AFA and AFAX conveyor belt alignment switches

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

Applications:

AFA and 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 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 hose down 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 1½" center permit attachment to the web of a standard 3" angle iron
- Operating arm has 3½" long stainless steel protective roller; approximately ¾" 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 counterclockwise 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 pre-determined 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:

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:

- UL698

CSA standard:

- C22.2 No. 25

AFAX:

NEC:

- Class I, Divisions 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:

- UL1203

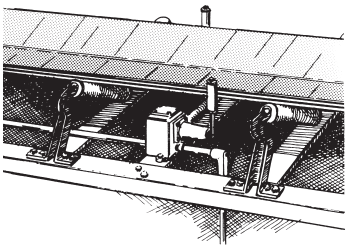
CSA standard:

- C22.2 No. 30

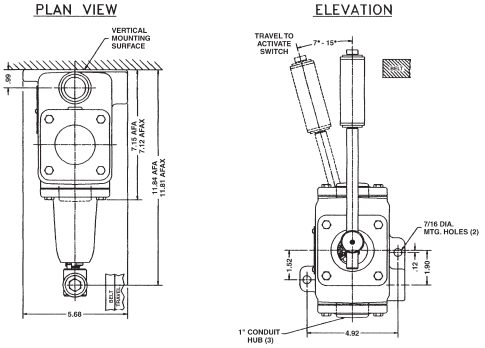
Electrical ratings:

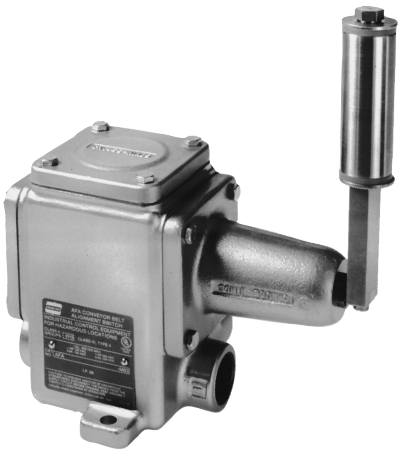
- Control circuit switch – 15A, 600 VAC max.

Typical AFA switch application:



Dimensions[A] (in inches):





Standard materials:

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

Standard finishes:

- Feraloy iron alloy – electrogalvanized and aluminum acrylic paint
- Stainless steel – natural

Options:

Description	Suffix
• Corro-free external epoxy powder coat	**S752**

Ordering information:

Contact arrangement	Diagram	Cat. #
2 normally open	1 N.O. 2 / 3 N.C. 4	**AFA20**
2 normally closed	1 N.O. 2 / 3 N.C. 4	**AFAX20**

[A] Dimensions are approximate, not for construction purposes.