

# BG Systems Fmt Transducer

**Fmt**™

## Overview

The Fmt is a robust high precision force transducer. Typical applications for the Fmt range from computer labs, industrial equipment, remotely piloted vehicles, 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 Fmt produces an output based on the force applied in either the lateral or longitudinal axis.



Fmt-b

Fmt-h

Fmt-i

## Key Features

### Mechanical

External casing is stainless steel. Output shaft is a 2.2mm hardened Beryllium Copper onto which a variety of knobs can be mounted.

### Electrical

The force applied to the transducer is measured by silicon strain gauges mounted as a bridge. It provides output voltage through a signal conditioning amplifier. The centering repeatability error is less than 0.5%.

### Mounting

The Fmt is mounted with a lock nut into a 3/8" mounting hole.

### Reliability

With no moving parts the life of the mechanical system has no limit.

### Knobs

The standard is a hat style anodized aluminum knob. Other options for one or two finger operation are available upon request.

### Warranty

The Fmt joysticks carry a 2 year warranty from the date of installation in customer equipment.

## Technical Specifications

### Electrical

Vcc	5.00 vDC
Output Voltage	35% to 65% Vcc
Center Voltage	50% Vcc
Output Current	10 mA max
Supply Current	16 mA (at 5 vDC Vcc)

### Physical

Weight	0.1 lbs
Length	1.25"
Below Panel	0.75"
Diameter	0.5"
Shaft Diameter	3/8"
Activation Force	+/- 2.0 lb (full signal)

### Environmental

Operating Temperature	-70°C to 80°C
Storage Temperature	-70°C to 80°C
Operating Humidity	Less than 95%
Functional Shock	30G

### Environmental Tests

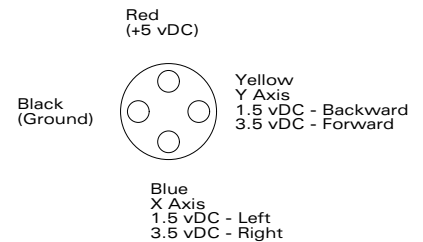
Test	MIL-STD	Method
Temperature	810G	501.5
Vibration	810G	514.6
Humidity	810G	507.5
Immersion	810G	512.5

Immersion to IP68

### Installation

Panel cutout: 9.70 - 10.0 mm Ø

## Wiring



## Ordering Information

Part Number	Description
Fmt-b	No Knob
Fmt-h	Hat
Fmt-i	Inverted Cone

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