



GS NORTH AMERICA-TOTAL MACHINE CONTROL

Overview:

JC6000 Dual Axis X and Y proportional output joystick with a selectable 3rd proportional output. Direct valve driving PWM (Pulse Width Modulation) for proportional current commands direct to electro-proportional valves. Ability to have X and Y axis control with either Z axis or 3rd proportional rocker switch in handle. Capable of running 3 valve sections, 6 total coils with 3 coils simultaneously active.

Current compensated PWM output to control a wide variety of electro-hydraulic valves with no performance variation due to heat. Configured with easy to use software for setting of minimum and maximum outputs and independent ramp up and down control for optimal machine control.

USB programming port for direct connection from PC to joystick with standard USB cable.

Mechanical:

- The JC6000 is designed specifically for off-highway applications where rugged controls and long life are absolute requirements. Utilized in Forestry and Construction applications to allow precise proportional control at a fraction of the price of a complete control system.
- 3 Axis proportional control plus the use of additional switches in the handle to output directly to other valves or control functions,
- The JC6000 PWM allows for a multitude of handle options and variations for any OEM special requirement. Many different handle options can be configured to the base.

System Features:

- By utilizing two PWM joysticks an OEM can control six valve sections.
- Handle options possible. GS can apply any handle variation to the base joystick for either a very basic control or a very advanced Z-axis rotation.
- With a robust mechanical design of the base, the JC6000 PWM is rated for 10 million plus operations.

JC6000 PWM MULTI FUNCTION JOYSTICK

JC6000 PWM with A Handle.



Electrical:

- 3 axis proportional Pulse Width Modulation (PWM) control for direct control over many hydraulic manufacturers' electro-proportional valves.
- Capable of having ten digital switches pass through to the second connector on the base which allows for multiple machine operations from one joystick.
- Joystick enable arming switch input for external control of joystick, can be set with PC programming tool..
- Operator presence can be turned on/off with the PC programming tool.
- 3rd proportional output can be controlled by either proportional rocker or with on/off digital switches.
- 75 - 250 Hertz PWM @ 200-2500 mA per valve

Electrical Features:

- -40C to +85 C temperature performance
- Current compensated electrical circuit allows for precise and repeatable machine performance.
- 9 to 36 Volts allows for a wide range of machine voltages.
- Fully programmable via USB port-
- Independent minimum and maximum controls of each axis
- Full ramp up and ramp down curves for smooth machine operation to reduce mechanical stress load.
- Full output current monitoring through USB port.



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Electrical Specifications:

Supply: Range 9-36 VDC

Outputs: 3 PWM current compensated outputs @ 2.5 Amps DC per output with 7.5 Amp maximum

Inputs: Noise immune inputs open and shorted output protection

Handle Option: 12 pin connector for auxiliary handle inputs. Allows for 10 discrete pass through outputs.

Mating Connector: P & G 16- and 12-way connector and pins. Part Number: SA47932

Mechanical Specifications:

Travel: +/- 20 degrees in X and Y axis

Electrical Limit Switch Angle: +/- 1.5 degrees

Mounting Shaft: 10 mm pinned

Lever Spring Force:

- 7N breakout (1.6 Lbs)
- 19N full deflection (4.3 Lbs)

Gates: Square std 100% X and Y output

Handle Grip: Customer specified

Environmental Specifications

Operating temperature:-40 to +85 Celsius

Storage temperature:-40 to +85 Celsius

Environmental protection: IP66 (above the flange)

Vibration: Level ± 3g, 10 Hz to 200 Hz (random@ 3.6g (rms))

Shock: 25g, 6mS, half sine profile

EMI: EMC immunity level:100 V/m, 2MHz to 1000 MHz, 1KHz 80 % sine wave modulation

EMC emissions level:

Complies with EN50081-2

(1993), 150Hz to 30MHz, level B

ESD immunity level: IEC61000-4-2 level 4

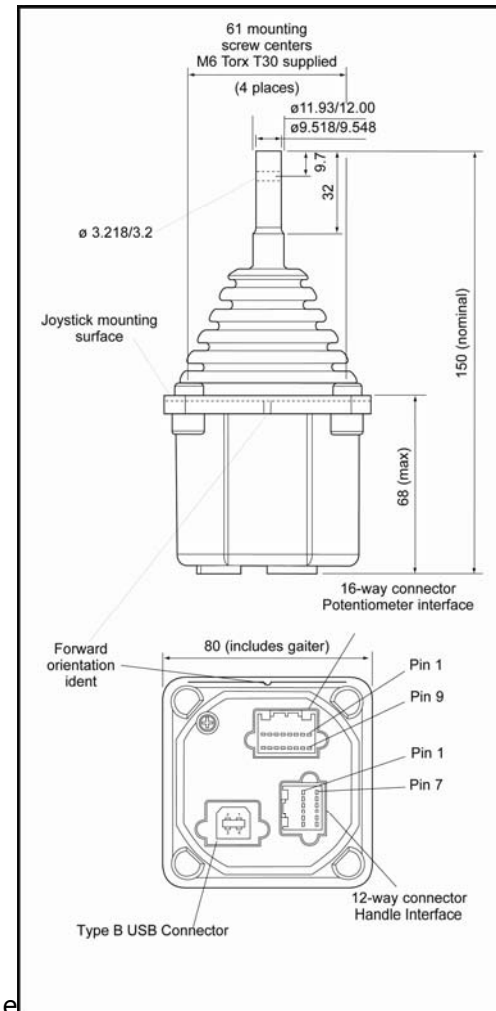
8kV contact discharge, 15kV air discharge

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Installation:

The joystick is designed to be fitted from below the mounting panel, through a 70 mm diameter hole located at the base of the mounting panel. The joystick flange sealing is effective when the panel mounting surface is tightly fitted and compresses the sealing rubber boot. The surface finish of the mounting panel is critical to achieve an adequate seal and rough surface finishes, paint chips, deep scratches, etc. should be avoided.

JC6000 PWM No Handle



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!!!!!!!!!!!!!!WARNING!!!!!!!!!!!!!!

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