4.2

DHF SERIES

Reversing valve

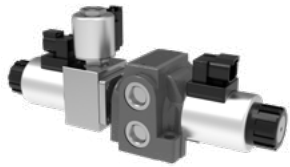
EHV:

Nominal size	04	04A	06	14	20	45	05	05A
Maximum pressure(bar)	350	210	315	315	315	350	315	210
Rated flow(L/min)	25	25	60	140	200	450	35	50

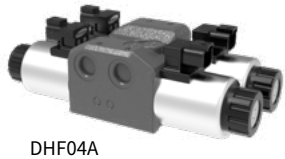
Benefits:

·6 way 2 position valve，
4 way 3 position valve, etc.
·Multiple control modes to choose from

DHF06



DHF05A



DHF04A

DHF20

DHF45

Contents

Features

1. System:

·Directional spool valve with direct solenoid control.

·Control spool operated by solenoid, with easily removable coil fastened by a ring nut.

·Hydraulic pilot control，Electrical switch.

2. Structure:

·6 way 2 position valve（DHF04、DHF06、DHF14、DHF20、DHF45）

·4 way 2 position valve（DHF04A）

·4 way 3 position valve（DHF05、DHF05A）

3. Applications:

Excavators

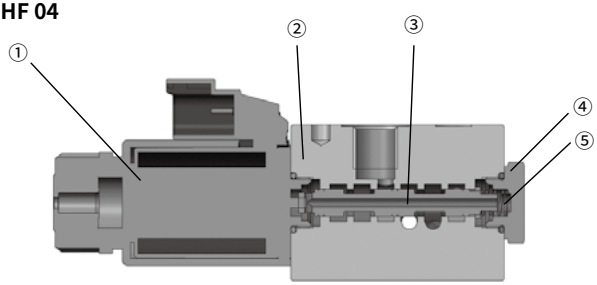
Telescopic handler

Aerial work platform

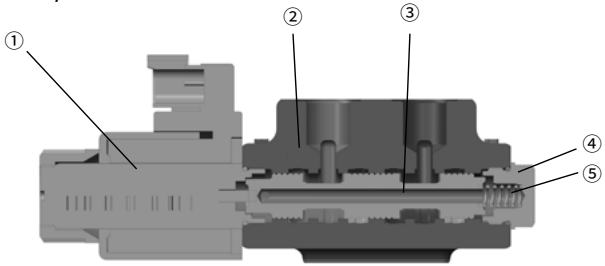
Crawler crane

Section view

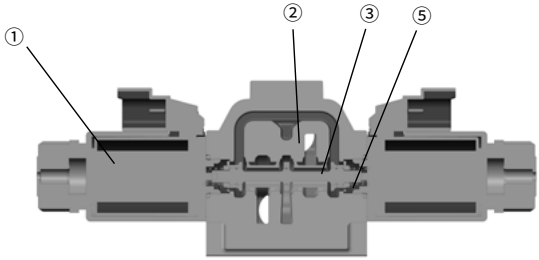
·DHF 04



·DHF 06/14

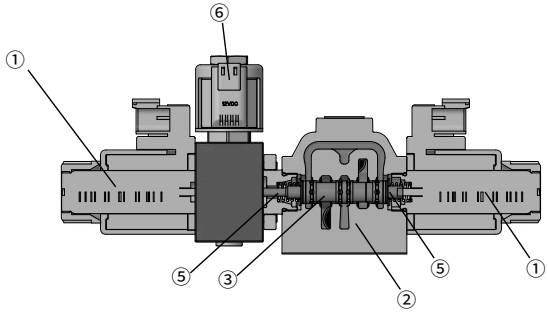


·DHF 05



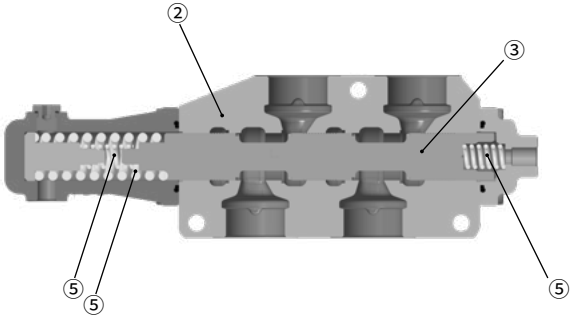
1. Solenoid
2. Valve block
3. Spool
4. With plug
5. Spring
6.Electromagnetic lock

·DHF 05A

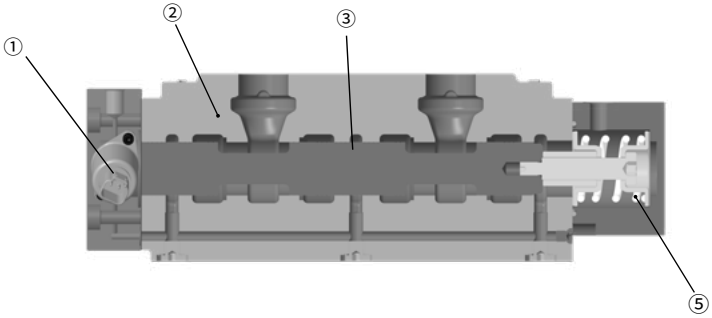


Section view

·DHF 20



·DHF 45



1. Solenoid
2. Valve block
3. Spool
4. With plug
5. Spring
6.Electromagnetic lock

Technical data

General

Structure	6 way 2 position valve				
Nominal size:	04	06	14	20	45
Connection type	ISO 1179-1			ISO 9974-1	ISO 6162-2 ISO 1179-1
Mass (kg)	1.4	1.6	7.7	11.7	29.3
Unit dimensions	139.1×46×59.5	174.5×74×73.2	259×105×92.3	362.5×110×88	370×122×120

Structure	4 way 2 position valve(combination)	way 3 position valve	
Nominal size:	04A	05	05A
Connection type	ISO 1179-1		
Mass (kg)	5.2	2.3	3.7
Unit dimensions	213.7×93×68	206.8×65×72.5	246.9×65×106.5

Hydraulic

Nominal Size			04	04A	06	14	20	45	05	05A
Rated flow		Q (L/min)	25	25	60	140	200	450	35	50
Maximum pressure	Internal oil leakage	(bar)	250	210	200	200	-	-	315	210
	External oil leakage	(bar)	350		315	315	315	350		

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)	-20 to +90
Viscosity range ν (mm2/s)	10 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 β10 ⩾ 75

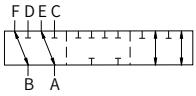
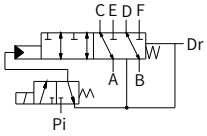
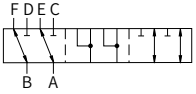
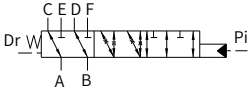
(For applications outside above mentioned parameters, please consult our sales dept.)

04

Electric

Electrical on/off:
· Connection: Deutsch DT04-2P
· Protection class: IP69k
· Supply voltage: 12 or 24VDC

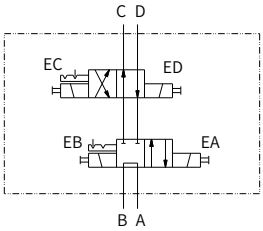
Ordering code

① Structure	DHF	6 way 2 position valve				
② Nominal size		04	06	14	20	45
③ Spool symbol	6A				Without	
	6B					Without
④ Operator type	W41	Electrical switch control, 24V			Without	With
	W43	Electrical switch control, 12V			Without	With
	H	Hydraulic control			With	Without
⑤ Manual emergency operation button	N	With manual emergency operation button			Without	Without
⑥ plug	K7	Deutsch DT04-2P			Without	With

Ordering code

DHF □ – □ □ □ □

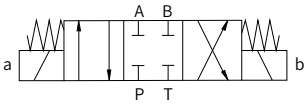
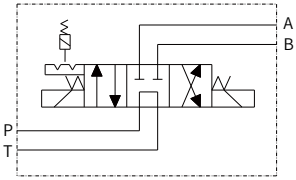
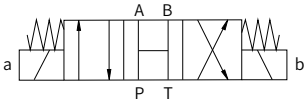
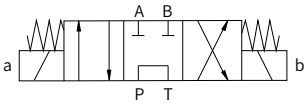
① ② ③ ④ ⑤ ⑥

① Structure	DHF	4 way 2 position valve(combination)
② Nominal size		04A
③ Spool symbol	L	
④ Operator type	W41	Electrical switch control, 24V
	W43	Electrical switch control, 12V
⑤ Manual emergency operation button	N	With manual emergency operation button
⑥ plug	K7	Deutsch DT04-2P

Ordering code

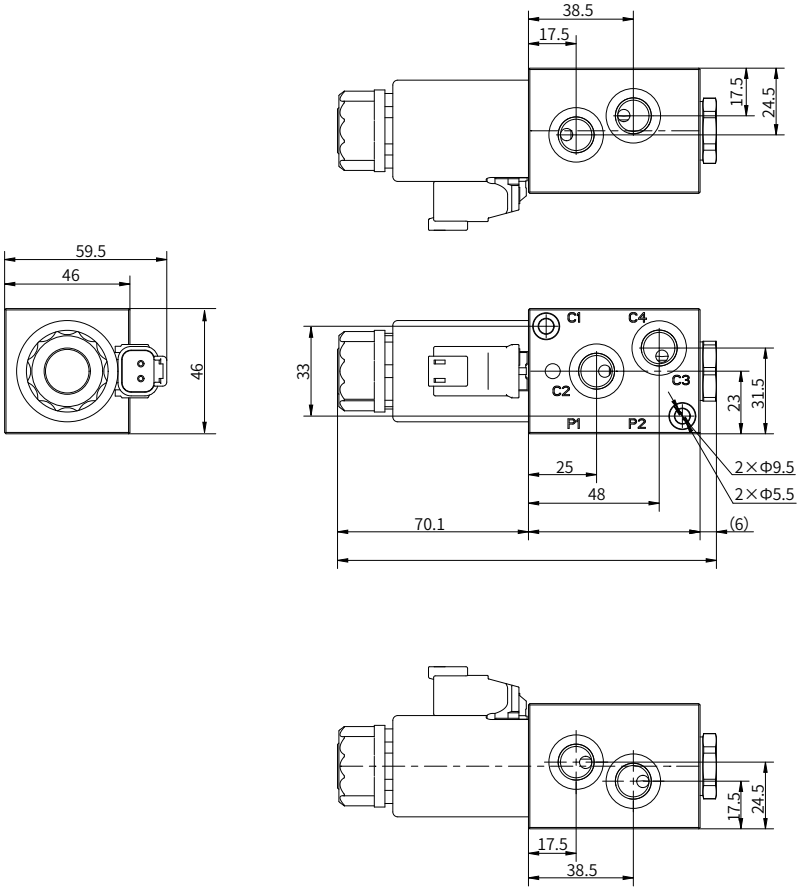
DHF □ – □ □ □ □

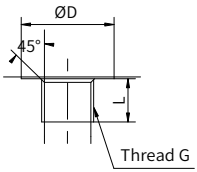
① ② ③ ④ ⑤ ⑥

① Structure	DHF	way 3 position valve		
② Nominal size		05		05A
③ Spool symbol	E		EL	
	H			
	G			
④ Operator type	W41	Electrical switch control, 24V		
	W43	Electrical switch control, 12V		
⑤ Manual emergency operation button	N	With manual emergency operation button		
⑥ plug	K7	Deutsch DT04-2P		

Unit dimensions

· DHF 04

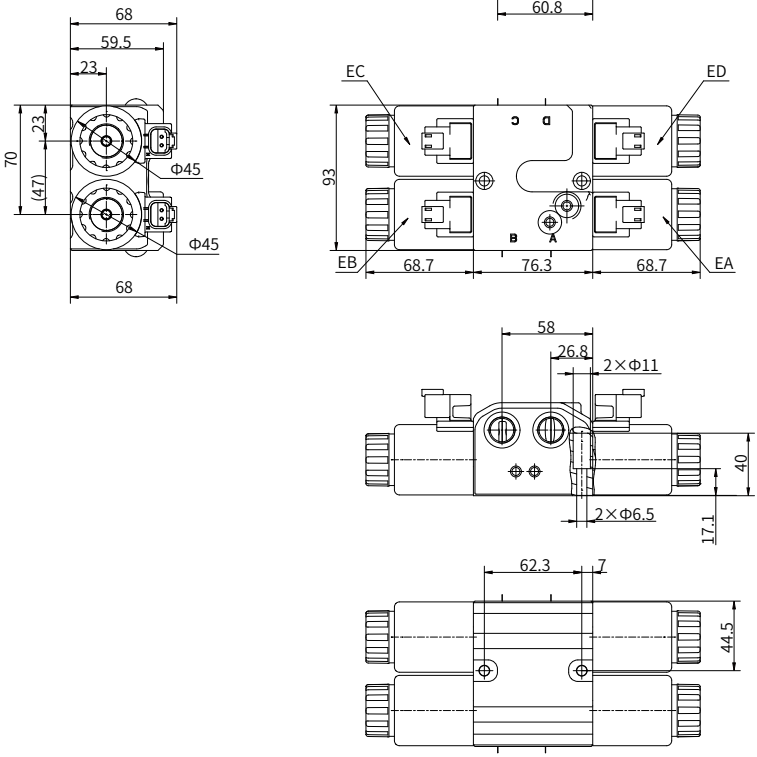


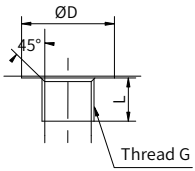


Port dimension	Thread dimensions
P1 port, P2 port: G1/4	G1/4: ΦD 20 L 12.5
C1 port, C2 port: G1/4	
C3 port, C4 port: G1/4	

Unit dimensions

·DHF 04A





Port dimension

p port：G3/8

A port：G3/8

B port：G3/8

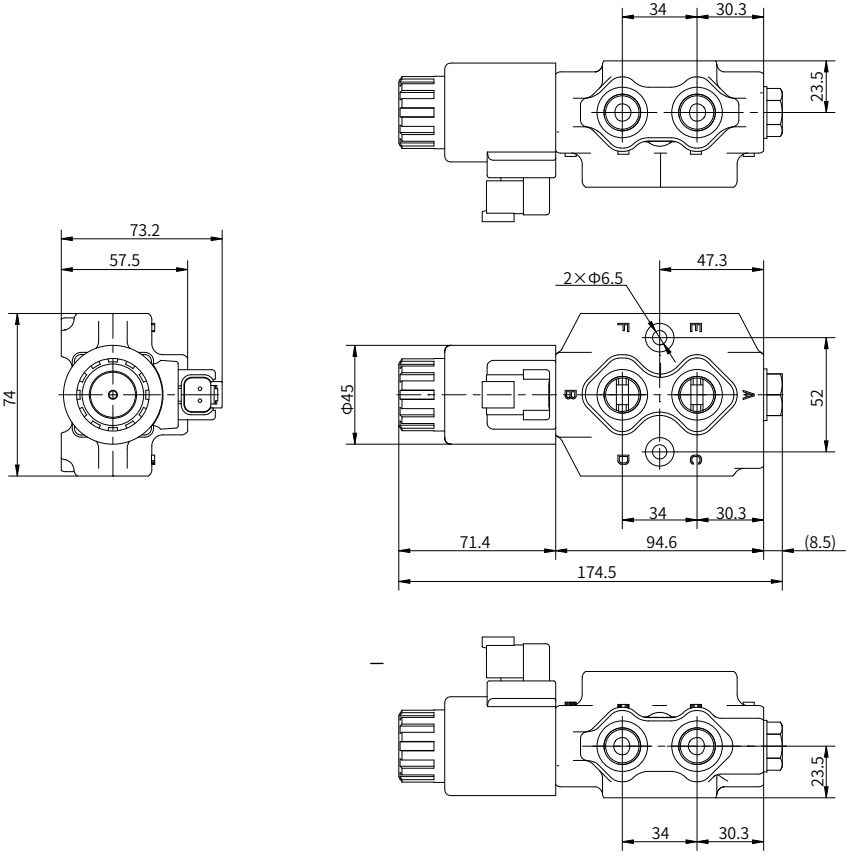
T port：G3/8

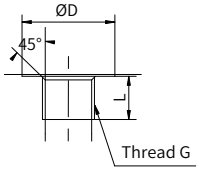
Thread dimensions

G3/8： ΦD 23 L 12.5

Unit dimensions

·DHF 06





Port dimension

A port, B port: G3/8

C port, D port: G3/8

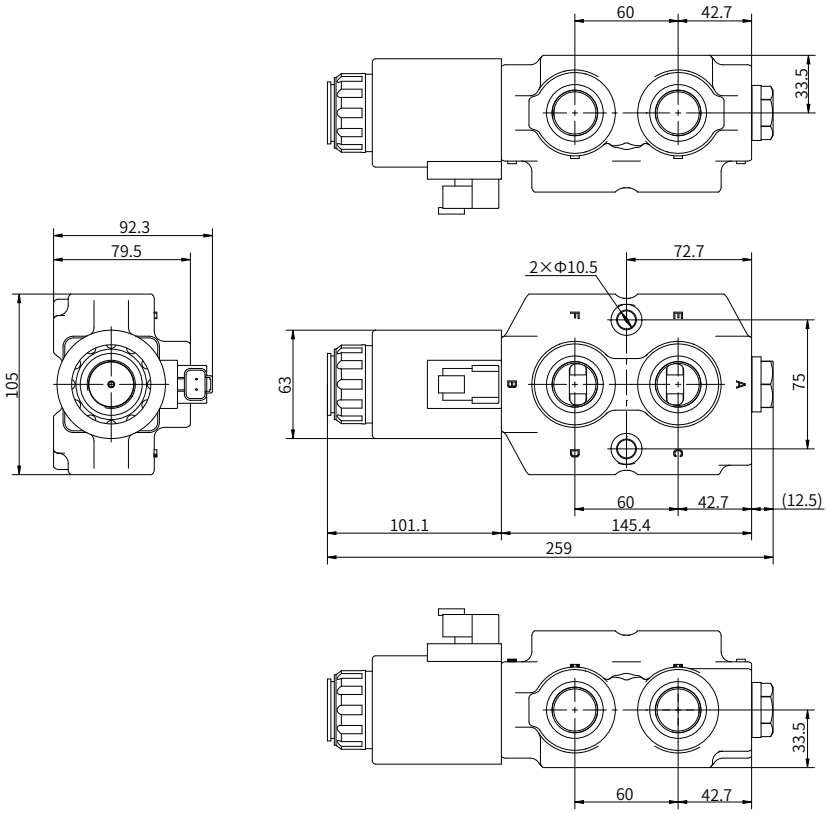
E port, F port: G3/8

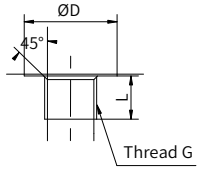
Thread dimensions

G3/8: ΦD 23 L 12.5

Unit dimensions

·DHF 14





Port dimension

A port, B port: G3/4

C port, D port: G3/4

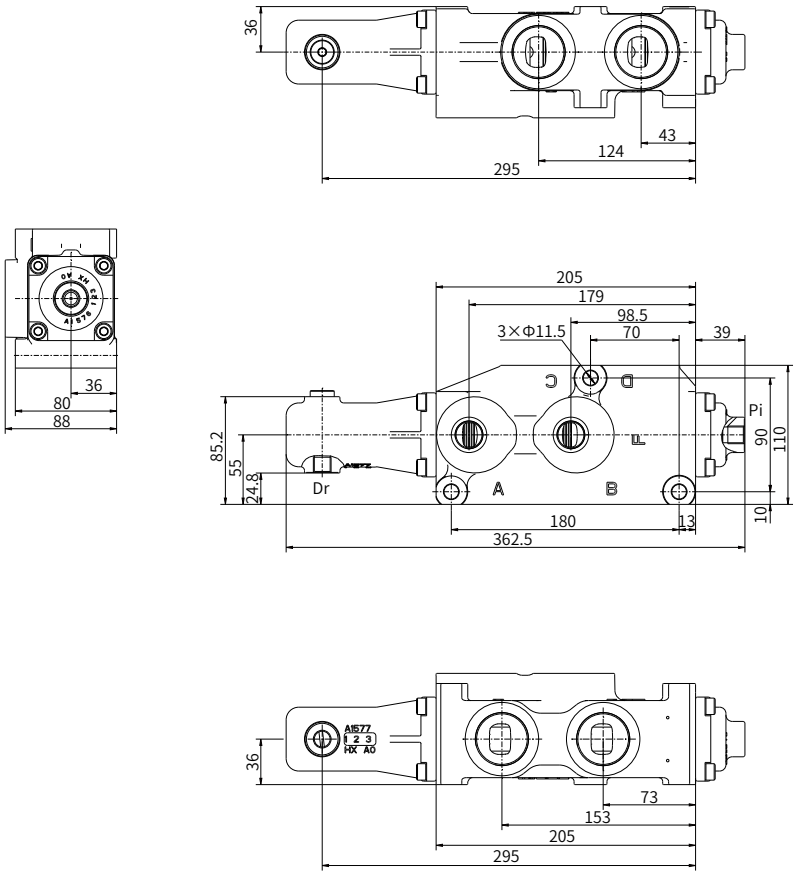
E port, F port: G3/4

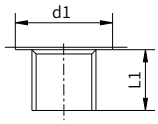
Thread dimensions

G3/4: ΦD 33 L 16.5

Unit dimensions

·DHF 20

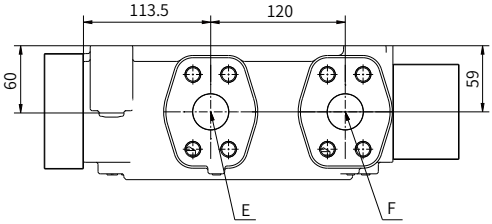


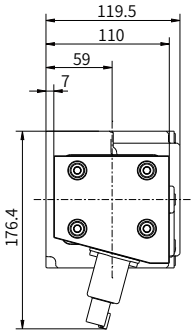


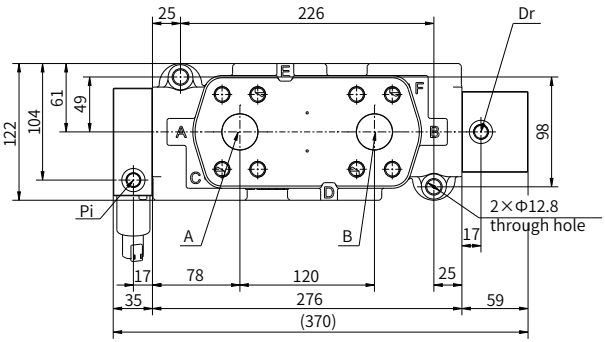
Port dimension	Thread dimensions
A,B,C,D port：M42×2	M42×2：ΦD 58 L1 20
E,F port：M22×1.5	M22×1.5：ΦD 28 L1 14
Pi,Dr port：M14×1.5	M14×1.5：ΦD 25 L1 12.5

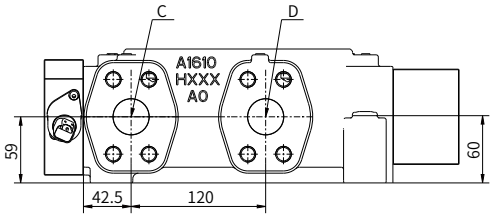
Unit dimensions

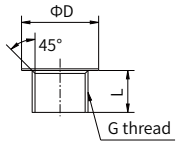
·DHF 45

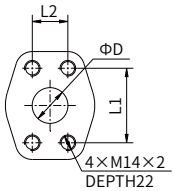












Port dimension

A,B,C,D,E,F port:
(6000PSI)SAE1-1/4
Pi,Dr port: G1/4

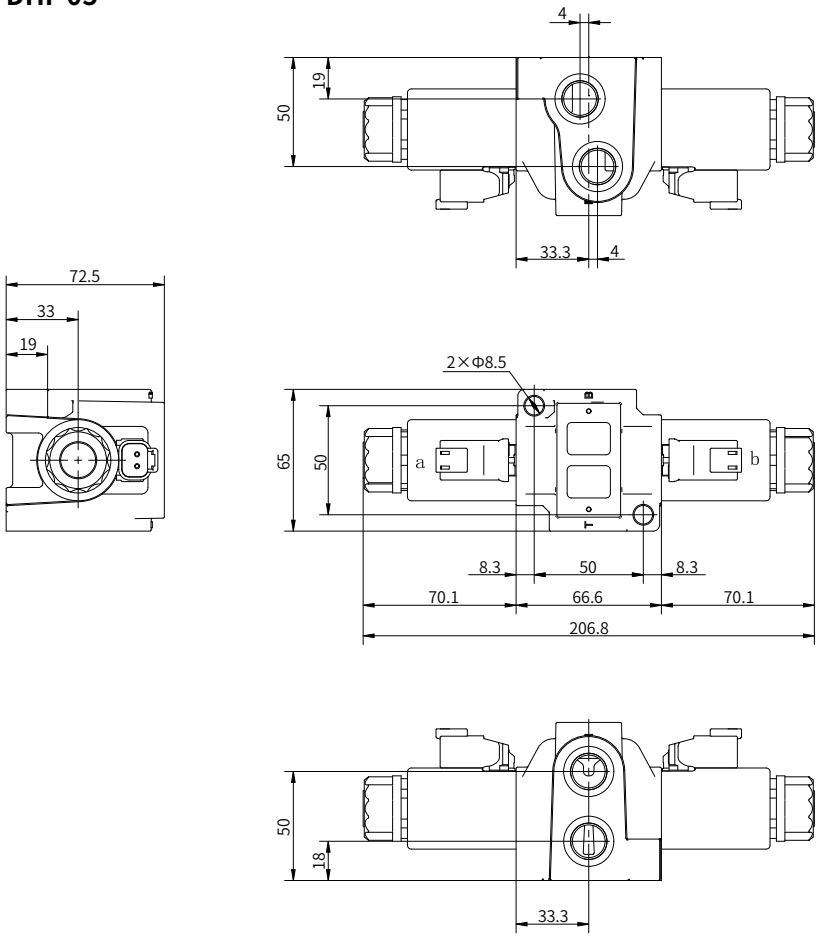
Thread dimensions

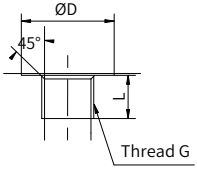
SAE1-1/4: ΦD 32 L1 66.7 L2 31.8
Flange thread: M14×2 depth 22
G1/4: ΦD 20.7 L 13.2

04

Unit dimensions

·DHF 05





Port dimension

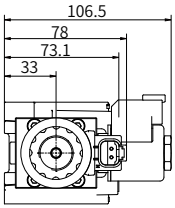
p port: G3/8
A port: G3/8
B port: G3/8
T port: G3/8

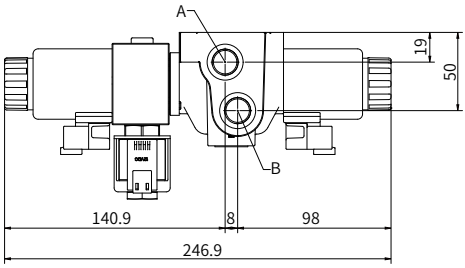
Thread dimensions

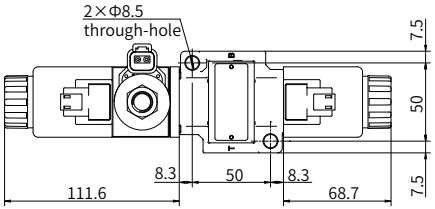
G3/8: ΦD 23 L 12.5

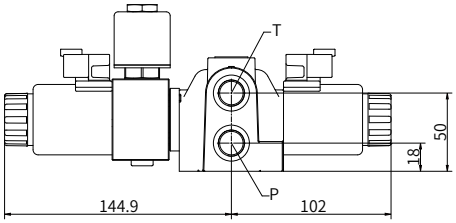
Unit dimensions

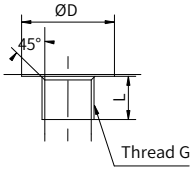
·DHF 05A











Port dimension

p port：G3/8

A port：G3/8

B port：G3/8

T port：G3/8

Thread dimensions

G3/8： ΦD 23 L 12.5