

FS1

ULTRA-COMPACT HALL-EFFECT FINGER SWITCH

Construction:

The **Type FS1** rugged finger switch features a glass filled Zytel housing, non-ferrous components and when used with the IP67 boot the sealed construction makes this device suitable for corrosive and hostile environments.

Non-contacting, Hall-effect sensors provide long life and reliable control in harsh environments. Smooth and precise operation along with robust design make this product ideally suited for a wide variety of applications.

Application:

Compact and lightweight, for use in radio control systems and portable consoles. Rugged enough for industrial vehicles, mobile machinery, on and off-highway, and for in-plant process control where durability and long life are paramount.

Features:

- Ultra-compact and rugged construction
- Light weight, ultra-strong Zytel housing
- Conformal coated electronics to resist moisture
- Smooth operation with extension style spring return
- Long life Hall-effect technology
- Meets or exceeds CE EMC requirements
- 2.2" [55 mm] actuator height

Options:

- IP67 boot for 2.2" [55 mm] actuator height only
- 2.6" [65 mm] actuator height
- Friction brake
- Step detent
- 7-30V input
- Redundant output



FS1 ORDERING INFORMATION

Drive Arrangement: Single axis
Handle: 2.2" [55mm] high lever actuator
Handle Action: Spring Return
Output: Proportional – Hall-effect
Immunity: Meets or exceeds CE EMC requirements

FS1 TECHNICAL DATA

Mechanical:

- **Mechanical Life:** 20 million cycles
- **Handle Deflection:** ± 25 degrees
- **Gear Ratio:** Direct drive
- **Mounting Footprint:**
1.8" [46 mm] x 1.2" [30 mm] without boot
1.9" [48 mm] x 1.3" [33 mm] with boot

Environmental:

- **Operating Temperature:** -25° to +70°C
- **Storage temperature:** -40° to +70°C
- **Degree of protection above the panel:**
IP54 standard
IP55 without shaft seal
IP67 with boot
- **EMC Emissions:**
Complies with **EN61000-6-4:2007**
Class A Group 1, 80 – 1000 MHz
- **EMC Immunity:** Complies with or exceeds **EN61000-6-2:2005** expanded to include:
RFI Immunity of 100 V/M @ 80 – 1000 MHz
ESD Immunity of 15 Kv air, 8 Kv contact

Electrical:

- **Supply Voltage:** 4.5 to 5.5VDC
- **Output Voltage:** Ratiometric 0.5 – 2.5 – 4.5V $\pm 0.15V$ @ 5.0V supply
- **Output Current:** 10mA
- **Power Consumption:** 20 mA @ full load
- **Connections:** 24 AWG Teflon superflex wire with Molex connector (03-06-2042), 12" lead length

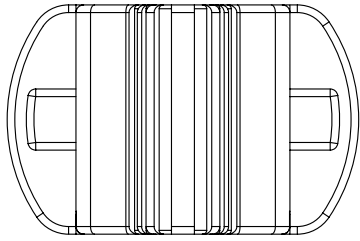
Options:

- **Handle:** 2.6" [65 mm] high lever
- **Handle Action:** Friction Brake, center detent, 3, 4 & 5 step detent
- **Degree of protection above panel:**
IP67 Rubber boot for 2.2" [55 mm] high actuator only
- **Hall-effect:**
Option 1:
Supply Voltage: 7 to 30VDC
Output Voltage: 0.5 – 2.5 – 4.5V $\pm 0.15V$
Option 2:
Supply Voltage: 4.5 to 5.5VDC
Output Voltage: Redundant – Ratiometric 0.5 – 2.5 – 4.5V $\pm 0.15V$ complementary @ 5.0V supply

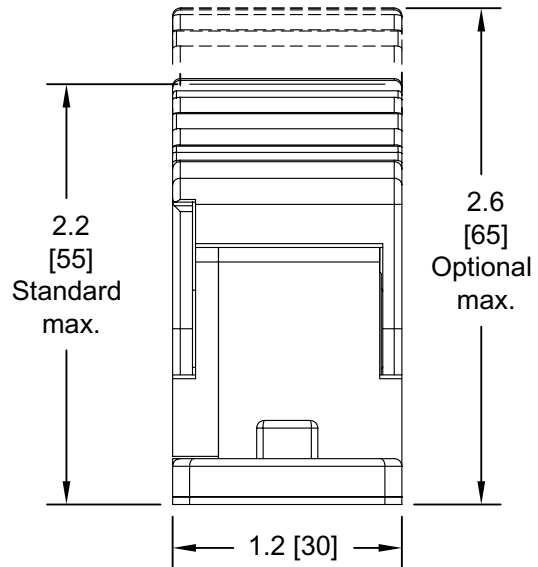
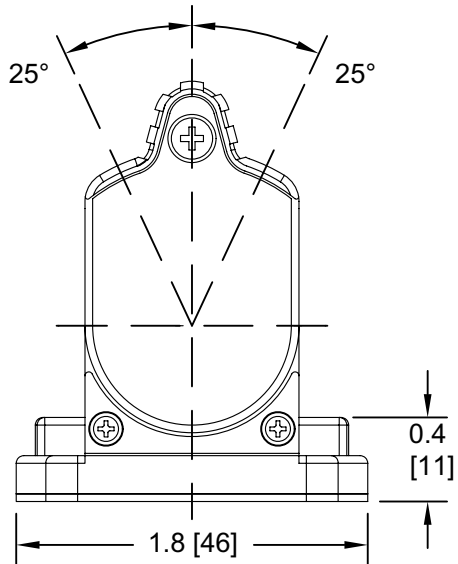
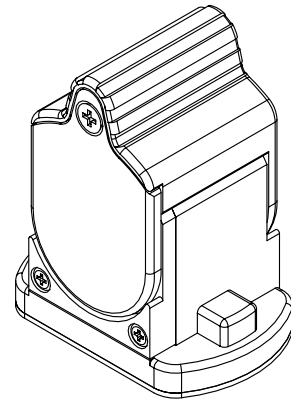
Please consult factory for other available options not listed.

FS1 OVERALL DIMENSIONS

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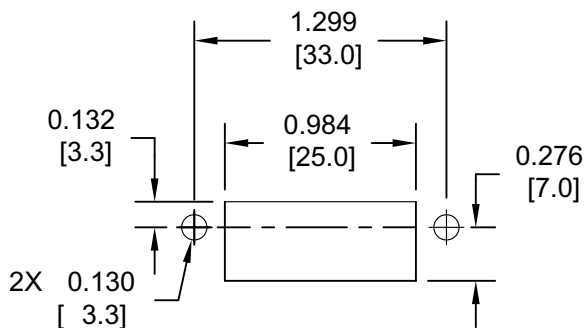
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PANEL MOUNTING DIMENSIONS

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NEOPRENE BOOT OPTION

