



VLT® FlexMotion™

Think differently.

Fast and simple installation

User-friendly
and open
servo motion solution

VLT® FlexMotion™ is a general-purpose servo drive solution. It consists of three different servo drive product lines, each with their own unique benefits. But, as they are based on the same platform, the user interface is identical and programming, installation and maintenance are equally quick and easy.



Developed specifically for the food and beverage, packaging, textile, pharmaceutical and material handling industries, VLT® FlexMotion™ consists of:

- VLT® Multiaxis Servo Drive MSD 520
- VLT® Integrated Servo Drive ISD® 520
- VLT® Decentral Servo Drive DSD 520

Mutual benefits

- System independence – the unique open system architecture means that all three product lines are compliant with most real-time Ethernet fieldbuses, such as EtherCAT®, POWERLINK®, PROFINET® RT, and PROFINET® IRT, and 3rd-party masters can be used
- Coherent central and decentral solutions – provide optimal flexibility and machine design
- VLT® FlexSafety™ functional safety over fieldbus (PROFIsafe and FSoE) and hardwired STO ensure enhanced safety capabilities throughout the whole platform. The platform includes numerous safe speed, position, and brake functions.

The decentral servo drives offer 3M7-rated vibration resistance, making them ideal for rotating machine parts. Their IP67-rated enclosure design ensures a high degree of protection.

VLT® Multiaxis Servo Drive MSD 520 is a generic multi-axis system that allows perfect integration of decentral drives.

VLT® Multiaxis Servo Drive MSD 520 comprises:

- VLT® Power Supply Module (PSM 520) and
- VLT® Servo Drive Module SDM 521 (single axis) or
- VLT® Servo Drive Module SDM 522 (double axis)
- Optional integrated VLT® Decentral Access Module (DAM) to supply power to decentral drives.

available in two frame sizes, widths 50 mm and 100 mm. MSD 520 supports EtherCAT®, POWERLINK® and PROFINET® IRT Ethernet-based protocols. It features an internal brake resistor and a mounting plate that includes a DC link and auxiliary voltage. The 'click and lock' solution for the mounting plate makes installation simple and safe.

VLT® Integrated Servo Drive

ISD® 520 is a fundamental component in a flexible, high-performance decentral servo motion solution. It is powered by a central power supply (VLT® Power Supply Module PSM 520 with DAM option, which provides a 565-680 V DC supply and ensures a higher power density. ISD 520 drive

modules and a hybrid daisy-chain cabling concept significantly reduce the number of cables required.

VLT® Decentral Servo Drive DSD 520

extends the selection of a decentral servo drive concept. It is compatible with a wide range of PM motors, linear motors and also ASM motors. For optimal control of speed and position, DSD 520 is equipped with these feedback encoders:

- Resolver
- Single- and multi-turn
- BiSS, SSI
- EnDat 2.1 and 2.2
- Hiperface and Hiperface DSL
- SinCos
- Open Loop

VLT® FlexSafety™

Use the factory option VLT® FlexSafety™ for highly demanding functional safety applications. Level SIL3 (IEC 61508), PL e / CAT3 (ISO 13849) is achievable for PROFIsafe and FSoE over fieldbus. The offering includes STO, SS1, SS2, SOS, SLA, SAR, SLS, SSR, SLP, SLI, SDI, SCA, SSM, SBC, SBT.

Optionally, 2x safe DI (double channel) and 2x safe DO (double channel) enable access to several functions independently from the fieldbus.



↑ VLT® Multiaxis Servo Drive MSD 520



↑ VLT® Integrated Servo Drive ISD® 520



↑ VLT® Decentral Servo Drive DSD 520