Hydraulic Pilot Joysticks and Foot Pedal Valve

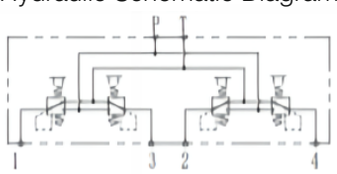
Index

Type A pilot handle-JS-PRV4

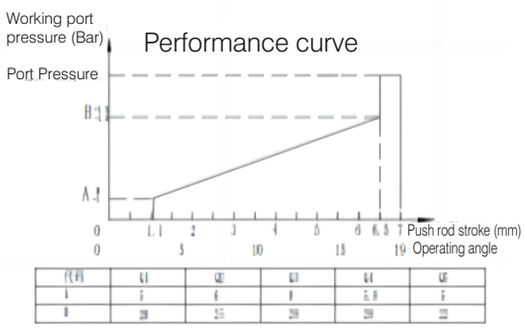
Technical data

Import Pressure		Bar	Rated 35 ; Maximum 60
T port back pressure		Bar	Max. 3
Flow		L/min	Max. 25
Hydraulic oil	Use for NBR seal		Meet with DIN51524 mineral oil (HL, HLP)
	Use for FPM seal		Phosphate
Hydraulic oil temperature range		°C	-20～+80
Oil Viscosity range			10～380
Fluid Contamination			Max. the 9 grade of NAS 1638
			Recommended: filter min β10≥75
Handle max. operate torque		Nm	Working:10

Hydraulic Schematic Diagram



Performance curve



Ordering Code

JS-PRV4	A	Q1	4			**

Other requirements to described bye words

Handle Pilot Valve
L = Left handle pilot valve
R = Right handle pilot valve

Oil port thread form
G = G1/4 EO thread
M = M14x1.5 EO Thread

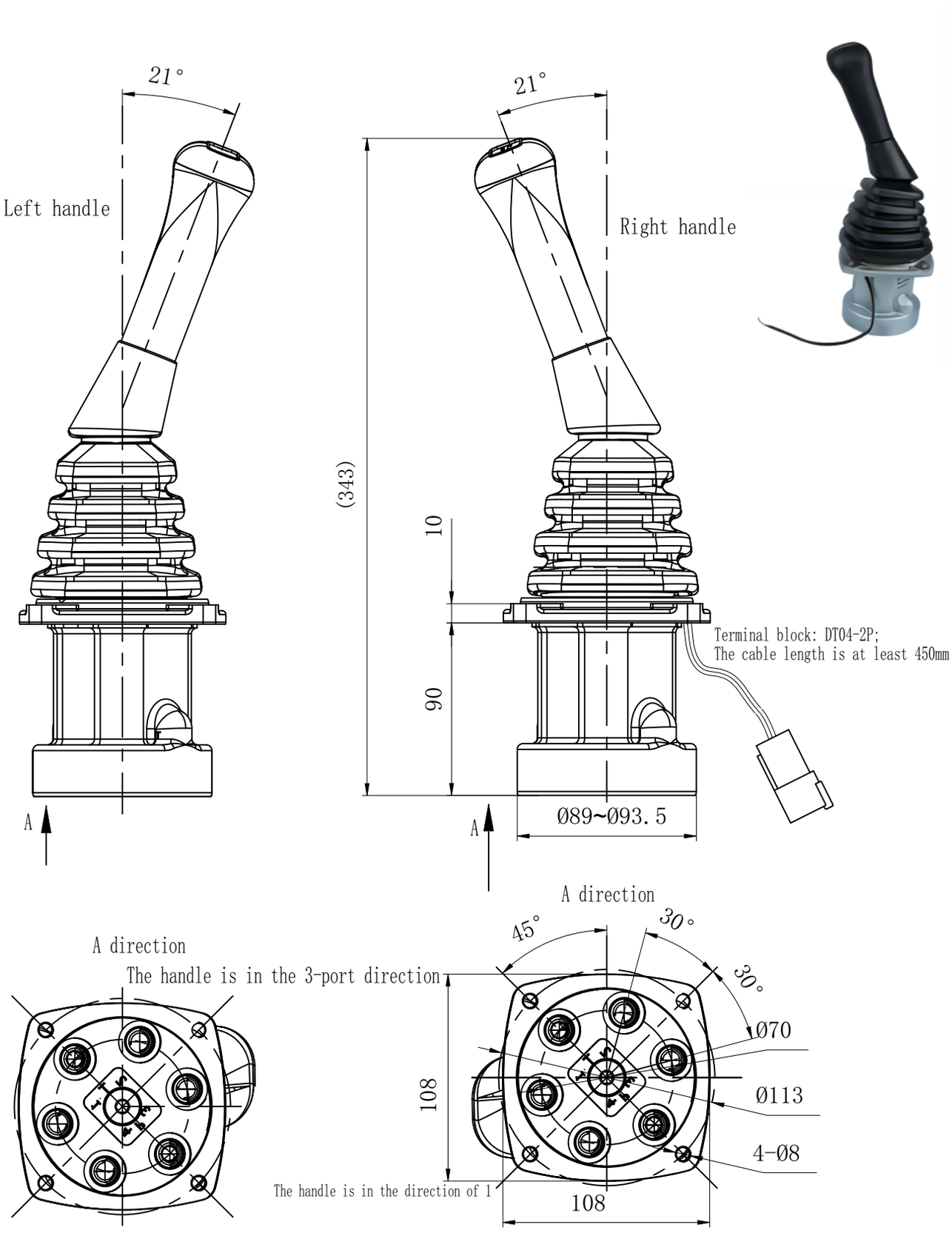
Electrical contacts form

Performance curves

Used in 22T Excavator

Handle Pilot Control Valve

Unit Dimensions-JS-PRV4

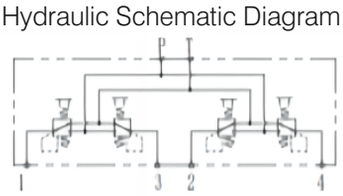


Handle type C - JS-PRH

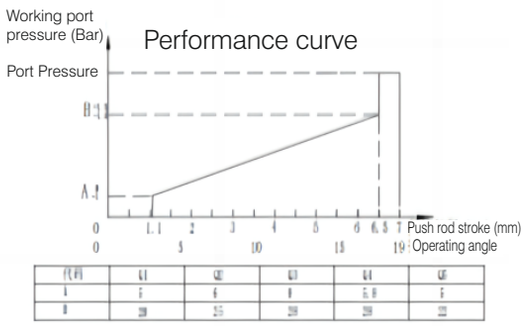
Technical data

Import Pressure		Bar	Rated 35 ; Maximum 60
T port back pressure		Bar	Max. 3
Flow		L/min	Max. 25
Hydraulic oil	Use for NBR seal		Meet with DIN51524 mineral oil (HL, HLP)
	Use for FPM seal		Phosphate
Hydraulic oil temperature range		°C	-20～+80
Oil Viscosity range			10～380
Fluid Contamination			Max. the 9 grade of NAS 1638
			Recommended: filter min β10≥75
Handle max. operate torque		Nm	Working:10

Hydraulic Schematic Diagram



Performance curve



Ordering Code

JS-PRH.	C	Q1	4	G	L	**

Other requirements to described bye words

Handle Pilot Valve
L = Left handle pilot valve
R = Right handle pilot valve

Oil port thread form
G = G1/4 EO thread
M = M14x1.5 EO Thread

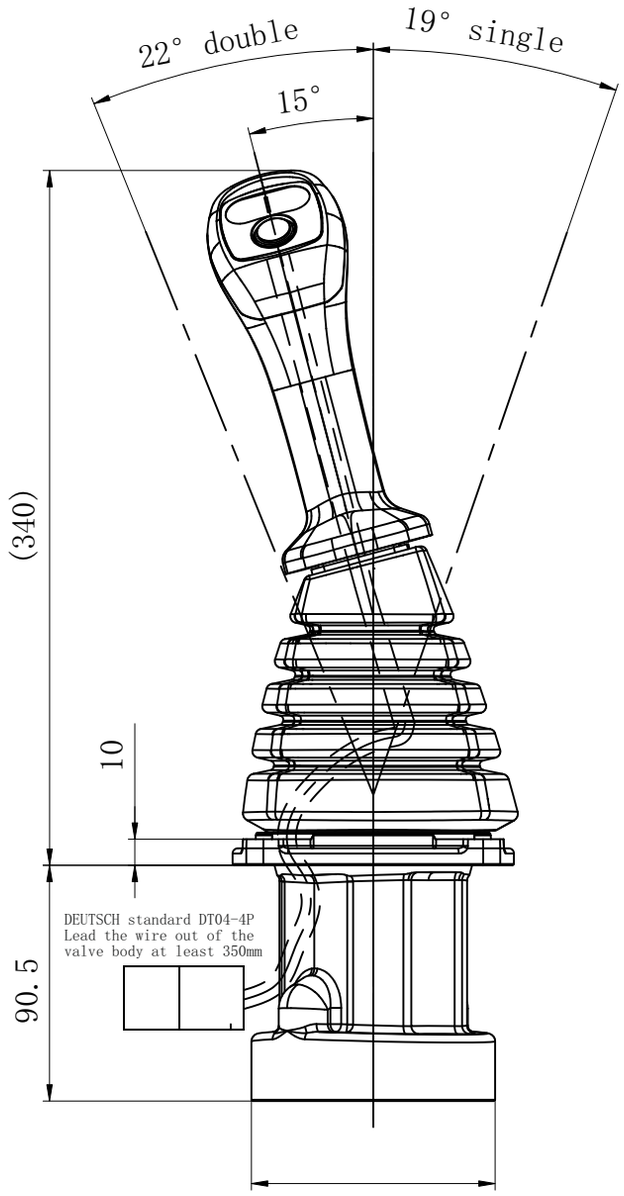
Electrical contacts form

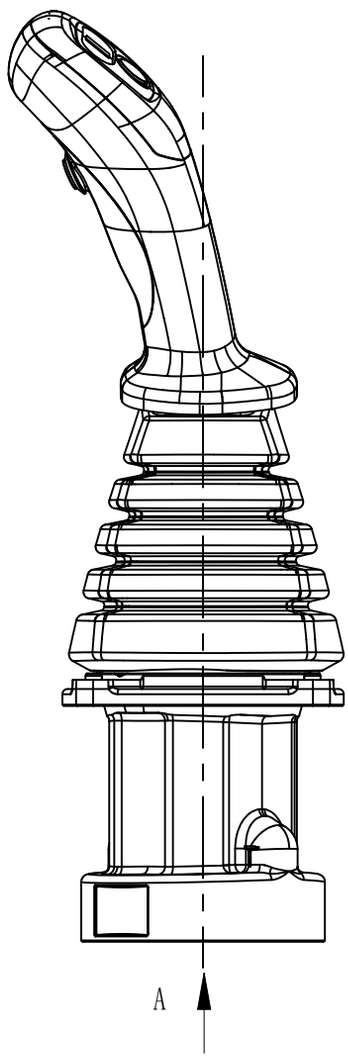
Performance curves

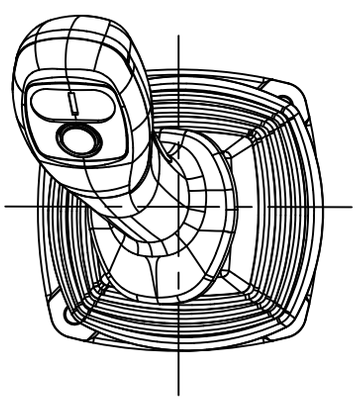
Handle Pilot Valve Code C
B used in a kinds of excavator
C used in a crawler crane

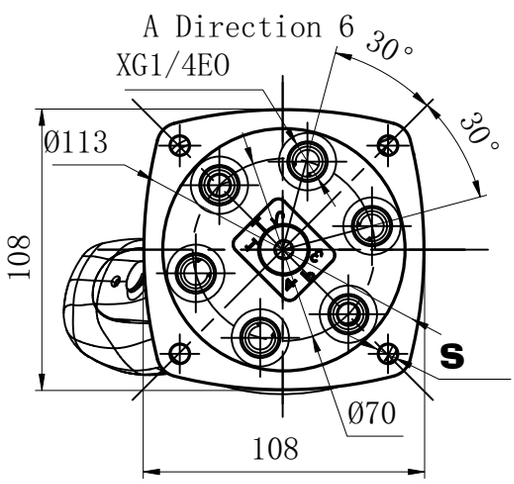
Handle Pilot Control Valve

Unit Dimensions-JS-PRH.

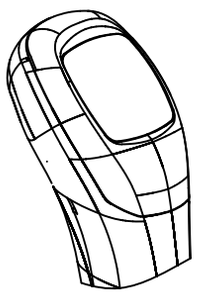
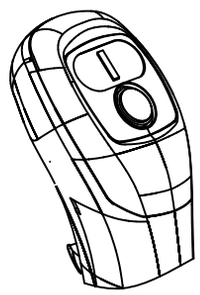
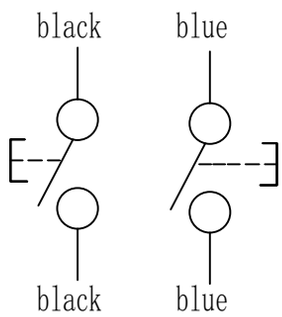
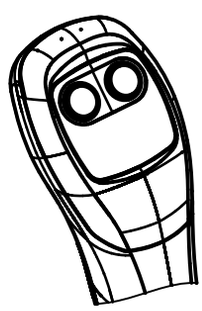
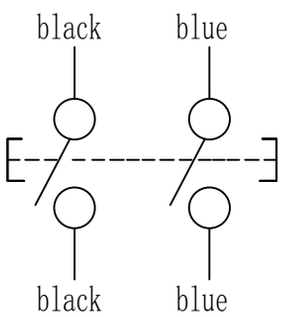
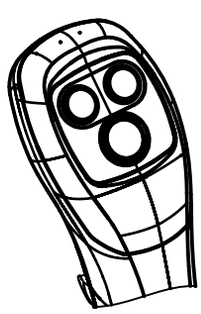
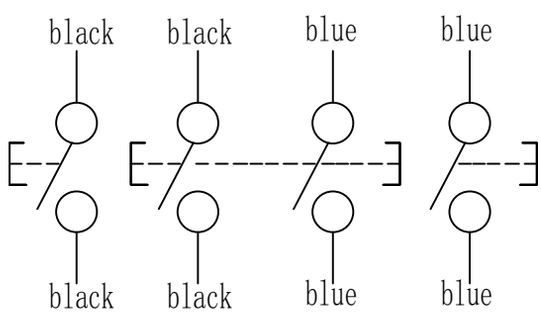








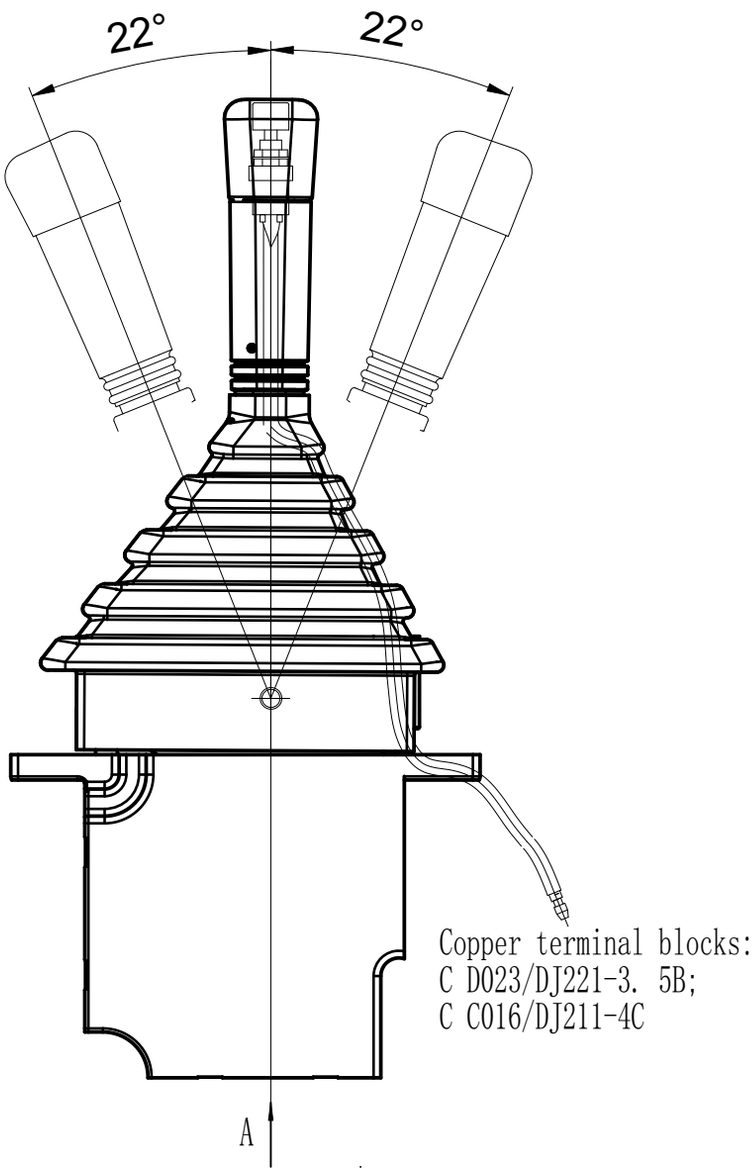
Model Number

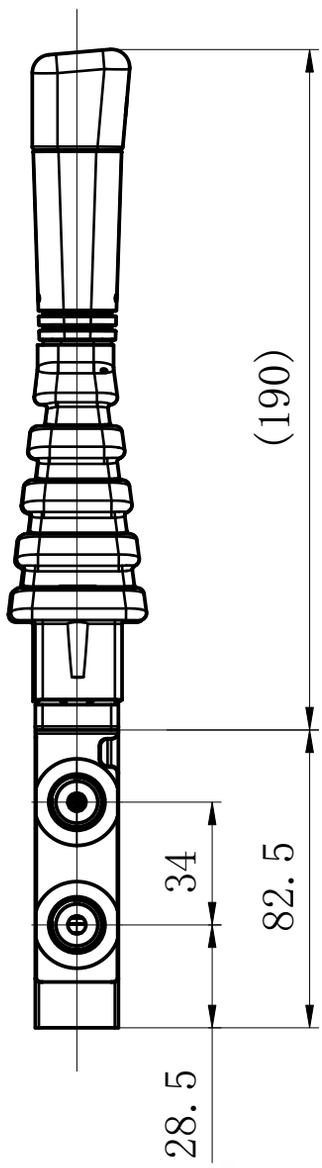
	- No Electrical switch	
	- Upper single-acting electrical switch - Front single-acting electrical switch	
	- Upper double-acting electrical switch	
	- Upper double acting electrical switch - Upper single-acting electrical switch - Front single-acting electrical switch	

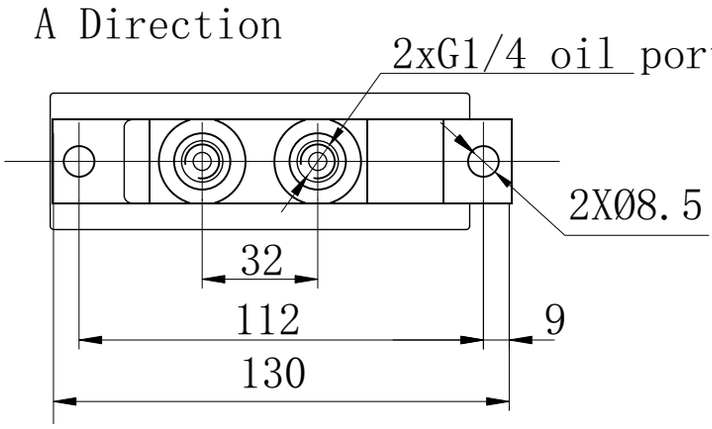
Remark:

1. The C-type handle with contact switch can be selected according to customer needs and can be customized;
2. The appearance of the handle can be customized as required;

Dozer blade operating valve - JS-PVC





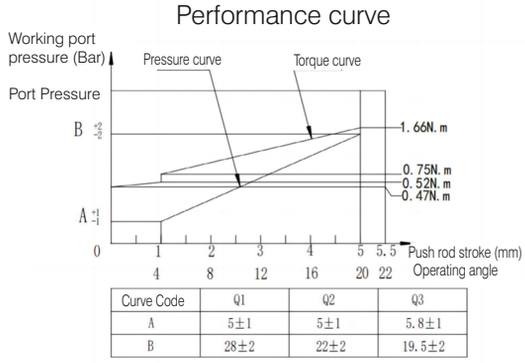


Dozer blade operating valve - JS-PVC

Technical data

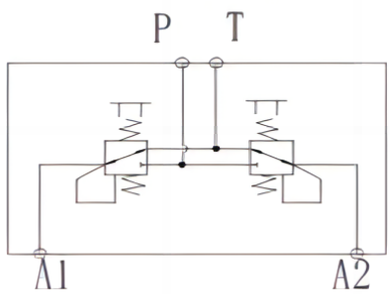
Import Pressure		Bar	Rated 35 ; Maximum 60
T port back pressure		Bar	Max. 3
Flow		L/min	Max. 25
Hydraulic oil	Use for NBR seal		Meet with DIN51524 mineral oil (HL, HLP)
	Use for FPM seal		Phosphate
Hydraulic oil temperature range		°C	-20～+80
Oil Viscosity range			10～380
Fluid Contamination			Max. the 9 grade of NAS 1638
			Recommended: filter min β10≥75
Handle max. operate torque		Nm	Working: 6 Special: 30
Weight		Kg	1.2

Performance curve



Curve Code	Q1	Q2	Q3
A	5±1	5±1	5.8±1
B	28±2	22±2	19.5±2

Hydraulic Schematic Diagram



Ordering Code

JS-PVC | | | | | | |

Other requirements

Oil port Thread type : G

Oil port thread form
G = G1/4 EO thread
M = M14x1.5 EO Thread

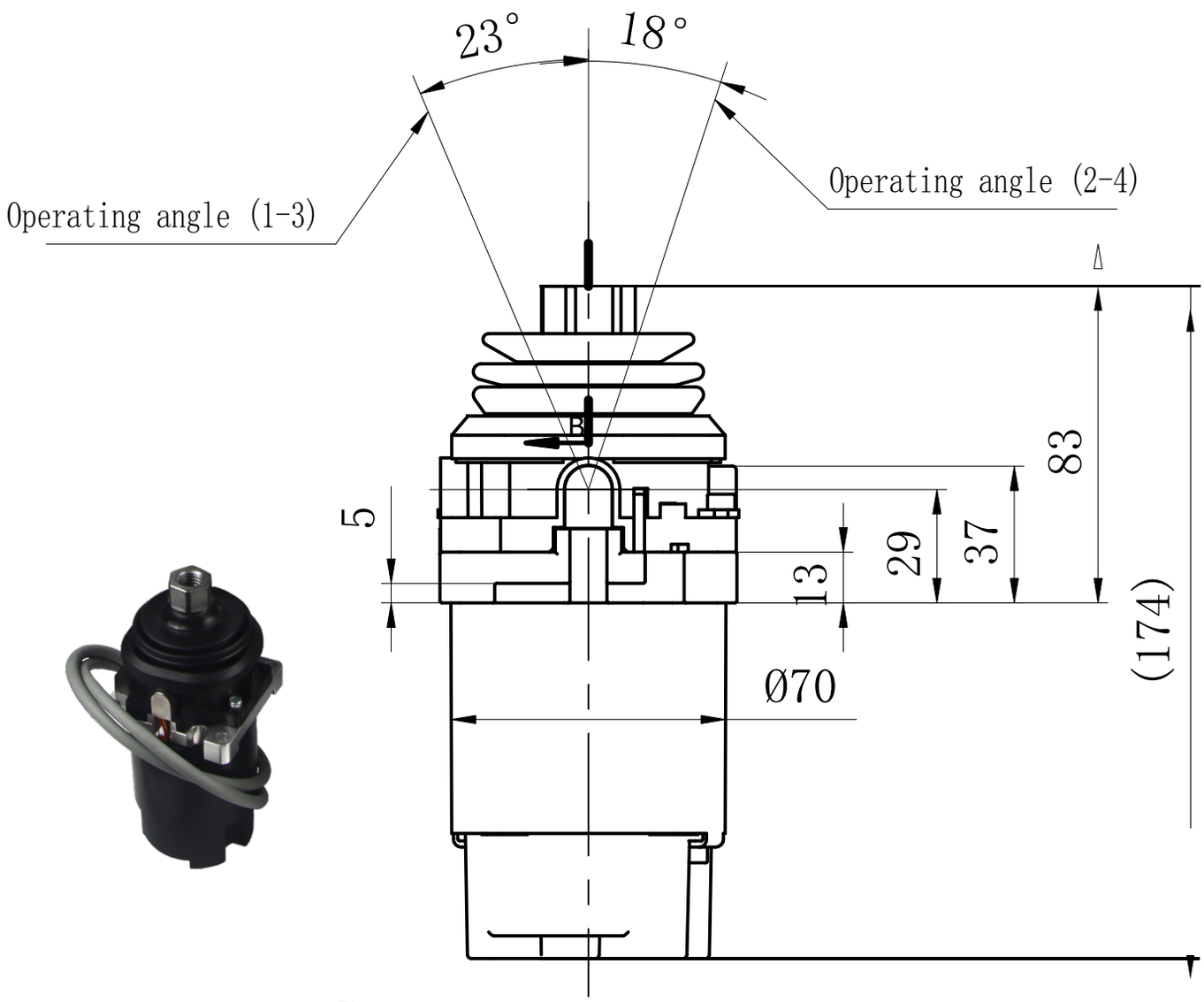
Number of working oil port

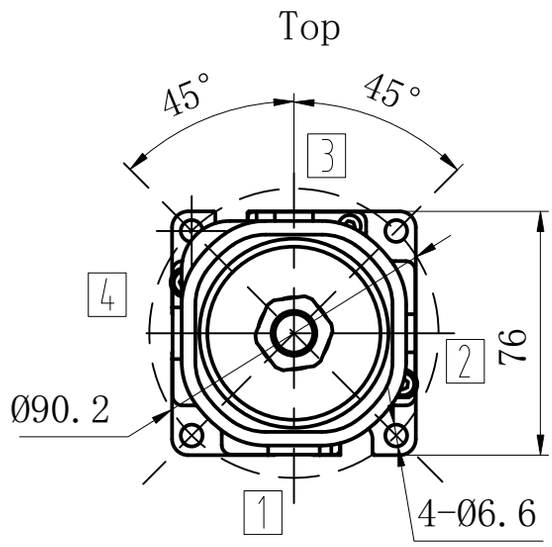
Characteristic curves
Q1(5-28) Q2(5.8-20) Q3(5-26)

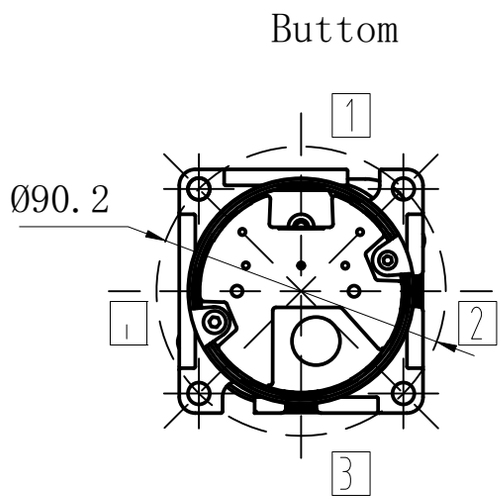
With Button: A
Without Button: B

Bulldozer shovel operating Valve

Electric proportional pilot handle - JS-DBL-SB







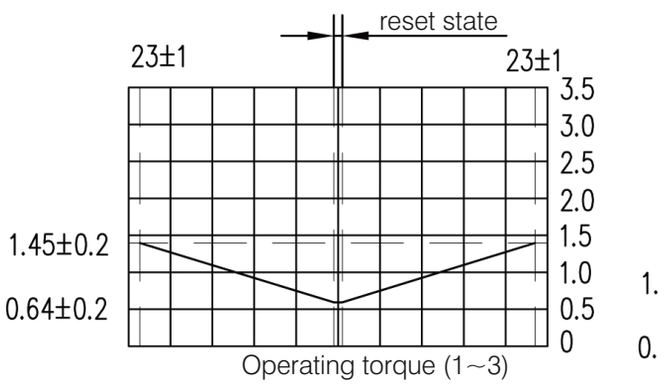
Electric proportional pilot handle - JS-DBL-SB

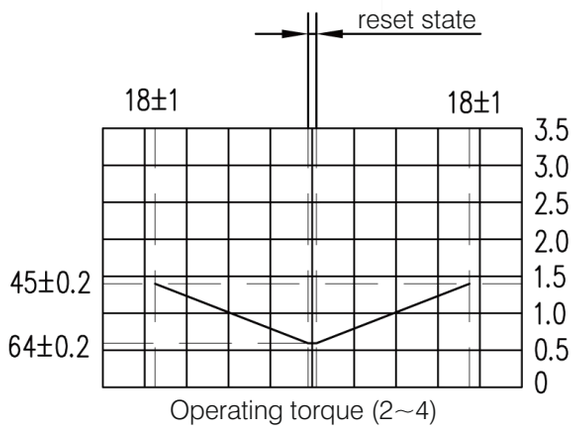
Technical Parameters

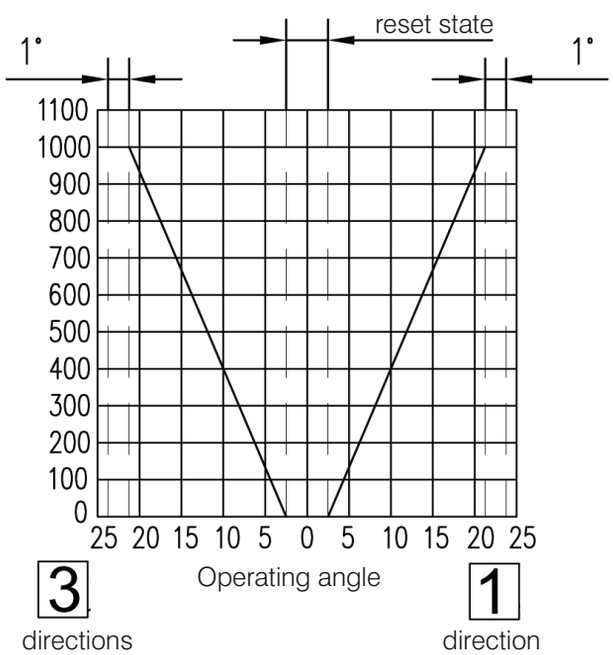
Code Name	Voltage range	Working Current	Inrush Current	Operating temp. range	Max. Operating torque	Communication Interface	Protocol
JS-DBL-SB	DC18～32V	Below 100mA	Below 10A	-40 to 80°C	226 Nm	CAN	CAN SAE J1939

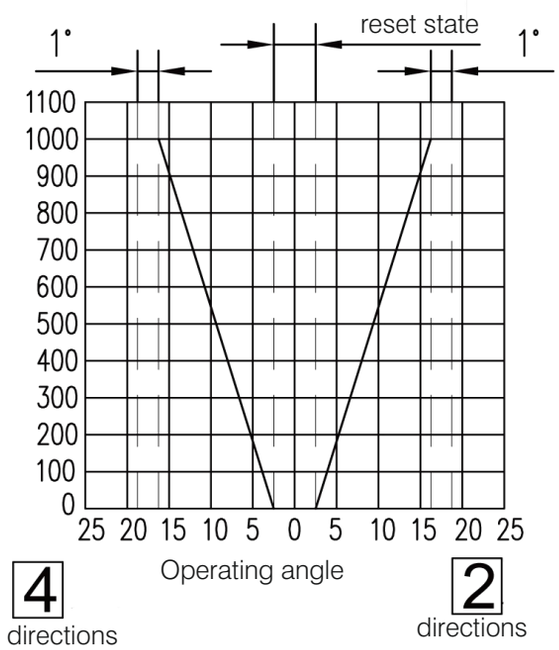
1. Communication rate: 250kbps (default)
2. Transmission cycle: 10ms ± 1ms
3. Data length: 4 bytes
4. The matching connector includes: connector sheath DT04-2P-CE02, lock W2P, terminal 0460-202-06141

Performance Curve



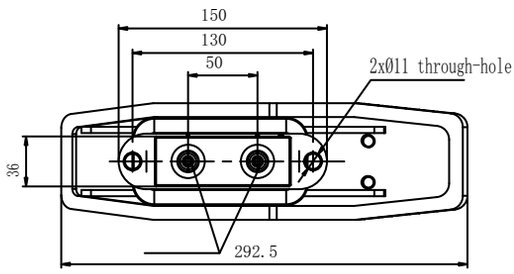


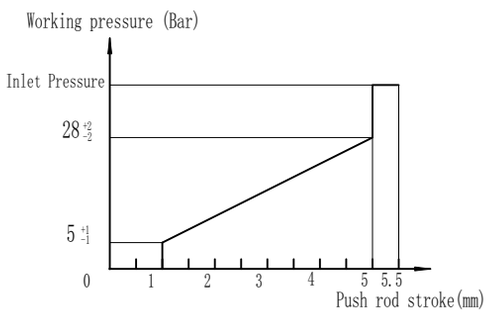


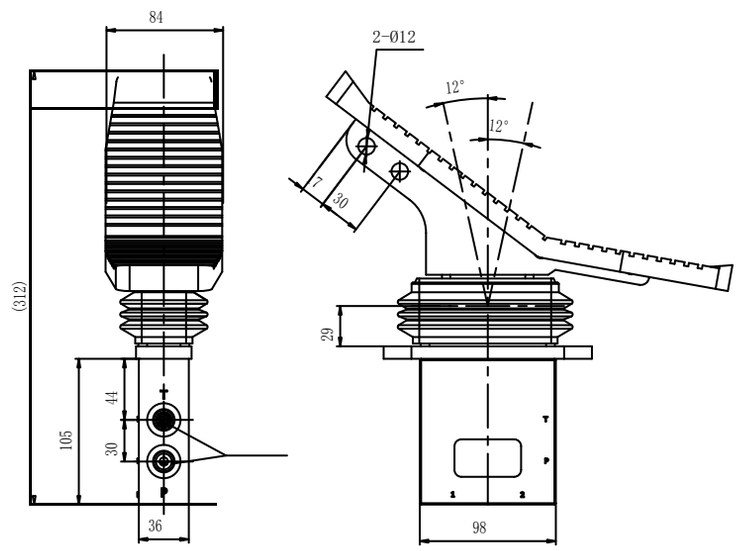


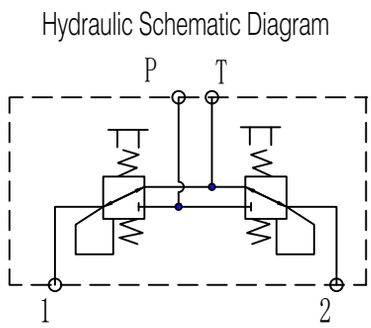
Single pedal type A/ Single pedal type B

Single pedal type A

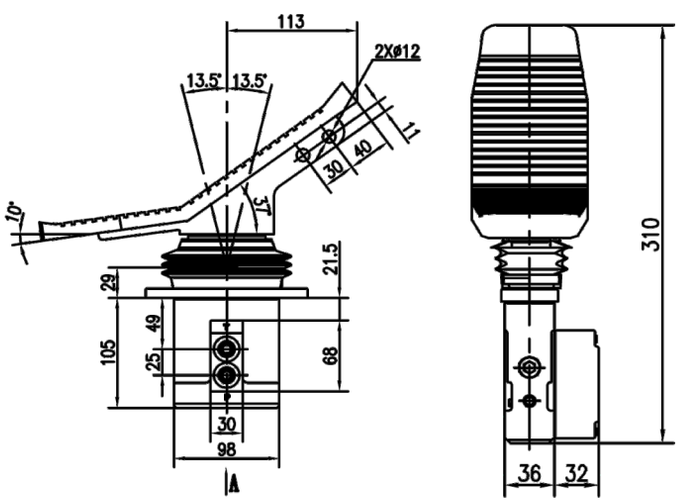


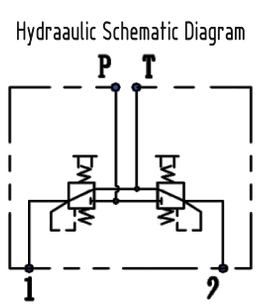


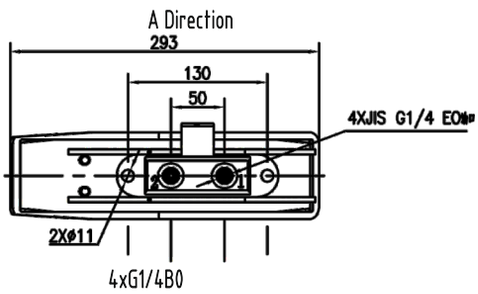




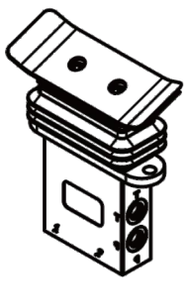
Single pedal type B

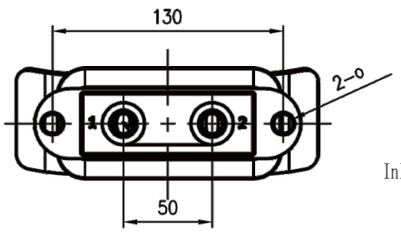


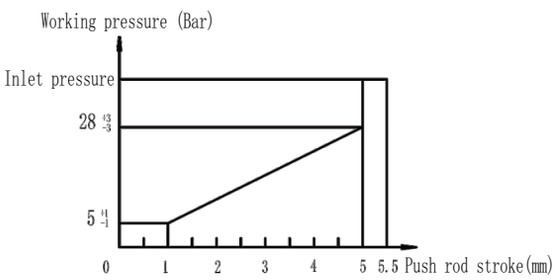


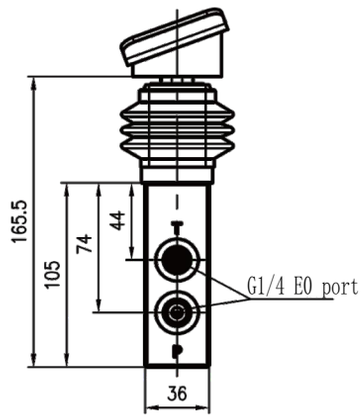


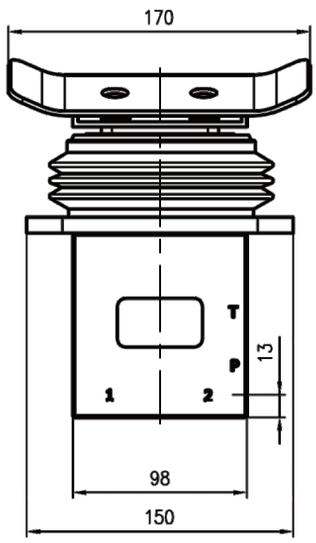
Single pedal C type

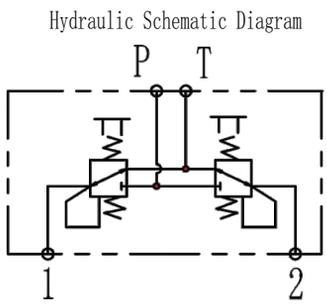




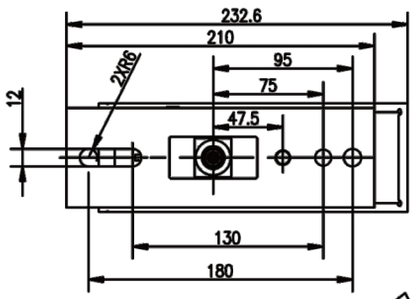


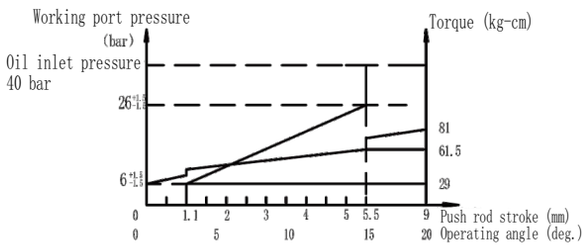


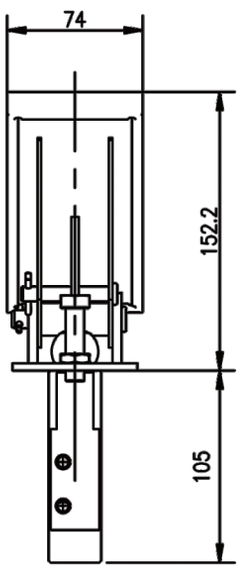


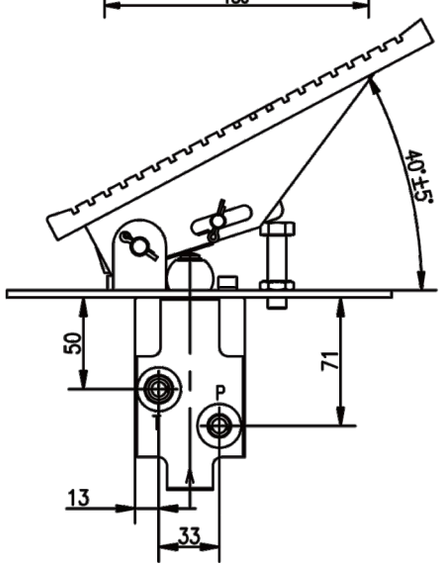


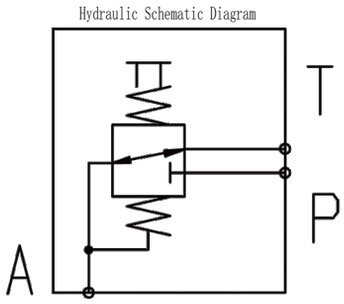
Single pedal D type





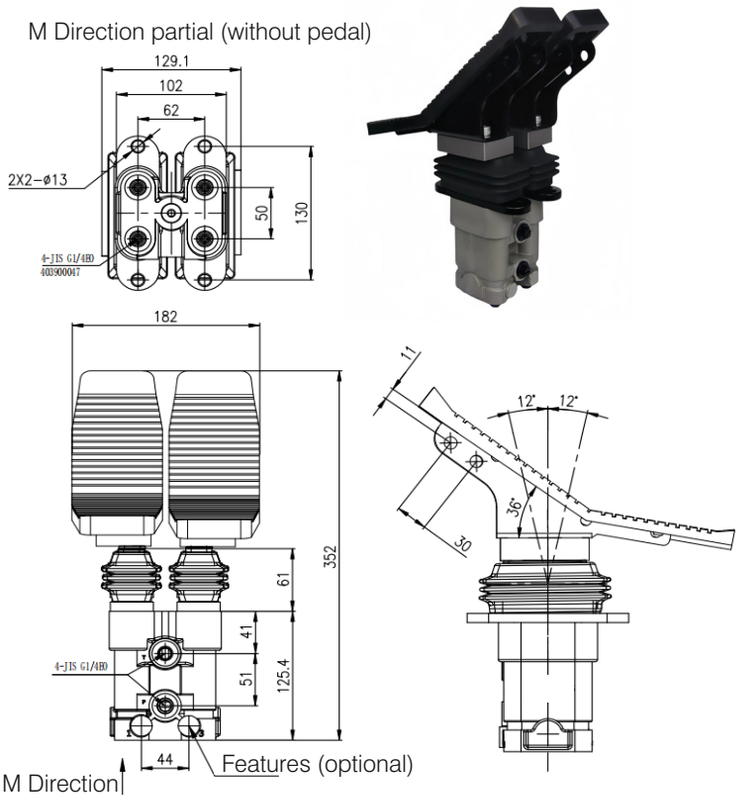




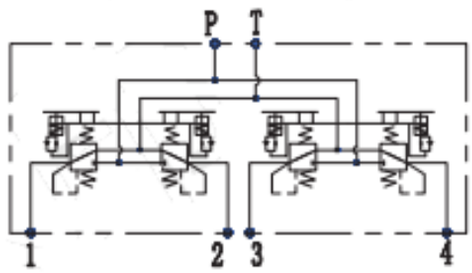


Double pedal FP-RPHF-A/Double pedal FP-RPHF-B (electric feedback)

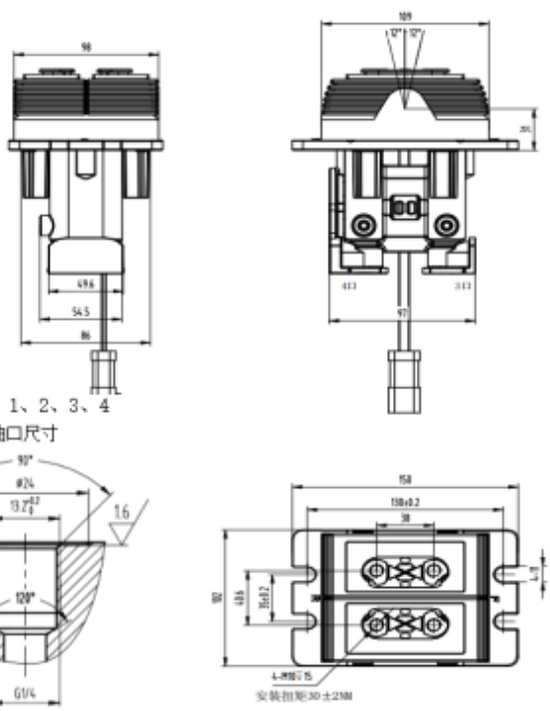
Double pedal FP-RPHF-A

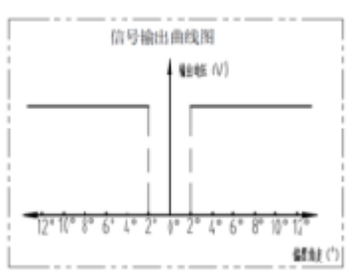


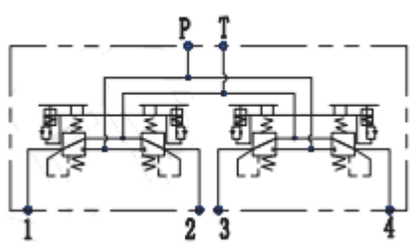
Hydraulic Schematic Diagram



Double pedal FP-RPHF-B



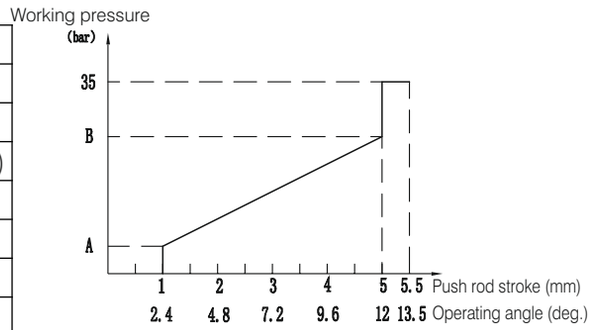




Double pedal FP-RPHF-A/Double pedal FP-RPHF-B (electric feedback)

Technical data

Import Pressure Bar		Rated 35 ; Maximum 60
T port back pressure Bar		Max. 3
Flow L/min		Max. 25
Hydraulic oil	Use for NBR seal	Meet with DIN51524 mineral oil (HL, HLP)
	Use for FPM seal	Phosphate
Hydraulic oil temperature range °C		-20～+80
Oil Viscosity range		10～380
Fluid Contamination		Max. the 9 grade of NAS 1638
		Recommended: filter min β10≥75
The maximum allowable control torque of foot rest (Nm)		Working: 20 Special: 8



Curve code	Q1	Q2	Q3	Q4
A	5^{0}_{-1}	5^{0}_{-1}	5.8^{0}_{-1}	5.9^{+1}_{-1}
B	28^{+2}_{0}	22^{+3}_{0}	19.5^{+2}_{0}	$26^{+1.5}_{-1.5}$

Ordering Code

FP-(R)PHF	B	Q1	4	G	**

Other requirements to described by words

Oil port thread form
G = G1/4 EO thread
M = M14x1.5 EO Thread

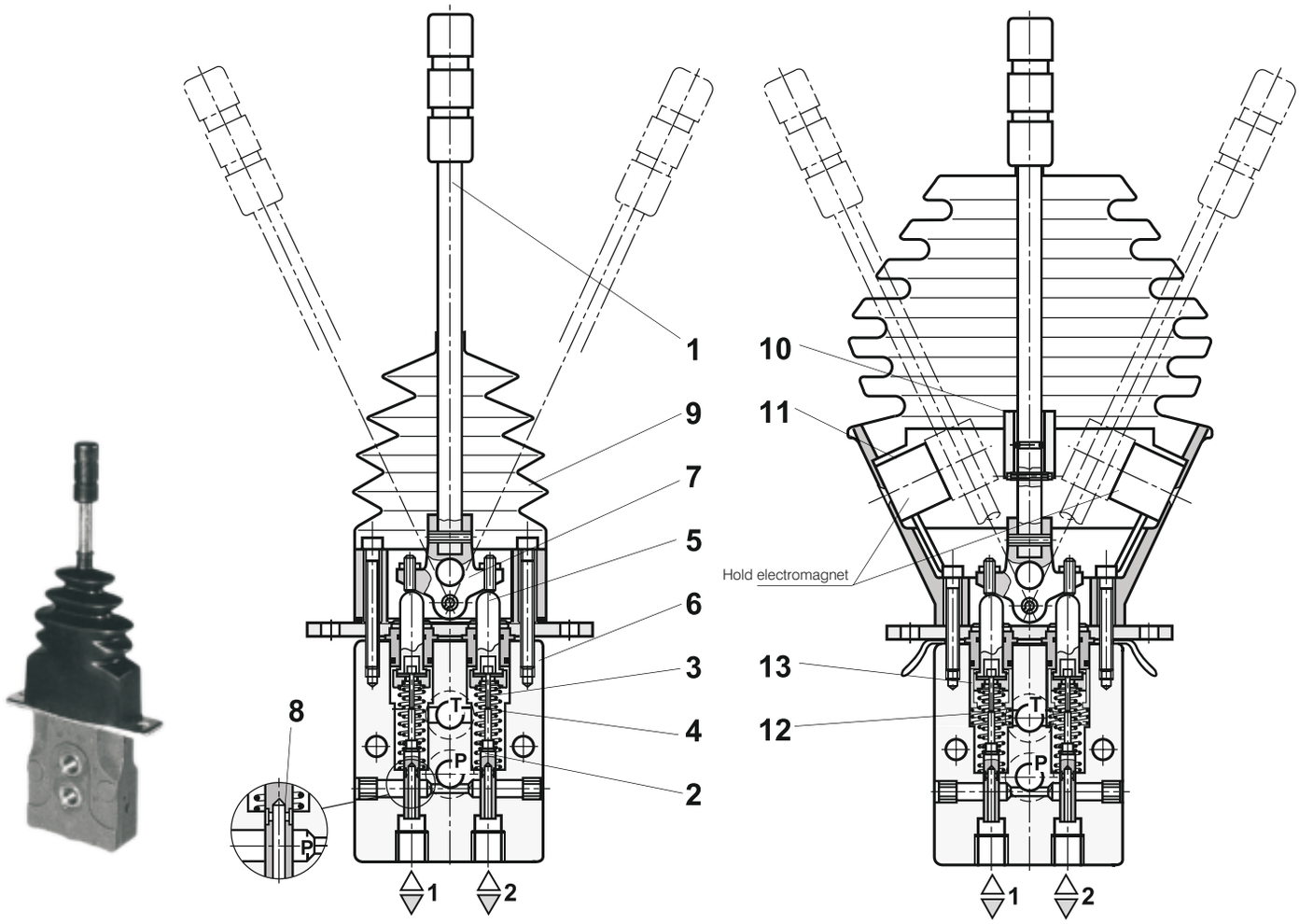
Working port Number
Double pedal valve has 4 , Single has 2

Performance curves

Feet Pilot Valve Code
Double pedal valve is devided into A and B modes
Single is devided into A, B C and D modes

Foot Pilot Control Valve

Plate-type pilot control handle

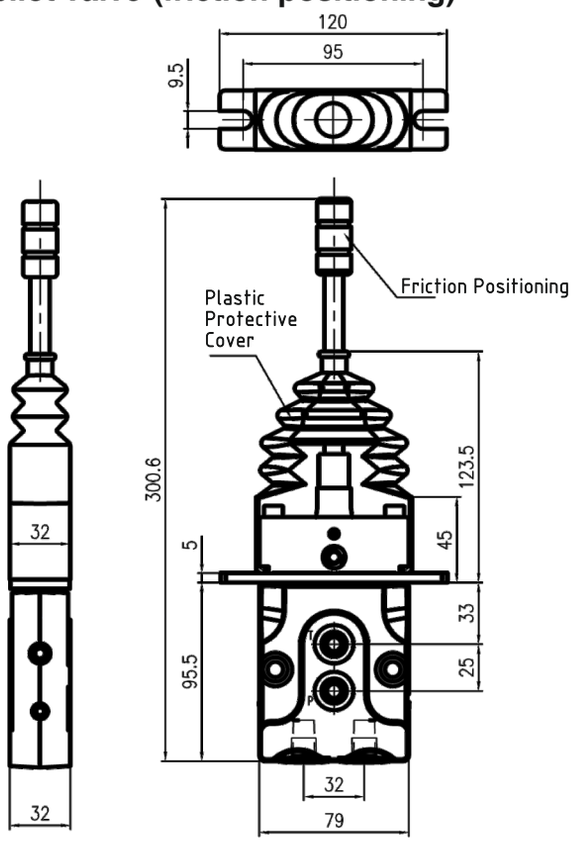


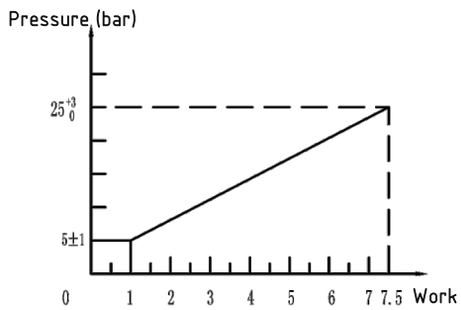
Working Principle

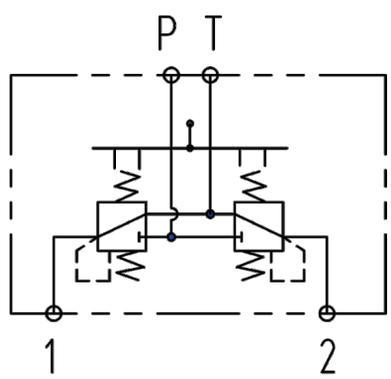
The hydraulic disc pilot control device works according to the principle of direct-acting pressure reducing valve. The pilot control valve consists of an operating lever (1), two pressure reducing valves and a housing (6). Each pressure reducing valve consists of a control valve core (2), a control spring (3), a return spring (4) and a plunger (5).When there is no manipulation, the operating lever is kept in the middle position by the return spring (4), and the control oil port (1, 2) is connected to the oil tank through the hole (8). When the handle (1) is turned, the plunger (5) overcomes the force of the return spring (4) and the control spring (3). At the same time, the control spring (3) pushes down. The control valve core (2) first blocks the corresponding oil port and the return oil port T. At the same time, the corresponding oil port is connected to the P port through the hole (8). When the force of the control valve core (2) and the control spring (3) and the hydraulic pressure generated by the control oil port (1, 2) are balanced, the control begins. Due to the interaction between the control spool (2) and the control spring (3), the pressure in the corresponding oil port is proportional to the stroke of the plunger (5) and thus proportional to the position of the control handle (1). The function of the pilot valve control depends on the position of the handle (1) and the characteristics of the control spring (3): Proportional hydraulic control of a highly responsive control valve that can be used to control multi-way valves, pumps and motors. The rubber dust cover (9) protects the mechanical parts in the housing from being contaminated, so the 2TH6 pilot device is suitable for use in harsh working conditions.

Operate the pilot valve

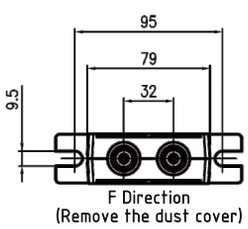
Operate pilot valve (friction positioning)

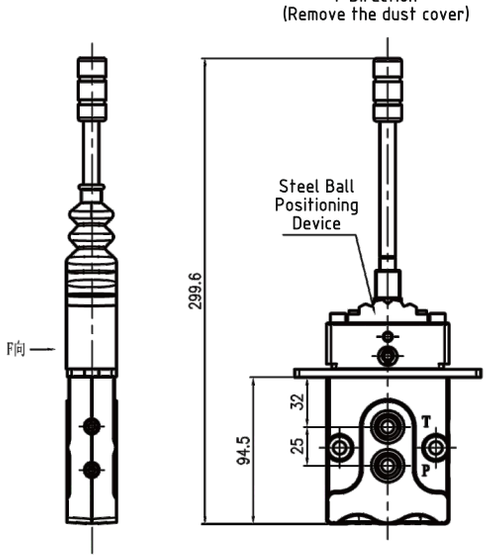


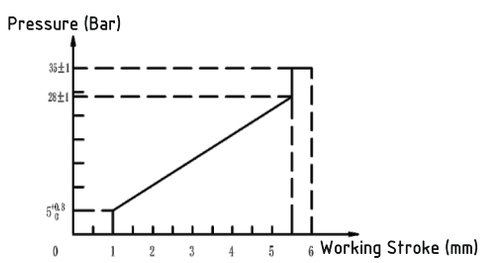


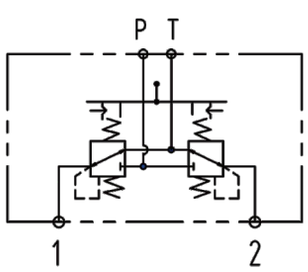


Manipulate pilot valve (ball positioning)



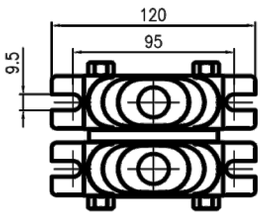


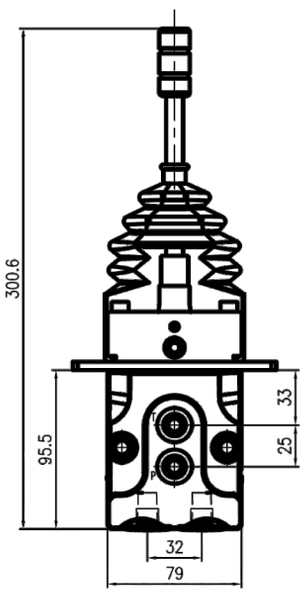


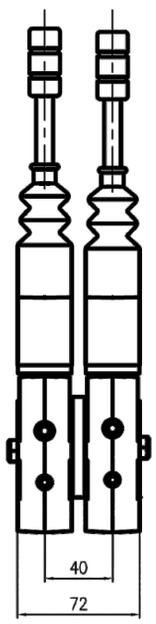


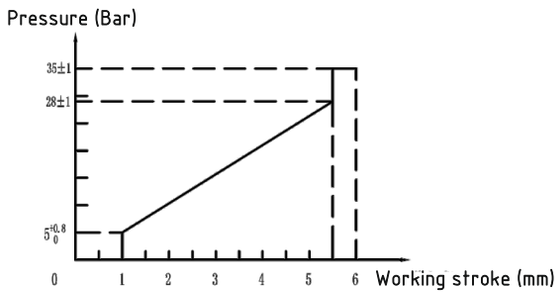
2-way pilot valve/ 3-way pilot valve

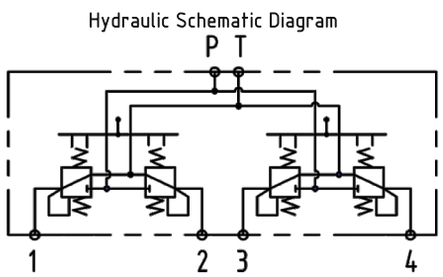
2-way pilot valve



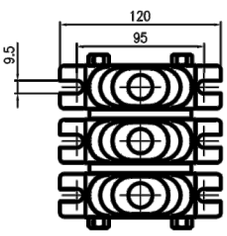


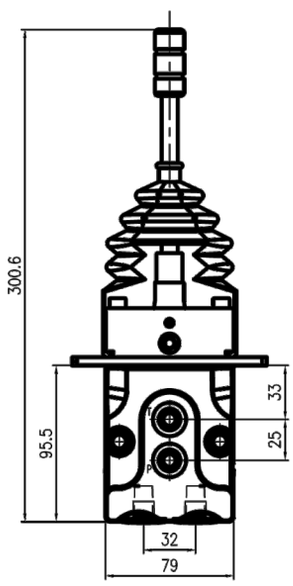


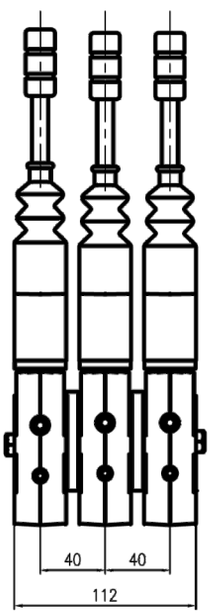


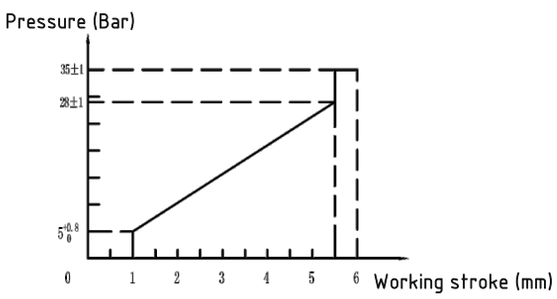


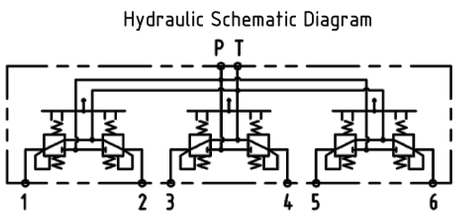
3-way pilot valve





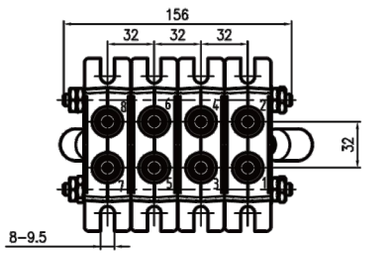


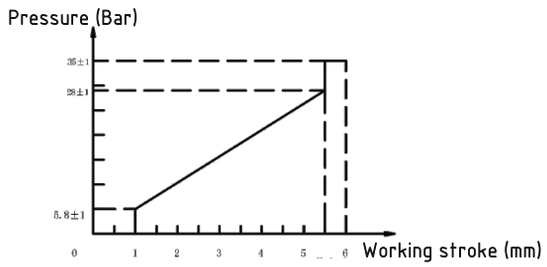


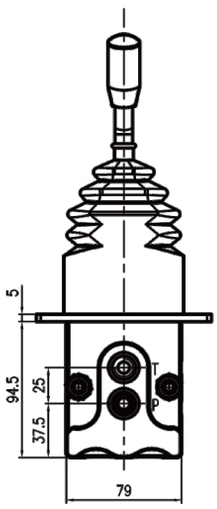


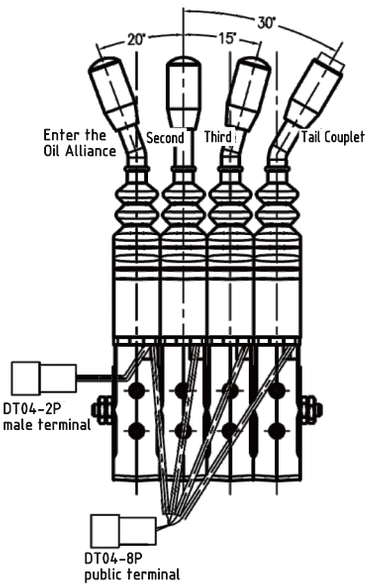
4-way pilot valve/ 7-way pilot valve

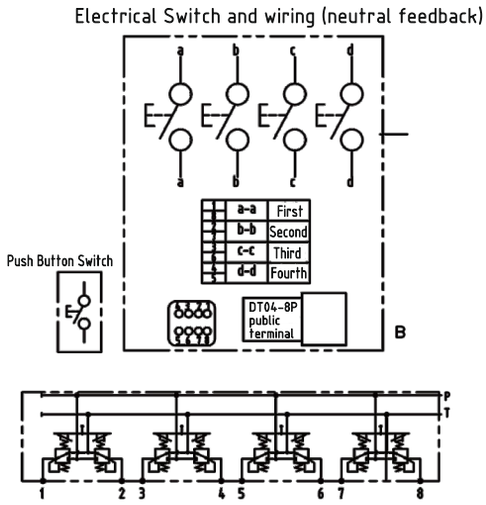
4-way pilot valve



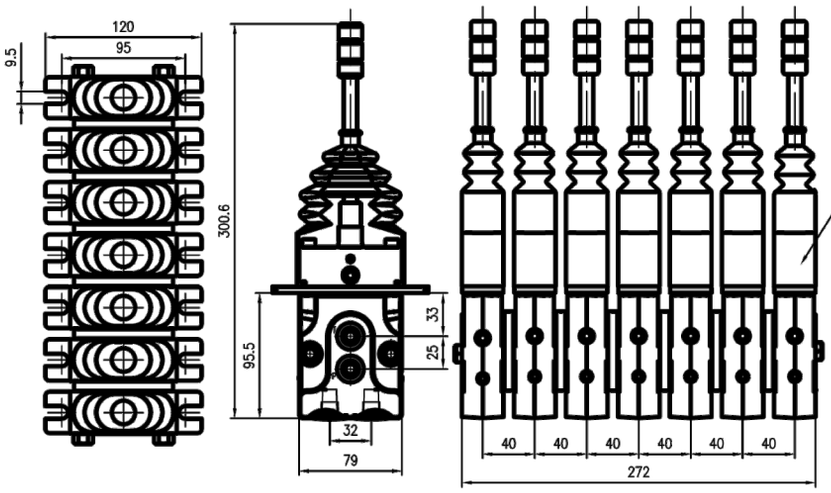


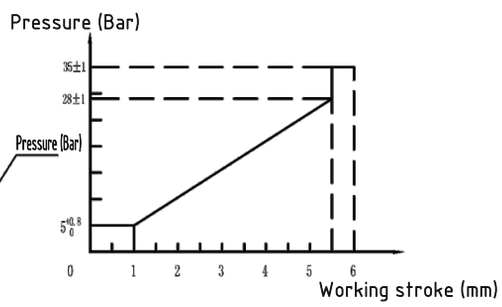






7-way pilot valve





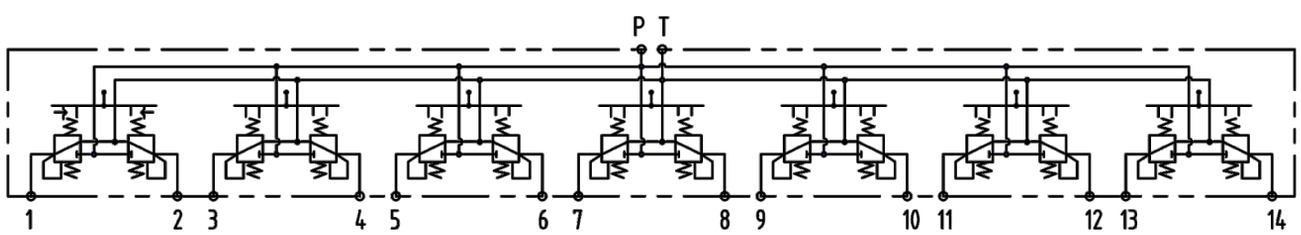


Plate-type pilot control handle

Technical Parameters

Oil Inlet Pressure	Bar	to 50
T port return Pressure	Bar	to 3
Control oil flow (P to 1-2)	L/min	to 16
Pressure	Bar	to 1
Hydraulic oil 1) Suitable for nitrile rubber seals 2) Suitable for fluorubber seals		Mineral oil (HL, HLP) that meets DIN51524 Phosphate (HFD-R)
Oil Temperature range	°C	-20 to +80
Viscosity range	mm^2/s	10 to 380
Oil Cleanliness		The maximum allowable oil contamination level is level 9 of NAS 1638. Therefore , the minimum filter ratio we recommended is 60≥75
Max. allowable operating torque of the handle	Nm	10 When working
	Nm	80 Special case, one-time loading
Weight	Kg	1.6 to 2

Technical Parameters (Electrical)

Operating electrical, Switch data N Switching ability Direct current DC AC		 1A-30V 250000 times 0.3A-250V 250000 times 0.6A-125V 250000 times
Initial contact resistance	mΩ	50
Insulation resistance (at 500V)	MΩ	1000
Electrical strength		At least 1000V effective voltage, 50 Hz between outputs At least 1000V effective voltage, 50Hz between output and ground
Reset feed supply voltage	V	DC 24 (20 to 27)
Power		8.5W at 24V

Safety Considerations (safety conditions not listed here should also be considered)

- Each electrical contact may only be assigned to one control function.
- When designing control loops, avoid uncontrolled operation of the equipment due to use and ensure the transition from one function to another.
- The various extremes of use, in particular the extremes of use mentioned in this catalogue, have been taken into account.

Plate-type pilot control handle

Ordering Code

JS-XDF						

Other

With neutral position feedback:
M = Without
0 = Ball Positioning
G = Friction Positioning
H = all

The maximum number of connections is 1, 2, 3, 4, 5, 6, 7, 8, 9

Characteristic curves Q1(5-28), Q2(5.8-20), Q3(5-26)

Maximum flow/Working pressure : 15/35

01 = Oil port Size G1/4 ED
02 = Oil port size G1/4 E0
03 = Oil port size M14x1.5

Plate type Pilot Control Handle

The specified data is for product description purposes only and may not be deemed to be guaranteed unless expressly confirmed in the contract.

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