

# ByPass Valve for Bent Axis Pumps

ByPass Valve for Hydraulic Bent Axis Piston Pumps

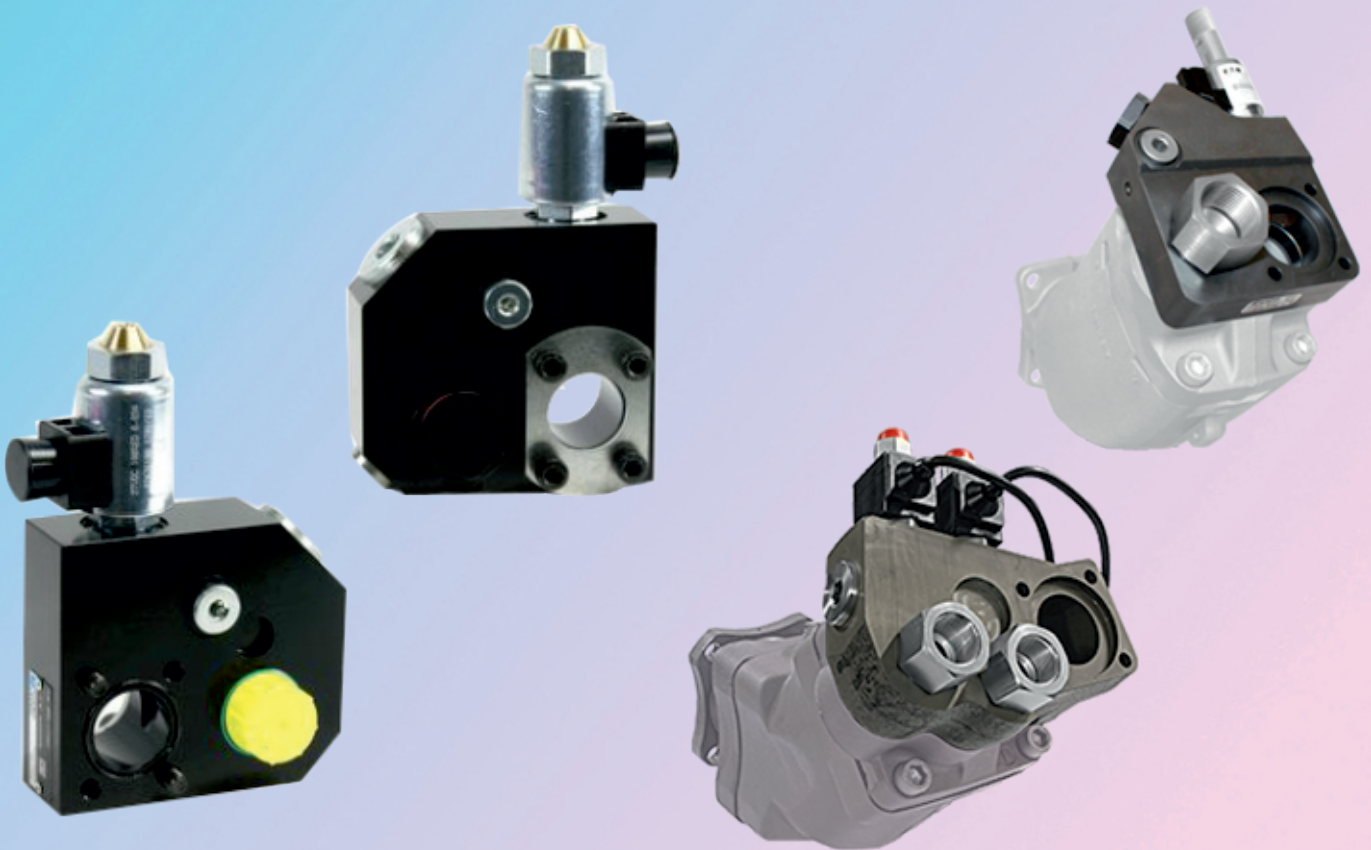
12V ByPass Valve

24V ByPass Valve

## Designation;

12V ByPass Valve

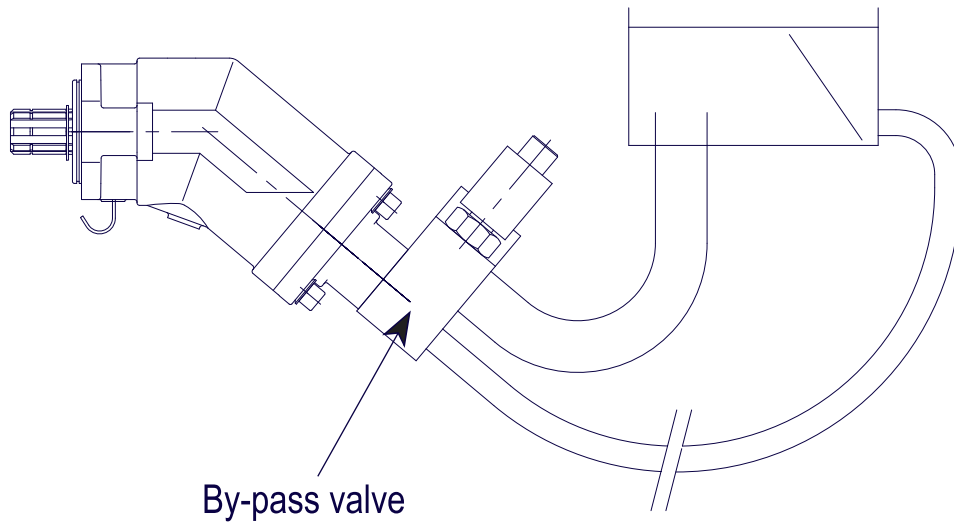
24V ByPass Valve



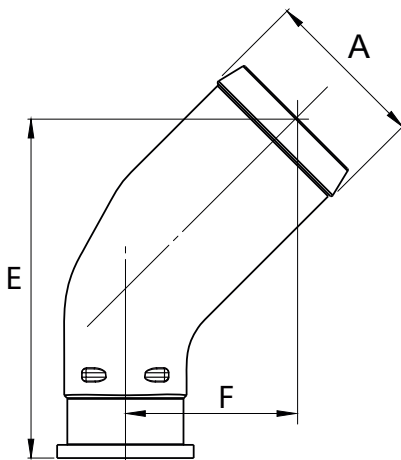
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## ByPass Valve for Bent Axis Pumps

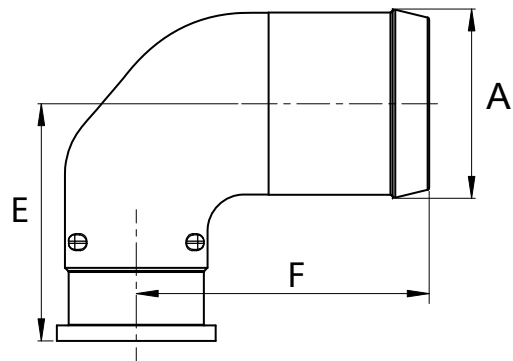


### 45° elbow fittings



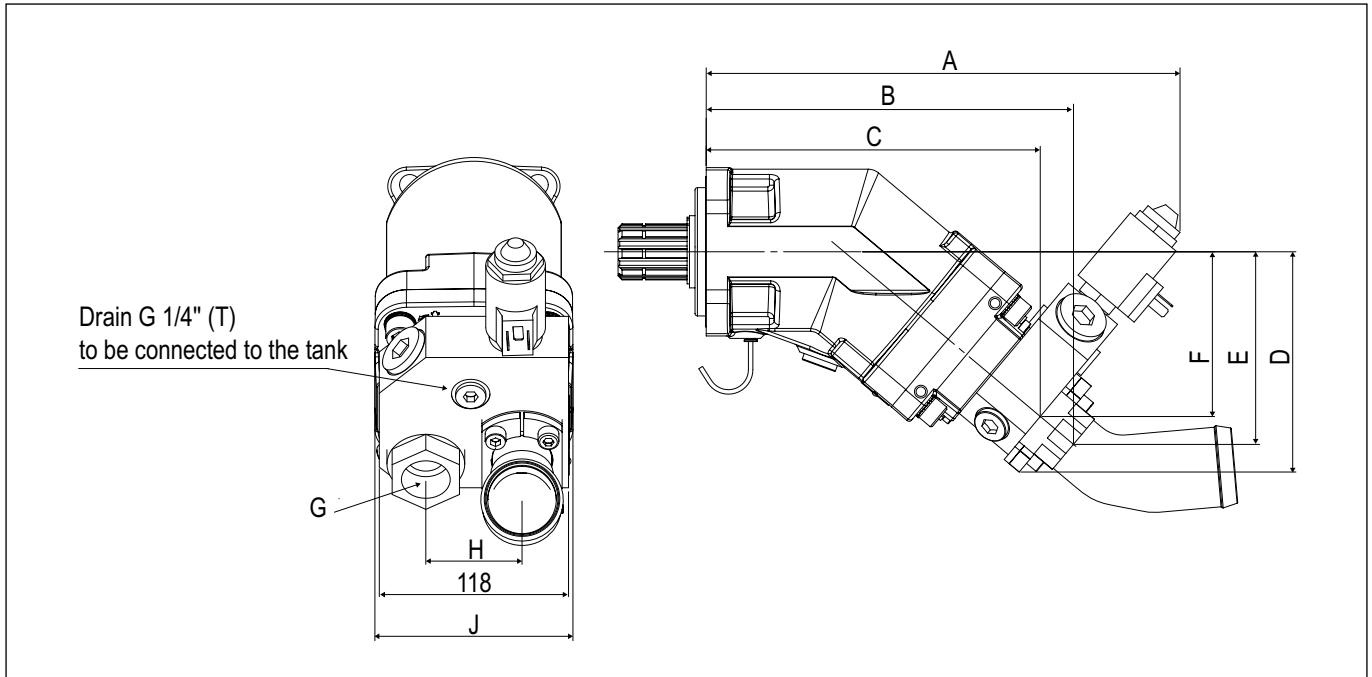
Ø hose	Ø A	E	F
1 1/2"	39.1	91.7	46.7
42	43	91.7	46.7
1 3/4"	46	91.7	46.7
2"	51.8	108.4	54.4
2 1/2"	64.5	125.2	62.2

### 90° elbow fittings



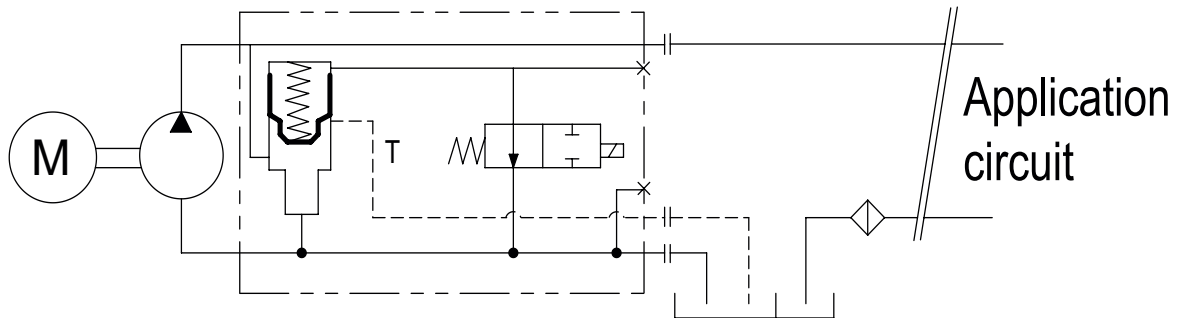
Ø hose	Ø A	E	F
1 1/2"	39.1	58.6	79.5
2"	51.8	64.9	80.2
2 1/2"	64.5	71.3	87.5

## ByPass Valve for Bent Axis Pumps



Pump MODEL	DISPL. (cc)	A	B	C	D	E	F	G	H	J
5 cc	5.1	289.35	223.04	202.19	132.20	114.72	97.58	G 3/4"	54	108
10 cc	10.2	289.35	223.04	202.19	132.20	114.72	97.58	G 3/4"	54	108
12 cc	12.0	289.35	223.04	202.19	132.20	114.72	97.58	G 3/4"	54	108
18 cc	18.0	289.35	223.04	202.19	132.20	114.72	97.58	G 3/4"	54	108
25 cc	25.0	289.35	223.04	202.19	132.20	114.72	97.58	G 3/4"	54	108
32 cc	32.0	295.50	229.00	208.30	137.30	120.10	102.70	G 3/4"	54	108
41 cc	41.0	295.50	229.00	208.30	137.30	120.10	102.70	G 3/4"	54	108
50 cc	50,3	307.10	240.40	220.00	147.10	129.70	112.50	G 3/4"	54	108
56 cc	56,0	307.10	240.40	220.00	147.10	129.70	112.50	G 3/4"	54	108
63 cc	63.0	307.10	240.40	220.00	147.10	129.70	112.50	G 3/4"	54	108
80 cc	80,4	334.00	269.00	246.70	157.80	143.90	124.80	G 1"	60	123
108 cc	108	334.00	269.00	246.70	157.80	143.90	124.80	G 1"	60	123
130 cc	130	336.30	271.3	249.00	159.70	145.80	126.70	G 1"	60	123

## ByPass Valve for Bent Axis Pumps



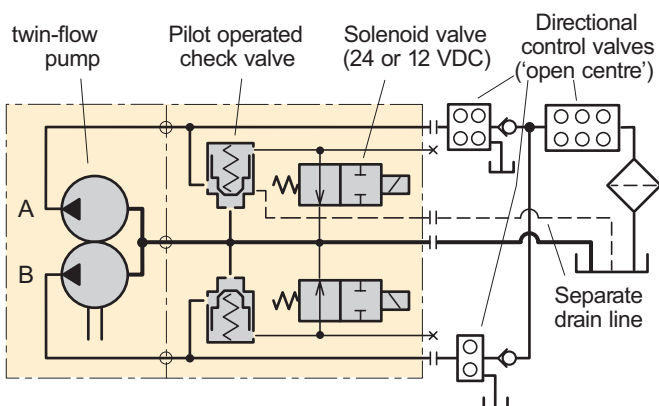
Pump MODEL	DISPL. (cc)	WEIGHT WITHOUT INLET FITTING (kg)	WEIGHT WITH 2" INLET FITTING (kg)	TORQUE WITHOUT FITTING (N.m)	TORQUE WITH FITTING (N.m)
5 cc	5.1	9.00	9.40	8.20	8.60
10 cc	10.2	9.00	9.40	8.65	9.05
12 cc	12.0	9.20	9.60	8.74	9.14
18 cc	18.0	9.30	9.70	8.79	9.19
25 cc	25.0	11.00	11.40	8.89	9.29
32 cc	32.0	11.10	11.50	11.10	11.50
41 cc	41.0	11.20	11.60	11.15	11.55
50 cc	50,3	11.30	11.70	11.75	12.15
56 cc	56,0	11.35	11.75	11.80	12.20
63 cc	63.0	11.45	11.85	11.85	12.25
80 cc	80,4	14.80	15.20	17.80	18.30
108 cc	108	14.90	15.30	17.92	18.42
130 cc	130	15.30	15.70	18.70	19.50

## DUAL FLOW PUMP bypass valve

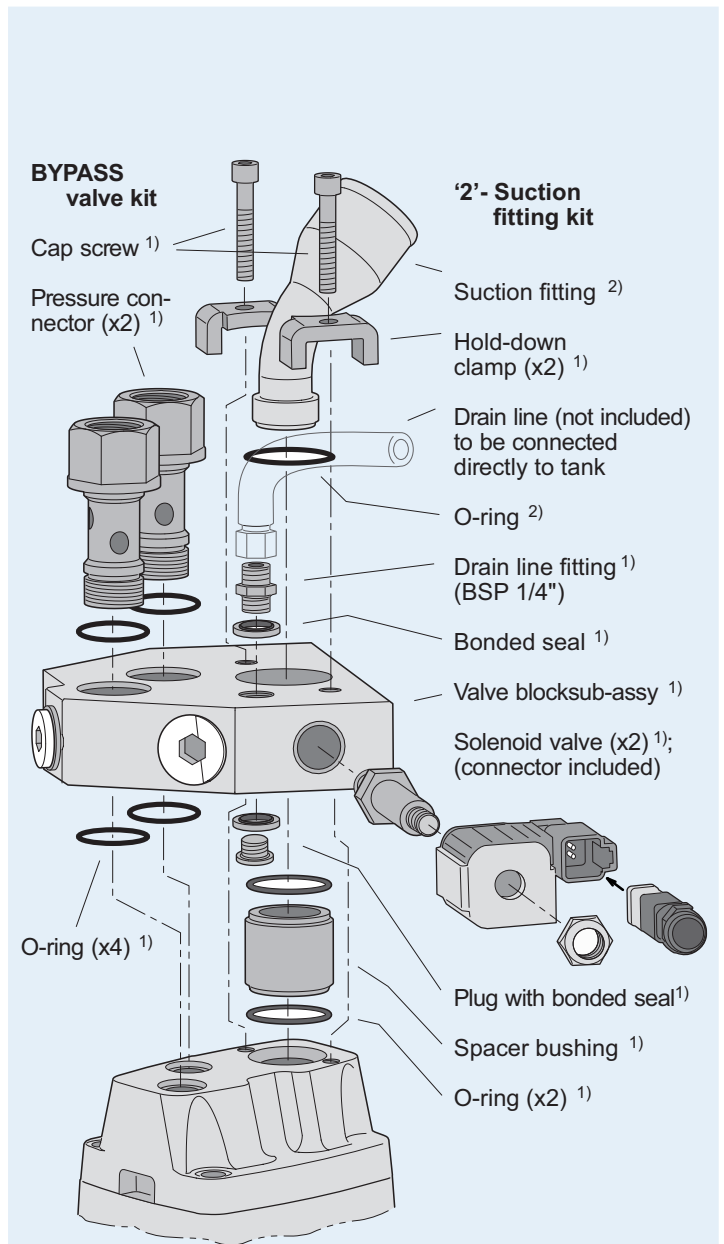
- A dual/twin pump fitted with a bypass valve can be utilised in applications where the pump is operating constantly i.e. when the pump is driven from the crankshaft through a cardan shaft, or when it is installed on an engine-PTO. In addition, it can be used when, temporarily, one of the two circuits is not required; the power loss is thus reduced as the non-required flow is not forced through lines and 'open center' valves.
- The DUAL bypass valve should be disengaged during transportation when the pump is operating constantly and the engine is running at max rpm; the hydraulic system is not sized for the large flow that would otherwise go through it.
- The DUAL valve connects the outlet and inlet ports of the pump, and only a small oil flow goes through the system and to the reservoir.
- The valve is installed directly on top of the pump port surface with 'banjo' fittings and two cap screws (refer to the split view to the right).
- As the DUAL valve is symmetrical it can be 'turned 180°' so as not to interfere with chassis components. The valve can accommodate left hand as well as right hand rotating pumps.
- The valve can only be engaged or disengaged ( through the 24 or 12 VDC solenoid) at low system pressures (below 20 bar).

### IMPORTANT INFORMATION

- In order to secure a cooling flow through the system, a separate drain line **must** be connected from the BPV-pump drain line fitting (shown in the split view) directly to tank; refer also to the schematic.
- The pressure connectors must be tightened (to 50 Nm) before the suction fitting clamp screws are tightened.



Bypass valve circuit schematic (example).



Bypass valve split view without manual override (with dual flow pump end cap).

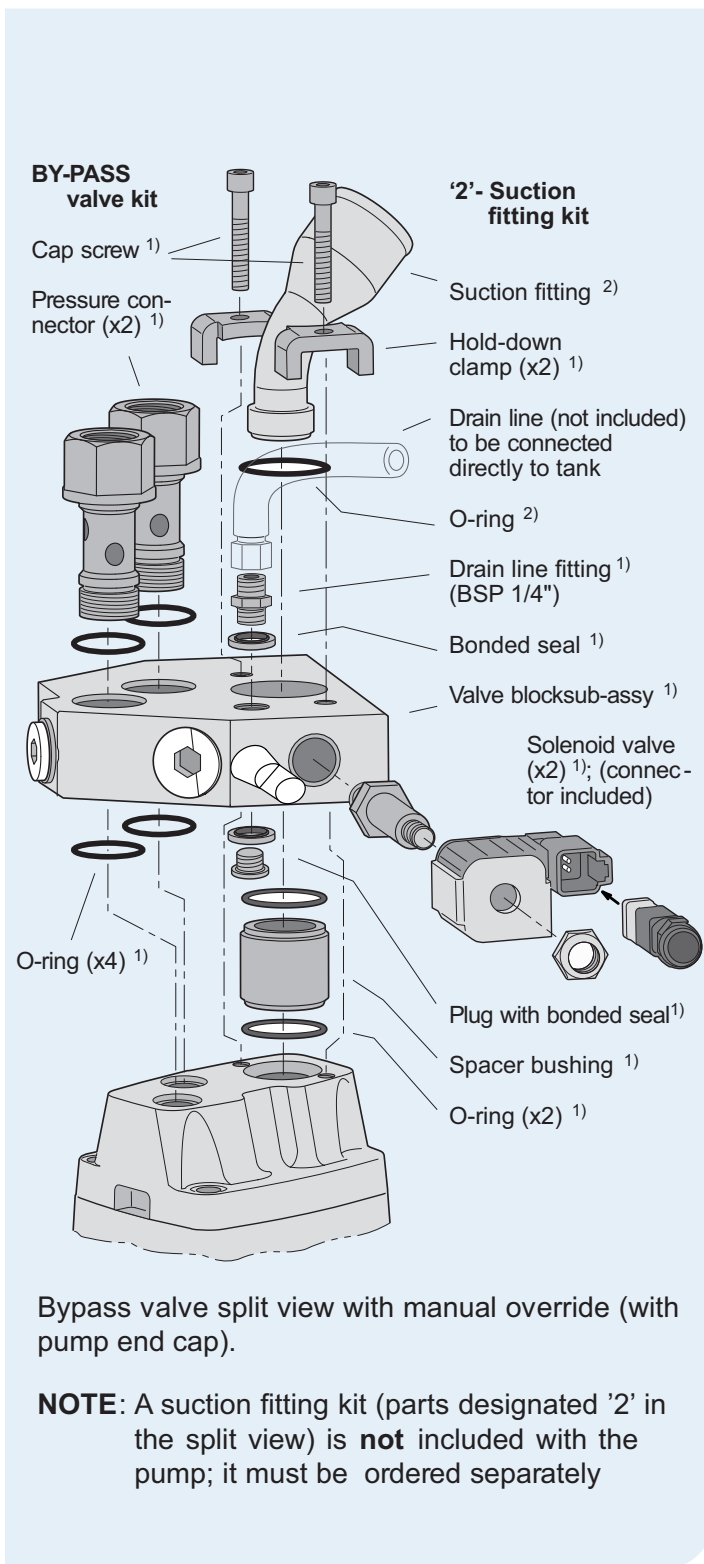
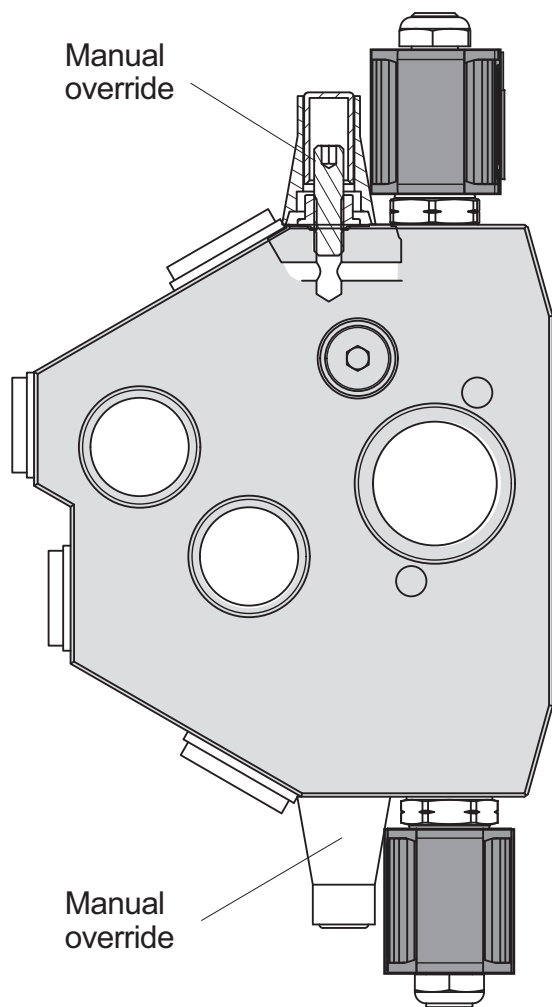
**NOTE:** A suction fitting kit (parts designated '2' in the split view) is **not** included with the pump; it must be ordered separately.

## Bypass valve (Dual Flow Pump)

Without manual override

Bypass valve, type	Dual Flow Pump
Max pressure, continuous	350 bar
intermittent	400 bar
Solenoid voltage (option)	24 VDC, (12 VDC)
Power requirement	14 W (each solenoid)
Operating mode	Activated solenoid: Check valve closed

Bypass valve <sup>1)</sup>	Voltage	Ordering number	Dual Flow	Torque <sup>3)</sup>
ByPass	24 VDC	<b>2400 565</b>	42/42, 53/53, 55/28, 70/35, 70/70	50 Nm
	12 VDC	<b>1200 565</b>		



## Complete Product Range

### **Bent Axis Piston Motors**

K2FM (DIN) Bent Axis Motor  
K3FH (HYBRID) Bent Axis Motor  
A2MS (SAE) Bent Axis Motor  
A3MS (SAE2) Bent Axis Motor  
A2FM (ISO) Bent Axis Motor  
A2FE (Fixed Plugin) Bent Axis Motor  
A2FE (Two Speed) Bent Axis Motor  
A2FT 45 (Inline) Bent Axis Motor

### **Bent Axis Piston Pumps**

K2FA (DIN) Bent Axis Pump  
K2FH (HYBRID) Bent Axis Pump  
K2FL (Aluminum) Bent Axis Pump  
A2FS (SAE) Bent Axis Pump  
A3FS (SAE2) Bent Axis Pump  
A2FO (ISO) Bent Axis Pump  
A3FO (ISO2) Bent Axis Pump  
A2FP (Fixed Plugin) Bent Axis Pump

### **Variable Displacement Motors**

AXMV Variable Piston Motor  
AXMA Variable Piston Motor  
AXMI Variable Piston Motor

### **Variable Displacement Pumps**

AXVP Variable Piston Motor  
AXVA Variable Piston Motor  
AXVI Variable Piston Motor

### **Dual Flow Piston Pumps**

A2FD (DIN) Dual Flow Pumps  
A2FD (SAE) Dual Flow Pumps  
A2PD Axial Dual Output Pumps

### **Axial Piston & Gear Pumps**

A3PP Axial Piston Pumps  
A3PH High Pressure Pumps  
A2GP Gear Pumps  
A2GPT Tandem Gear Pumps  
A2GM Gear Motors  
A2GMT Tandem Gear Motors

### **Valve (ByPass) (Flushing) (Cavitation)**

Circulation Valve  
ByPass Valve  
Anti-Cavitation Valve  
Flushing Valve  
LS Valve  
AntiShock Valve  
Speed Sensor

### **Hydraulic Spare Parts**

Suction Fittings  
Couplars  
Adapters  
Flanges  
Power Take Off  
Monoblock Valve  
Section Valve

## Hydraulic Pumps, Pumps

Bent Axis Hydraulic Piston Pumps, Bent Axis Hydraulic Piston Pumps, Bent Axis Pumps, Variable Displacement Piston Pumps, Variable Displacement Piston Pumps, Axial Piston Pumps, High Pressure Piston Pumps, Gear Pumps, Gear Pumps, Hydraulic Valve.

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