

## FF6 Series

### Magnetically Actuated Non-Contact Safety Switches



#### DESCRIPTION

Honeywell FF6 switches are magnetically operated, non-contact safety switches designed for use in many machine-guarding applications. The FF6 is available in both ABS and 316 grade stainless steel. The switch and actuator are fully

sealed to IP67 and can often be used in wet or dusty environments. With correct installation, the FF6 safety switches comply with the guidelines given in EN1088.

#### FEATURES

- Non-contact safety switches
- Up to three contacts
- 10 mm [0.4 in] operating distance
- Up to 2 A switching
- IP67
- Stainless steel option
- CE and UL approvals

#### POTENTIAL APPLICATIONS

- 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


# FF6 Series

## TECHNICAL SPECIFICATIONS

Type	FF6 ac	FF6 dc	FF6-SS ac	FF6-SS dc
Contact arrangement	Max: 2NC safety and 1NO auxiliary	Max: 2NC safety and 1NO auxiliary	1NC safety	Max: 2NC safety and 1NO auxiliary
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; 30 mm [ 1.18 in] OFF	10 mm [0.4 in] ON; 30 mm [ 1.18 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
Auxiliary contact operating distance	7 mm [0.28 in] OFF; 20 mm [0.79 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
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	316 grade stainless steel resin filled	316 grade stainless steel resin filled

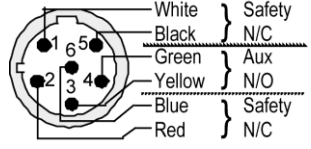
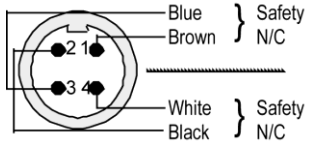
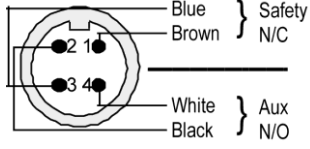
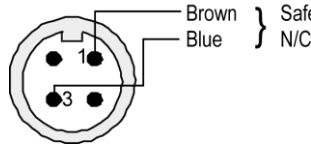
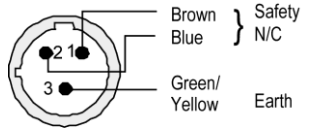
# Magnetically Actuated Non-Contact Safety Switches

## CONTACTS AND CONNECTIONS: PRE-WIRED SWITCHES

<b>FF6-21-ABS (ac &amp; dc)</b> <b>FF6-21-SS (dc only)</b>	<b>FF6-20 ABS (ac &amp; dc)</b> <b>FF6-20 SS (dc only)</b>	<b>FF6-11 ABS (ac &amp; dc)</b> <b>FF6-11 (dc only)</b>	<b>FF6-10 ABS (ac &amp; dc)</b> <b>FF6-10 SS (ac &amp; dc)</b>
Red ——— Blue Black ——— White Green ——— Yellow	Brown ——— Blue Black ——— White	Red ——— Blue Green ——— Yellow	Brown ——— Blue
<b>FF6-10-03-SS</b>			
Brown ——— Blue Green/Yellow ——— 			

NOTE: Contact configurations show under closed condition for guard device.

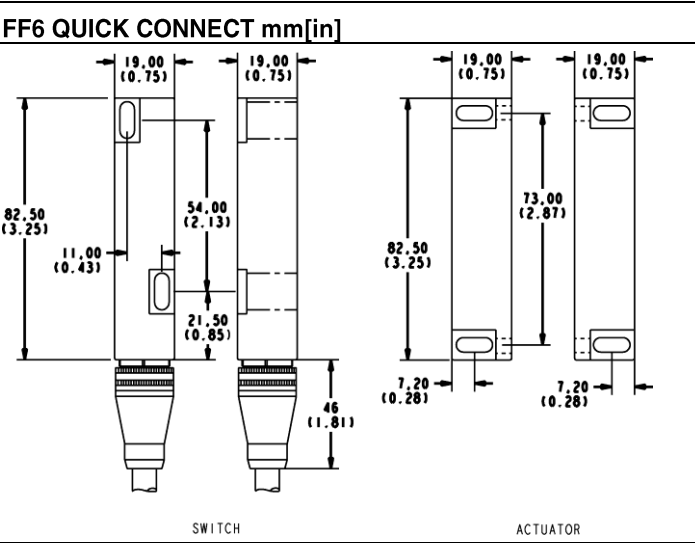
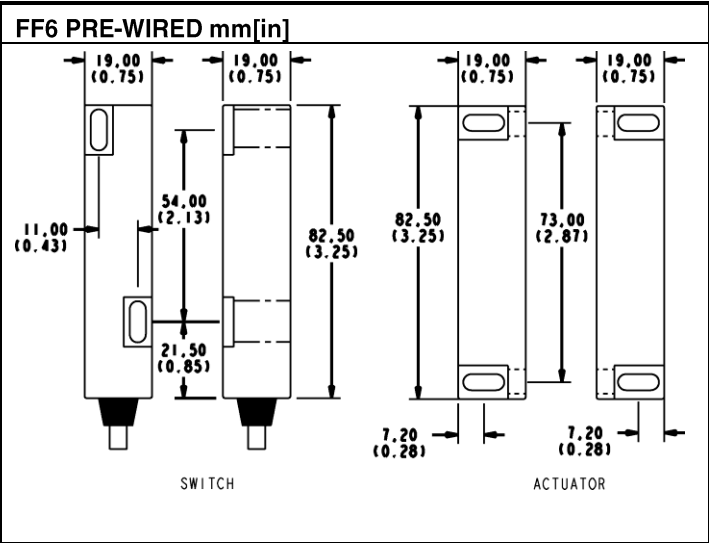
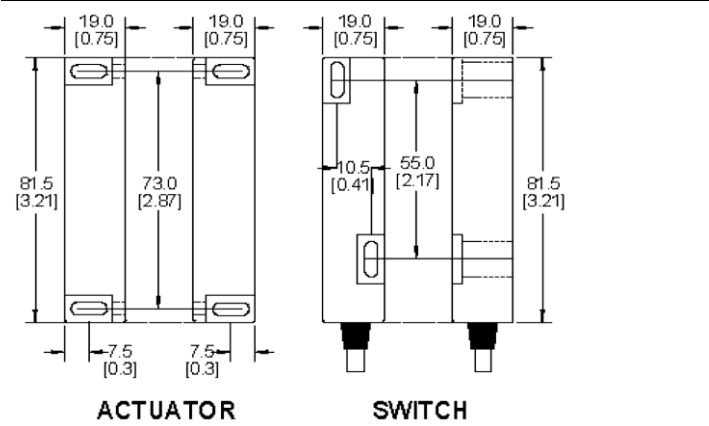
## CONTACTS AND CONNECTIONS: QUICK DISCONNECT CONNECTIONS

<b>FF6-21-AC-QD05</b> <b>FF6-21-DC-QD05</b>	<b>FF6-20-AC-QD05</b> <b>FF6-20-DC-QD05</b>	<b>FF6-11-AC-QD05</b> <b>FF6-11-DC-QD05</b>	<b>FF6-10-AC-QD05</b> <b>FF6-10-DC-QD05</b>
			
<b>FF6-10-AC-QD05-SS</b>			
			

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## DIMENSIONS

### FF6 STAINLESS STEEL PRE-WIRED mm[in]



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## ORDER GUIDE

Catalog Listing	Description
FF6-10-DC-03-SS	Safety switch and actuator, stainless steel, 1NC safety, dc, 3 m pre-wired
FF6-11-DC-03-SS	Safety switch and actuator, stainless steel, 1NC safety and 1 NO auxiliary, dc, 3 m pre-wired
FF6-20-DC-03-SS	Safety switch and actuator, stainless steel, 2NC safety, dc, 3 m pre-wired
FF6-10-AC-03-SS	Safety switch and actuator, stainless steel, 1NC safety, ac, 3 m pre-wired
FF6-10-AC-QD-SS	Safety switch and actuator, stainless steel, 1NC safety, ac, M12 quick disconnect, no cable
FF6-10-AC-QD05-SS	Safety switch and actuator complete, stainless steel, 1NC safety, ac, M12 quick disconnect, 5 m cable
FF6-10-DC-03	Safety switch and actuator, red ABS, 1NC safety, dc, 3 m pre-wired
FF6-11-DC-03	Safety switch and actuator, red ABS, 1NC safety and 1NO auxiliary, dc, 3 m pre-wired
FF6-20-DC-03	Safety switch and actuator, red ABS, 2NC safety, dc, 3 m pre-wired
FF6-21-DC-03	Safety switch and actuator, red ABS, 2NC safety and 1NO auxiliary, dc, 3 m pre-wired
FF6-10-AC-03	Safety switch and actuator, red ABS, 1NC safety, ac, 3 m pre-wired
FF6-11-AC-03	Safety switch and actuator, red ABS, 1NC safety and 1NO auxiliary, ac, 3 m pre-wired
FF6-20-AC-03	Safety switch and actuator, red ABS, 2NC safety, ac, 3 m pre-wired
FF6-21-AC-03	Safety switch and actuator, red ABS, 2NC safety and 1NO auxiliary, ac, 3 m pre-wired
FF6-10-DC-QD05	Safety switch and actuator, red ABS, 1NC safety, dc, M12 quick disconnect, 5 m cable
FF6-11-DC-QD05	Safety switch and actuator, red ABS, 1NC safety and 1NO auxiliary, dc, M12 quick disconnect, 5 m cable
FF6-20-DC-QD05	Safety switch and actuator, red ABS, 2NC safety and 1NO auxiliary, dc, M12 quick disconnect, 5 m cable
FF6-21-DC-QD05	Safety switch and actuator, red ABS, 2NC safety and 1NO auxiliary, dc, M12 quick disconnect, 5 m cable
FF6-10-AC-QD05	Safety switch and actuator, red ABS, 1NC safety, ac, M12 quick disconnect, 5 m cable
FF6-11-AC-QD05	Safety switch and actuator, red ABS, 1NC safety and 1NO auxiliary, dc, M12 quick disconnect, 5 m cable
FF6-20-AC-QD05	Safety switch and actuator, red ABS, 2NC safety, ac, M12 quick disconnect, 5 m cable
FF6-21-AC-QD05	Safety switch and actuator, red ABS, 2NC safety and 1NO auxiliary, ac, M12 quick disconnect, 5 m cable

## **WARNING**

### **RISK TO LIFE OR PROPERTY**

Never use this product for an application involving serious risk to life or property without ensuring that the system as a whole has been designed to address the risks, and that this product is properly rated and installed for the intended use within the overall system.

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

### **WARRANTY/REMEDY**

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

## **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.**

### **SALES AND SERVICE**

Honeywell serves its customers through a worldwide network of sales offices, representatives and distributors. For application assistance, current specifications, pricing or name of the nearest Authorized Distributor, contact your local sales office or:

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