

Emergency stop - minimum requirements

Wired directly to contactor

- **Simple and cost effective solution**
- **Easy to install**
- **Complies with minimum safety requirements**



Application

Almost all machines requires an emergency stop. The emergency stop should be a complementary safety function, and not replace other safeguarding measures or safety functions. The standard EN ISO 13850 specifies the functional and design requirements on emergency stop function, and states that the minimum safety level should be PL c. Below is an example of a simple emergency stop function that fulfills the minimum requirements, where the emergency stop is wired directly to a contactor without using a safety relay. Please note that the safety requirements varies for different machines, and should be derived from the risk assessment of the machine. For higher requirements, please see [Emergency stop - maximum requirements](#).



Please note!

When using such a simple emergency stop function, it is important to make sure that the machine does not start automatically once the emergency stop button has been released again. This might require an additional reset button. As a minimum, break the run-signal using the free NC-contact in the emergency stop.

Functional safety level

This emergency stop solution fulfills Category 1, PL c according to EN ISO 13849-1 and up to SIL1 according to EN IEC 62061.



CEPY1-1001

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Emergency stop button with enclosure

Please note that ABB has a wide range of alternative buttons with or without enclosures to suit all needs.

Description	Type	Order code
Assembled Enclosure - 40mm Mushroom Emergency Stop - Twist Release - 2NC - Horizontally mounted	CEPY1-1001	1SFA619821R1001



AFS09

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Safety contactors

The AFS contactors are dedicated for safety applications. See [product sheet](#) for range and selection.

Links

Product sheets

[AF contactors for safety applications](#)

Web pages

[Pilot Devices enclosures and assembled stations](#)
[Contactors for safety applications - Motor protection and control](#)

Installation instruction

[Pilot Devices installation instruction](#)