

SH1E Rotary Direct Drive Servo Valve

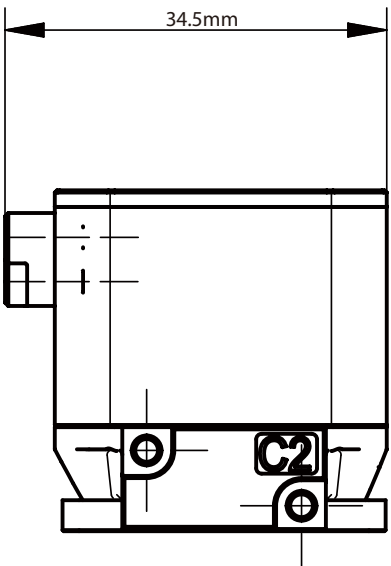
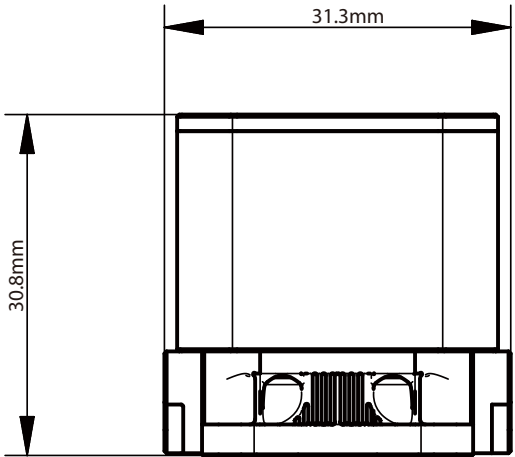
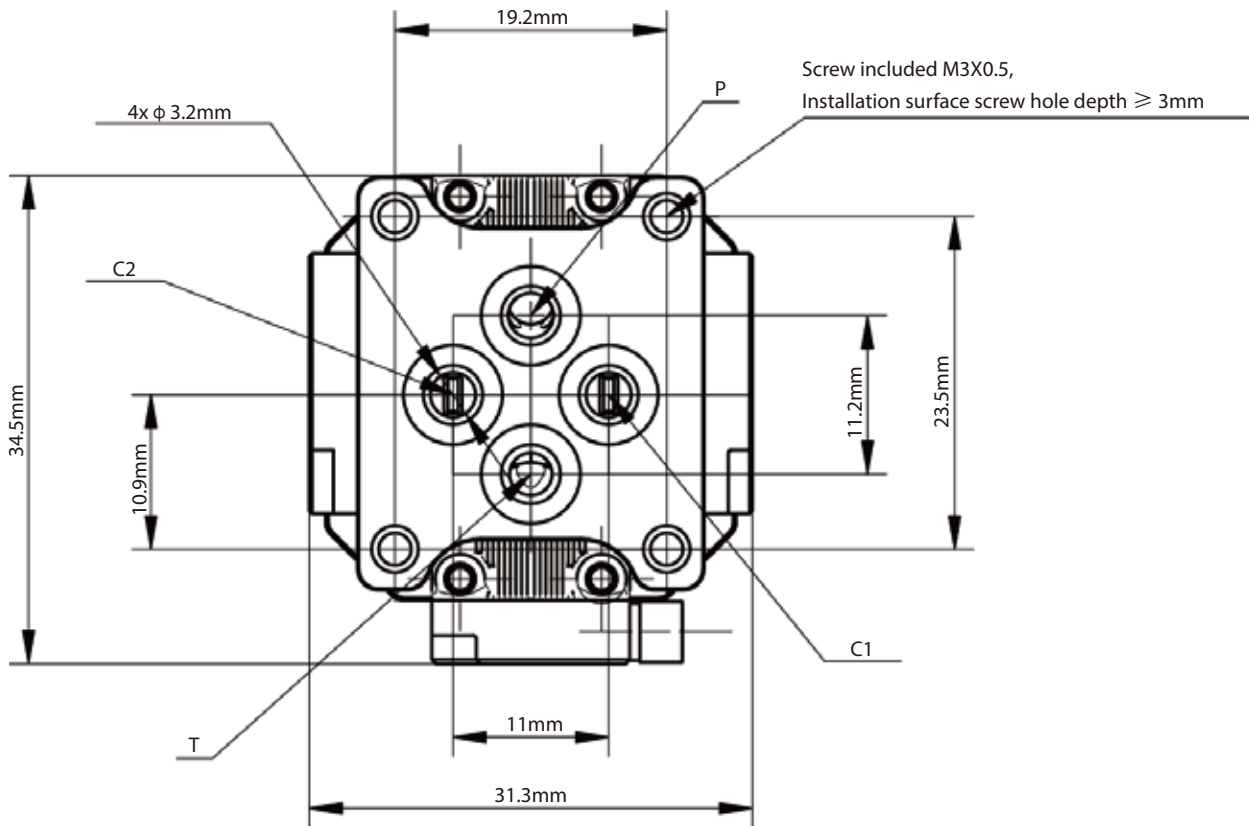
The smallest rotary direct drive servo valve in the world, which can be widely used in military, aerospace, robotics, mobile platforms and many other industries.



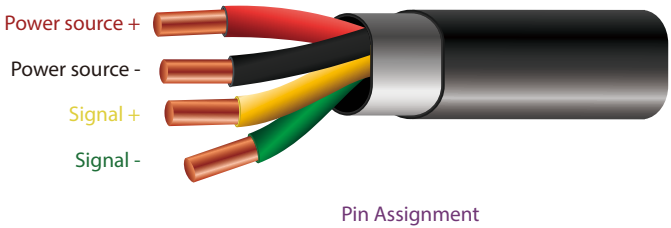
- Independent intellectual property rights;
- Compact structure、Miniaturise;
- High pressure resistant、High frequency response;
- Low leakage、Contamination-resistant.

Mechanical Installation Interface Diagram

⚠Precautions: Do not reverse the P port and the T port, the product may be seriously damaged if the pressure at the T port is more than 10MPa!



Electrical Interface Diagram

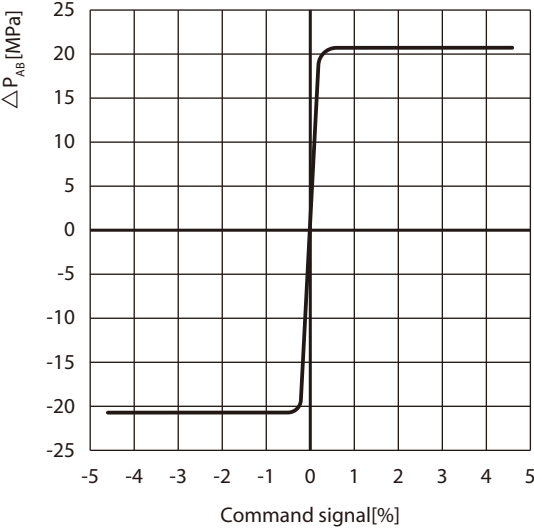


H3LC connection diagram	
Red	Power source +
Black	Power source -
Yellow	Signal +
Green	Signal -

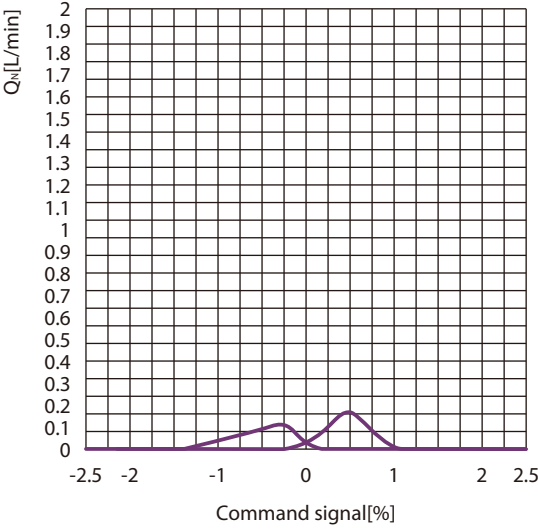
Characteristic curves

Pressure Signal

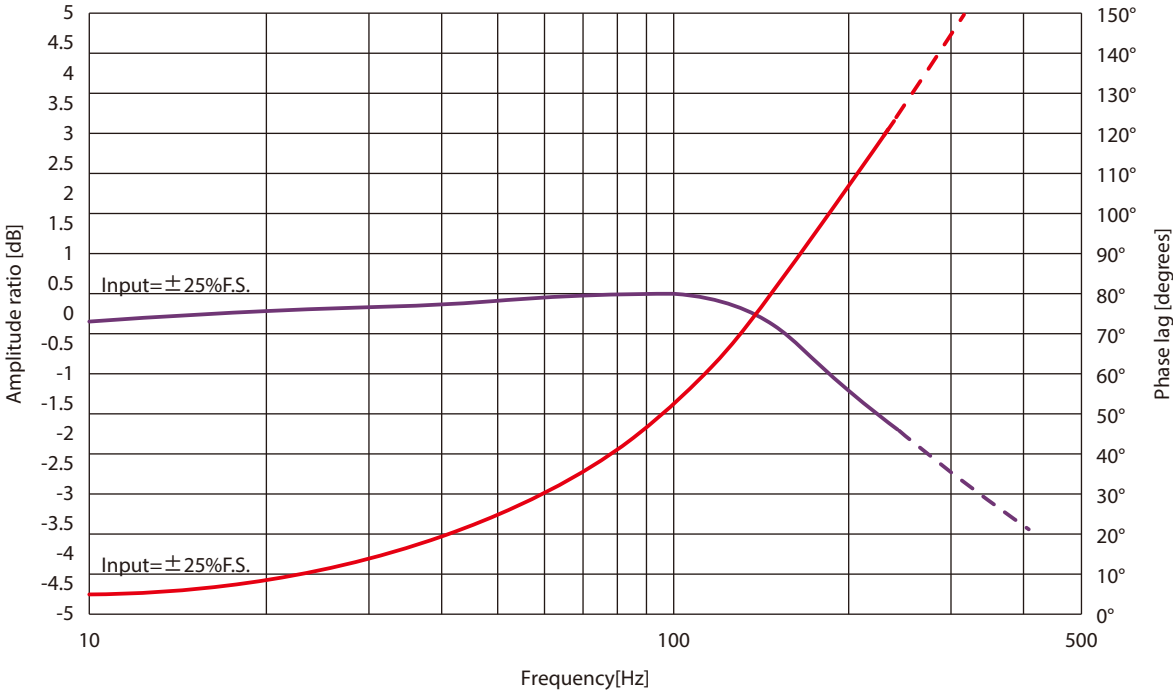
(The oil supply pressure at the P port is measured to be 21 MPa.)



Internal Leakage

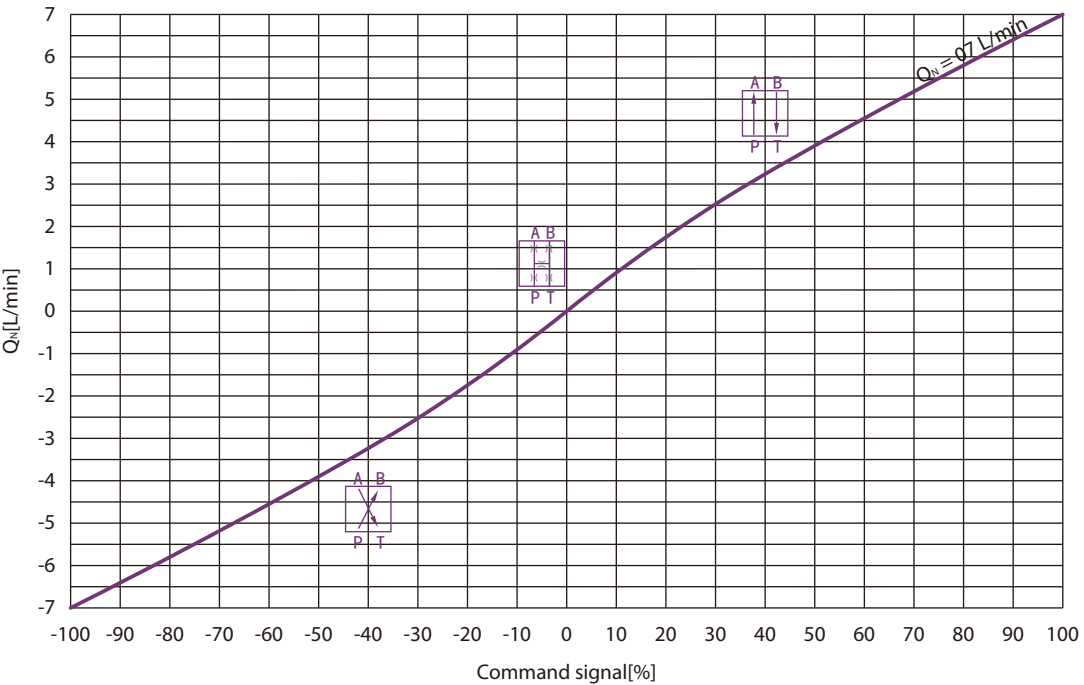


Frequency Response



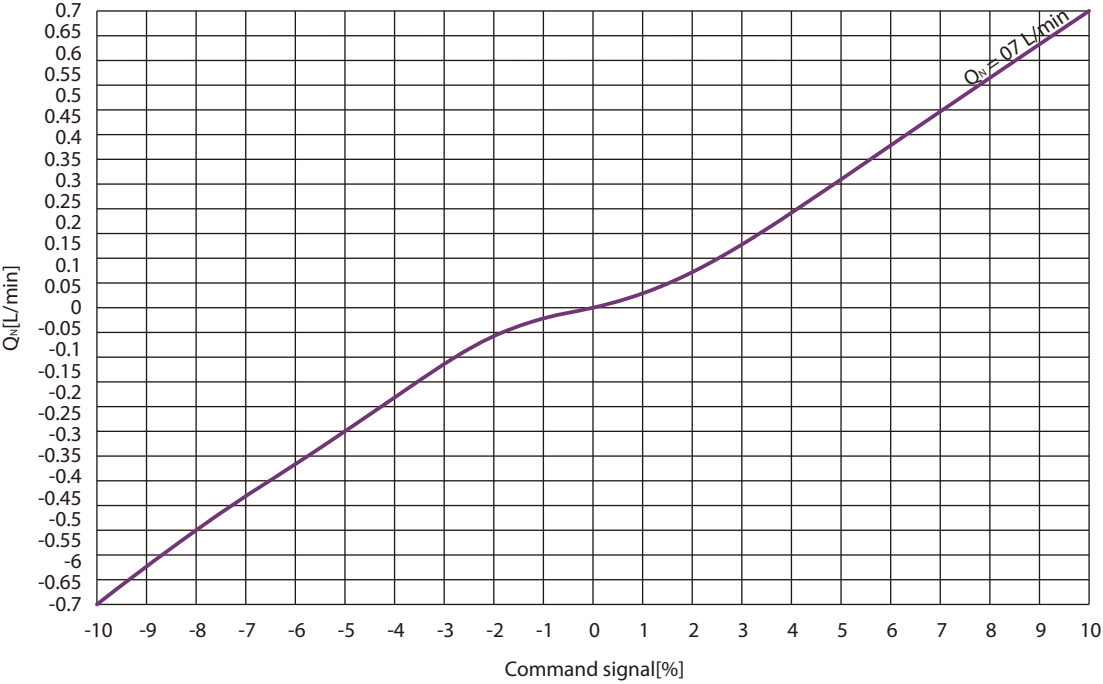
Characteristic curves

Flow-Signal Characteristic Test (100% Stroke)



*Attention: When controlling with positive signals, P→A.

Flow-Signal Characteristic Test (10% Stroke, $Q_N = 0.7$ L/min)



Technical Data

General		
Type	Rotary direct drive servo valves	
Drive	Rotary motor	
Electronics	Integrated	
Contamination-resistance	NAS 8	
Vibration resistance	(g)	3 Axis 30
Environmental temperature	(°C)	-20 … +85 (If higher, please consult customer service)
Size	(mm)	31.3 x 34.5 x 30.8
Weight	(g)	80
Hydraulic		
Maximum working pressure	(bar)	P, A, B<350; T<100;
Hydraulic oil	DIN51524	
Fluid temperature	(°C)	-20 … +80
Viscosity	(cSt)	5 … 500
Q _n /Rated flow [Per Throttle Edge△P=35 bar (500 psi)]	(L/min)	7
Internal leakage at 210 bar	(L/min)	<0.2
Static/dynamic		
Step response (100% signal)	(ms)	<2.5
Frequency response (±25% signal)	(Hz)	>200
Hysteresis	(%)	<1
Threshold	(%)	<0.1
Null bias	(%)	<0.2
Electrical characteristics		
Supply voltage	(V)	22-30 (Typical 24)
Maximum supply current	(A)	3 (Locked-rotor current)
Input signal	±10V / ±20mA (Other requirements, please consult customer service.) Input impedance R _{in} = 500 Ω	
EM compatibility	EN61000-6-2, EN55011: 1998+A1	

Ordering Information

Model number (assigned at the factory)				Type designation					
SH1E		<div><div></div><div></div><div></div><div></div><div></div></div>			<div><div></div><div></div><div></div><div></div><div></div><div></div></div>				
Factory code									
Assigned at the factory									
Rated flow									
07	07 L/min								
X	Please inquire for other requirement								
Main spool type									
1	Zero-lap								
X	Please inquire for other requirement								
Signals for 100% spool stroke									
A	Compatible with +/- 10V or +/- 20mA								
X	Please inquire for other requirement								
					Seal material				
					D	NBR			
					F	FKM			
					X	Please inquire for other requirement			
					Electric interface				
					4	4 Pin			
					X	Please inquire for other requirement			

Regular Model

Model	Factory code	Type	Rated flow	Signals for 100% spool stroke
SH1E	1003A	071A4F	07 L/min	Compatible with +/- 10V or +/- 20mA

Customised services on request

We are able to provide bespoke solutions to meet the specific needs of our customers. If you require non-standard configurations or custom modifications, we are confident that we can provide the best solution for you. Please contact us and our team will get back to you as soon as possible.