



WITTENSTEIN

alpha

cynapse® with Smart Services Collect. Analyze. Visualize.

It's new.
It's connective.
The smart feature.





Unlimited connectivity: your access to the digital world.

Welcome to the IIoT!

The Industrial Internet of Things (IIoT) is the global IT infrastructure of the future in industrial applications: by linking physical and virtual objects, you enable them to communicate interactively for you 24/7 and map process-relevant information.

Using the virtual pool of knowledge which is created in this way, you can optimize processes effectively, reduce your manufacturing costs and make your operations generally more efficient. Play IIoT – cynapse® is your connection to the digital world:

In combination with our Smart Services, it creates maximum transparency within the machine and the Smart Factory. Smart Services from WITTENSTEIN analyze your gearbox and process data and actively enhance the quality of machines and processes.

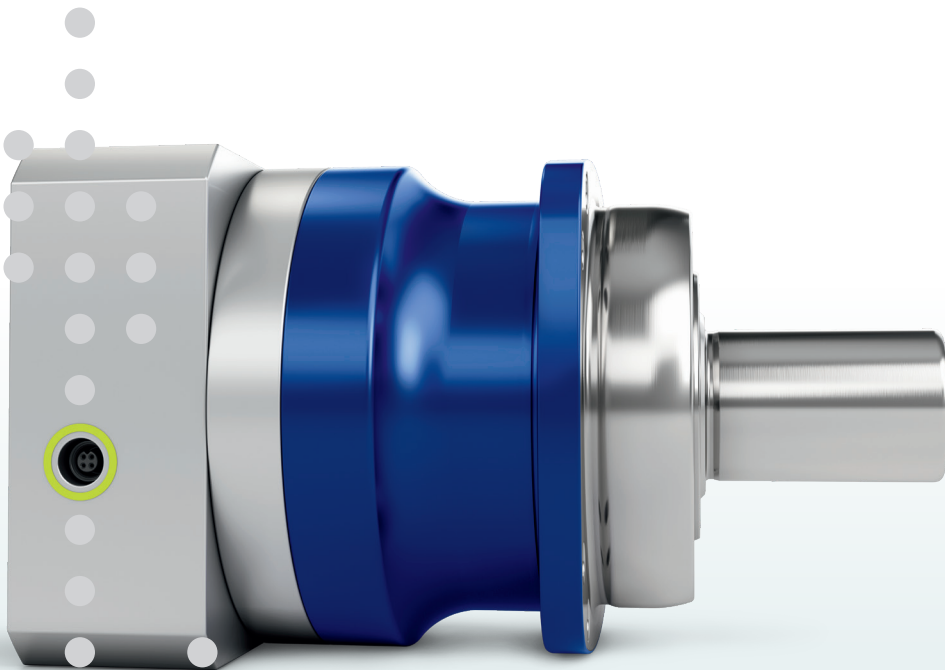


More information about cynapse®
and our Smart Services: simply scan
the QR code using your smartphone.
www.wittenstein-alpha.com/cynapse

Smart, simple, fast: cynapse® really works!

cynapse® – how it works

cynapse® ensures the gearbox can be easily integrated into the digital world. The cynapse® feature is integrated into the existing installation space and is connected via an IO-Link interface. As a result, measured data such as the gearbox's **temperature, vibration, operating time, acceleration, and product-specific information** can be accessed.



Get more out of your gearbox:

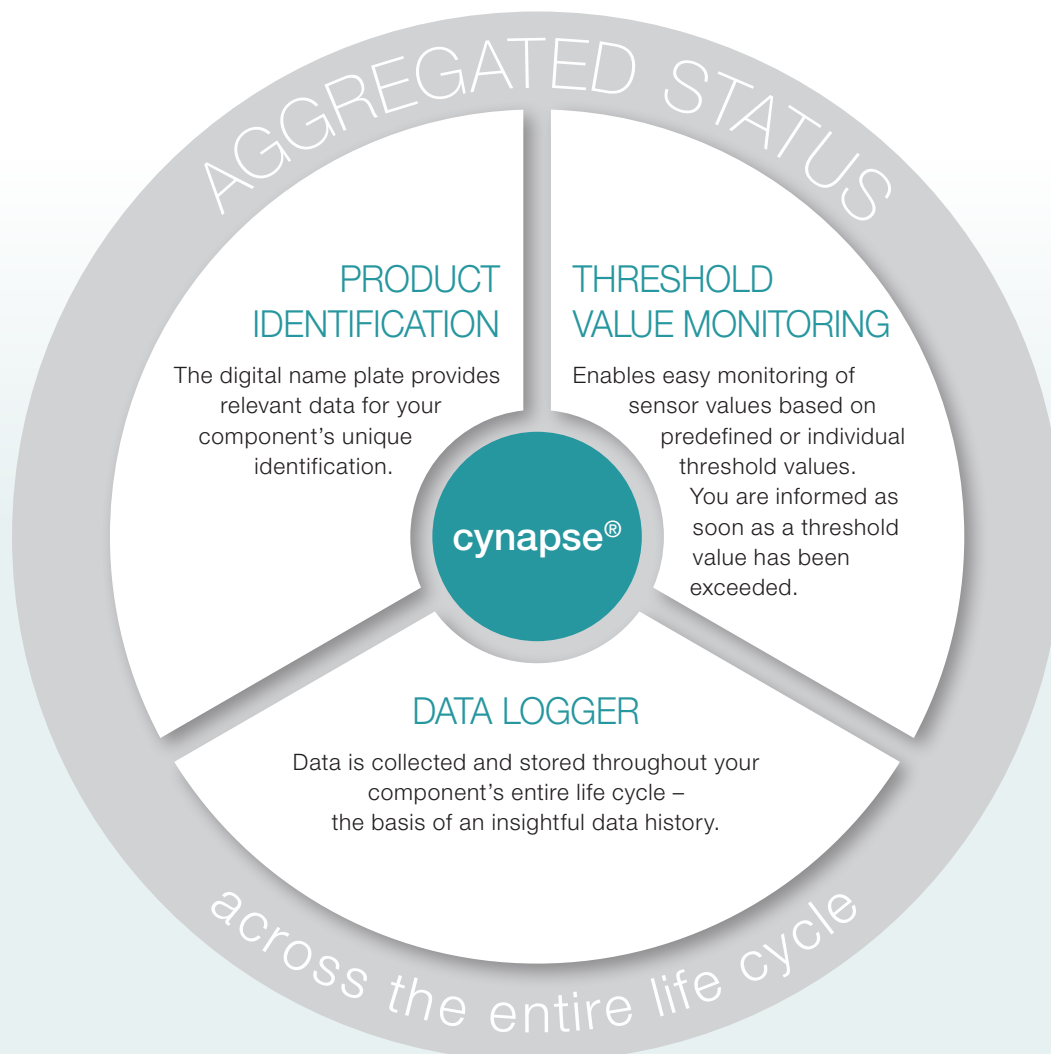
- ● Use more functions in the same installation space.
- ● Know everything relevant about the condition of your gearbox.
- ● Get essential information without attaching additional sensors to your gearbox.

Get connected!

Just always know what's happening!

Smart gearboxes with cynapse® measure temperatures and report overheating, they detect vibrations and count operating hours. They store and document all events related to their operation – you systematically receive, for example, all relevant data for preventive maintenance of the gearboxes, minimization of gearbox damage, and prevention of machine downtimes.

cynapse® therefore makes a really crucial contribution to the optimal availability and productivity of your machines.

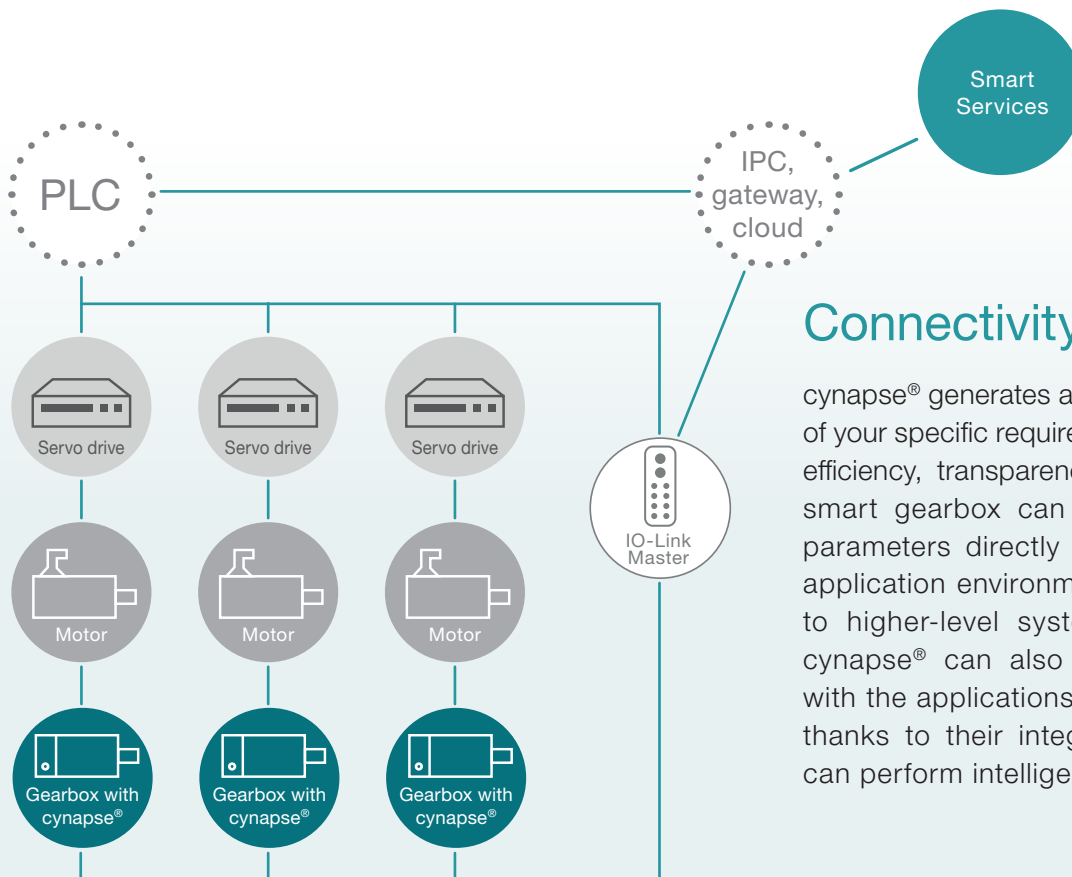


cynapse[®] “talks” to all common systems

Integration without limits

Gearboxes with the cynapse[®] feature and IO-Link interface can be directly integrated into your system landscape. You can decide here whether the generated data is only kept in the cynapse[®]'s internal memory or whether you integrate it into higher-level systems, such as a PLC or gateway / IPC / cloud.

By integrating the data into higher-level systems, you lay the foundation to use our Smart Services.



Connectivity 4.0

cynapse[®] generates an electronic “fingerprint” of your specific requirements for performance, efficiency, transparency, and availability. The smart gearbox can identify and measure parameters directly from the process and application environment and pass them on to higher-level systems. Gearboxes with cynapse[®] can also exchange information with the applications on IIoT platforms and, thanks to their integrated logic functions, can perform intelligent monitoring tasks.

Smart Services – the perfect complement

The Smart Services expand the functional scope of the cynapse® feature. The basic functions comprise data processing, visualization, and analysis. The specific expertise, which WITTENSTEIN has gathered over more than 40 years of developing low-backlash planetary gearboxes, is used in combination with the operating data to establish and display the status of the gearbox in the Smart Services.



cynapse® Connect enables integration and routing of data, which is a fundamental prerequisite for condition monitoring. The Smart Service makes the recorded data available in a structured format. It can obtain this data from various source systems via IO-Link or OPC UA and utilizes it for digital services from WITTENSTEIN. cynapse® Connect thus greatly simplifies the integration of smart gearboxes into the relevant machine infrastructure.



cynapse® Monitor builds upon the Smart Service cynapse® Connect and enables straightforward evaluation and visualization of operating data. Since manufacturers and operators do not have to develop their own solutions, development requirements are massively reduced. In addition, the data of the cynapse® Monitor service can be used to monitor threshold values of selected parameters. Deviations and critical states in the behavior of gearboxes or in the relevant process can therefore be identified at an early stage.



cynapse® Analyze is an ever-growing portfolio of smart features. The focus of this service is the detection of anomalies or wear. The Anomaly-Check, for example, detects changes in the belt tension in packaging machine drives. The Health Index displays the gearbox condition simply and intuitively by means of a traffic light, which can be used to establish the recommended course of action. These features help to prevent unplanned downtimes as well as the associated breakdown and repair costs. Machine operators can thus take the necessary action before any damage occurs.



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WITTENSTEIN alpha – Intelligent drive systems

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