

FG series

FIXED GRIP™ hand controllers

Distinctive features and specifications



- ☐ USB outputs available
- ☐ Rugged hand operation
- ☐ Above panel sealing up to IP65
- ☐ Custom configured

ENVIRONMENTAL

- Operating Temperature: -40°C to 85°C (-40°F to 185°F)
- Storage Temperature: -40°C to 85°C (-40°F to 185°F)
- Sealing: up to IP65
- EMC Immunity Level (V/M): IEC 61000-4-8:2009
- EMC Emissions Level: IEC 61000-4-3:2006
- ESD: IEC 61000-4-2:2008

NOTE: All values are nominal

STANDARD SWITCH CHARACTERISTICS/RATINGS

- Electrical Resistive Load: 5A (depending on the chosen switch)
- Electrical Inductive Load: 3A (depending on the chosen switch)
- Low Level: 10mA @ 30mV (depending on the chosen switch)
- Electrical Life: 1 million cycles 5A @ 28 VDC resistive snap-action (depending on the chosen switch)
- Mechanical Life: 1,000,000 cycles
- Action: Momentary, snap-action
- Operating Force: 7.5N±2.0N (1.69lbf±0.11lb)
- Total Travel: 0.080 inch max
- Over Travel: 0.010 inch min

FG								
SERIES		Index Trigger		Deadman Lever		Termination		Sealing
		N None M Momentary P Proportional ¹ D DP/DT ²		1 None 3 Mechanical paddle		A 22AWG 10in PTFE B 28AWG 10in PTFE X Customer specified		A None B Sealing *
	Handle		Index Trigger Guard		Mounting Hardware		Electrical Output or Interface	
	1 Oval		1 None 2 Red 3 Black		1 None 2 Plate and screws		1 Voltage output 2 USB, Game Controller 5 USB, Cursor Emulation	

NOTES:

- 0.5V to 4.5V output
- Double pole/double throw

Above panel sealing up to IP65 available (dependent on handle configuration).

Mounting accessories. Screws: 1/4-20 x 1.25in stainless steel screws, lock washers, and hex nuts.



Note: The company reserves the right to change specifications without notice.

APEM

www.apem.com

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Overview

HANDLE / INDEX TRIGGER

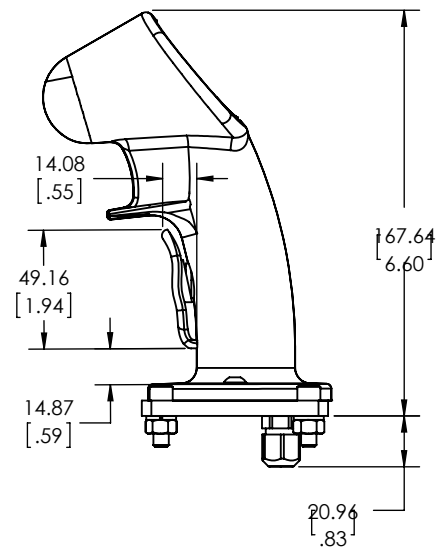
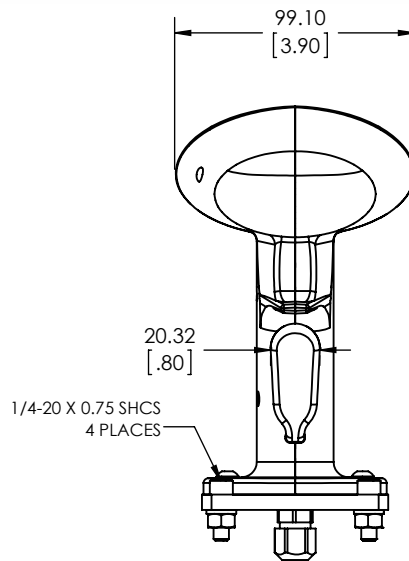
INDEX TRIGGER WITH TRIGGER GUARD



INDEX TRIGGER



NO INDEX TRIGGER



NOTES

1. Dimensions are in mm/(inch).
2. **FACEPLATE:**
The FG series FIXED GRIP hand controller features a modular faceplate that can be customized for specific applications. Ambidextrous for most configurations, the faceplate may be populated with a variety of thumb actuated switches including momentary pushbuttons, latching pushbuttons, two or three way toggle switches, 4 or 5 way trims, and miniature proportional joysticks. Every FG faceplate is custom configured to order. Please consult factory for options.
3. **INDEX TRIGGER**
The FG series FIXED GRIP controllers may be equipped with or without an index trigger switch. Index trigger configuration options include a single pole normally open momentary switch, a double pole double throw tactile switch, or a proportional Hall effect device.
Index Trigger Options: N: None
M: Momentary, single pole normally open
P: Hall effect, 0.5V to 4.5V proportional output
D: Double pole, double throw
4. **DEADMAN LEVER**
Deadman Lever Options: 1: None
2: Mechanical Paddle

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USB

USB

Featuring USB 2.0 HID compliant interface, APEM's USB joysticks are recognized as standard HID "game controller" devices. Adhering to the HID specification, APEM's USB joysticks are plug-and-play with most versions of Windows. Joystick button and axis assignments are dependent upon the controlled application.

FEATURES

- USB 2.0 HID compliant "game controller" device
- Easy to install and operate
- Functions determined by controlled application

SUPPLIED WIRING

USB: USB Male Type A Connector with overmolded cable

CURSOR EMULATION

The Cursor Emulation option converts multi-axis joystick output into a mouse, trackball, or cursor control device. The joystick's internal microprocessor converts absolute axis position into a cursor velocity, which is translated as a relative trackball or mouse position.

APPLICATIONS

The Cursor Emulation option is ideal for vehicle applications subjected to dirt and high vibration which makes operating a traditional cursor control device difficult. The Cursor Emulation option is widely used in shipboard and military applications.

FEATURES

- HID compliant "pointing device"
- Plug-and-play with USB option

SUPPLIED WIRING

USB: USB Male Type A Connector with overmolded cable