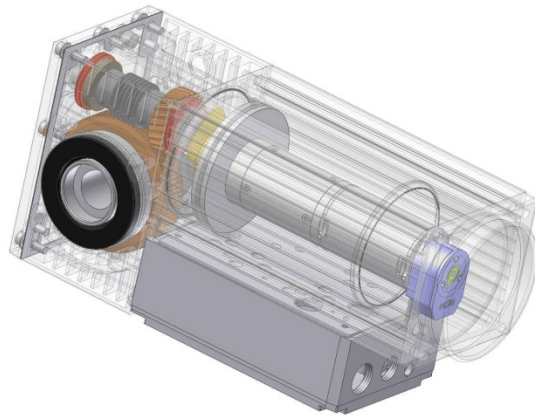
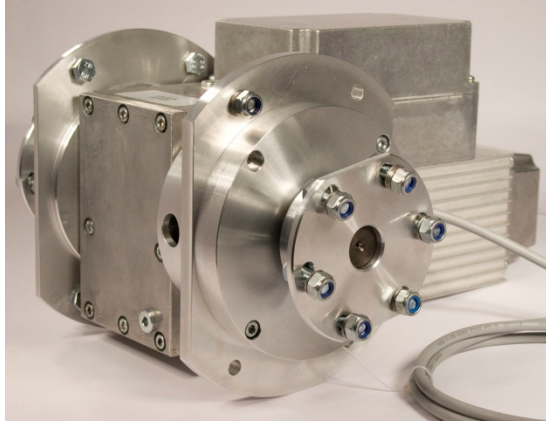


Application-Solar Tracking Drive for Concentrator Technology



Description:

Concentrated Solar Power (CSP) plants require very precise tracking drives, to ensure, that the solar beams always stay in focus with the concentrator tube. Sometimes a backlash of only a few arc minutes is allowed to keep the efficiency of the power generation very high.

The Compacta MS12 CSP has been designed to meet these requirements. A self-locking, low-backlash worm gear set in combination with a spring loaded worm shaft reduces the backlash to less than 5 arc min. The 17bit absolute encoder mounted directly on the output shaft avoids positioning errors due to gearbox or connection backlash. The fully integrated brushless DC motor is suitable for several thousand starts and stops per day because of the absence of brush wear.

Typical applications are solar power plants using concentrator technology like:

- Parabolic trough systems
- Fresnel-type systems
- Solar tower systems (Heliostats)

Technical data:

Type	Compacta MS12 CSP
Max. torque	140Nm Max. for Compacta product family: 1600Nm
Max. speed	0,1 rpm Stow speed
Step speed	0,005 rpm Creep speed
Gear ratio	38.000 : 1
Gear reducer	Planetary-spur-worm reducer
Motor	24V brushless DC
Controller	24V DC controller for BLDC motors, integrated
Motor encoder	500 pulses per revolution
Output encoder	17 bit max., 131072 pulses per revolution
Communication	CANopen, Optional Profibus
Backlash	< 5'
IP-rating	IP54, IP65
Certificates	CE, NRTL, BG