

Penny & Giles Hall-Effect Paddle Joystick

JC1200

- Robust design for arduous applications
- Return-to-center or return-to-end options
- Under-panel depth minimized to 9mm
- Rated for 10 million cycles
- Hall-effect sensor technology
- Dual outputs with sense and voltage span options
- IP67 sealing above panel
- Color-coded 'Tab' options
- Can be supplied as 'base-only' so the colored tabs can be fitted at final installation



The JC1200 offers the next generation of paddle joystick from Curtiss-Wright to build on the success of the Penny & Giles potentiometric JC120. This new joystick utilizes non-contacting, Hall-effect sensing technology for long-life integrity of the output signal. Operating feel has been an important part of this new development to make this unit as smooth and easy to operate as possible throughout the 10 million cycle life.

Hall-effect sensing eliminates contact wear and provides safety functionality via dual outputs, which can be set to positive or negative ramps, or a combination of both. Electronic robustness is assured with sealing of the internal PCB to a rating of IP65, while a joystick to panel rating of IP67 can be achieved.

A choice of paddle 'Tabs' is available in nine different colors. These can be fitted at the factory or supplied as loose parts to be selected as part of the final installation process.



Return-to-Center

Return-to-End

SPECIFICATIONS

ELECTRICAL

SUPPLY VOLTAGE	5Vdc \pm 0.5Vdc
OUTPUT VOLTAGE (FACTORY SET)	10% to 90% or 20% to 80% of the Supply Voltage
CENTER REFERENCE	48.0% to 52.0% of supply voltage
OUTPUT SENSE	The dual outputs can be configured to have positive ramps, negative ramps or a combination of both.
CURRENT CONSUMPTION	< 25mA
CONNECTION	7-way Molex










MECHANICAL

BREAKOUT FORCE AT HANDLE TIP	1.0N
OPERATING FORCE AT HANDLE TIP	3.5N
MAXIMUM LEVER LOAD ON HANDLE TIP	50N transverse or in-line with operation
MECHANICAL ANGLE	\pm 30° return-to-center; 60° return-to-end
GATE	Single axis
MECHANICAL LIFE	10 million cycles
MTTFd	> 100 years
WEIGHT	Less than 40g

ENVIRONMENTAL

OPERATING TEMPERATURE	-40°C to 85°C	
STORAGE TEMPERATURE	-40°C to 85°C	
ENVIRONMENTAL PROTECTION	IP67 above panel, IP55 electronics and connector	
EMC IMMUNITY LEVEL	EN 61000-4-3: 2002	100V/m, 80MHz-1GHz and 1.4GHz-2.7GHz
EMC EMISSIONS LEVEL	EN 61000-6-4: 2011	30MHz to 1GHz
ESD IMMUNITY LEVEL	EN 61000-4-2, Level 2: 1995	4KV contact (including connector pins); 4kV air discharge
VIBRATION	EN 60068-2-64: 2008	random, 3.6gn, 10-200Hz, 2h per axis
BUMP	EN 60068-2-29: 2008	25gn, 10ms, 500 bumps in each of 6 directions
FREE FALL DROP	EN 60068-2-31: 1993	1.0m at level C, 1.2m at level E
SHOCK	EN 60068-2-27: 2008	50g, 6ms, Half Sine, 3 shocks in each of 6 directions

COLOR TAB OPTIONS

NONE		Tab not fitted when joystick supplied
BLACK		RAL9005
GRAY		RAL7042
WHITE		RAL9003
YELLOW		RAL1023
ORANGE		RAL2007
RED		RAL3028
PURPLE		RAL4006
BLUE		RAL5017
GREEN		RAL6038