

G3-E Control Grip Multi-Function Compact Grip



The G3-E Control Grip is a multi-function, compact grip with five momentary pushbuttons and a proportional Hall effect rocker. Available in both left-handed and right-handed versions, the two often work together within the same control seat. The grip's switches are sealed to IP68S and provide a high cycle life.

The G3-E is a standalone grip or it can be mounted on a joystick. Mounting the G3-E on an OTTO bottom mount JHM joystick is a standard offering available as a JHM-61xxxxx or a JHM-62xxxxx (see JHM web page) with a large variety of gating options.

The G3-E Control Grip is great for forestry applications, and also works well in construction, off-road and other demanding applications where reliability is paramount.

Features:

- Available in left-handed and right-handed versions
- Switches sealed to IP68S
- High cycle life
- Variety of output options
- RoHS compliant

Standard Characteristics/Ratings:				
ELECTRICAL RATINGS:				
U2 Hall Effect Rocker				
Rated @ Vcc = 5V @ 25°C Load = 1ma (4-7Ω)				
	Units	Min	Typ	Max
Supply Voltage	VDC	4.50	5.00	5.50
Output Voltage +Z, -Z 0° Deflection	VDC @5V Vcc	-0.25	N/A	0.25
Output at Full Travel +Z Direction	VDC @5V Vcc	-0.25	N/A	0.25
Output at Full Travel -Z Direction	VDC @5V Vcc	-0.25	N/A	0.25
Supply Current B=0, Vcc=5V, Io=0	mA	N/A	N/A	10
Output Source Current Limit B=X, Vo=0	mA	-1.2	N/A	1.2
Pushbuttons				
Electrical Rating @ 5 VDC	10 mA Resistive Load			
Circuit	SPST-NO			
MECHANICAL RATINGS				
U2 Hall Effect Rocker				
Mechanical Life				
Full Forward to Full Back	2,500,000 Cycles			
Operating Force at 25° C	OZ	3.5	6.5	9.5
Maximum Allowable Radial Load	Lbs	N/A	N/A	30
Full Travel Angle (From Center)	Degree	15	17	19
Minimum Return Force	OZ	2.0	N/A	N/A
Pushbuttons				
Mechanical Life				
3,000,000 Cycles				
Operating Force at 25° C	OZ	4.0	8.0	12.0
	N	1.1	2.2	2.3
ENVIRONMENTAL:				
Operating Temperature:				
	Units	Min	Typ	Max
	°C	-40	20	85
U2 Hall Effect Rocker				
Electronics Enclosure Design	IP68S			
Pushbuttons				
Electronics Enclosure Design	IP68S			
MATERIALS:				
U2 Hall Effect Rocker Wires				
24 AWG, MIL-W-16878				
Pushbutton Wires				
24 AWG, MIL-W-22759/33				

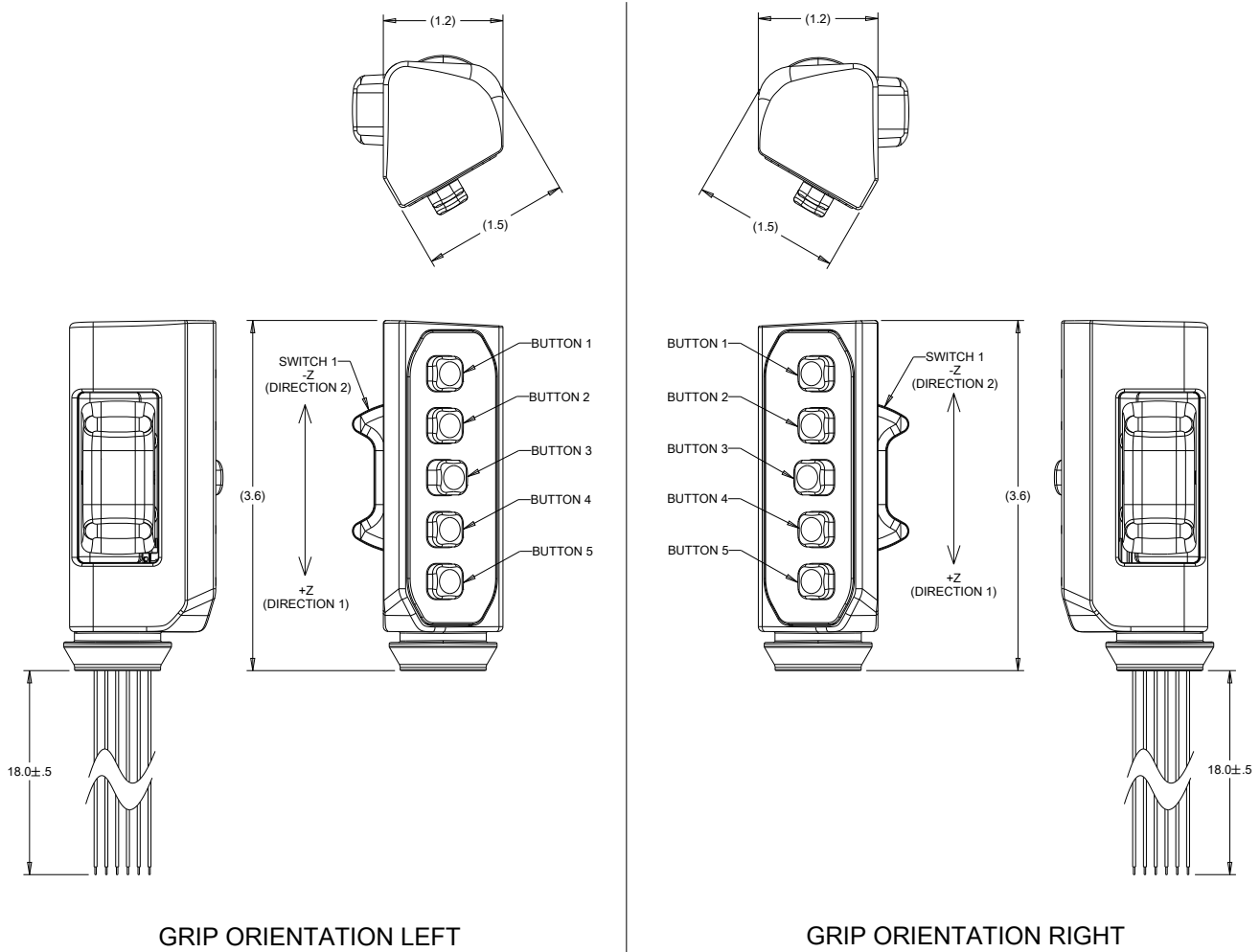
G3-E –

Configuration X	Grip Orientation X	Rocker Outputs		Operate Force X	Termination X
		Output 1 XX	Output 2**		
1. 5-Button	1. Left 2. Right	AA. 2.5 +/- 2.0 Vdc	None	1. Standard	1. Flying Leads
		BB. 2.5 +/- 2.0 Vdc	2.5 +/- 2.0 Vdc		
		CC. 2.5 +/- 2.0 Vdc	2.5 +/- 2.0 Vdc		
		DD. 2.5 +/- 1.5 Vdc	None		
		EE. 2.5 +/- 1.5 Vdc	2.5 +/- 1.5 Vdc		
		FF. 2.5 +/- 1.5 Vdc	2.5 +/- 1.5 Vdc		
		GG. 1.0 - 4.0 Vdc	1.0 - 4.0 Vdc		
		HH. 0.5 - 4.5 Vdc	0.5 - 4.5 Vdc		

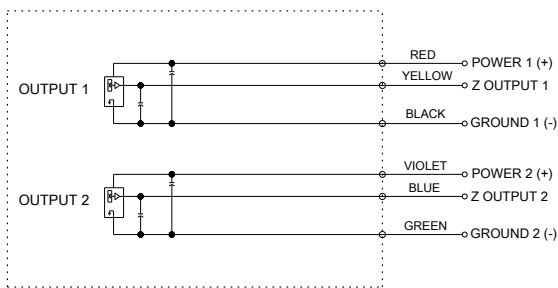
* Outputs are from the center position to the full travel position in each direction. Options "AA" "BB" "CC" "DD" "EE" "FF" provide increasing voltage in direction 1 and decreasing voltage in direction 2 from a single output. Option "GG" and "HH" provide increasing voltages in both directions from two separate outputs.

**Option "BB" and "EE" provide redundant output 2 which duplicates output 1. Option "CC" and "FF" provide redundant output 2 which is inverse of output 1.

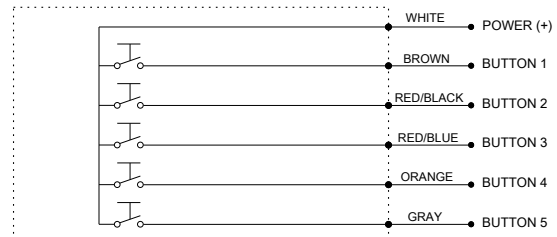
G3-E CONTROL GRIP



G3-E CONTROL GRIP SCHEMATICS



SWITCH 1 SCHEMATIC
OUTPUT 2 IS NOT PRESENT IN ALL CONFIGURATIONS



PUSHBUTTON SCHEMATIC