Example 2a -- Magnetic door switches subject to strong bounce

Simple e-stop and magnetic door switch setup suitable in situations where the doors protected by the magnetic switches are subjected to significant bounce. This is a modification of example 2; the same electrical connections as shown for that example apply.

In this example, the setup of the magnetic door switches has been changed to allow short-term, single-contact opening of up to 200 ms (this time is user selectable). This is frequently necessary on small access doors used to cover conveyor systems in the food and packaging industries. All other settings are unchanged.

Depressing the e-stops will turn OFF safe output OSSD1. Once the e-stop has been released it can be reset. If doors are closed, the safe output OSSD1 will turn ON. Opening any one of the doors will deactivate safe output OSSD1. When all doors are closed, the safe output OSSD1 will activate automatically (no reset) provided the e-stop has been released and reset previously.

**One dry contact e-stop**
- E-stop 1 connected to S11/S12 and S21/S22

**Two safety magnetic door switches**
- Magnetic door switch 1 connected to S31/S32 and S41/S42
- Magnetic door switch 2 connected to S51/S52 and S61/S62

**Reset acting on the e-stop only**
- Reset is activated by applying +24 VDC to S72