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

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 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 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

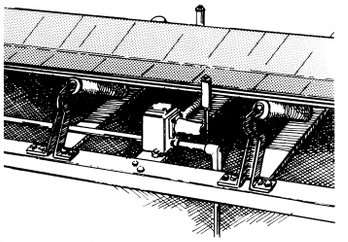
Standard Materials:

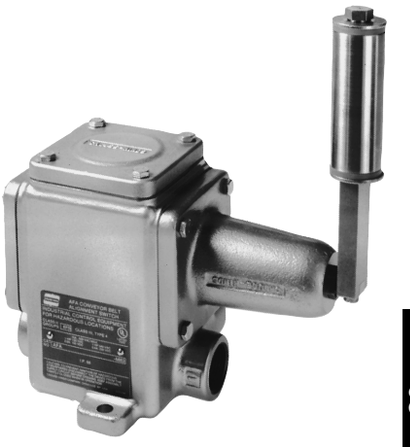
- Enclosure – *Feraloy*® iron alloy
- Bearing and operating arm – stainless steel with plastic end caps

Standard Finishes:

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

Typical AFA Switch Application





Electrical Rating:

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

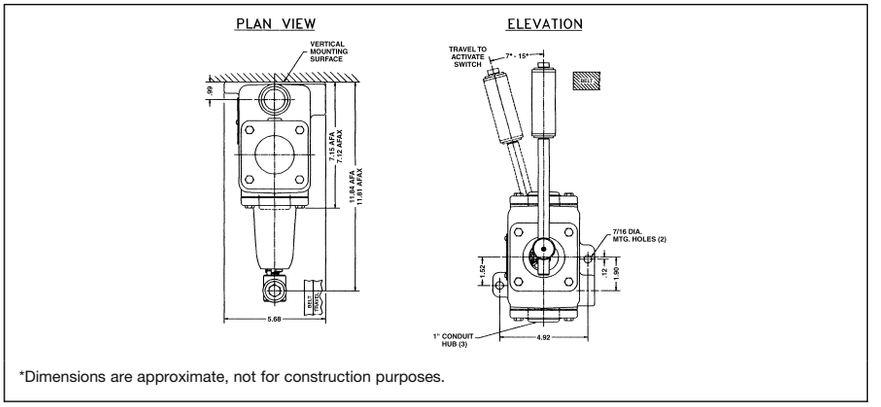
Ordering Information

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**

Options:

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

Dimensions
In Inches*:



*Dimensions are approximate, not for construction purposes.