

## FF2 and FF3 Series

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### Magnetically Actuated Non-Contact Barrel Safety Switches



#### DESCRIPTION

The FF2 is an 18 mm barrel (thread) mounting magnetically actuated safety switch with one safety contact and an optional indicator contact, if required. The FF3 is a 30 mm barrel (thread) mounting magnetically actuated safety switch with up to two safety contacts and one indicator contact.

#### FEATURES

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- Options of one or two safety contacts
- Tested to over 1,000,000 operations, full load
- Simple M18 and M30 barrel (thread) mounting
- Guard status indication available
- ac and dc versions
- CE and UL approvals

The barrel, thread, mount design is easy to install into the frame of a machine guard and allows for flush mounting, minimizing potential switch damage and space constraint issues. Both the FF2 and FF3 series are sealed to IP67 requirements enabling use in most harsh environments.

#### POTENTIAL APPLICATIONS

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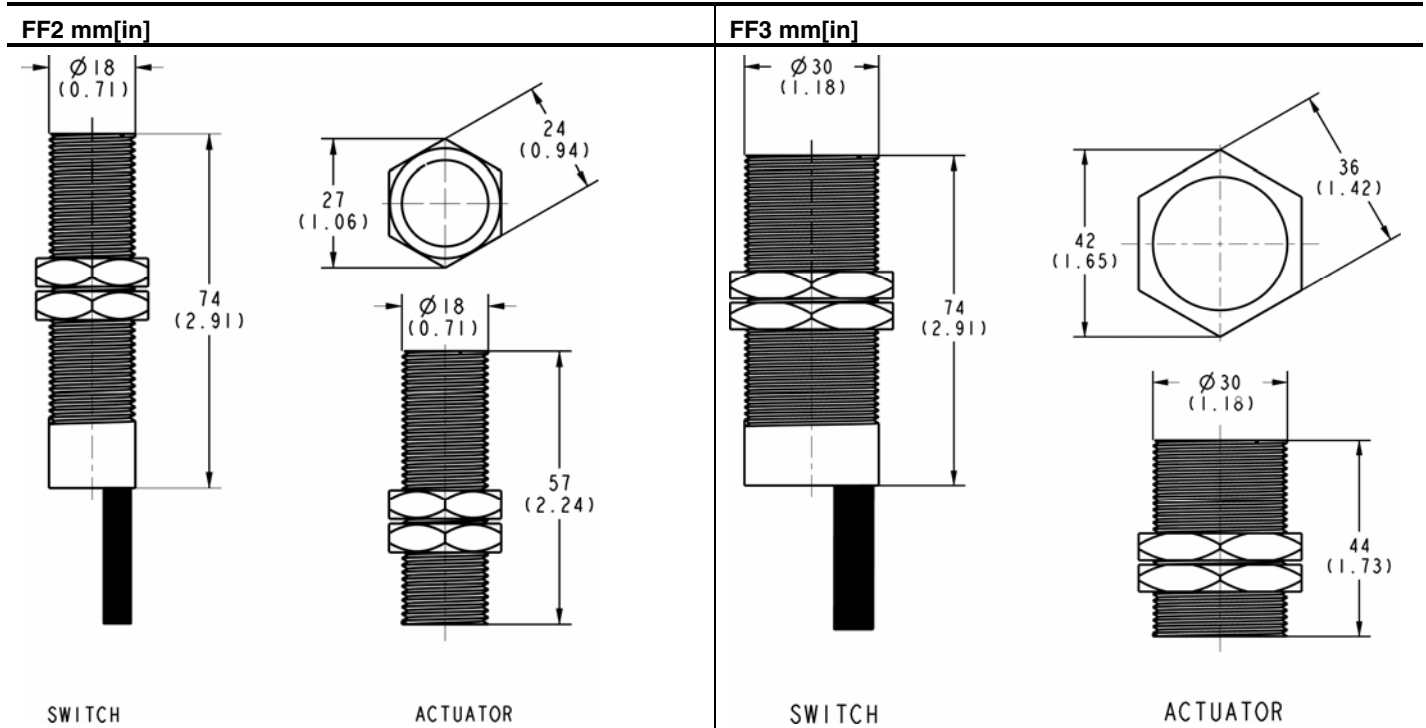
- Can forming and filling (aluminum, steel, and plastic)
- Pick and place packaging equipment
- Pick and place/assembly equipment
- Semicon equipment
- Plastic molding equipment
- Woodworking machinery
- Textile machinery
- Printing machinery

# FF2 and FF3 Series

## TECHNICAL SPECIFICATIONS

Type	FF2-10-AC FF2-11-AC	FF2-10-DC FF2-11-DC	FF3-20-AC FF3-21-AC	FF3-20-DC FF3-21-DC
Contact arrangement	1NC (FF2-10-AC) 1NC/1NO (FF2-11-AC)	1NC (FF2-10-DC) 1NC/1NO (FF2-11-DC)	2NC (FF3-20-AC) 2NC/1NO (FF3-21-AC)	2NC (FF3-20-DC) 2NC/1NO (FF3-21-DC)
Safety contact rating	230 Vac/2 A	30 Vdc/1 A inductive/ resistive	230 Vac/2A	30 Vdc/1 A inductive/ resistive
Safety contact operating distance	10 mm [0.4 in] ON; 30 mm [ 1.18 in] OFF	10 mm [0.4 in] ON; 30 mm [ 1.18 in] OFF	10 mm [0.4 in] ON; 35 mm [ 1.38 in] OFF	10 mm [0.4 in] ON; 35 mm [ 1.38 in] OFF
Safety contact close/drop/bounce	3 ms/2.1 ms/0.7 ms	3 ms/2.1 ms/0.7 ms	3 ms/2.1 ms/0.7 ms	3 ms/2.1 ms/0.7 ms
Auxiliary contact rating	15 W/10 VA	15 W/10 VA	15 W/10 VA	15 W/10 VA
Auxiliary contact operating distance	7 mm [0.28 in] OFF; 14 mm [0.55 in] ON	7 mm [0.28 in] OFF; 14 mm [0.55 in] ON	7 mm [0.28 in] OFF; 20 mm [0.79 in] ON	7 mm [0.28 in] OFF; 20 mm [0.79 in] ON
Auxiliary contact close/drop/bounce	0.5 ms/0.3 ms/0.7 ms	0.5 ms/0.3 ms/0.7 ms	0.5 ms/0.3 ms/0.7 ms	0.5 ms/0.3 ms/0.7 ms
Internal fuse	ac: 2 A fast acting	dc: 1 A fast acting	ac: 2 A fast acting	dc: 1 A fast acting
External fuse (customer supplied)	ac: 1.6 A fast acting	dc: 0.8 A fast acting	ac: 1.6 A fast acting	dc: 0.8 A fast acting
IP rating	IP67	IP67	IP67	IP67
Vibration/shock	50 Hz to 100 Hz/10 g	50 Hz to 100 Hz/10 g	50 Hz to 100 Hz/10 g	50 Hz to 100 Hz/10 g
Operating temperature	-10 °C to 55 °C [14 °F to 131 °F]	-10 °C to 55 °C [14 °F to 131 °F]	-10 °C to 55 °C [14 °F to 131 °F]	-10 °C to 55 °C [14 °F to 131 °F]
Mounting and fixture	Target to target	Target to target	Target to target	Target to target
Construction	Red ABS resin filled	Red ABS resin filled	Red ABS resin filled	Red ABS resin filled

## DIMENSIONS



# Magnetically Actuated Non-Contact Barrel Safety Switches

## ORDER GUIDE

Catalog Listing	Description
FF2-10-AC-03	Barrel safety switch, 18 mm [0.70 in], 1NC, ac, 3 m pre-wired
FF2-11-AC-03	Barrel safety switch, 18 mm [0.70 in], 1NC/1NO, ac, 3 m pre-wired
FF2-10-DC-03	Barrel safety switch, 18 mm [0.70 in], 1NC, dc, 3 m pre-wired
FF2-11-DC-03	Barrel safety switch, 18 mm [0.70 in], 1NC/1NO, dc, 3 m pre-wired
FF3-20-AC-03	Barrel safety switch, 30 mm [1.18 in], 2NC, ac, 3 m pre-wired
FF3-21-AC-03	Barrel safety switch, 30 mm [1.18 in], 2NC/1NO, ac, 3 m pre-wired
FF3-20-DC-03	Barrel safety switch, 30 mm [1.18 in], 2NC, dc, 3 m pre-wired
FF3-21-DC-03	Barrel safety switch, 30 mm [1.18 in], 2NC/1NO, dc, 3 m pre-wired

### **WARNING**

#### **PERSONAL INJURY**

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

**Failure to comply with these instructions could result in death or serious injury.**

### **WARNING**

#### **MISUSE OF DOCUMENTATION**

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

**Failure to comply with these instructions could result in death or serious injury.**

#### **WARRANTY/REMEDY**

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# Honeywell

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