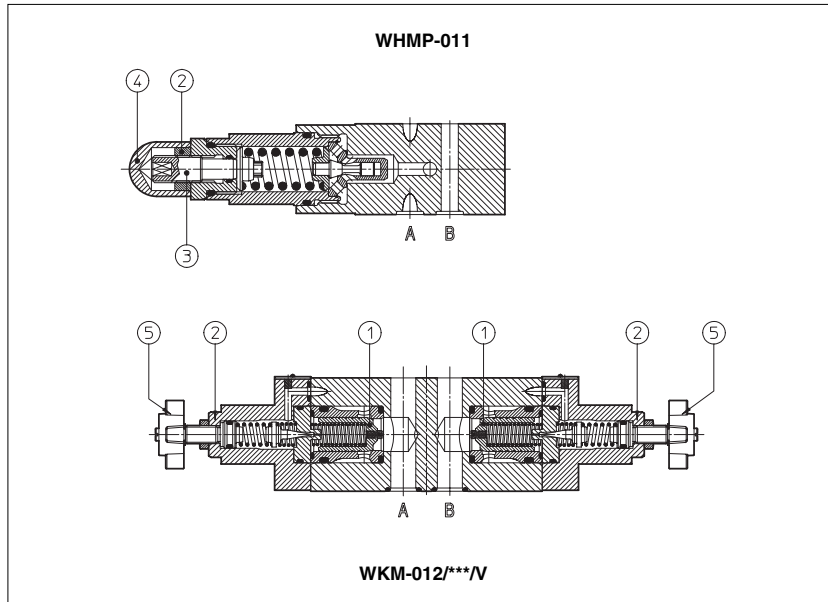


Modular relief valves type WHMP, WKM

ISO 4401 sizes 06 and 10



WHMP are direct operated pressure relief valves.
WKM is double stage pressure relief valves with balanced poppet ①.

The pressure adjustment is operated by loosening the locking nut ② and turning the screw ③ protected by cap ④. Optional versions with setting adjustment by handwheel ⑤ instead of the screw are available on request. Clockwise rotation increases the pressure.

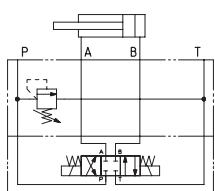
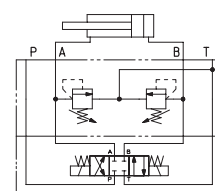
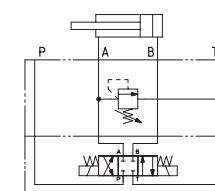
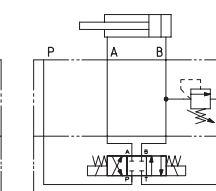
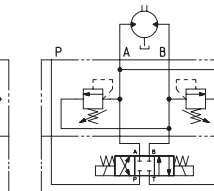
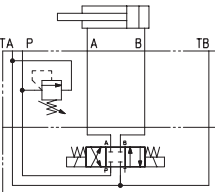
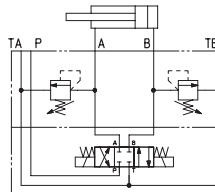
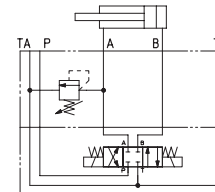
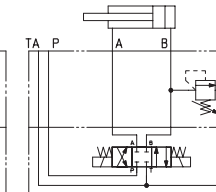
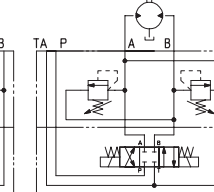
WHMP = ISO 4401 size 06 interface;
max flow: 35 l/min; max pressure up to 350 bar.

WKM = ISO 4401 size 10 interface;
max flow: 120 l/min; max pressure up to 350 bar.

Valves designed to operate in hydraulic systems with hydraulic mineral oil or synthetic fluid having similar lubricating characteristics.

1	MODEL CODE	HM	-	011	/	210		IV		**		/*
	Modular pressure relief valve size: WHMP = 06 WKM = 10											Synthetic fluids: PE = phosphate ester
	Configuration, see section 2											Design number
	011 = single, acting on port P, discharge to port T 012 = double, acting on ports A and B, discharge to port T 013 = single, acting on port A, discharge to port T 014 = single, acting on port B, discharge to port T 015 = double, acting on ports A and B, with the relieved pressure cross-discharged											Options: IV = setting adjustment by handwheel instead of a grub screw protected by cap

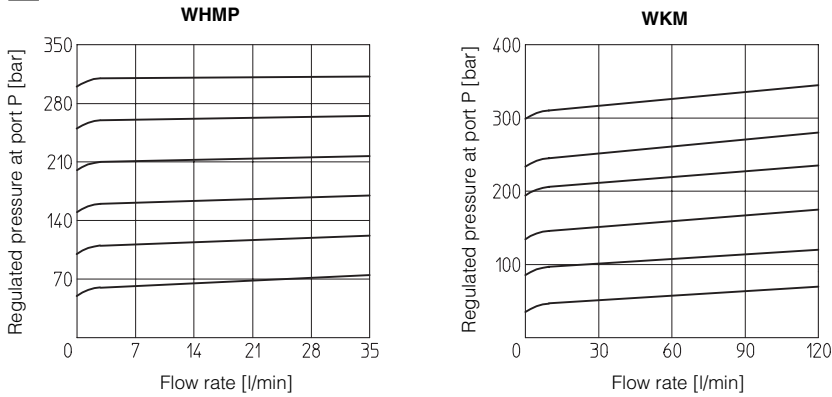
2 HYDRAULIC CHARACTERISTICS

Hydraulic configuration				
				
WHMP-011	WHMP-012	WHMP-013	WHMP-014	WHMP-015
				
WKM-011	WKM-012	WKM-013	WKM-014	WKM-015
Valve model		WHMP		WKM
Max flow	[l/min]	35		120
Pressure range	[bar]	2÷50; 3÷100; 10÷210; 15÷350		4÷50; 5÷100; 5÷210; 5÷350

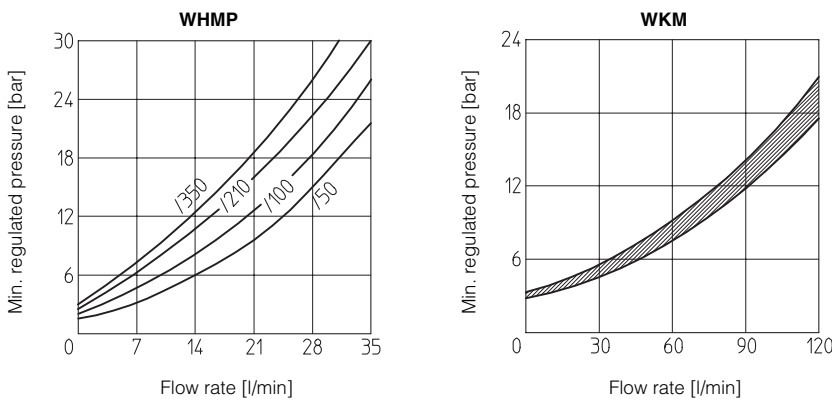
3 MAIN CHARACTERISTICS OF MODULAR PRESSURE RELIEF VALVE TYPE WHMP and WKM

Assembly position / location	Any position
Subplate surface finishing	Roughness index $\sqrt{0.4}$, flatness ratio 0,01/100 (ISO 1101)
Ambient temperature	-20°C to +70°
Fluid	Hydraulic oil as per DIN 51524 ... 535; for other fluids see section I
Recommended viscosity	15 ÷ 100 mm ² /s at 40°C (ISO VG 15 ÷ 100)
Fluid contamination class	ISO 19/16, achieved with in line filters at 25 µm value and $\beta_{25} \geq 75$ (recommended)
Fluid temperature	-20°C +60°C (standard seals) -20°C +80°C (/PE seals)

4 REGULATED PRESSURE VERSUS FLOW DIAGRAMS (Based on mineral oil ISO VG 46 at 50°C)

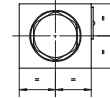
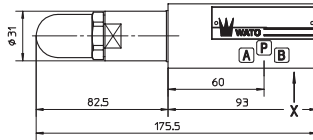
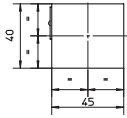


5 MINIMUM PRESSURE VERSUS FLOW DIAGRAMS (Based on mineral oil ISO VG 46 at 50°C)



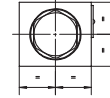
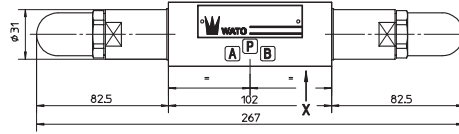
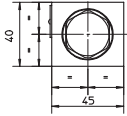
6 INSTALLATION DIMENSIONS OF WHMP VALVES [mm]

WHMP-011



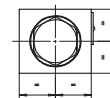
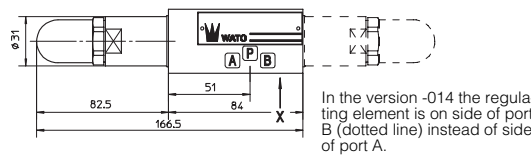
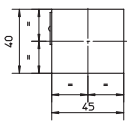
Mass: 1,4 Kg

WHMP-012



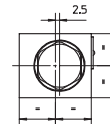
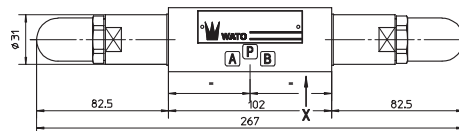
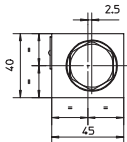
Mass: 1,7 Kg

WHMP-013
WHMP-014



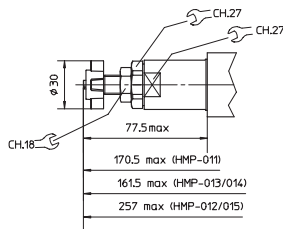
Mass: 1,2 Kg

WHMP-015



Mass: 1,7 Kg

Adjustment device for option /V

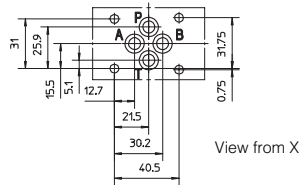


Mounting surface

ISO 4401-AB-03-4 size 06

Diameter of ports A, B, P, T: $\varnothing = 7,5$ mm (max)

Seals: 4 OR 108

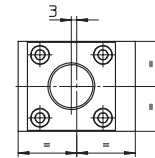
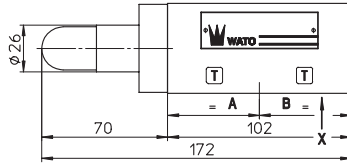
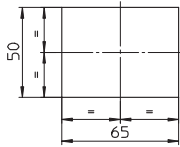


View from X

Fastening bolts: n° 4 socket head screws M5. The length depends on number and type of modular elements associated.

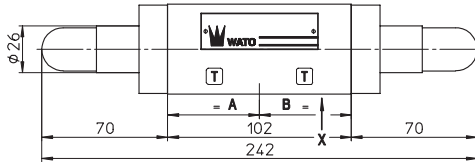
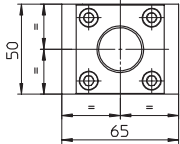
7 INSTALLATION DIMENSIONS OF WKM VALVES [mm]

WKM-011



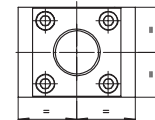
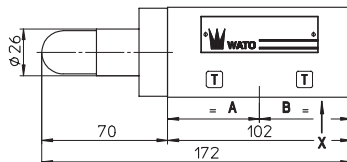
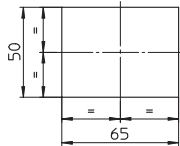
Mass: 2,5 Kg

WKM-012



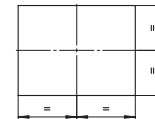
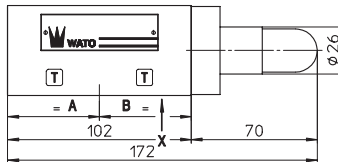
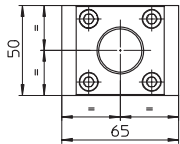
Mass: 2,8 Kg

WKM-013



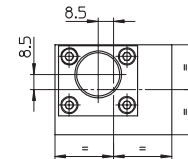
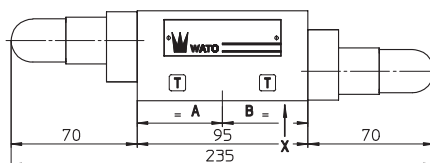
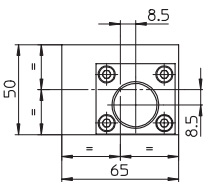
Mass: 2,5 Kg

WKM-014



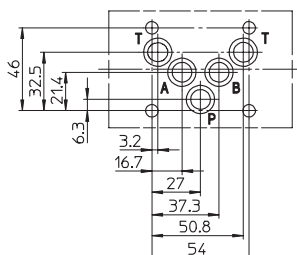
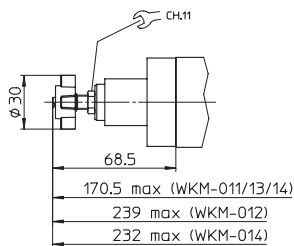
Mass: 2,5 Kg

WKM-015



Mass: 2,5 Kg

Adjustment device for option /V



Mounting surface

ISO 4401-AC-05-4 size 10

Diameter of ports A, B, P, T: $\varnothing = 11,2$ mm (max)

Seals: 5 OR 2050

Fastening bolts: n° 4 socket head screws M6. The length depends on number and type of modular elements associated.