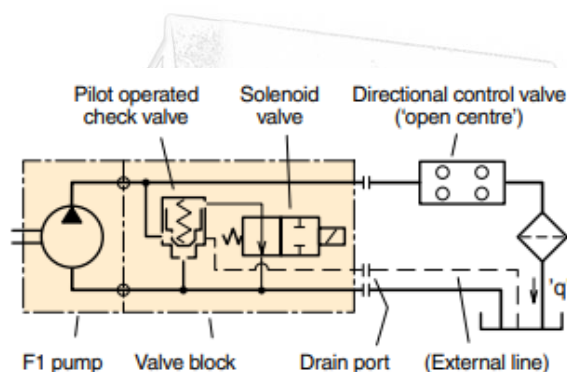


BPV-F1 and BPV-T1 bypass valve

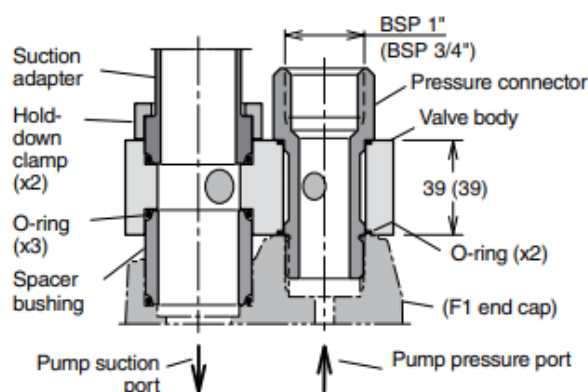
- The bypass valve is mainly utilised in applications where the F1 pump is driven from the crank-shaft through a cardan shaft, or when it is installed on an engine PTO.
- The BPV bypass valve should be disengaged during transportation when the pump is operating constantly and the engine is running at max rpm; the hydraulic system is not sized for the large flow that would otherwise go through it.
- The BPV valve substantially reduces the energy loss during transportation.
- The valve installs directly on top of the pump end cap with a pressure port 'banjo' fitting and an inlet port spacer bushing with two cap screws; refer to the illustration to the right.
- 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.

IMPORTANT INFORMATION

- In order to secure a cooling flow through the system, a separate drain line **must** be connected from the BPV-F1 drain line fitting directly to tank; (shown in the Installation Information Bulletin MSG30-8227-INST/UK/DE) refer also to the schematic.
- The pressure connector must be tightened (to 50 Nm) before the suction fitting clamp screws are tightened.



Bypass valve schematic.



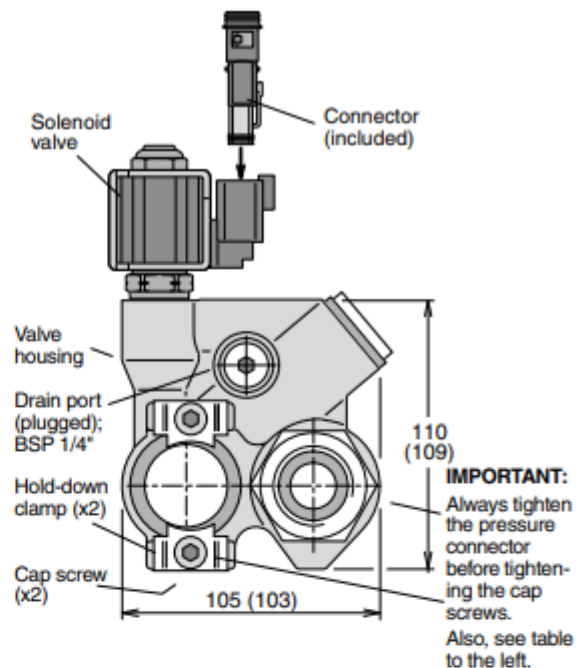
BPV-F1 and BPV-T1 Bypass valve Without manual override

Bypass valve, type	BPV-F1-25 to -101 and BPV-T1-81 and -121
Max pressure, continuous	350 bar
intermittent	400 bar
Solenoid voltage (option)	24 VDC, (12 VDC)
Power requirement	14 W
Operating mode	Activated solenoid: Check valve closed

Bypass valve	Voltage	Ordering number	For F1 and T1 size	Torque ¹⁾
BPV-F1, BPV-T1	24 VDC	378 7201	F1-25 ²⁾ , -41, -51, -61 and T1-81	50 Nm
	12 VDC	378 7202		
	24 VDC	378 7203	F1-81, -101 and T1-121	100 Nm
	12 VDC	378 7204		
Drain fitting kit ²⁾ F1-025		378 1640	Contains a drain line fitting a bonded seal and nozzle.	
Drain fitting kit other F1, T1 and F2		378 3039	Contains a drain line fitting and a bonded seal. N.B. Included in the complete bypass valve.	

1) Torque pressure connector to:

2) Drain fitting kit 378 1640 must be ordered separately for F1-025.



NOTE: Dimensions are shown for BPV-F1-81 (those for BPV-F1-25 are in parenthesis)

BPV-F1 and -T1 installation and cross section without manual override

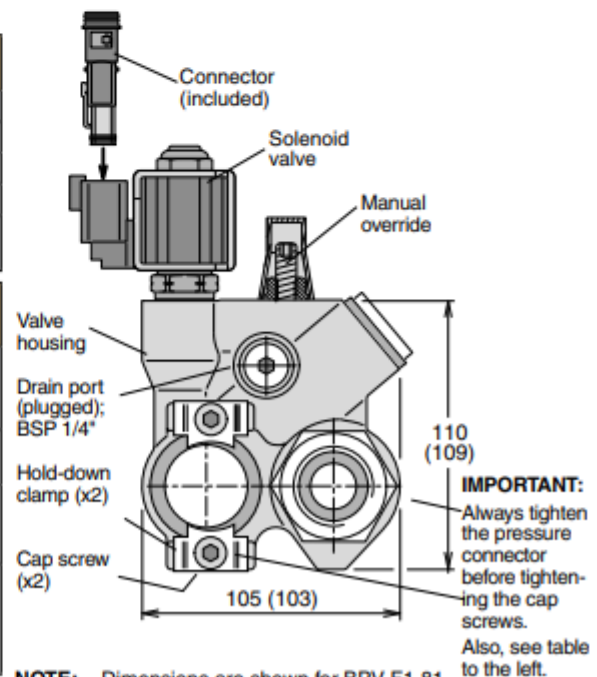
BPV-F1 and BPV-T1 Bypass valve With manual override

Bypass valve, type	BPV-F1-25 to -101 and BPV-T1-81 and -121
Max pressure, continuous	350 bar
intermittent	400 bar
Solenoid voltage	24 VDC
Power requirement	14 W
Operating mode	Activated solenoid: Check valve closed

Bypass valve	Voltage	Ordering number	For F1 and T1 size	Torque ¹⁾
BPV-F1, BPV-T1	24 VDC	378 4179	F1-25 ²⁾ , -41, -51, -61 and T1-81	50 Nm
	24 VDC	378 4180	F1-81, -101 and T1-121	100 Nm
Drain fitting kit ²⁾ F1-025		378 1640	Contains a drain line fitting a bonded seal and nozzle.	
Drain fitting kit other F1, T1 and F2		378 3039	Contains a drain line fitting and a bonded seal. N.B. Included in the complete bypass valve.	

1) Torque pressure connector to:

2) Drain fitting kit 378 1640 must be ordered separately for F1-025.



NOTE: Dimensions are shown for BPV-F1-81 (those for BPV-F1-25 are in parenthesis)

BPV-F1 installation and cross section with manual override