

**Nidec**

**Drives**



# MiS210

Safety option module

Industrial control



## Safety option module

# Enhanced motion safety, decentralised flexibility, ethernet connectivity

Relying on a centralised safety PLC can mean additional cost through complexity of the wiring and safety software. Alternatively, electro-mechanical safety devices typically mean lower throughput, longer machine stoppages and extra time required for set-up and maintenance.

The new MiS210 safety option for Unidrive and Digitax HD extends the built-in STO with motion safety capability and enables decentralised flexibility with the option of safety over ethernet connectivity.

### Supported motion safety functions

- Safe Stop 1 (SS1)
- Safe Stop 2 (SS2)
- Safely Limited Speed (SLS)
- Safe Operating Stop (SOS)
- Safe Direction (SDI)
- Safe Speed Monitor (SSM)
- Safe Emergency Stop (SES)

### Safety over ethernet

- Supports CIP Safety on Unidrive M700, M720 and Digitax HD

### Safety certifications

- MiS210 has been independently assessed by TUV Rheinland to meet the following standards:
- IEC 61508 SIL3
- IEC 62061
- ISO 13849-1 PLe
- IEC 61800-5-2
- European Machinery Directive 2006/42/EC

### Compatibility

- Unidrive M600
- Unidrive M700, M701, M702
- Digitax HD



## Fast and simple set-up

The MiS210 customer fit option module simply clicks into place, with no screws or other mounting requirements. Once fitted, the safety functions provided by MiS210 are seamlessly incorporated into the drive's feature set.

- Easy configuration with Connect, the free drive management PC tool for Unidrive M
- Simple parametric interface
- No new programming language to learn

## Decentralised motion safety flexibility

MiS210 enables motion safety decentralisation in combination with the appropriate encoder. This can remove the need for a central safety PLC and the number of sensors necessary to achieve the required SIL/PL level.

Benefits of safety decentralisation with MiS210 also includes:

- Reduced wiring and costs
- Ease and speed of commissioning
- Speed of actuation thanks to close-coupling of safety function and drive
- Reduced footprint and cabinet size
- Scalable SIL through choice of encoders
- SISTEMA library integration
- Incrementally add safety functionality

## Increased machine throughput compared to relay-based safety

Total power shut-down and the consequent reduction of plant productivity is a common challenge with electro-mechanical safety systems. Deployment of a functional safety solution can help to alleviate this by safely slowing or stopping a machine to enable human interaction within the process.

MiS210's safety functionality provides a means to monitor the speed of the motor and if a loss of control is detected will remove the torque using Unidrive's onboard Safe Torque Off input.

Additionally, removing electro-mechanical safety components can bring further benefits in the form of cost savings, smaller physical footprint and lower acoustic noise.



**SIL3 PLe**  
Safety Integrity Level



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