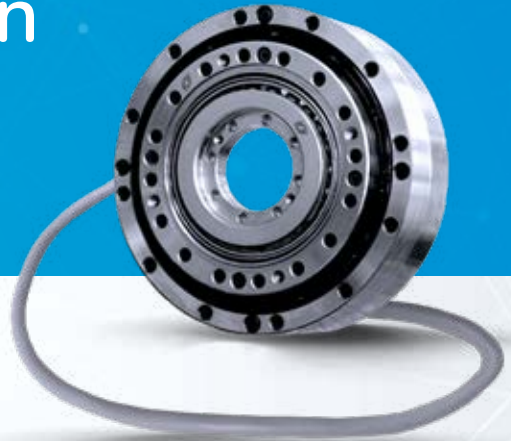


Digital Strain Wave Gear



New Features, more Possibilities

Our digital strain wave gear integrates smart sensors and digital functions directly into the gearbox - without requiring additional installation space. With the 4th generation, we're significantly expanding the range of functions: Integrated position measurement, digital communication via BiSS-C, and the new Customer Tool enable more comprehensive data utilization and simplify integration, parameterization, and commissioning.

New Features at a Glance

Integrated Position Measurement

The integrated absolute encoder measures the position directly at the output shaft, thereby eliminating the effects of the gearbox on position control. This enables greater control accuracy - especially in demanding precision applications.

Digital Data Transmission with BiSS-C

BiSS-C enables the transmission of extensive sensor, functional, and analysis data with a high density of information. BiSS Safety allows for the reliable transmission of safety-related measured variables - a key prerequisite for developing functional safety applications.

Customer Tool for Configuration and Analysis

The Customer Tool enables parameterization, monitoring, data logging, and calibration via a central user interface - providing easy access to digital functions and significantly reducing the effort required for setup and use.

Overview

The digital strain wave gear collects relevant operating and condition data directly within the gearbox. The data collected enables comprehensive condition monitoring and evaluation - such as load monitoring and lifetime tracking. Analog and digital interfaces are available for data utilization - ranging from the targeted reading of individual measurement parameters to the comprehensive use of digital functions.

Full range of functions

- Torque, temperature, vibration, and position measurement
- Condition monitoring and evaluation
- Calculation of actual gearbox service life / Lifetime Tracking
- Detection of overload and critical operating conditions
- Event and load monitoring
- Analog and digital data output (switchable)
- BiSS-C communication, including BiSS Safety
- Customer Tool for parameterization, monitoring, data logging, and calibration

Your Benefits

- No additional space required
- Less effort required for integration
- Greater precision and transparency
- Easy setup and use
- Greater process and operational reliability
- Improved predictability of maintenance and operations
- A foundation for developing digital business models or functions
- Foundation for Data-Driven Algorithms

Applications

- Cobots
- Humanoid robots
- Mobile and Autonomous Robotics
- Mechanical Engineering & Automation
- Medical Technology, e.g., Patient Handling Systems and Imaging Systems such as C-arms
- Precision positioning and handling systems

How can we support you?

+49 211 17279-0 | E-Mail: info@nabtesco.de | www.nabtesco.de

