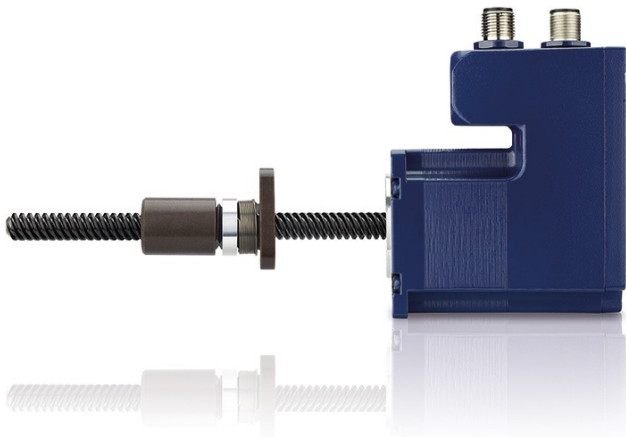


LINEAR ACTUATOR

## Integrating encoder and drive

Nanotec (Germany) launched the CANopen-connectable PSA56 drive unit combining the LSA56 hybrid linear actuator and the drive controllers of PD4-E series.



*PSA56 drive unit supports CiA 402 (Source: Nanotec)*

The integrated magnetic single-turn absolute encoder has a resolution of 1024 counts per revolution and supports field-oriented control via CANopen. Offering the motion control functions according to CiA 402 (CANopen device profile for drives and motion control), different I/Os and communication options, the actuator is configurable for a variety of demanding applications that require high repeatability. The applications include laboratory automation, packaging machines, medical equipment, or material handling solutions. Since the controller and encoder are integrated in the actuator, installation costs and cabling effort are reduced. The screw's protective coating is made of carbon material and improves the friction characteristics and thus the service life of the nuts.

The IP65-protected device dedicated for operation voltages of 12 V<sub>DC</sub> to 48 V<sub>DC</sub>, implements the CANopen NMT (network management) server functionality. Supported CiA profiles include CiA 301 version 4.2.0 (CANopen application layer and communication profile), CiA 402-1/-2/-3 version 3.0.0, and CiA 305 version 3.0.0 (Layer setting services and protocols). Such CiA 402 operation modes as profile position, velocity, profile velocity, profile torque, homing, interpolated position mode, cyclic synchronous position, cyclic synchronous velocity, and cyclic synchronous torque mode are implemented.

Nanotec was founded in 1991 and is a manufacturer of motors and controllers/drives for industrial automation and medical engineering applications. The company has been based in Feldkirchen near Munich (Germany) since 2011. With some 250 employees in Germany, Bulgaria, the US, and China, Nanotec serves customers around the world.

[of](#)