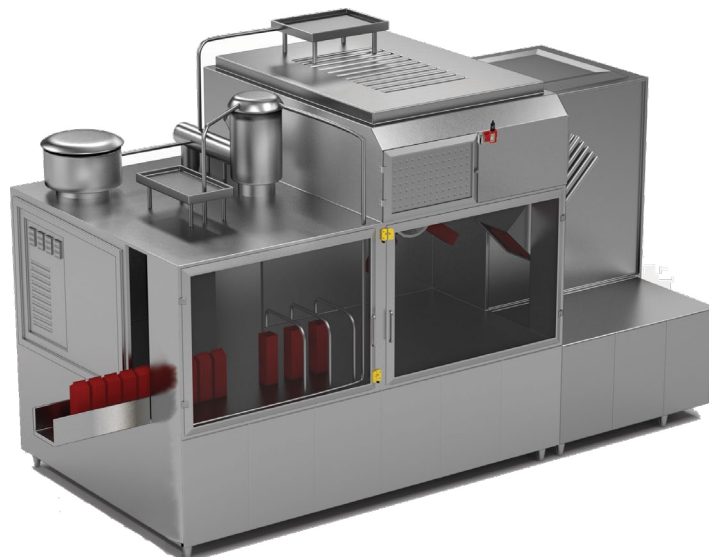


DYNlink essential solution

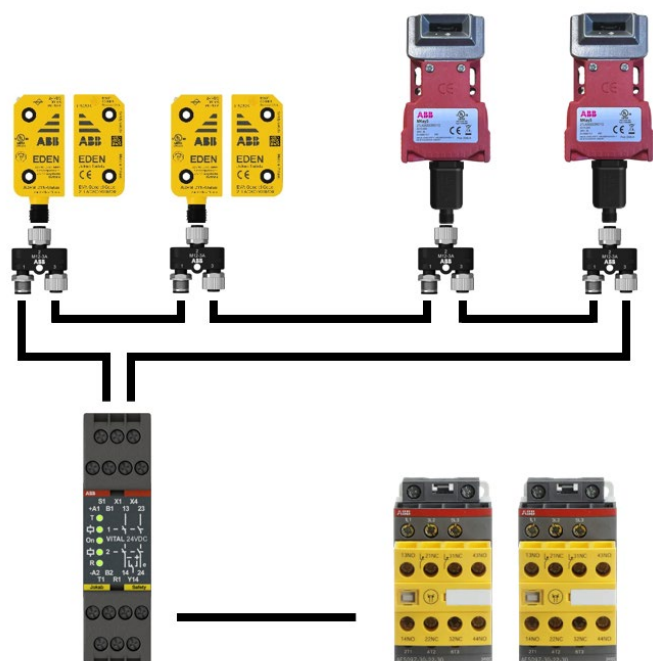
Vital, safety sensors and contactors

- Easy to reach the highest safety level
- Cost effective
- Powerful and flexible



DYNlink

DYNlink is a clever sensor interface for Vital, Pluto and B&R safety controllers. With DYNlink it is easy to build powerful and cost effective safety solutions using a minimum amount of components and safety controller inputs.



Application

In this example a carton filling machine has four hatches that need to be monitored. Two are more frequently used and require a high performance level, and two are only used during maintenance and do not present the same risk for the user. The non-contact safety sensor Eden is used for the frequently used hatches and simpler key switches are used for the maintenance hatches. Eden DYN already has integrated support for DYNlink, but the key switches require a Tina adapter which can be easily attached.

The sensors are connected in series to the DYNlink circuit using M12 Y-connectors to simplify cabling. The DYNlink circuit is monitored by the Vital safety controller. If the hatches are opened, power is removed from the machine using redundant safety contactors.

Note that the four hatches are four separate safety functions, each using a separate sensor but sharing Vital and contactors. The required PL can differ for each safety function, and the achieved PL will differ between Eden and the key switches.

Functional safety level

DYNlink sensors connected in series (daisy chain) fulfills the maximum safety level - up to Category 4, PL e according to EN ISO 13849-1 and up to SIL3 according to EN IEC 62061. Up to 30 sensors can be connected in series. DYNlink meets the coding requirements according to EN ISO 14119 regarding manipulation protection.



Vital 1

—
Vital safety controller

| Description | Type | Order code |
|---|---------|-----------------|
| Safety controller with one safe DYNlink input and 2 NO safe outputs | Vital 1 | 2TLA020052R1000 |

See Vital [manual](#) for more information.



Adam DYN-Info M12-5

—
Eden non-contact safety sensor

| Description | Type | Order code |
|---|---------------------|-----------------|
| Non-contact safety sensor adapted for the DYNlink circuit. Male part. | Adam DYN-Info M12-5 | 2TLA020051R5100 |
| Non-contact safety sensor adapted for the DYNlink circuit. Interchangeable female part. | Eva General code | 2TLA020046R0800 |

Note that ABB has a wide range of alternative sensors. See [Safety Catalog](#) for options. See Eden [product sheet](#) and [manual](#) for more information.



Eva general code

—
MKey safety interlock switch

| Description | Type | Order code |
|---|-----------|-----------------|
| Mechanical key switch with plastic housing, stainless steel head and 12 N holding force.. | MKey5 SSH | 2TLA050003R0100 |

Note that ABB has a wide range of alternative key switches. See [Safety Catalog](#) for options. See MKey [manual](#) for more information.



MKey5 SSH

—
Adapters, connectors and cables

| Description | Type | Order code |
|---|-----------|-----------------|
| Adapter to DYNlink for MKey. Two circuits and supply voltage. Connects to an M20 cable entry. | Tina 3Aps | 2TLA020054R1400 |
| Y-connector for series connection of DYNlink devices | M12-3A | 2TLA020055R0000 |
| Cable with male + female M12-connectors. 1 m. | M12-C112 | 2TLA020056R2000 |
| Cable with a female M12-connector and an open end. 3 m. | M12-C31 | 2TLA020056R0500 |
| Cable with a male M12-connector and an open end. 3 m. | M12-C33 | 2TLA020056R2900 |

Note that ABB has a wide range of alternative cable lengths. See [Safety Catalog](#) for options.



Tina 3Aps



M12-3A



M12-C112



AFS09

—
Safety contactors

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