



Double Servo-Drive TSD350

Highest Dynamics and Precision at 100kHz



The new TSD350 consists of two complete 350V/10A servo drives in one case.

Current and position control loops operate both at 100kHz and have improved current- and position-capturing. The control loop is extensible by user code. Thus, it allows solving even the most challenging tasks.

Option modules allow for dual-loop control, Sin/Cos Encoder with 10MHz/16bit, analog I/O, FFT, Laser-PWM etc.

Properties

- » 100kHz control loop (current/position)
- » Freely programmable for control loop extensions and general purpose sequences
- » Improved current resolution
- » Up to 10MHz 16bit Sin/Cos-Encoder
- » Up to 50kHz set point rate
- » 10Arms nominal current (20A peak)
- » Safety "Safe Torque Off"
- » EtherCAT fieldbus

Applications

- » Machine tool (Optics, Molds, etc.)
- » Positioning tables (<1nm stand still)
- » Direct drives for highest precision and stiffness
- » Ultra precision machining (optics etc.)
- » Positionable high-frequency spindles
- » Gantries



**Redefining
Motion
Control**

**Datasheet
TSD350**

Specifications

TSD350

Motor configuration	2 Motors AC synchronous or DC
Motor rated voltage	350V _{DC}
Supply, rated, min.-max.	350V _{DC} / 24 - 380V _{DC}
Current nominal / peak	10A _{rms} / 20A _{pk}
Thermal time constant	5s
Output power, cont.	4600W
Safety	Safe Torque Off: SIL3/PLe
Motor temperature	KTY84, PT1000, NTC/PTC
Position measurement: Digital (per axis)	Pulse frequency 5MHz max., glitch- and FIR-filtering; Standards: RS-422, EnDat 2.2; BiSS (on request)
Position measurement: Analog (per axis)	Sin/Cos 1V _{ss} : 65536 times interpolation, auto calibration Max. frequency (option: 10MHz) Standards: EnDat 2.1 & 2.2 (analog); BiSS (on request)
Digital inputs	2x 6 Inputs isolated, 24V, 100µs
Digital outputs	2x 2 Outputs isolated, 24V, 1A
Optional modules, no.	2, each with a D-Sub HD15 connector
Logic supply	24V _{DC} ±10% @ 900mA max. (incl. 2 option modules)
Field-bus – real time	EtherCAT 100Mbps / Tria-Link 200Mbps
Communication for commissioning and service	USB 2.0 / (Ethernet)
Host (PC)-connection	PCI-/PClexpress adapter card TLO100 / TLO300 (accessory)
Programming inside the servo-drive	Freely programmable in a 10kHz hard real time task Languages: C# / C++ / J# / VisualBasic incl. coupling of axes; additional asynchronous task
Programming PC side	TAM SDK for Microsoft-.NET Framework; Beckhoff TwinCAT with CNC; Matlab; Linux
Dimensions	WxHxD: 51 x 230 x 170mm ³

Subject to change without notice.

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