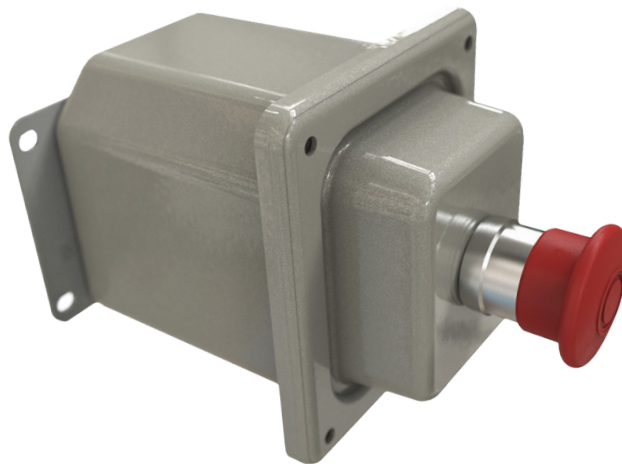


REPLACEMENT & AFTERMARKET

NEMA 4 E-STOPS



Collaborate / Create / Convey

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NEMA 4 E-STOPS



Nema 4 E-Stops

Outdoor, washdown, and corrosive industrial conveyor environments require localized machinery shutdown mechanisms to interrupt control circuits during equipment faults. Uncontrolled belt movement in these zones risks personnel entanglement, runaway conditions, and material pile-ups. This unprotected state violates federal safety mandates and creates significant operational hazards in restricted access areas.

Engineered with weather-tight, gasket-sealed enclosures, these components isolate internal switching contacts from windblown debris and pressurized water spray. The primary configuration utilizes a normally closed (1NC) contact block rated for extreme temperature fluctuations from -40°F to 185°F. They mount directly at outdoor operator stations, radial stacker pivot points, and elevated discharge zones. The electrical architecture integrates directly with 24-240VAC/DC safety relay circuits to immediately de-energize motor contactors across multi-conveyor installations.

APPLICATIONS



Recycling Sort Stations

Multi-conveyor sorting systems require coordinated shutdown networks across adjacent picking zones. The standard 1NC blocks wire in series to halt interconnected drive motors when any single station activates.



Radial Stacker Conveyors

Outdoor pivoting machinery requires exposed control interfaces subjected to direct precipitation, temperature extremes, and airborne dust. The sealed enclosure mounts at the pivot mechanism and along the elevated boom to provide weather-resistant control circuit interruption.



Washdown And Wet Environments

Recycling and food processing facilities utilize high-pressure water sprays for constant cleaning operations. The IP65/IP67 rated device mounts throughout the affected zones to maintain internal circuit integrity during direct moisture exposure.



Corrosive Environments

Material recovery facilities and marine terminals expose equipment to chemical containers and corrosive waste materials. The NEMA 4X variant mounts near handling zones to protect conductive components from chemical degradation.



Extreme Conditions

Car shredder facilities and demolition operations generate heavy metal dust, concrete debris, and physical impacts. The impact-resistant assembly installs at infeed zones to withstand material strikes and environmental ingress.



Tumble-Back Conveyors

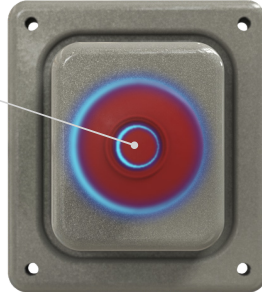
Steep-incline metering systems risk uncontrolled material rollback during process interruptions. The device provides manual controlled shutdown capability integrated with mechanical anti-rollback systems.

KEY FEATURES

01

40mm Mushroom Actuator:

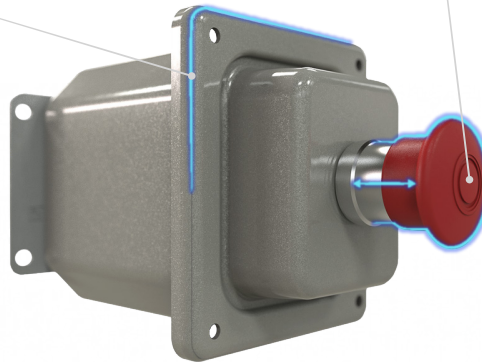
Sized for immediate visual identification and hand actuation without fine motor control in rapid shutdown scenarios.



02

NEMA 4 Gasket-Sealed Enclosure:

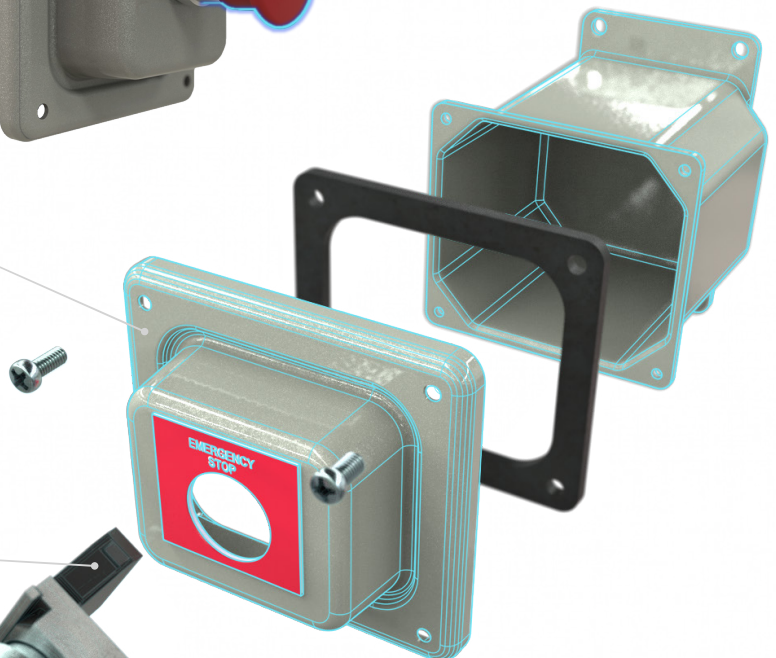
Provides watertight and dust-tight physical isolation for internal electrical contacts against high-pressure washdown and environmental debris.



03

Corrosion-Resistant Housing Construction:

Prevents structural degradation and maintains ingress protection ratings when exposed to chemical processing and salt storage environments.



04

1NC Contact Configuration:

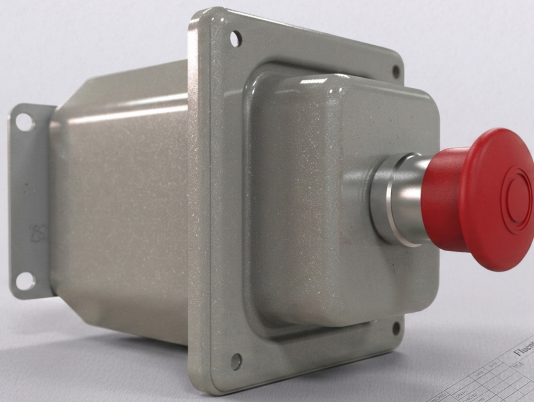
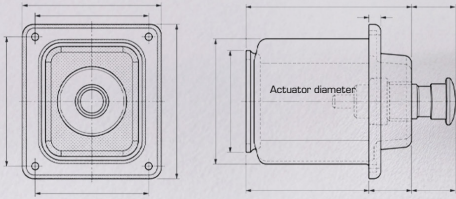
Maintains a normally closed standard control circuit that physically opens upon actuator strike to interrupt voltage transmission.



05

Pull-Release Reset Mechanism:

Requires deliberate mechanical pulling action to reset the switch after activation, preventing accidental re-energization of the control circuit.



NEMA 4 E-STOPS SPECIFICATIONS

Parameter	Specification	Notes
Actuator diameter	40mm	Standard
Enclosure dimensions	5.90" height x 5.25" width x 4.50" depth	Imperial standards
Contact block options	1NC (normally closed)	Other options available
Reset mechanism types	Pull-release	Turn-and-release available
Enclosure options	NEMA 4, NEMA 4X	NEMA 4X for chemical exposure
Actuation force	4–5 lb	Meets ASME B20.1
Mounting height range	24" – 67"	Above walking surface
Maximum E-stop spacing	100'	In restricted access areas

COMPLIANCE STANDARDS

Mushroom head E-stops must meet the following regulatory and industry standards for placement, actuation, and electrical configuration.

OSHA 1910.212 and 1910.147

Federal workplace directive mandating integrated emergency stop mechanisms, operational lockout/tagout procedures, and documented maintenance records.

ISO 13850

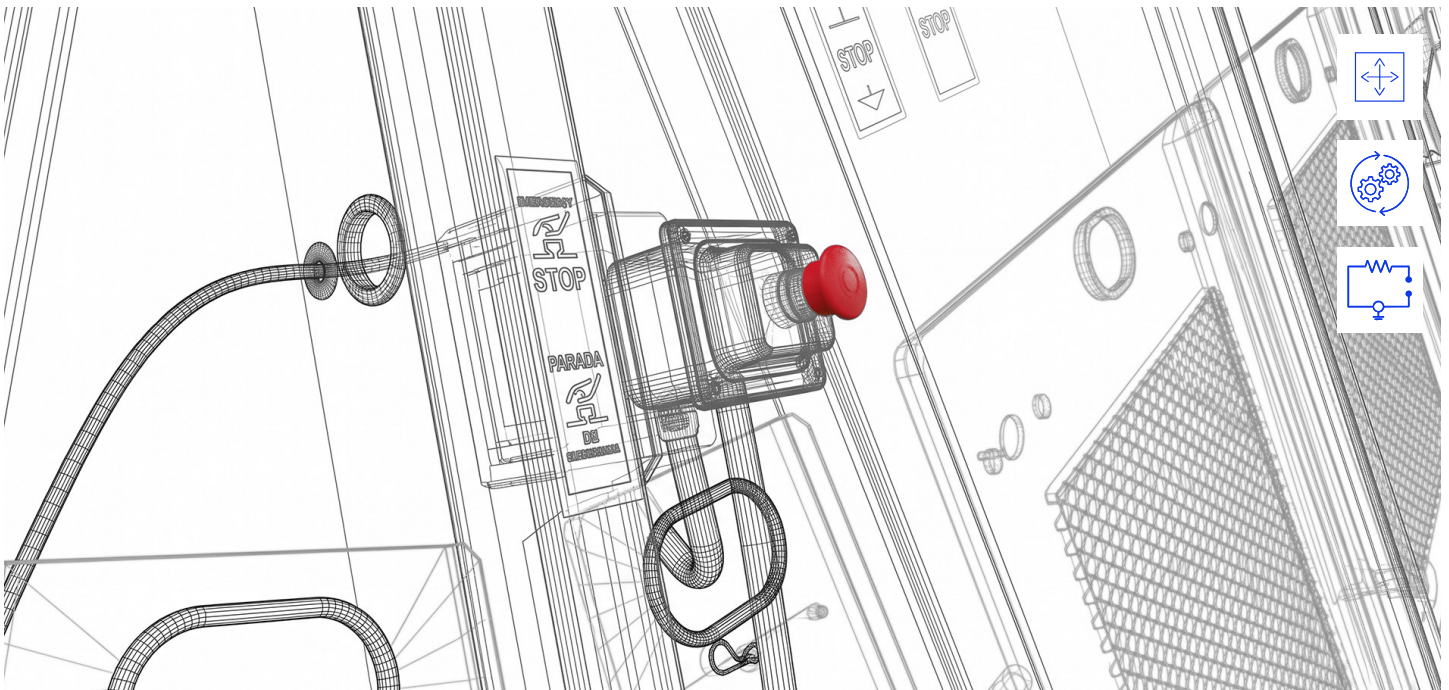
International function standard requiring Performance Level PLc or SIL 1 ratings, Stop Category 0 or 1 execution, and intentional manual reset actions prior to system restart commands.

ASME B20.1

Primary US conveyor standard establishing 100-foot maximum spacing intervals, 24-67 inch dimensional mounting heights, and 4-5 pound mechanical actuation force requirements.

CEMA Standards

Industry equipment benchmark dictating specific red-on-yellow hardware visibility, physical actuator protrusion, and absolute operational control override priority.



THE ENGINEERING ADVANTAGE

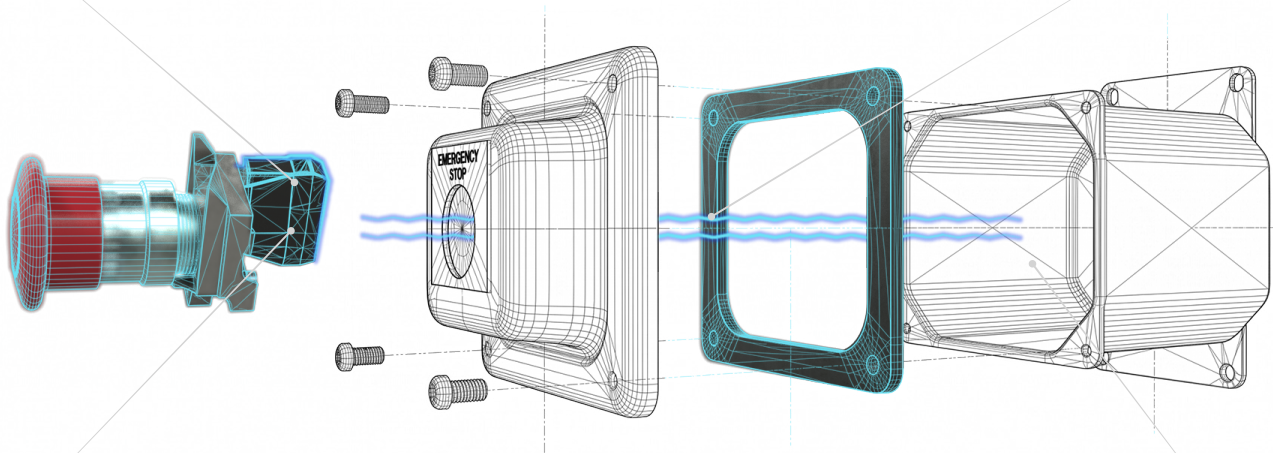
This section outlines the circuit isolation methodology behind mushroom head E-stops, covering contact architecture and integration principles to ensure mechanical readiness in harsh environments.

Positive-Opening Contact Architecture:

Forces the electrical contacts apart mechanically upon actuator strike, preventing welded contacts from sustaining power transmission during a high-voltage fault.

Safety Relay Circuit Integration:

Wires directly into the central control panel logic, dropping voltage to motor contactors when any device in the continuous chain activates.



Self-Monitoring System Capability:

Detects internal wiring faults or continuity loss within the block, immediately dropping the control circuit if the device sustains structural failure.

Isolated Control Circuitry:

Separates the emergency shutdown voltage path from standard operational PLC commands, overriding variable frequency drive logic to enforce immediate power removal.

CONTACT INFORMATION

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For product specifications, engineering support, or order inquiries, please contact our team using the information provided below. Our specialists are available to ensure accurate recommendations and efficient service for your application requirements.

Reach Us Directly

Email

Send us your questions or requests, and we'll respond promptly.

sales@fluentconveyors.com

Phone

Call us for immediate assistance and technical support.

[+1\(866\) 764-2980](tel:+18667642980)

Business Hours

Monday - Friday

8:00 AM – 5:00 PM MST

Departments

Sales & Quoting

Product pricing, availability, and order placement.

sales@fluentconveyors.com

Customer Service

Product pricing, availability, and order placement.

[+1 \(303\) 390-1228](tel:+13033901228)

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Technical specs, application review, custom configurations.

engineering@fluentconveyors.com