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

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**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 ±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 ±0.15V  
  - Option 2:  
    - Supply Voltage: 4.5 to 5.5VDC  
    - Output Voltage: Redundant – Ratiometric 0.5 – 2.5 – 4.5V ±0.15V complementary @ 5.0V supply

Please consult factory for other available options not listed.
FS1 OVERALL DIMENSIONS

PANEL MOUNTING DIMENSIONS

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Forward A

NEOPRENE BOOT OPTION

Back B

Forward A