Penny & Giles

Multi-Function Grip

HI Grip

- **Ergonomic design with left- and right-hand options**
- **Front panel combinations including three rollers or up to eight switches**
- **Rear panel combinations of one roller or up to two switches**
- **Multi-color options for rollers and switches**
- **16 logo options for switches**
- **Available pre-fitted to JC6000 or JC8000, or as a stand-alone grip**
- **Robust design for arduous applications**
- **Sealed to IP67**
- **EMC performance to 150V/m**
- **$MTTF_D$ > 900 years**

The HI Grip, which is available as a left- or right-hand option, offers a wide range of proportional, non-contacting roller and high-life, push-button switch combinations. Whereas most competitive products can support just three roller functions, the HI Grip can accommodate up to four.

A contoured front panel means the rollers are within an easy sweep of an operator's thumb, while the switch arrays are angled to allow for similarly convenient actuation.

The controls on the rear panel are situated to provide comfortable operation with a first finger. To further enhance operator comfort, both handed options are oriented to lean forward and inwards.

For maximum, application-specific flexibility, each roller and switch is offered in nine color options. Further customization is possible by a choice of 16 logos which can be printed in each of the switches.

In addition to being supplied fitted to a JC6000 or JC8000 joystick, the HI Grip can be supplied as a stand-alone product with an industry-standard, threaded mount and flying leads.

Careful material selection ensures maximum robustness to impact, liquids and dust, with the enclosure being sealed to IP67. An EMC performance level of 150V/m is provided and the overall design achieves an $MTTF_D$ in excess of 900 years.

SPECIFICATIONS

ROLLER & SWITCH COMBINATIONS

FRONT PANEL		REAR PANEL	
Roller(s)	Switches	Roller(s)	Switches
0	2-8	0	0-2
1, 2 or 3	2-5	1	0 or 1

ELECTRICAL

SUPPLY VOLTAGE	5Vdc ± 0.5Vdc for the rollers
ROLLER OUTPUT VOLTAGE (FACTORY SET)	10% to 90% of Supply Voltage
ROLLER CENTERING ACCURACY	50% ±5.5% of Supply Voltage
ROLLER CURRENT CONSUMPTION	10mA max. per roller
SWITCH	24V, 50mA maximum per switch
GRIP CONNECTION	Flying lead

MECHANICAL

MAXIMUM OVERLOAD - STATIC	600N – applied at the center of the grip
MAXIMUM OVERLOAD - IMPACT	10 Joules
MAXIMUM ROTATIONAL LOAD - STATIC	40Nm
WEIGHT	290g nominal
ROLLER OPERATING ANGLE	±35° for front rollers; ±25° for rear roller
ROLLER MECHANICAL LIFE	5 million cycles
SWITCH TYPE	Normally-open - momentary
SWITCH TRAVEL	1mm
SWITCH OPERATING FORCE	3.5N nominal
SWITCH MECHANICAL LIFE	> 5 million cycles
$MTTF_D$	> 900 years

ENVIRONMENTAL

OPERATING TEMPERATURE	-40°C to 85°C	
STORAGE TEMPERATURE	-40°C to 85°C	
ENVIRONMENTAL PROTECTION	IP66 and IP67	
SALT MIST	EN 60068-2-11: 1999	96 hours
EMC IMMUNITY LEVEL	ISO 11452-2: 2004	80% AM Peak modulation, 150V/m, 80MHZ-3GHZ
EMC EMISSIONS LEVEL	CISPR25	Frequency range: 30MHz-1GHz, vertical & horizontal 30-230MHz: 36dB (µV/m) 230MHZ-1GHz: 43dB (µV/m)
ESD IMMUNITY LEVEL	ISO 10605:2008	8kV contact (including wires); 15kV air discharge
POWER FIELD IMMUNITY	ISO 11452-8: 2007	100A/m 50Hz-60Hz
VIBRATION (SINUSOIDAL)	EN 60068-2-6: 2008	3gn, 10-200Hz, 1h per axis
VIBRATION (RANDOM)	EN 60068-2-64: 2008	3.6gn, 10-200Hz, 2h per axis
SHOCK	EN 60068-2-27: 2008	50gn, ½ sine 6ms, 3 shocks in 6 directions
BUMP	EN 60068-2-27: 2008	25g, 10ms, 500 bumps in each of 6 directions

CURTISS-WRIGHT

USA LA
California
T: +1.714.982.1860
cwig.us@curtisswright.com
www.cw-industrial.com

Europe Christchurch
United Kingdom
T: +44.1202.034000
cwig.uk@curtisswright.com
www.cw-industrial.com

Asia Taipei
Taiwan
T: +886.2.2778.1900
cwig.tw@curtisswright.com
www.cw-industrial.com