

FG series

Fixed Grip™ hand grip controllers •
fully customizable & ambidextrous operation



DISTINCTIVE FEATURES

Custom configured

Analog or USB outputs

Rugged hand operation

Readily available with TS series thumbstick

Operator presence paddle option



ENVIRONMENTAL SPECIFICATIONS

- Operating Temperature: -40 °C to +85 °C (-40 °F to +185 °F)
- Storage Temperature: -40 °C to +85 °C (-40 °F to +185 °F)
- Above panel sealing: Up to IP65 (subject to final specifications)
- EMC Immunity Level (V/M): EN61000-4-8:2009
- EMC Emissions Level: EN61000-4-3: 2006
- ESD: EN61000-4-2:2008



ELECTRICAL SPECIFICATIONS

- Electrical Resistive Load: 5 A (subject to selected switch)
- Electrical Inductive Load: 3 A (subject to selected switch)
- Low Level: 10 mA @ 30 mV (subject to selected switch)
- Electrical Life: 1 million cycles 5 A @ 28 VDC
Resistive snap-action (depending on selected switch)



MECHANICAL SPECIFICATIONS

- Operating Force: 7.5 N \pm 2.0 N (1.69 lbf \pm 0.11 lbf)
- Maximum Vertical Load: 1000 N (224.8 lbf)
- Maximum Horizontal Load: 600 N (134.9 lbf)
- Mechanical Angle of Movement: 40°
- Expected Life: 1 million lifecycles
- Mass/weight: 317.5 g (11.2 oz)

The company reserves the right to change specifications without notice.



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BUILD YOUR PART NUMBER

FG

SERIES

HANDLE

INDEX TRIGGER

INDEX TRIGGER GUARD

OPERATOR PRESENCE PADDLE

MOUNTING HARDWARE

1

Oval

N

None

M

Momentary

P

Proportional¹

D

DP/DT²

1

None

2

Red

3

Black

1

None

3

Mechanical paddle

1

None

2

Plate & Screws

TERMINATION

ELECTRICAL OUTPUT OR INTERFACE

SEALING

A

22AWG 10in PTFE

B

28AWG 10in PTFE

X

Customer specified

1

Voltage output

2

USB, game controller

5

USB, cursor emulation

A

None

B

IP65 *

Notes:
¹ 0.5V to 4.5V output
² Double pole / double throw
* Above panel (dependant on handle configuration)

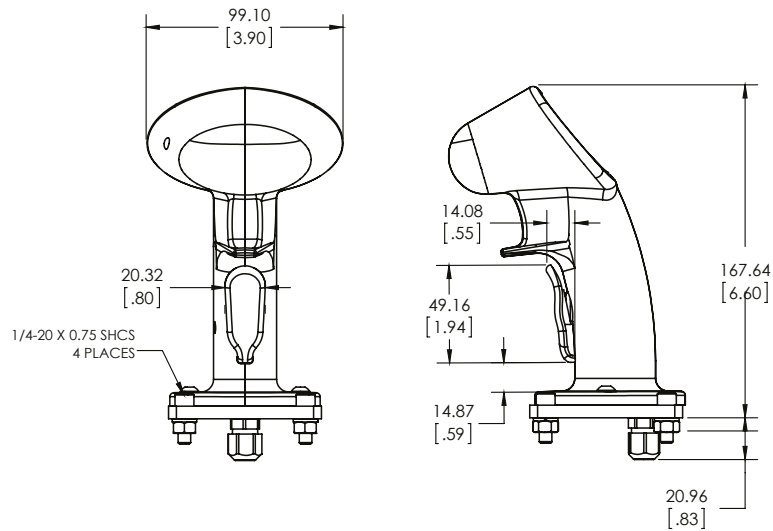
ABOUT THIS SERIES

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 APEM 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

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DIMENSIONS



HANDLE OPTIONS



Index trigger with
trigger guard



Index trigger



No index trigger

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USB OPTIONS

USB: GAME CONTROLLER

Featuring a 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

VOLTAGE REGULATOR

The Voltage Regulator is a multi-wired analog option used to mate to a variety of industrial control voltages. The Voltage Regulator may be used when the supply or output voltage is greater than 5V or when bipolar output is required.

User specified Output Voltage

- 0-5 VDC
- 0-10 VDC
- ± 5 VDC
- ± 10 VDC

Electrical Specifications

- Supply Voltage: (Output Voltage + 1 VDC) to 30 VDC
- Supply Current: 90mA max

USB: CURSOR EMULATION

The Cursor Emulation option converts a 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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