

Fluid Power Graphic Symbols to ISO 1219-1

PUMPS		DIRECTIONAL VALVES		FLUID TRANSMISSION		MISCELLANEOUS			
	Fixed displacement pump		Shut-off valve		Flow line (working, return and supply)		Thermometer		
	Variable displacement pump		2 port, 2 position, normally closed		Flow line (pilot supply)		Pressure switch		
MOTORS			2 port, 2 position, normally open		Flow line (brain or bleed)		Immersion (tank) heater		
	Fixed displacement bi-directional motor		3 port, 2 position, normally closed		Envelope/outline		Pressure gauge		
	Variable displacement bi-directional motor		3 port, 2 position, normally open		Pipe or tube connection		Flow meter		
CYLINDERS			4 port, 2 position, normally open in centre position		Pipe or tube crossing (no connection)		Accumulator		
	Double acting, single rod cylinder		4 port, 3 position, closed centre	QUICK DISCONNECT			Filter or strainer		
	Double acting, double roded cylinder		4 port, 3 position, A and B to T, P blocked in centre position		Connected, without mechanically opened check valve		Heat exchanger (cooler)		
	Cylinder with adjustable cushions		Infinite positioning (with lines)		Connected, with mechanically opened check valve	CONTROL MECHANISMS			
PRESSURE CONTROL VALVES		CHECK VALVES			Uncoupled with open end			Mechanical Components	
	Pressure relief valve		Spring loaded		Uncoupled, closed by check valve				
	Multi-function valve external pilot external drain		Pilot-operated spring loaded		Rotating shaft (in one direction and in either direction)		General		
	Pressure reducing valve (2-way)		Shuttle valve		Adjustable stroke limiter		Push button		
	Pressure reducing/relieving valve (3-way)	CARTRIDGE VALVES			Detent		Lever		
	Orifice		2 port 2 position 50% element normally closed (directional control)		Roller/plunger		Pedal		
	Throttle valve, adjustable		2 port 2 position 7% element normally closed (directional control)		Spring	Electrical			
	Throttle valve with reverse free flow		2 port 2 position 0% element normally closed (pressure control)	Fluidic			Solenoid		
	Throttle valve sharp edge pressure compensated		2 port 2 position 0% element normally open (pressure control)		Pneumatic pilot		Proportional solenoid		
					Hydraulic pilot		Proportional solenoid with feedback		