



FZA 160-12 Ak¹/₄san Technical Specifications and Industrial Applications

FZA 160-12 Ak¹/₄san Technical Specifications and Industrial Applications

Decoding the FZA Series Controllers

When dealing with industrial control systems, the FZA 160-12 Ak¹/₄san represents a specialized solution for hazardous environments. Part of the FZA series developed by Huimin Explosion-proof Electric, these controllers combine three critical protections: waterproof, dustproof, and corrosion-resistant capabilities.

Core Technical Parameters

- Operating voltage: 12V/24V DC (customizable)
- Protection class: IP66/IP67 (environment-dependent)
- Temperature range: -40°C to +85°C
- Contact configuration: 1NO+1NC (16A rating)
- Housing material: Marine-grade aluminum alloy

Industrial Implementation Scenarios

In the petrochemical plant explosion-proof upgrade project at Zhenhai Refining Base, engineers replaced 142 traditional controllers with FZA-160 series units. Post-installation data showed:

- MetricImprovement
- Maintenance frequencyReduced 68%
- Failure rateDecreased 82%
- Mean time between failuresIncreased from 8,000 to 23,000 hours

Certification Compliance Matrix

The FZA 160-12 Ak¹/₄san meets multiple international standards:

- ATEX Directive 2014/34/EU (Zone 1/21)
- IECEX IEC 60079-0/1
- GB 3836-2010 (Chinese national standard)
- 3C certification for explosion-proof components

Customization Capabilities

Huimin's engineering team can modify:

FZA 160-12 Ak^{1/4}san Technical Specifications and Industrial Applications

Contact material (AgSnO₂ or AgNi variants)

Enclosure dimensions (±15% from standard)

Terminal types (screw/spring/plug-in)

Add auxiliary contacts or status indicators

Recent smart factory projects have integrated IoT modules into standard FZA controllers, enabling real-time contact wear monitoring through embedded sensors. This innovation reduced unplanned downtime by 41% in automotive manufacturing applications.

Installation Considerations

Minimum bending radius: 8x cable diameter

Torque specifications: 1.2-1.5 N·m for M20 cable glands

Ambient humidity:

Web: <https://www.sphoryzont.edu.pl>