

BG Systems G1 Grip

G1™

Overview

The G1 series grips are cast aluminum hand controllers. Typical applications for the G1 range from computer labs, to industrial equipment, to remotely piloted vehicles, to payload control, and military equipment such as computer based training systems. The rugged design means that they will provide reliable service for extended periods, backed by a two year warranty.

The G1 produces outputs based on the desired optional switches, buttons and analog options such as the proportional

Key Features

Mechanical

The grip is cast aluminum and the mounting ring is stainless steel.

Electrical

Outputs from the grip can be either USB or direct voltage. Depending on the optional switches, the grip voltage output will be either a TTL (for switches and buttons) or a voltage in the range of 0.0 vDC to +5.0 vDC for the proportional rocker (PR) or the force transducer (FJ2) option.

Mounting & Connectors

The connector is either a DB-15 or a high density DB-26, which carries power to the stick and the output signals. Grip can be mounted with four #6-32 screws (as shown) or hand held. USB connector is the Mini B type.

Reliability

With no moving parts the life of the mechanical system has no limit. Most switches used are rated for 1,000,000 cycles.

Warranty

The G1 Grips carry a 2 year warranty from the date of installation in customer equipment.

Grip

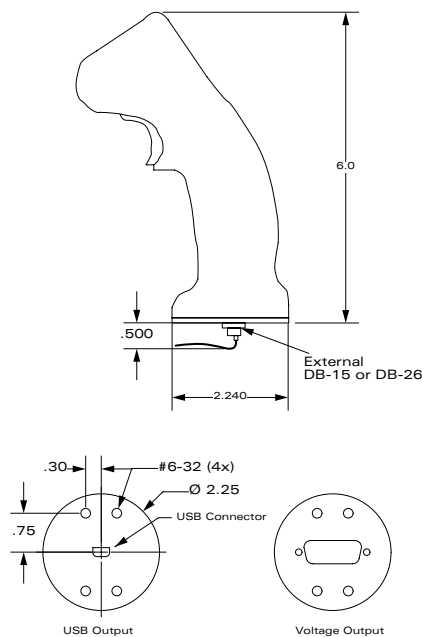
The standard grip is cast aluminum and is ambidextrous in most configurations. The standard configuration has a single position trigger with a two position trigger available as an option. Various thumb actuated switches

rocker or miniature force transducer. The grips come standard with a single position trigger. Various configurations of switches can be mounted in the head of the grip and on the side. Custom configurations can be accommodated.

USB output is now available from a small circuit board inside the grip.



Installation Drawing



the finger. These are mounted on the left side of the joystick for right hand operation. If left hand operation is required please contact BG Systems for availability.

The grip above shows a custom grip with switches not shown in the basic option table below.

Technical Specifications

Electrical

Input Voltage	5 vDC
Output Voltage	0.0 to 5.0 vDC
Center Voltage	2.5 vDC
Output Current	10 mA max
Supply Current	14 mA
Switch Operation	contact closing

Physical

Weight	1.5 lbs
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Environmental

Operating Temperature	-20°C to 60°C
Storage Temperature	-20°C to 60°C
Humidity	Less than 95%

can be mounted at the top of the grip. Examples include: momentary pushbuttons, latching pushbuttons, two, four and five position switches, proportional rockers, and miniature force transducers.

The grip can also be ordered with buttons mounted on the side in various locations.

The side switch is a thumb operated switch and the "pinkie switch" is operated by the lit-

G1 Options

Part Number	Description	Position
G1-2-xx-xx-xx	2 position trigger	
G1-x-xx-MP-xx	Momentary pushbutton	Any
G1-x-xx-CH-xx	4 position "coolie hat" switch	Any
G1-x-xx-CA-xx	4 position "castle" switch	Any
G1-x-xx-2P-xx	2 position switch	Any
G1-x-xx-PRv-xx	Vertical proportional thumb rocker	Any
G1-x-xx-PRxs-xx	Proportional rocker with spring centering	
G1-x-xx-FJ2-xx	2-axis miniature force transducer	Any
-Sxx	Side switch option	
-Pxx	Pinkie switch option	

Ordering Information

Part Number	Description
G1-1-00-00-00	Grip hand controller

Switch options replace any -00-

Telephone	650-858-2628
Fax	650-858-2685
URL	www.bgsystems.com

Joystick Options

The JFx joysticks can be ordered with options listed in the table below. The switch or button options for the top of the grip have three locations: left, center and right. The proportional rockers use friction hold, but spring loading is available by adding an 's' to the part number. The vertical proportional rocker option is only available in the center position. With the horizontal proportional rocker it is not possible to mount any other switches. To specify options on the joystick, note that the xx in the part number are:

JFx	2 or 3 axis
JF3-x	1 or 2 position trigger
JF3-1-xx	Left Switch option
JF3-1-00-xx	Center switch option
JF3-1-00-00-xx	Right switch option
-Sxx	Side switch option
-SxxL	Side switch for left hand
-Pxx	Pinkie switch option
-PxxL	Pinkie switch for left hand



JF3-x-MP-CH-MP



JF3-x-2P-CA-MP



JF3-x-MP-CA-CH



JF3-x-MP-MP-MP



JF3-x-CA-FJ1-2P



JF3-x-CA-PRv-2P