



Denali Safe

The smallest servo drive ever, now safety certified

Performance, compact size, and efficiency; all the features to wish for plus the most advanced safety functions.

celeramotion.com

MEDICAL | INDUSTRIAL | SCIENTIFIC | MICROELECTRONICS
OWN THE MOTION STACK

SAFETY HAS NEVER BEEN THIS SMALL

The Denali Series now includes certified advanced functional safety functions, ensuring the highest level of reliability and safety for critical applications. This series continues to offer best-in-class specifications in a reduced profile, making it ideal for applications where space and minimal power consumption are paramount to succeed.

Developed by experts, the Denali Series guarantees optimal performance with minimal heat dissipation and

ultra-low radiated emissions. It is specifically designed for applications requiring high precision without compromising performance, such as end effectors, haptic feedback systems, and medical equipment.

Featuring cutting-edge technology, the Denali Safe Series delivers a miniature high-performance servo drive that can fit virtually anywhere, putting advanced functionality at your fingertips.

Benefits



Compact and miniature; the world's smallest servo drives, weighting only 6g



Extremely low profile, enabling ease of integration for multiple applications



Embedded CANopen or EtherCAT communications (down to 1 cycle latency)



PWM frequency up to 200 kHz specially beneficial for low inductance motors



Up to 99% efficiency and standby power consumption down to 1.1 W



Cost-optimized (single PCB) for distributed centralized multi-axis configurations

Specifications

Communications	EtherCAT*
Supply Voltage	5 to 48 V _{DC} **
Continuous Current	5 A(1s)
Standby Power Consumption	>= 2 W
Peak Current	10 A(1s)
Dimensions	33 mm x 17.6 mm x 9.5 mm
Weight	7.00 g
PWM Switching Frequency	20, 50, 100, & 200 kHz
Feedback	Digital Halls, Quadrature Incremental Encoder, BiSS-C, SSI***
Efficiency	99%
Safety Functions (non-feedback dependent)	STO, SI, SOUT, SS1-t, FSoE (SIL3 PLd CAT3)
Safety Functions (feedback dependent):	SS1-r, SS2-t, SS2-r, SOS, SLA, SAR, SLS, SSR, SLP, SLI, SDI, SV, SSM (SIL3 PLd CAT3)

*Minimum communication latency (1 cycle)

**60V_{DC} peak

***Dual SSI, Dual BiSS-C & Dual BiSS-C Daisy Chained.