1.5

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

Contents

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, ΔP=12bar

· 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

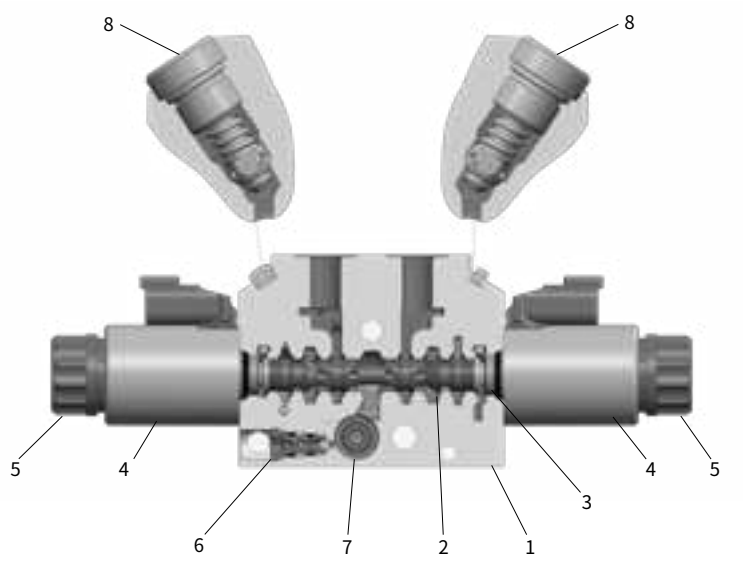
Aerial work platform

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. Secondary valve with anticavitation option

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

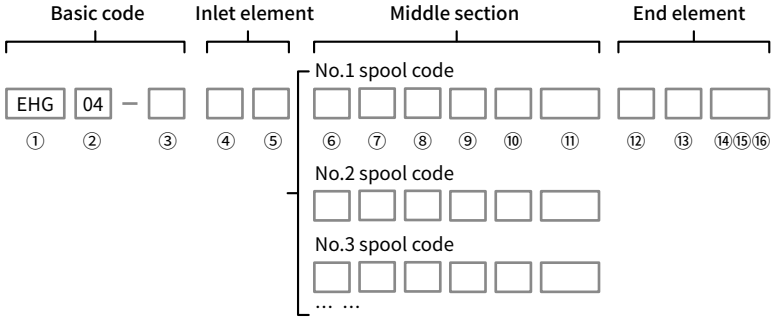
Normal E-H operation	· Electrical on/off valve · Connection: Deutsch DT04-2P · Protection class: IP67k · Supply voltage: 12 or 24VDC (*The 24VDC series is under development)	· Electrical proportional valve · Dither frequency required: 120Hz · Hysteresis: Less than 3% · Connection: Deutsch DT04-2P · Protection class: IP67k · Control current @24VDC: 0~800mA; @12VDC: 0~1800mA

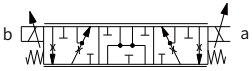
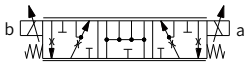
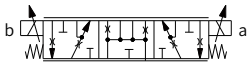
Using environment

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 v (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 $\beta 10 \geqslant 75$

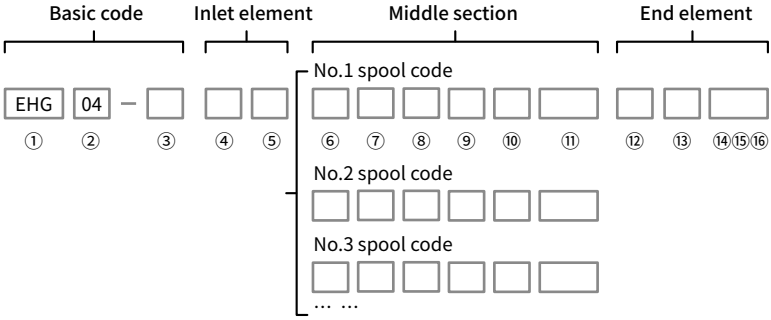
(For applications outside above mentioned parameters, please consult our sales dept.)

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
		P	Open center, for fixed displacement pump system
	⑤ Main relief valve	Q	Without main pressure relief valve(not for open center)
		…	With main pressure relief valve,(pressure in bar, 3-digits)
Middle section	⑥ Spool function	S	With pressure compensator
	⑦ LS relief valve	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

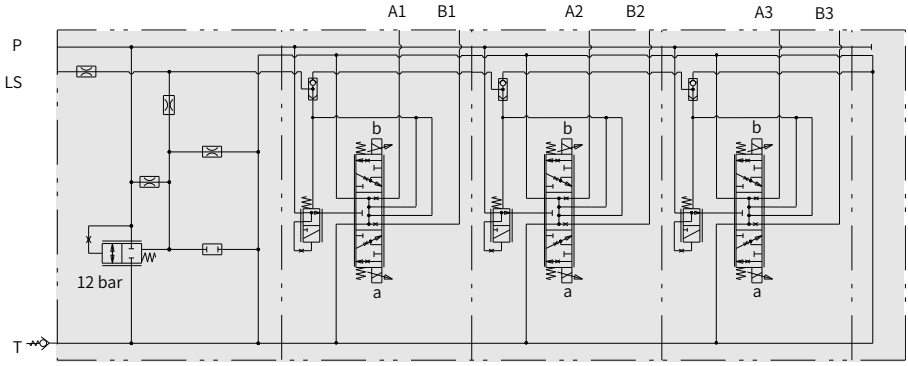
Ordering code



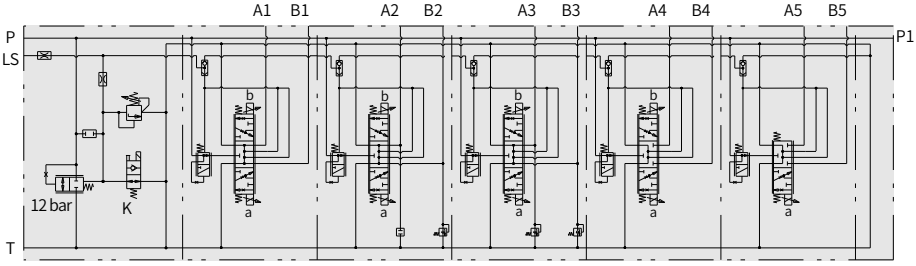
Middle section	⑩ Cover	W21	Electrical proportional control, 24V
		W23	Electrical proportional control, 12V
		W41	Electrical on/off control, 24V
		W43	Electrical on/off control, 12V
	⑪ A/B port relief valve	QQ	Plug, without relief valve (port relief valve can be added)
		H...H...	H320H320, pressure in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

Hydraulic diagram

·The valve with 3 working sections

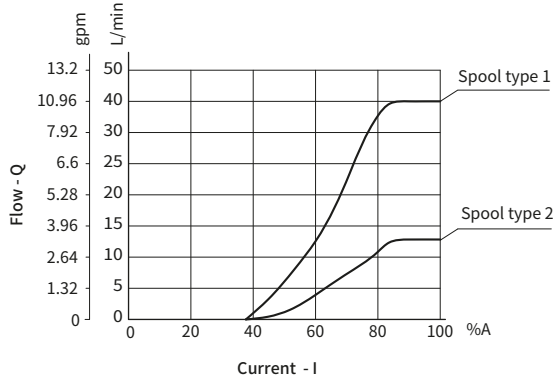


·The valve with 5 working sections

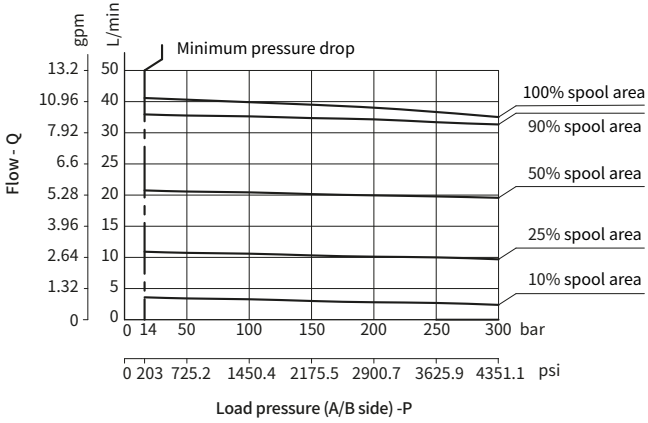


Characteristic curves

Flow and control current characteristic curve (example)

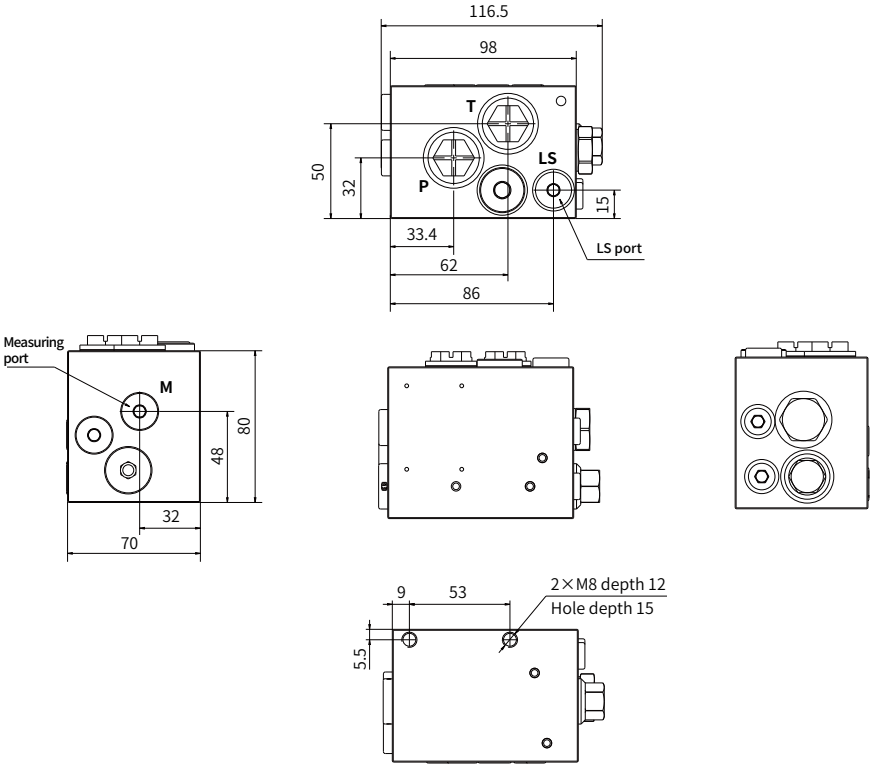


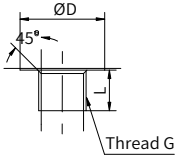
Flow - Pressure compensated characteristic curve



Inlet element - Open center

· EHG 04

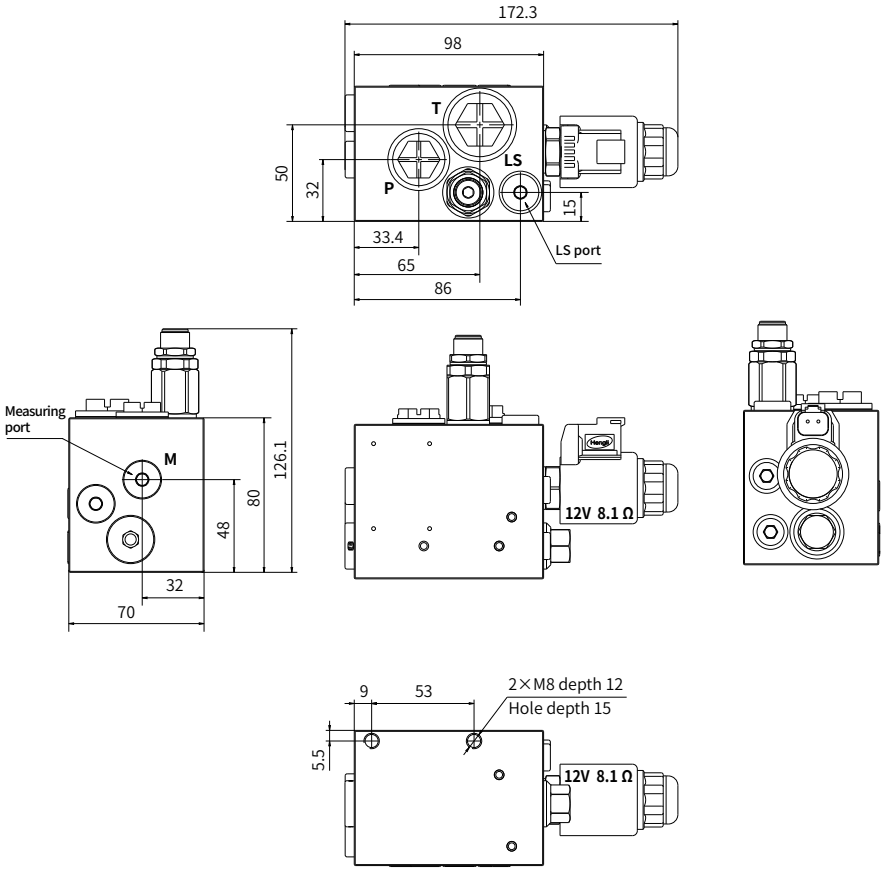


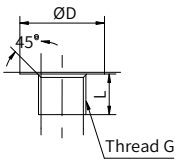


Port dimension		Thread dimensions		
P port:	G1/2	G1/2:	∅ D 30	L 15
T port:	G1/2	G1/4:	∅ D 24	L 12
LS port:	G1/4			
Thread dimensions:	G1/4			

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

·EHG 04

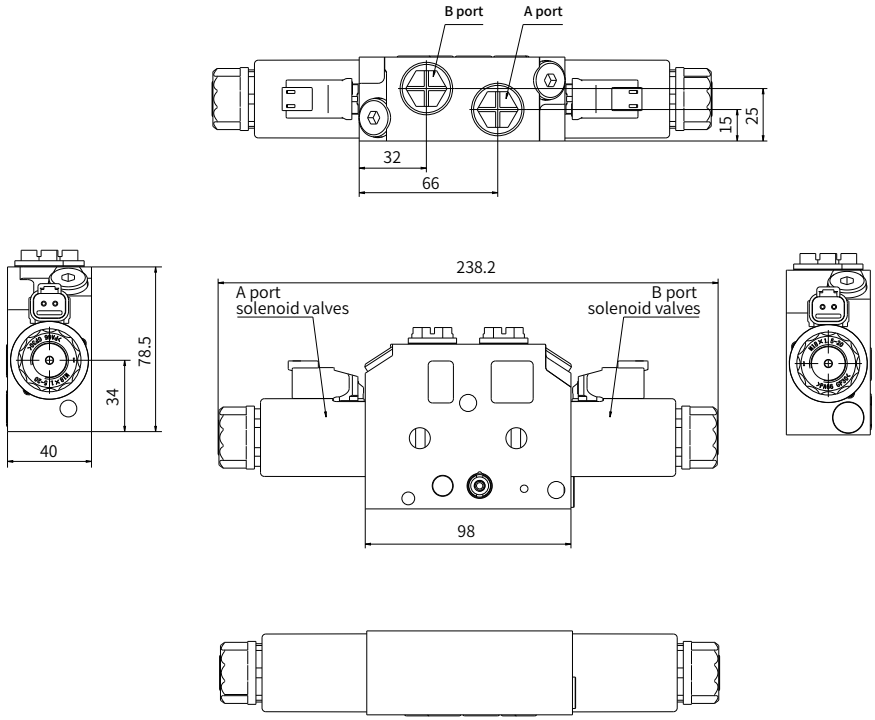


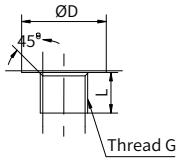


Port dimension		Thread dimensions		
P port:	G1/2	G1/2:	∅ D 30	L 15
T port:	G3/4	G3/4:	∅ D 38	L 16
LS port:	G1/4	G1/4:	∅ D 24	L 12
Thread dimensions:	G1/4			

Middle section

· EHG 04

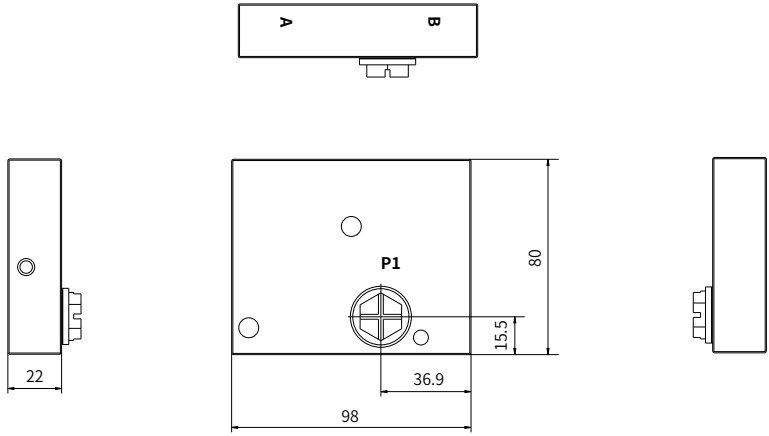


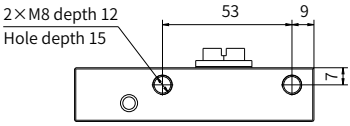


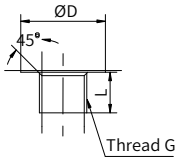
Port dimension		Thread dimensions		
A/B port:	G3/8	G3/8:	∅ D 28	L 12.5

End element

·EHG 04







Port dimension

P1: G3/8

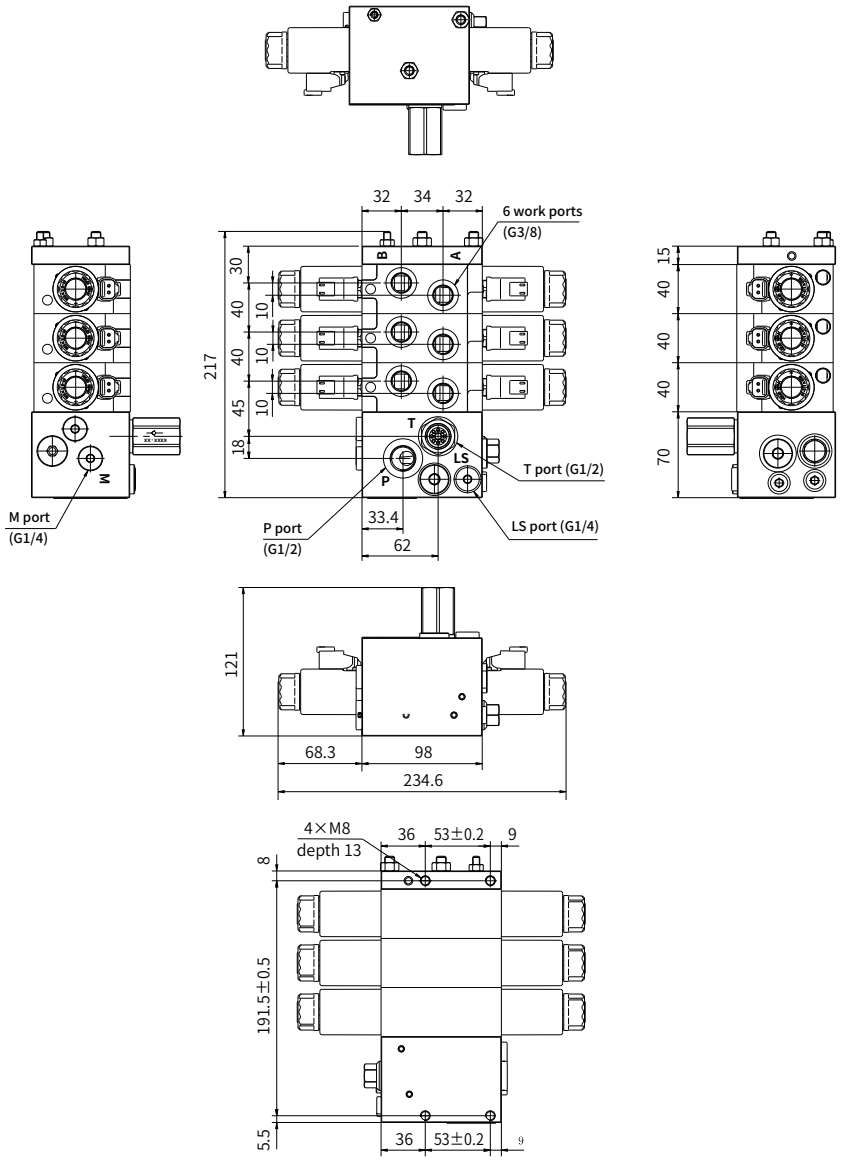
Thread dimensions

G3/8: Ø D 28 L 12.5

01

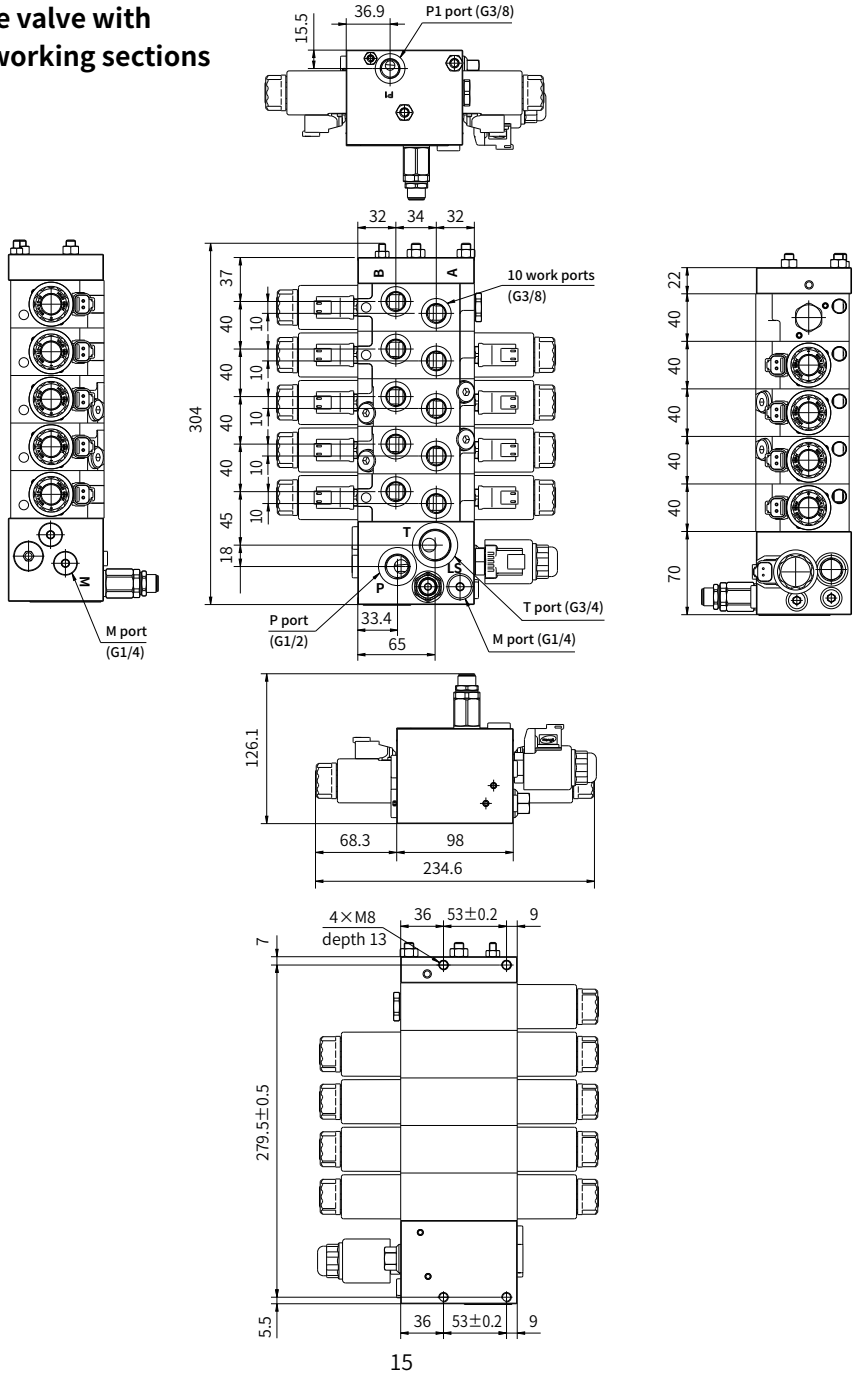
Unit dimensions

·The valve with 3 working sections



Unit dimensions

·The valve with 5 working sections



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