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	Handle	Index Trigger	Index Trigger Guard	Deadman Lever	Mounting Hardware	Termination	Electrical Output or Interface	Sealing

Handle

1	Oval

Index Trigger

N	None
M	Momentary
P	Proportional[1]
D	DP/DT[2]

Index Trigger Guard

1	None
2	Red
3	Black

Deadman Lever

1	None
3	Mechanical paddle

Mounting Hardware

1	None
2	Plate and screws

Termination

A	22AWG 10in PTFE
B	28AWG 10in PTFE
X	Customer specified

Electrical Output or Interface

1	Voltage output
2	USB, Game Controller
5	USB, Cursor Emulation

Sealing

A	None
B	Sealing *

NOTES:

1 0.5V to 4.5V output
2 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.

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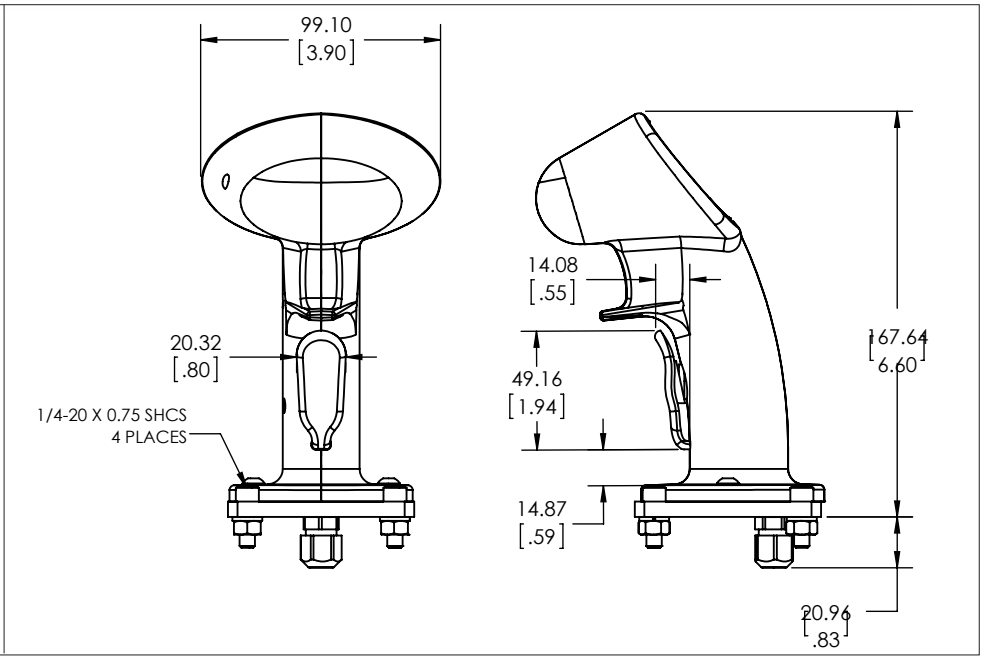
Overview

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

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

Mouser Electronics

Authorized Distributor

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Apem:

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