

Hydrokraft®

PVZ-130/180 with KBF proportional valve

Reliable, efficient control and actuation for ship engines



Superior **performance,** **reliability** and **control**

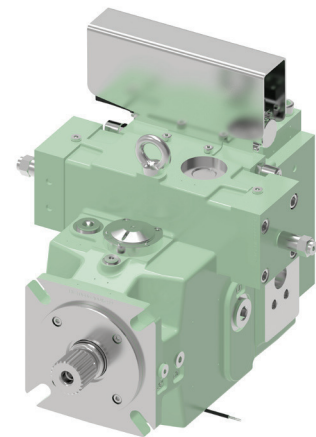
MAN Energy Solutions utilizes hydraulic piston pumps to take over the duties of the camshaft at the heart of their ship engine's electro-hydraulic system. The high performing pumps control fuel injection and exhaust valve actuation that otherwise would be controlled by mechanical components. By providing continuously variable fuel injection and valve timing via hydraulic pumps, the camshaft-less design has unlimited flexibility, enabling the intelligent engine to reduce fuel consumption and emissions.

The two-stroke engines are designed to run around the clock for years and the Hydrokraft PVZ pump is a perfect match to accompany these ships on their long journey. Pushing durability to new levels, the PVZ pump is engineered to perform its job for 48,000 hours in harmony with the ships engine speed. In addition, when a ship is running astern, the direction of engine rotation needs to be reversed. Since the pumps are also driven by the engine's crankshaft, they are designed for both clockwise and counterclockwise operation.

Features

The Hydrokraft PVZ pump with integrated KBF proportional valves is a proven solution for new installations and a drop-in replacement for existing ship engine applications.

- Designed for drop-in replacement for competitor pump
- Continuous operating pressure of 300bar, maximum 450bar according marine classification guidelines
- Built-in control via a Vickers by Danfoss KBF proportional valve
- Heavy-duty design ensures a 48,000-hour service life, while operating at full ratings
- Valve plate design enables the pumps to run both clockwise and counterclockwise
- Additional check-valve block prevents cavitations during reverse operation



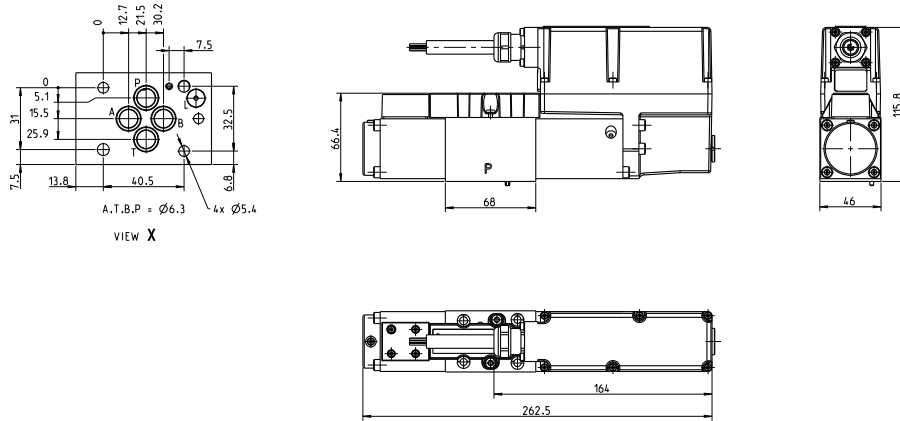
Hydrokraft pump with integrated proportional valve used for fuel injection control and exhaust valve actuation

Certifications

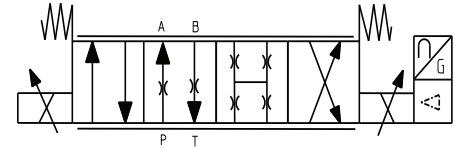
PVZ-130/180 Hydrokraft Pumps and KBF Valves are certified for marine applications. Contact your sales representative for information.

KBF Proportional Valve

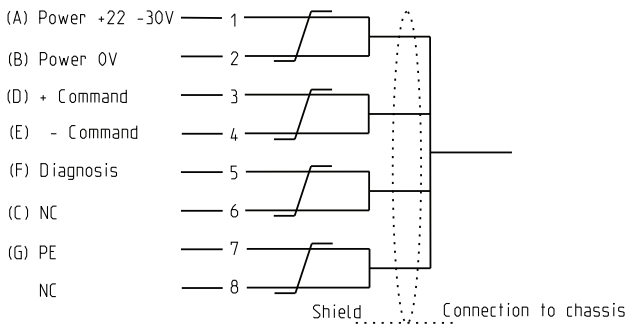
Drawing



Schematic



Pinout Diagram



Specifications

- Marine certified cable - length 6.5 meter
- Signal 4-20mA
- Nominal Pressure max. 350bar (P,A,B); T=160bar
- Unique serial number allows traceability

Danfoss KBF Valve Part Number / Model Code

Part Number	HC000000317510
Modelcode	KBFDG4V-3-9C18N-Z-M4-PC7-H7-12-EN151
Modelcode Description	KBF - PROPORTIONAL VALVE
	DG4V3 - DIRECTIONAL CONTROL WITH INTEGRAL AMPLIFIER, D03/NG6
	9 - CLOSED CENTER ALL PORTS, ZERO/UNDERLAP
	C - SPRING CENTERED DUAL SOLENOID
	18 - 18 L/MIN
	N - METER-IN AND METER-OUT
	_ - N/A
	Z - STANDARD, NO MANUAL OVERRIDE
	_ - STANDARD AS PER ANSIB93.9
	M4 - 4-20 MA CURRENT DEMAND SIGNAL, 4-20MA CURRENT MONITOR
	PC7 - 7-PIN CONNECTOR WITHOUT PLUG
	H - 24 VDC AMPLIFIER SUPPLY
	7 - FOR ALL OTHER SPOOLS
	12 - 12 DESIGN
	EN151- SPECIAL FEATURE

MAN Part Number

Part Number	5795820
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Contact info

Danfoss Power Solutions II GmbH
Industrial Hydraulics | Hydrokraft
 Am Joseph 16
 61273 Wehrheim, Germany
 Tel.: +49 6081 103-324
 Fax: +49 6081 103-329

Support email: industrialpumpsmotorsupport@danfoss.com
 For additional questions, please contact your sales representative.

