

### Applications:

AFU and AFUX conveyor control switches are used:

- As emergency or normal "STOP" switch for conveyor lines, cranes, unloaders, bulk handling systems and similar equipment
- In steel mills, mining and ore and coal handling operations, automotive and other assembly lines, warehouses, loading docks and various process industry facilities
- In the control circuit of magnetic motor starters to shut down motor-driven conveyors or other machinery when switch is actuated

AFU series complies with requirements for use in Class II areas having combustible dusts that may or may not be electrically conductive.

AFU series are also gasketed for use in hosedown areas even when combustible dusts are present.

AFUX series complies with requirements for use in NEC Class I areas which are hazardous due to the presence of flammable vapors or gases. AFUX series also complies with requirements for use in NEC Class I areas which are hazardous due to the presence of flammable vapors or gases. AFUX series also complies with NEC requirements for use in Class II hazardous areas, or for use in NEC hazardous areas classified simultaneously as Class I and Class II.

### Features:

- Furnished with one or two end units, each containing 2-NO and 2-NC contact arrangements.
- Precision switches provide maintained contact (switches have a snap action mechanism).
- Enclosure has three 1" conduit hubs – two for horizontal through feed and one at the bottom. Cast mounting lugs on 1½" centers permit attachment to the web of a standard 3" angle iron.
- In installation, the actuating line or cable is connected from a fixed point to the loop on the end unit. A pull on the line of the required operating force and with a total movement of ½" actuates the plunger, opens the switch and trips the red painted indicating arm forward, which locks the plunger in the actuated (switch open) position. Returning the indicating arm to its normal position resets the mechanism. A typical installation would include single end switch units at each end of the conveyor with double end switch units between.
- Depending on the size and length of line, supports at properly spaced intervals may be necessary to ensure that the line or cable weight alone will not actuate switch.

### Certifications and Compliances:

#### AFU Series

- NEC/CEC:
  - Class II, Division 1, Groups E, F, G
  - Class II, Division 2, Groups F, G
  - Class III
- Encl. 3, 5
- NEMA: 3, 4, 9EFG
- IP66
- UL Standard: 698
- CSA Standard: 22.2 No. 30

#### AFUX Series

- NEC:
  - Class I, Division 1 & 2, Groups C, D
  - Class II, Division 1, Groups E, F, G
  - Class II, Division 2, Groups F, G
  - Class III
- NEMA: 3, 7CD, 9EFG
- IP65
- UL Standard: 698
- cUL

### Standard Materials:

- Enclosure – *Feraloy*® iron alloy
- Plunger – stainless steel
- Loop – bronze
- Indicating arm – steel

### Standard Finishes:

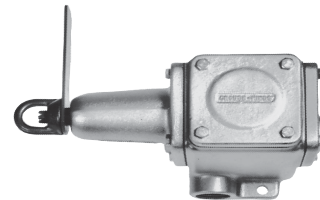
- *Feraloy* iron alloy – electrogalvanized and aluminum acrylic paint
- Steel – electrogalvanized with chromate finish (red acrylic paint on indicating arm)
- Bronze – natural

### Options:

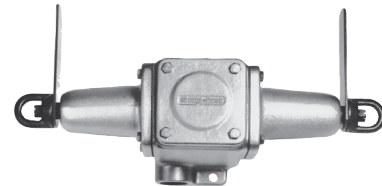
**Description** **Suffix**  
 Finish: *Corro-free*™ epoxy powder coat – for coating outside only. **S752**

### Electrical Rating:

- Control circuit switch – 15 AMP, 600 VAC max.



AFU0333-50 Single end left



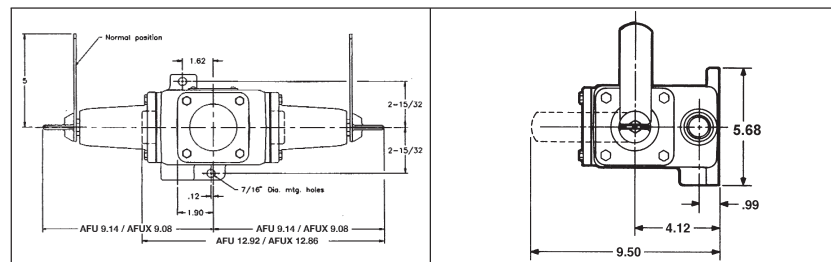
AFU0333-66 Double end

### Ordering Information

Description	Maximum Weight of Unsupported Line or Cable Without Actuating Switch† (lbs.)	Total Operating Force Required (lbs.)	Contact Arrangements With 2-NO, 2-NC in Each End Unit	
			Cat. #	Cat. #
Single end left	15	25	AFU0333 50	AFUX0333 50
Single end left	25	50	AFU0333 60	AFUX0333 60
Single end right	15	25	AFU0333 05	AFUX0333 05
Single end right	25	50	AFU0333 06	AFUX0333 06
Double end	15	25	AFU0333 55	AFUX0333 55
Double end	25	50	AFU0333 66	AFUX0333 66

†A galvanized steel aircraft cable, supported every 10' is recommended.

### Dimensions In Inches\*:



\*Dimensions are approximate, not for construction purposes.

# AFA and AFAX Conveyor Belt Alignment Switch

Cl. I, Div. 1 & 2, Groups C, D  
 Cl. II, Div. 1, Groups E, F, G  
 Cl. II, Div. 2, Groups F, G  
 Cl. III  
 NEMA 3, 4, 7CD, 9EFG

Explosionproof  
 Dust-Ignitionproof  
 Raintight  
 Wet Locations

**5C**

## Applications:

AFA, AFAX conveyor belt alignment switches are used:

- As emergency or normal "STOP" switch for conveyor belts whenever they become misaligned or run off their tracks due to excessive speed, uneven load, leveling, breakage and/or other problems.
- In steel mills, mining and ore and coal handling operations, automotive and other assembly lines, warehouses, loading docks, grain loading and handling facilities, and various other bulk handling operations.
- In the control circuit of magnetic motor starters to shut down motor-driven conveyors in case of abnormal belt misalignment or run-off.

AFA series complies with requirements for use in Class II areas having combustible dusts that may or may not be electrically conductive.

AFA series are also gasketed for use in hosedown areas even when combustible dusts are present.

AFAX series complies with requirements for use in NEC Class I areas which are hazardous due to the presence of flammable vapors or gases. AFAX series also complies with NEC requirements for use in Class II hazardous areas, or for use in NEC hazardous areas classified simultaneously as Class I and Class II.

## Features:

- Furnished with precision switches that provide normally open and normally closed contacts (switches have a snap action mechanism).
- Housing consists of a center section which can be mounted either vertically or horizontally, and a switch housing with an attached switch operating arm.
- Enclosure has three 1" conduit hubs. Cast mounting lugs on 1 1/2" center permit attachment to the web of a standard 3" angle iron.
- Operating arm has 3 1/2" long stainless steel protective roller. Approximately 3/4" lateral movement of operating arm actuates switch.
- Spring loaded operating arm will automatically return switch to normal position when belt interference is removed.
- A severe conveyor belt run-off can rotate the operating arm counter-clockwise up to 85 degrees without damage to the switch mechanism.
- Installation of AFA or AFAX unit on either side of a conveyor belt allows approximately 1" or a predetermined allowable belt misalignment before switch is actuated. A typical installation would include a pair of AFA or AFAX units at each end of the conveyor belt where belt returns.

## Certifications and Compliances:

### AFA SERIES

- NEC/CEC:
  - Class II, Division 1, Groups E, F, G
  - Class II, Division 2, Groups F, G
  - Class III
- NEMA: 3, 4, 9EFG
- IP66
- UL Standard: 698
- CSA C22.2 No. 25

### AFAX SERIES

- NEC:
  - Class I, Division 1 & 2, Groups C, D
  - Class II, Division 1, Groups E, F, G
  - Class II, Division 2, Groups F, G
  - Class III
- NEMA: 3, 7CD, 9EFG
- IP65
- UL Standard: 1203
- CSA Standard: C22.2 No. 30

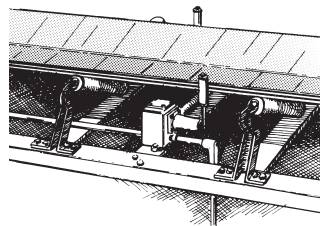
## Standard Materials:

- Enclosure – *Feraloy*® iron alloy
- Bearing and operating arm – stainless steel with plastic end caps

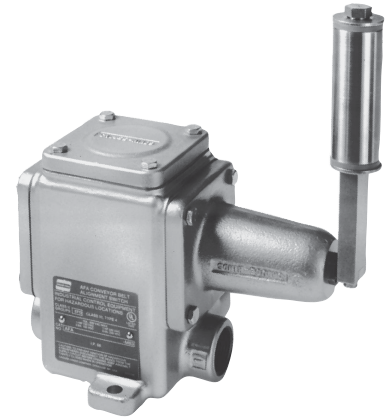
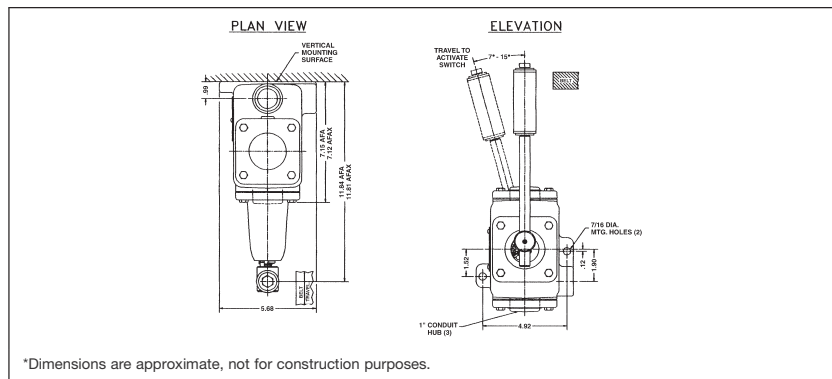
## Standard Finishes:

- *Feraloy* – electrogalvanized and aluminum acrylic paint
- Stainless steel – natural

## Typical AFA Switch Application



## Dimensions In Inches\*:



**5C**

## Electrical Rating:

- Control circuit switches – 15 AMP, 600 VAC max.

## Ordering Information

Contact Arrangement	Diagram	Cat. #
2 normally open		<b>AFA20</b>
2 normally closed		<b>AFAX20</b>

## Options:

Description	Suffix
Finish: <i>Corro-free</i> ™ epoxy powder coat – for coating outside only.	<b>S752</b>