JANUS CONTROL

The Water Hydraulics Co. Ltd.

ELECTRONIC PRESSURE CONTROL VALVE

Design

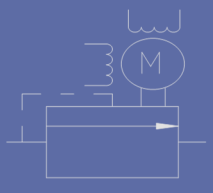
The range of proportional pressure control valves are driven by a high accuracy stepper motor to ensure maximum precision for control by either open or closed loop means. The valves can be configured for manual/joystick input or to specific output speed/ positional control. Closed loop feedback via output transducers is also possible with the use of an ST5 advanced micro-step programmable controller which is available with a 48V stable power supply if required. (Please see ST5 data sheet for further information). Additional output can also be offered for fail-safe configurations should such a function be necessary.
Software is available for purchase and downloadable via www.waterhydraulics.co.uk

SPECIFICATION		
	DN6	DN12
Max Inlet Pressure	200 bar	200 bar
Operating Pressure Range	0 to 160 bar	0 to 160 bar
Flow Range	0-30 L/min	5-100 L/min
Feed Gallery Diameter	6mm	12mm
Porting	BSP (Parallel) & Manifold	BSP (Parallel) & Manifold
Construction Materials	316 Stainless Steel& Polymer	316 Stainless Steel& Polymer
Motor Operation	48V DC	48V DC
Electrical Connections	Flying lead or Plug	Flying lead or Plug



Pressure Control Valve

This valve is available with open or closed loop control in conjunction with a 0.5V pressure transducer input. The ST5 programmer comes with an on-board PLC complete with programme, to offer stand-alone, turn-key operation.

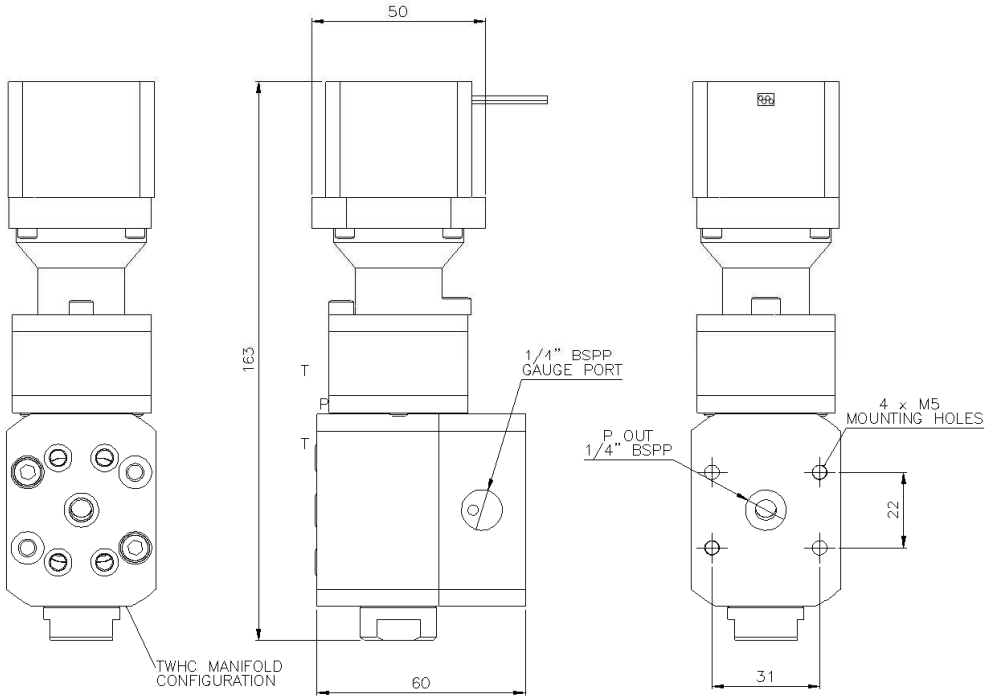
ORDERING CODES	STANDARD BUILD	MANIFOLD MOUNT	STANDARD BUILD
	DN6 (1-20 L/min)		DN12 (5-100 L/min)
 Electronic Pressure Control Valve	225BRRW	2M25BRRW	225DRRW

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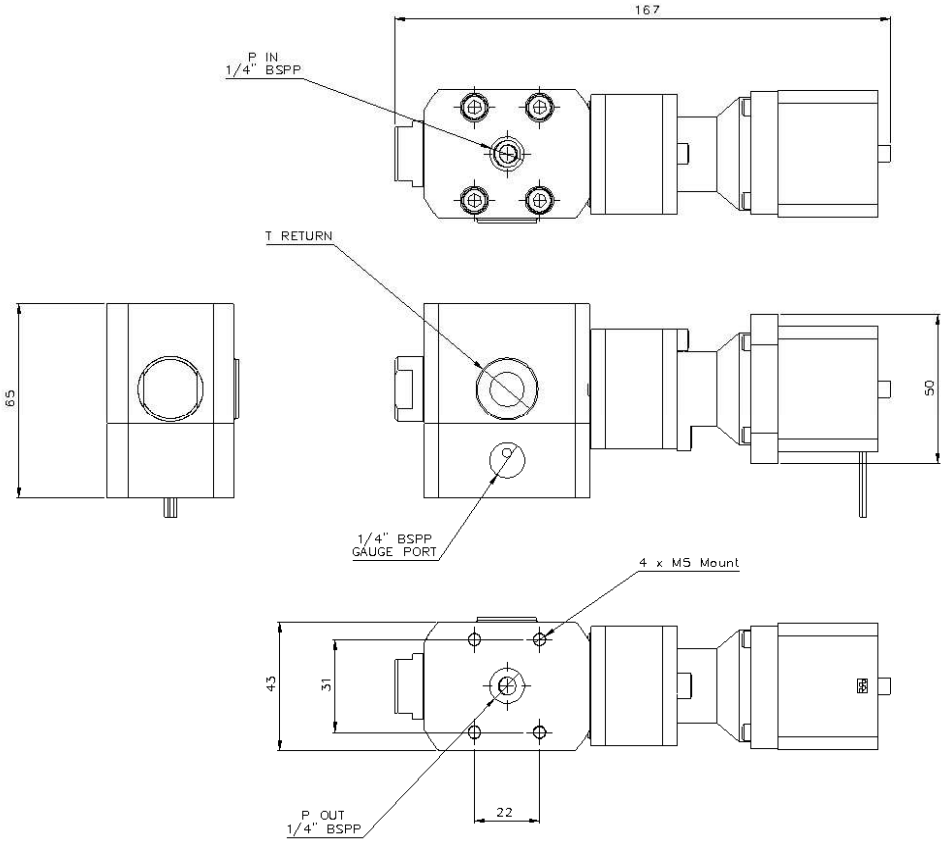
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2M25BRRW



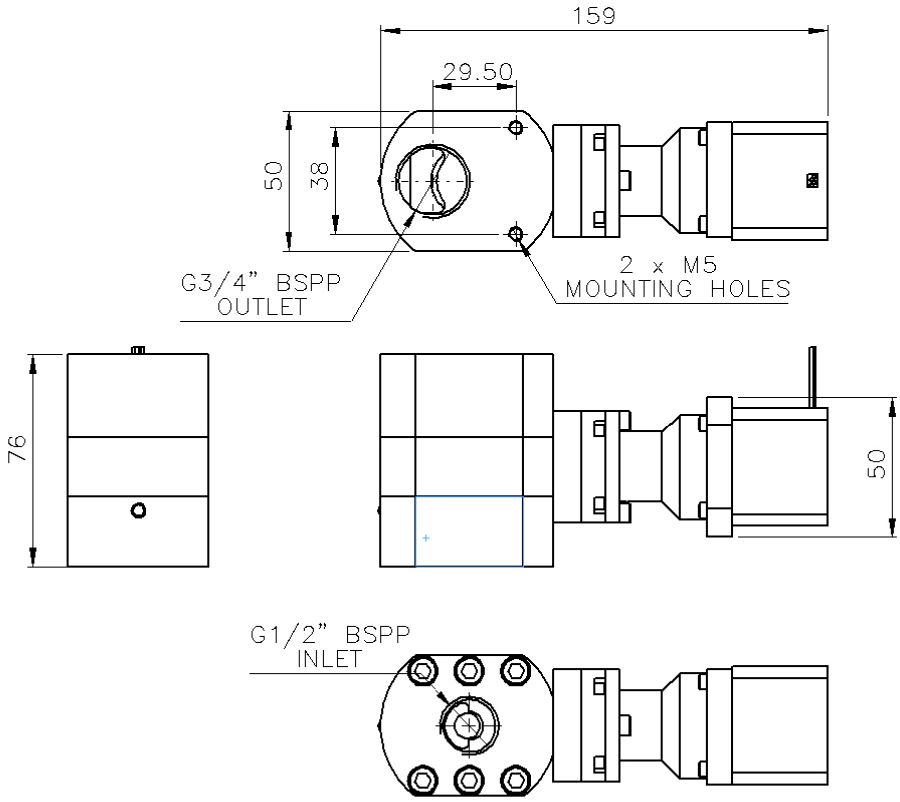
225BRRW



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225DRRW



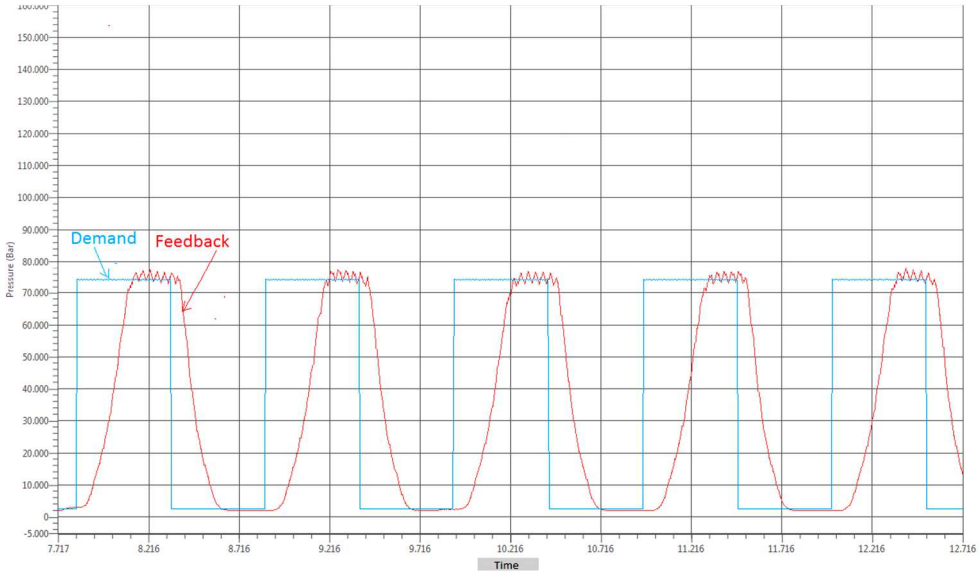
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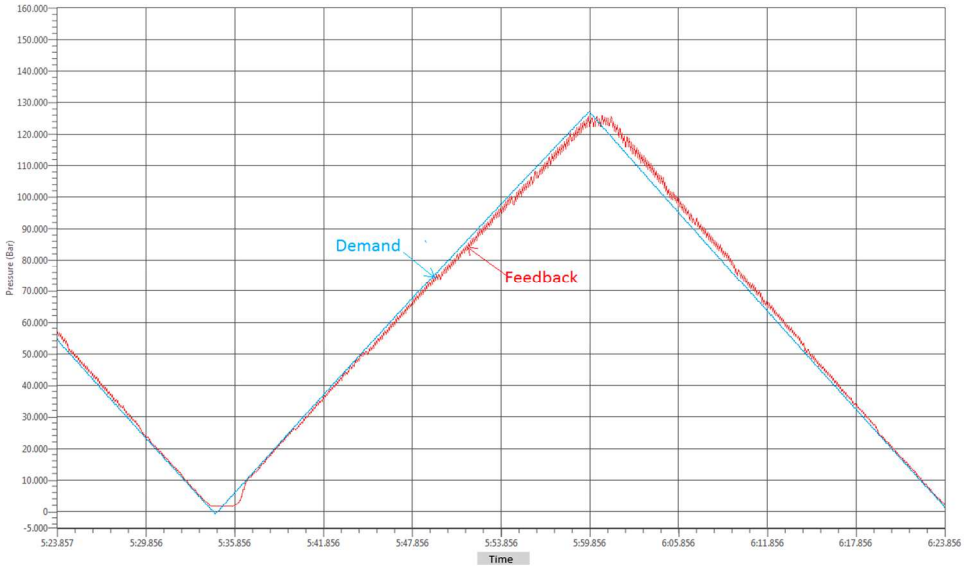
Cyclic Pressure Test

Typical performance graph for high frequency pulsation system with a maximum cycle of 1Hz.



Controlled Ramping Pressure

Between 1-160 bar



The accuracy of both applications can be trimmed by honing the pseudo PID control parameters, size of test piece (i.e. pressurised volume), degree of air entrapment and test piece expansive volume. This will all affect the accuracy however, simple programme parameters can be adjusted to meet the demand within the precision of the transducer.
Filtering of the transducer can also offer an improved performance.

The Water Hydraulics Co. Ltd.

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