F3 Pump



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F3-81 and -101, ISO Specifications

Frame size F3-	81	101
Displacement [cm³/rev]	81.6	102.9
Max flow 1) [l/min]	180	216
Max operating pressure [bar]	400	400
Shaft speed [rpm]		
- short circuited pump (low press.)	2300	2300
- max selfpriming speed 2)	2200	2100
Torque 1) [Nm]	518	653
Max input power 3) [kW]	105	126
Weight [kg]	20.3	20.1

1) Theoretical values

2) Valid at an inlet pressure of 1.0 bar (abs.) when operating on mineral oil at a viscosity of 30 mm²/s (cSt).

3) Max 6 seconds in any one minute.

NOTE: For noise level information, contact Parker Hannifin.

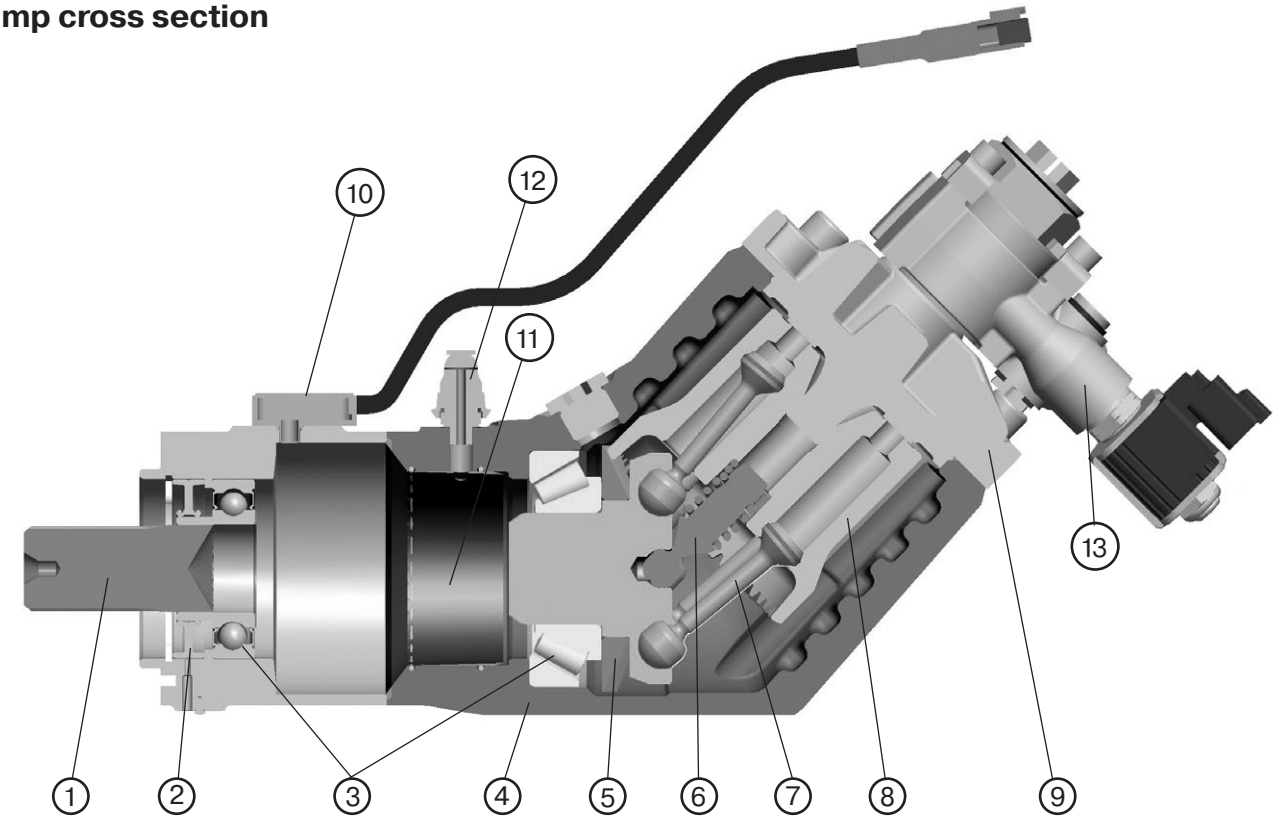
BPV-F3 Bypass valve 12 or 24 VDC Without manual override

Bypass valve, type	BPV-F3
Max pressure, continuous	350 bar
intermittent	400 bar
Solenoid voltage	12 or 24 VDC,
Power requirement	14 W
Operating mode	Activated solenoid: Check valve closed

Accessories / Spare Parts see page 64

- As the BPV valve is symmetrical, it can be 'turned 180°' to prevent interference with chassis components; it can be utilised for either left hand or right hand pumps.
- The valve function must only be activated or released (by means of the 24 VDC solenoid) at no-load (below 20 bar) system pressure.

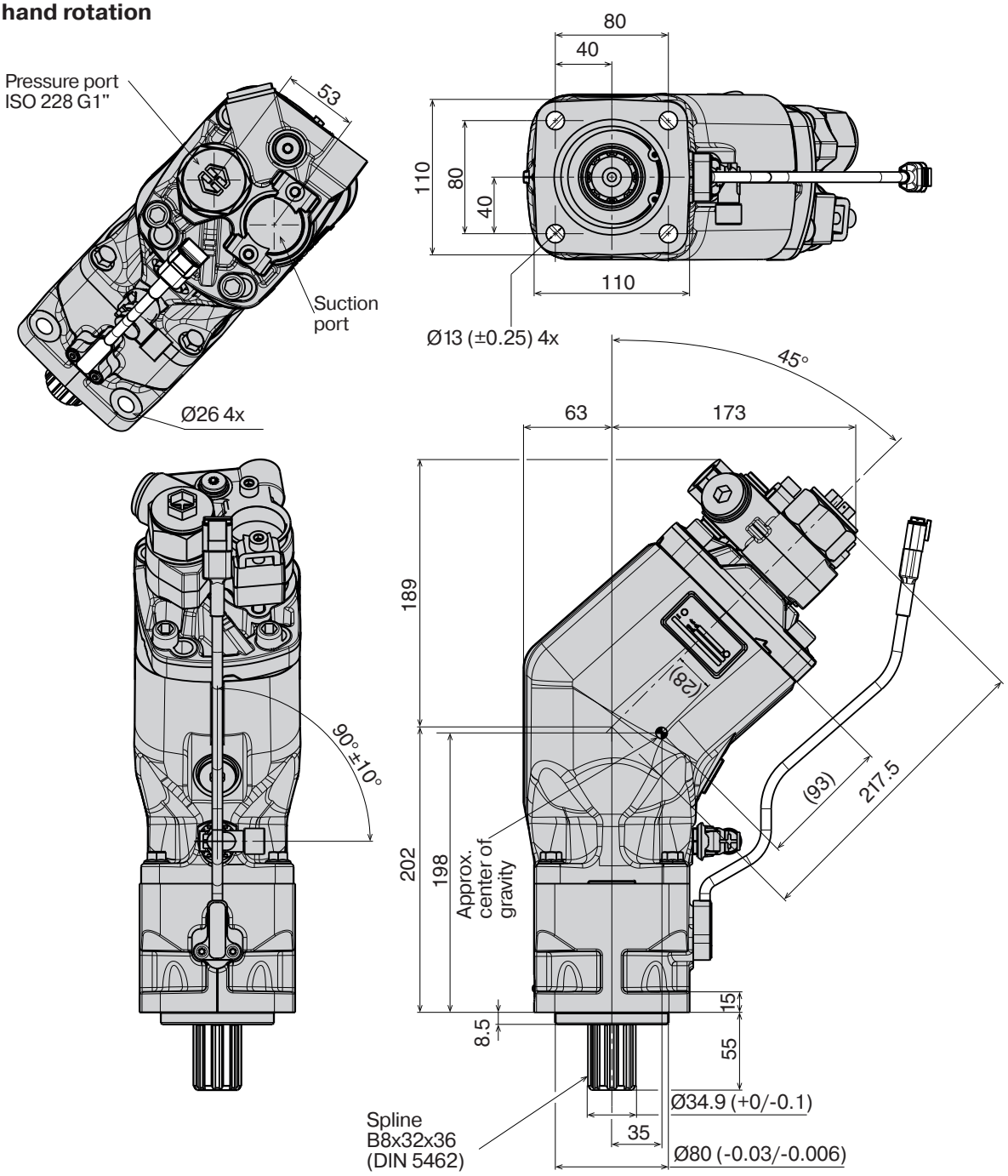
Pump cross section



1. Input shaft
2. Shaft seals
3. Bearings
4. Housing
5. Timing gear
6. Barrel support
7. Piston with piston ring
8. Cylinder barrel
9. End cap
10. Position sensor
11. Air cylinder
12. Air fitting
13. Bypass Valve

F3-81 and -101

Right hand rotation



Port size

F3 frame size	Pressure port [1)]
-81	1"
-121	1"

[1)] BSP thread (fitting not included).

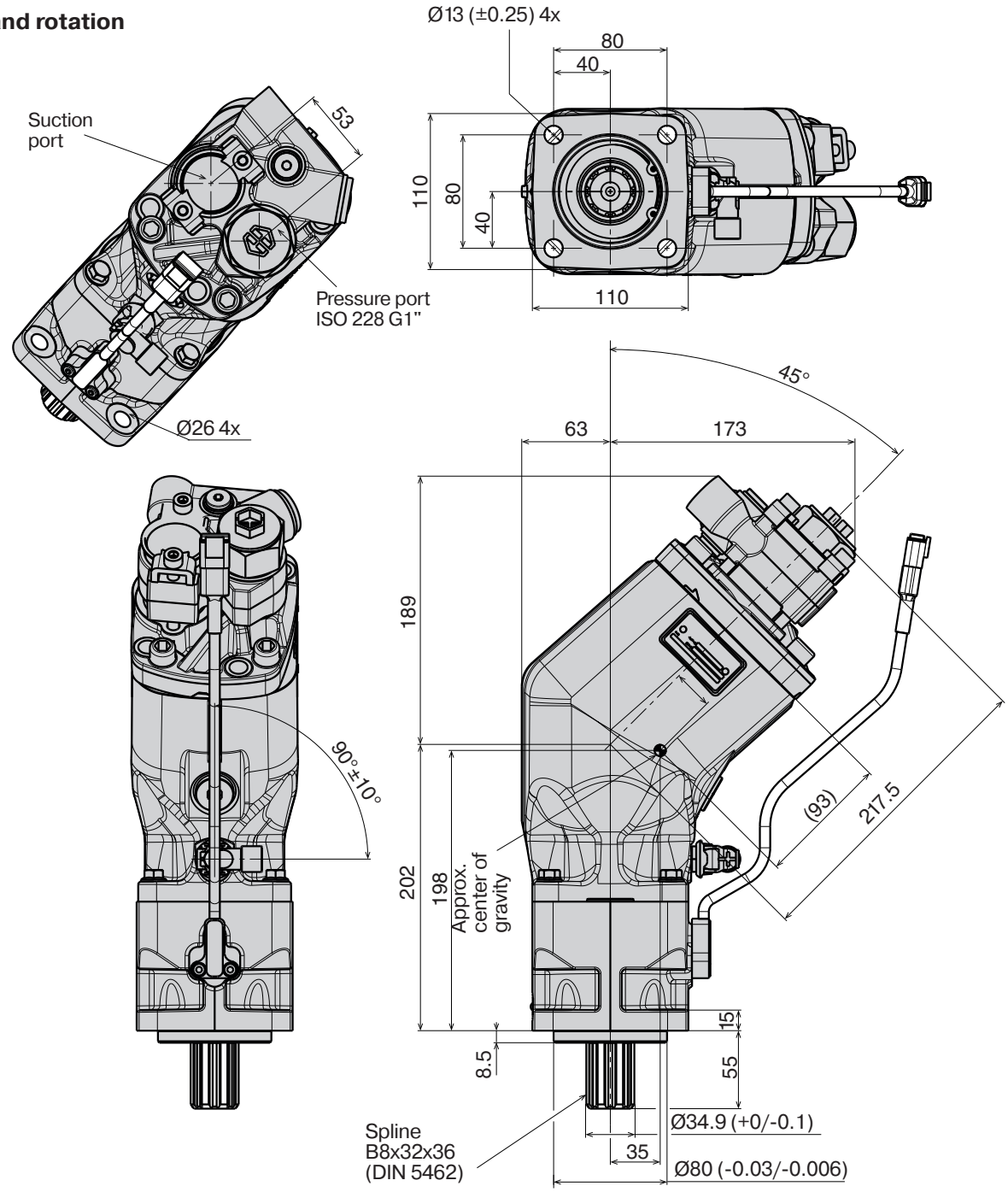
NOTE: The pump **does not** include a suction fitting; it must be ordered separately. See page 63ff..

Standard versions

Designation	Ordering no. 24 VDC	Ordering no. 12 VDC
F3-81-R-	**372 0091**	3720382
F3-101-R-	**372 0093**	3720384

F3-81 and -101

Left hand rotation



Port size

F3 frame size	Pressure port [1)]
-81	1"
-121	1"

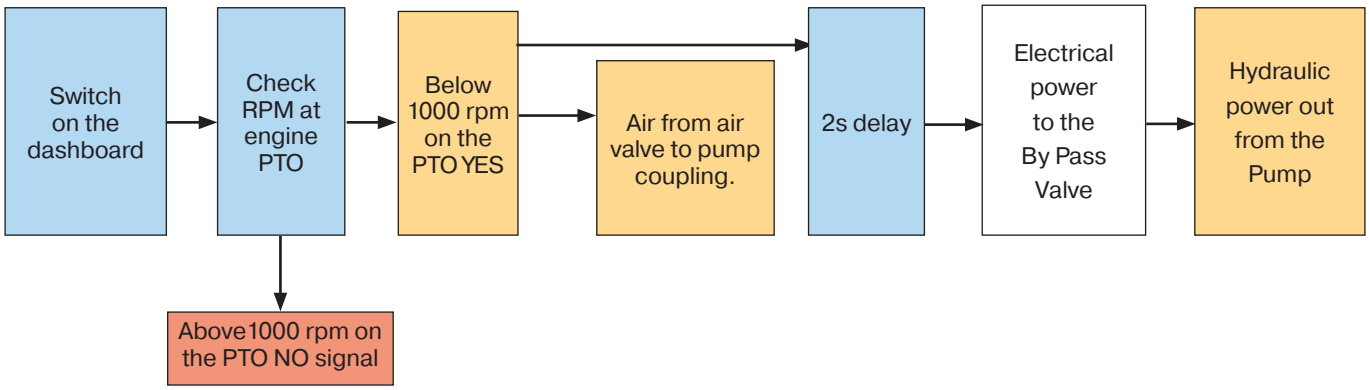
[1)] BSP thread (fitting not included).

NOTE: The pump **does not** include a suction fitting; it must be ordered separately. See page 63ff.

Standard versions

Designation	Ordering no. 24 VDC	Ordering no. 12 VDC
F3-81-L-	**372 0092**	3720383
F3-101-L-	**372 0094**	3720385

Block diagram engaging the F3 pump



Product Demand

- Max pump shaft speed before the F3 can be engaged is 1000 rpm. (verify engine PTO speed)
- Air pressure > 5 bar before the clutch can start to engage the pump

* For electrical diagram, contact Parker Hannifin

* Check the bending torque limit on the PTO mount.
F3 - Bending torque 33 Nm

Interface

