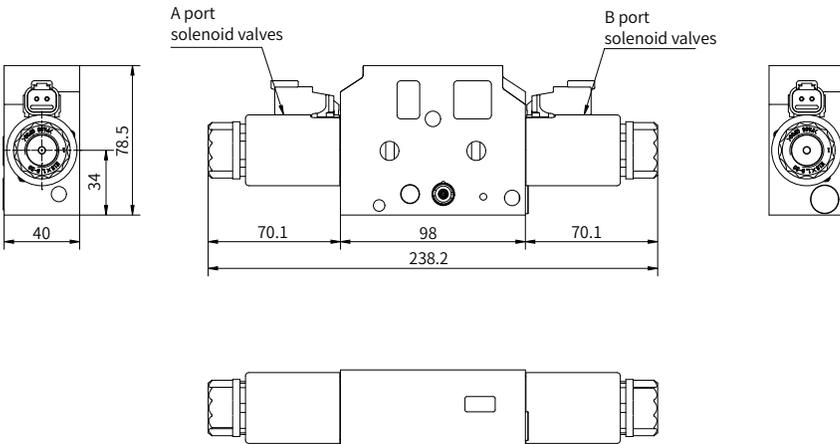
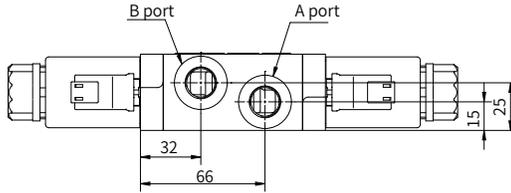


Port dimension		Thread dimensions	
P port:	G1/2	G1/2:	Ø D 30 L 15
T port:	G3/4	G3/4:	Ø D 38 L 16
LS port:	G1/4	G1/4:	Ø D 24 L 12
Thread dimensions:	G1/4		

01

Middle section

• EHG 04



Port dimension

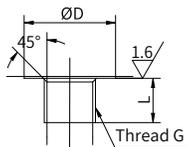
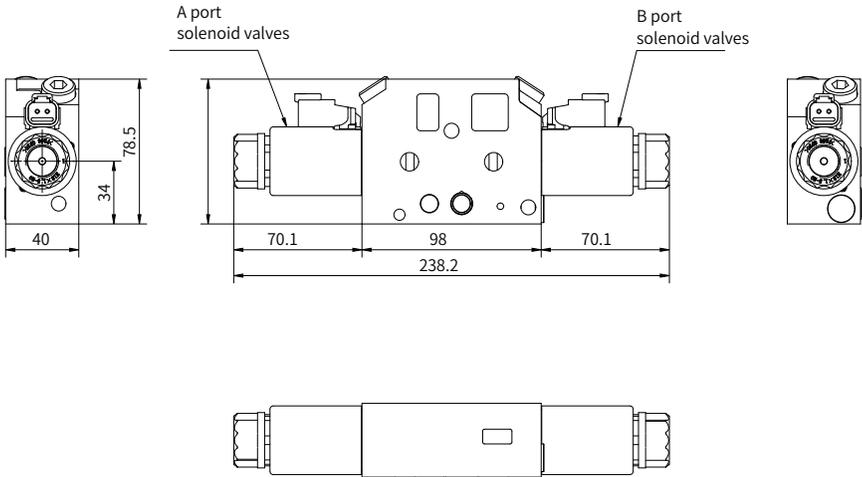
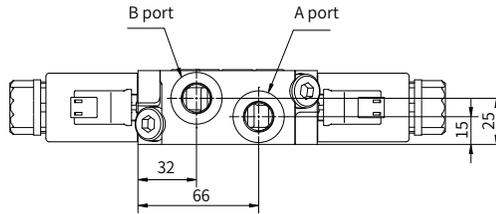
A/B : G3/8

Thread dimensions

G3/8: \varnothing D 28 L 12.5

Middle section- Safety valve with port

• EHG 04



Port dimension

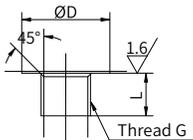
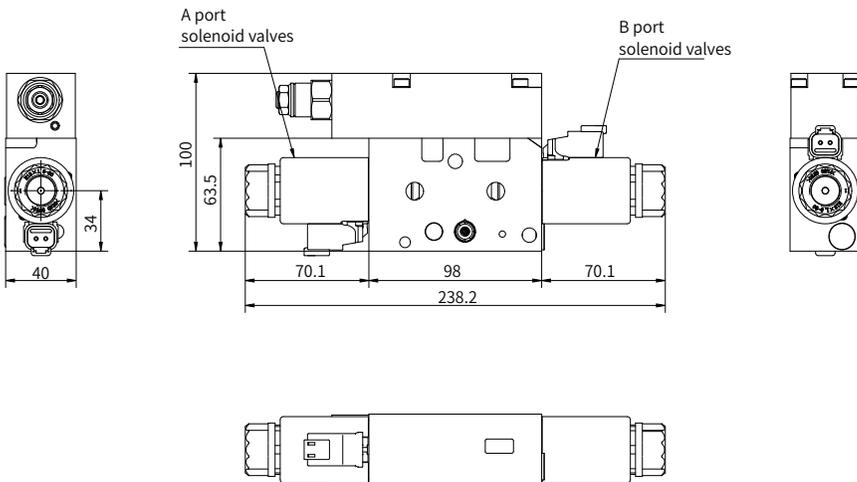
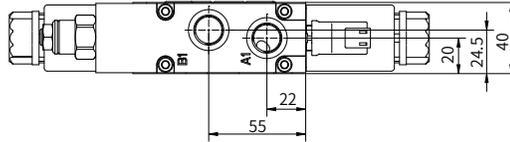
A1/B1: G3/8

Thread dimensions

G3/8: Ø D 28 L 12.5

Middle section- Equipped with a single-side balance valve

· EHG 04



Port dimension

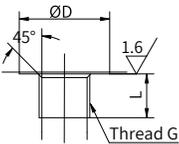
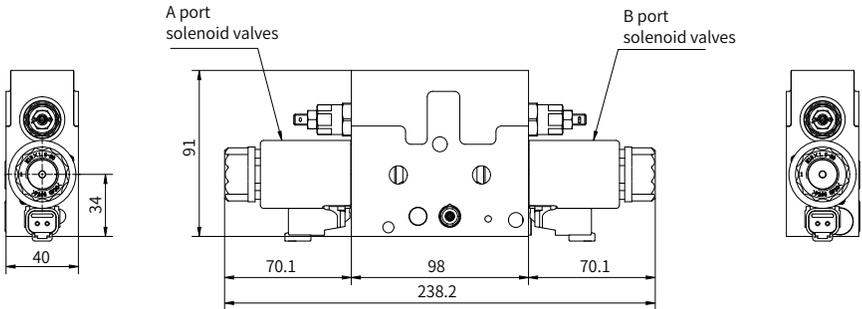
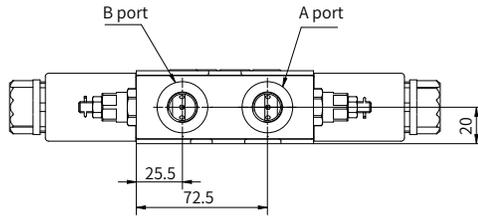
A1/B1: G3/8

Thread dimensions

G3/8: Ø D 23 L 12.5

Middle section- Equipped with double-sided balance valves

• EHG 04



Port dimension

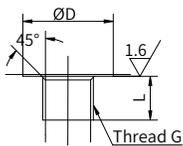
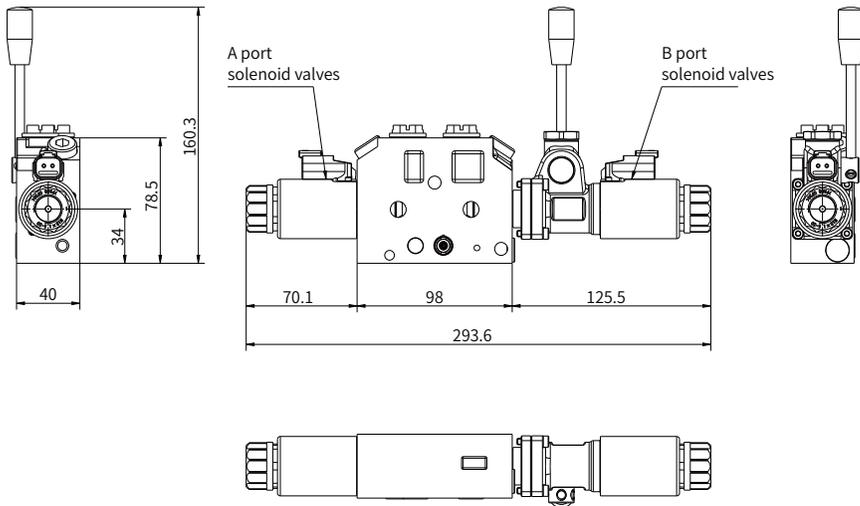
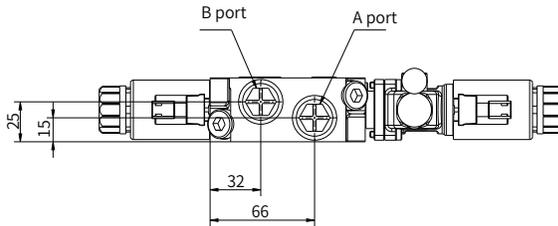
A/B : G3/8

Thread dimensions

G3/8: Ø D 28 L 12.5

Middle section- With emergency handle

· EHG 04



Port dimension

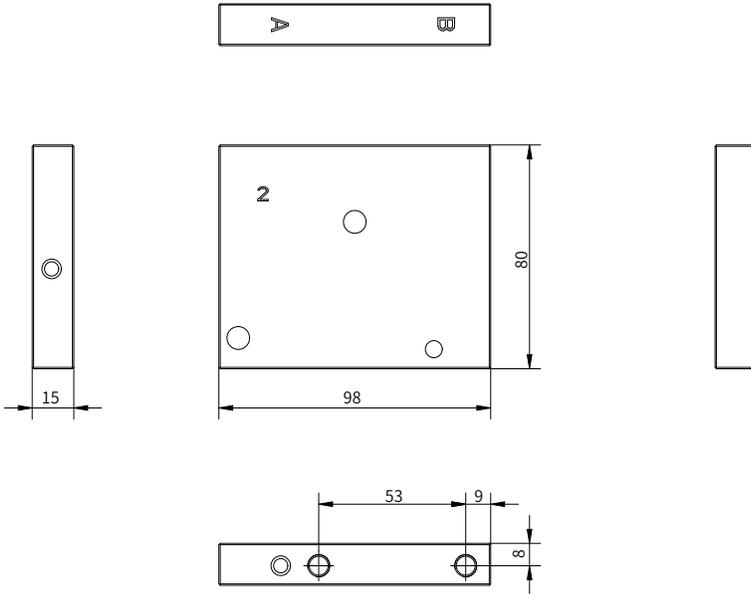
A/B : G3/8

Thread dimensions

G3/8: $\varnothing D 28$ L 12.5

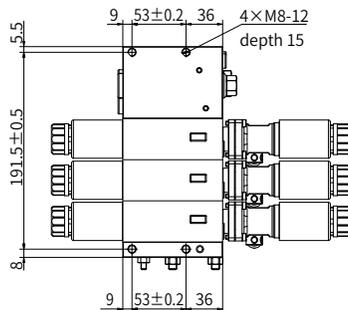
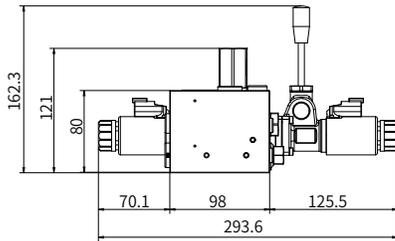
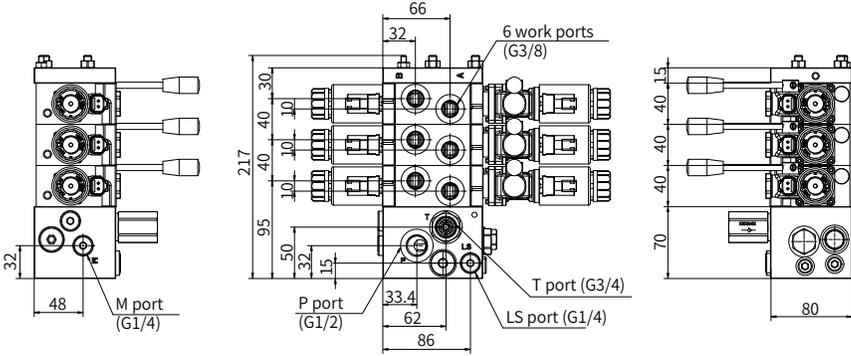
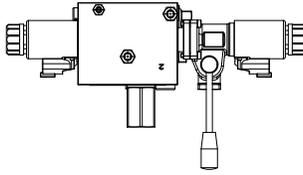
End element

• EHG 04



Unit dimensions

• The valve with 3 working sections





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