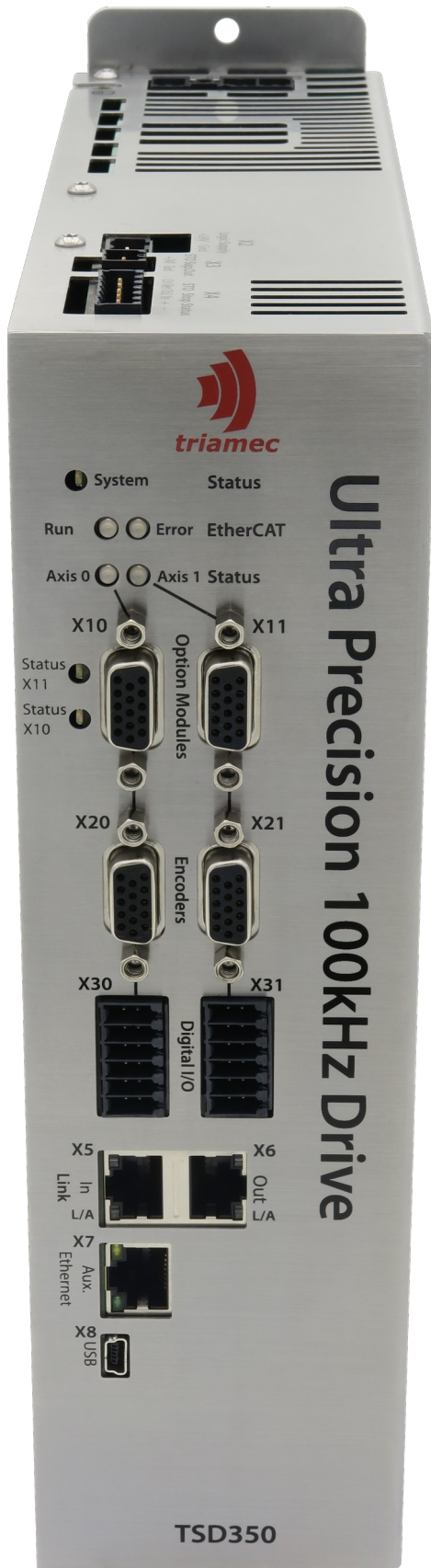


Double Servo-Drive TSD350

Highest Dynamics and Precision at 100kHz



The TSD350 consists of two complete 350V/10A-15A 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 C# user code, allowing to solve even the most challenging tasks.

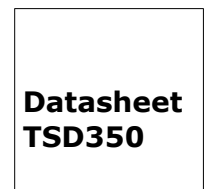
Option modules allow for dual-loop control, sin/cos Encoder with 2MHz/18bit, analog I/O, FFT, Laser-PWM etc.

Properties

- 100kHz control loop (current/position)
- Freely programmable in C# for control loop extensions and general control purposes
- Improved current resolution
- Up to 2MHz 18bit sin/cos-Encoder
- Up to 10kHz set point rate
- 10 or 15Arms nominal current (20 or 30A peak)
- Safety "Safe Torque Off"
- Tria-Link or EtherCAT fieldbus

Applications

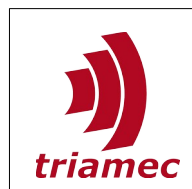
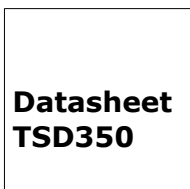
- Machine tool (Optics, Molds, etc.)
- Positioning tables (<1nm stand still)
- Direct drives for highest precision and stiffness
- Ultra precision machining (optics etc.)
- Position controlled high-speed spindles
- Gantries



Specifications

		TSD350-10	TSD350-15
Motor configuration		2 Motors, 2 and 3 phase synchronous or asynchronous AC, DC	
Supply, rated, min.-max.		350V _{DC} , 24 - 380V _{DC}	
Current nominal / peak		10A _{RMS} / 20A _{pk}	15A _{RMS} / 30A _{pk}
Peak current duration		2s	
Output power, cont.		4600W	6900W
Safety		Safe Torque Off: SIL3/PLe	
Protection		Drive and motor temperature (KTY83/84, PT100, PT1000, PTC-1K); i2t, over voltage, over current	
Position measurement (per axis)	General	5.2V supply with a maximum of 500mA for both encoders together.	
	Analog	sin/cos 1Vpp: 65536 times interpolation, auto calibration, FIR filtering, max. frequency 500kHz (with option module EH: 2MHz 18bit / 10MHz quadrature)	
	Incremental	RS422: max. pulse frequency 500 kHz (RS422 Fast: 10MHz), TTL: max pulse frequency 2.5MHz	
	Digital	Standards: EnDat 2.1 & 2.2; BiSS B, BiSS C, SSI, Tamagawa, Nikon (Encoder with additional sin/cos signals recommended)	
	Sensorless	Sensorless commutation/control, suitable for fast spindles	
Digital inputs		2x 6 Inputs isolated, 24V, 2x 300µs, 4x 1200µs 2x 4 fast TTL level inputs on the D-Sub encoder connector	
Digital outputs		2x 2 Outputs isolated, 24V, 1A	
Option Modules		2x, Extensions for encoder, analog I/O, FFT, laser PWM, etc.	
Logic Supply		24V _{DC} ±10%, 2.3A max	24V _{DC} ±10%, 2.5A max
Fieldbus		EtherCAT 100Mbps / Tria-Link 200Mbps allowing direct transmission of values from one servo drive to others on the same bus.	
Service Interfaces		USB / Ethernet	
Programming inside the servo-drive		10kHz hard real time task, freely programmable in C# incl. coupling of axes; additional asynchronous task	
Programming PC side		TAM API for .NET Framework; Beckhoff TwinCAT; Python	
Dimensions		WxHxD: 68 x 262 x 230mm ³	

Subject to change without notice.



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