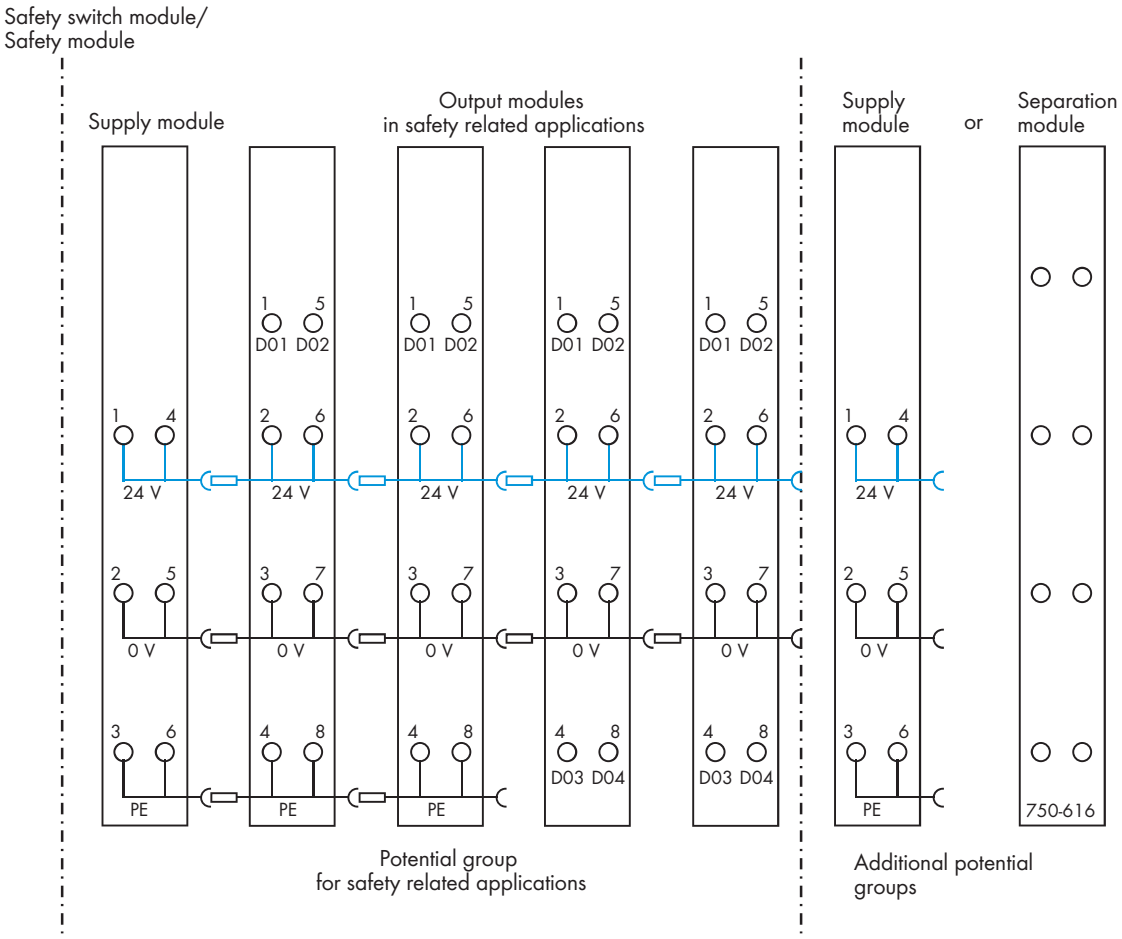
Use of Interference-Free I/O Modules in Safety Applications

To easily perform cost-effective, centralized deactivation of complete actuator groups safely, the actuator's power supply can be switched off using a safety switching device. This can either be performed for each individual actuator or by turning off the power supply to a group of control outputs.
Ensure that, in the event of failure, no interferences from other current or power circuits will occur even when the control voltage is switched off so the defined safety function properties (logic and time response) remain unchanged.

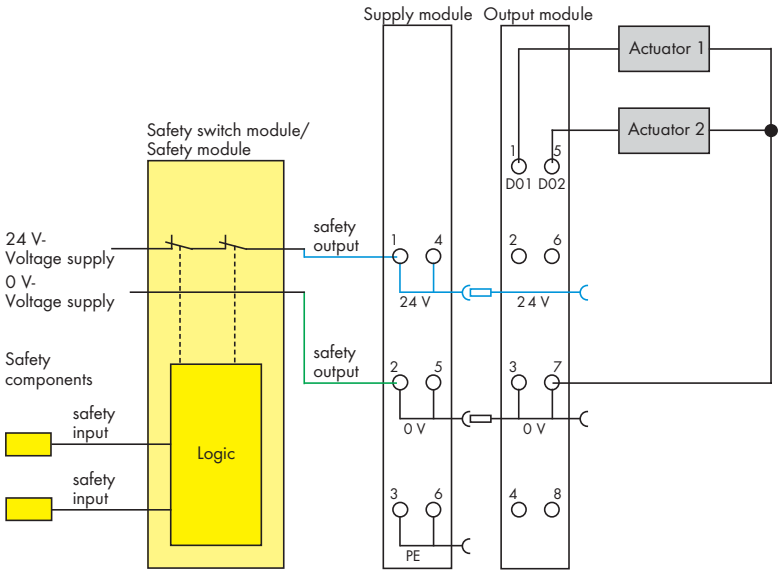
WAGO 75x-yyy/zzz-8zz I/O Modules are designed to provide "interference-free" safety functionality.
These modules comply with safety requirements up to Category 4 of DIN EN ISO 13847-1:2007.
Safety category and performance level depend solely on the safety components and their wiring. "Interference-free" WAGO I/O modules have no active influence on the safety function, they are not an active part of the safety application and are not a substitute for the safety switching device! When using the components in safety functions, the corresponding notes must be observed in the relevant manual!



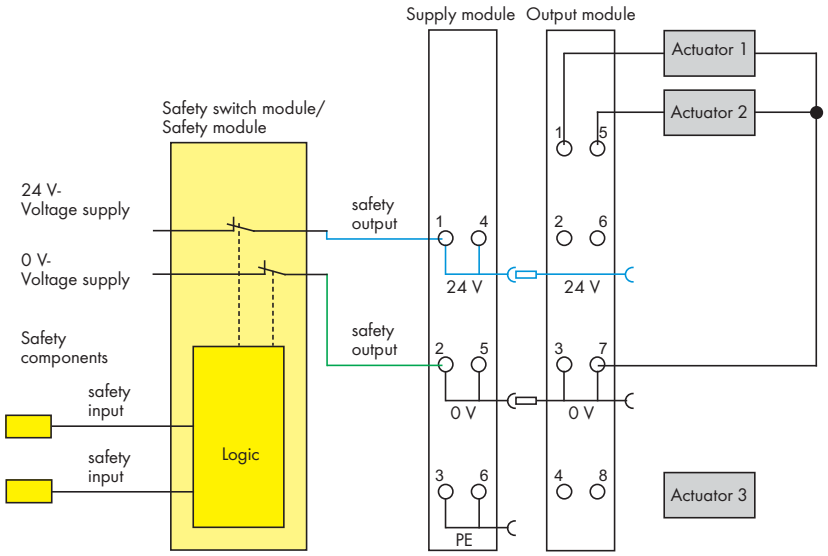
When using the digital output modules in safety-related applications, the modules belonging to a safety switching device shall be combined to form a potential group.
The voltage for the potential group shall only be supplied via 750-601/750-602 Supply Modules or 750-626 Filter Module.
Either a power supply module or a separation module without power jumper contacts (750-616) must be connected at the end of the potential group.

Item description for interference-free I/O modules	
750-501/000-800	2DO 24V DC 0.5A/Interference-free
750-502/000-800	2DO 24V DC 2.0A/Interference-free
750-504/000-800	4DO 24V DC 0.5A/Interference-free
750-504/025-800	4DO 24V DC 0.5A/T/Interference-free
750-506/000-800	2DO 24V DC 0.5A/Diagnostics/Interference-free
750-508/000-800	2DO 24V DC 2.0A/Diagnostics/Interference-free
750-531/000-800	4DO 24V DC 0.5A/2-conductor/Interference-free

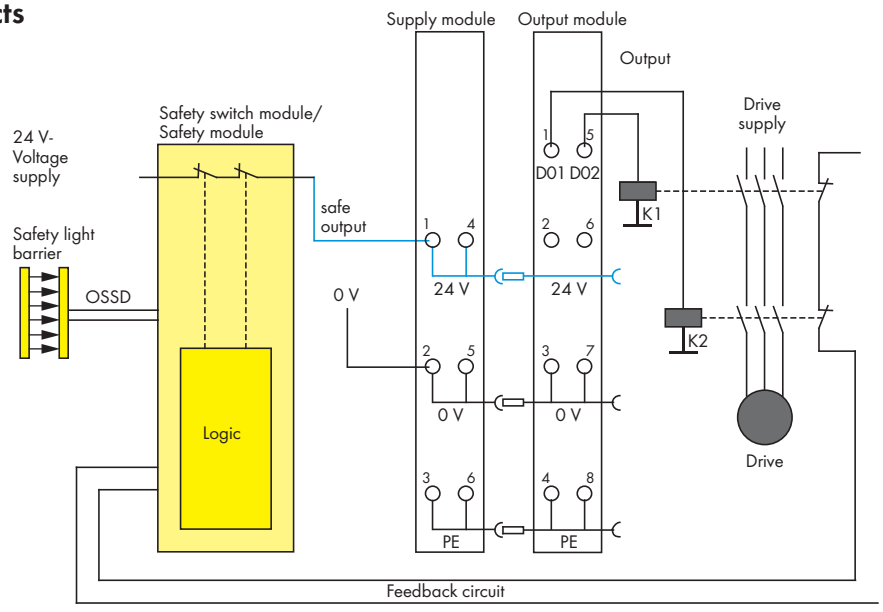
Two-Channel, Single-Pole Power Supply Disconnection



Two-Channel, Double-Pole Power Supply Disconnection



Two-Channel, Single-Pole Disconnection with Feedback from the Contactors' Feedback-Signal Contacts



The examples of circuit configuration show basic connection options for control voltage disconnection.
Depending on the additional circuit used (e.g., safe diagnostics via feedback contacts of the contactors), performance levels up to PLe can be achieved.