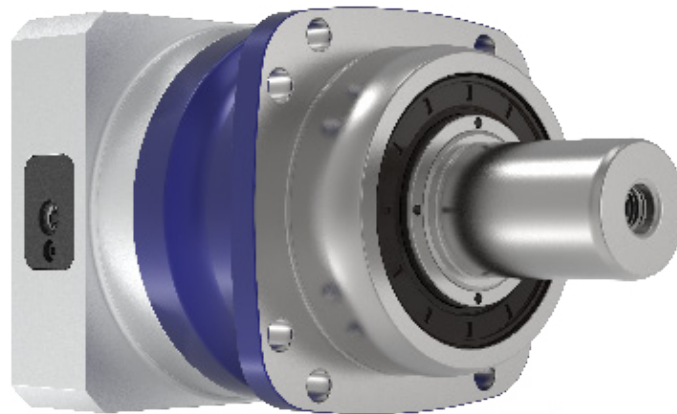


**Description:**

Gearboxes with cynapse® from WITTENSTEIN alpha record operating data of machines and entire manufacturing plants and communicate it in the IIoT. The cynapse® feature is integrated into the existing installation space for this, and is connected via an IO-Link interface. As a result, operating data of the machine setup and the gearbox's product-specific information can be accessed.

  **IO-Link**



Integrated functions	
Name plate	Name plate information can be accessed digitally via the IO-Link interface for easy product identification.
Temperature/vibration/acceleration check	Adjustable threshold values that are predefined by WITTENSTEIN can be used to notify the user when temperature, vibration and acceleration ranges are exceeded by means of an IO-Link event.
Operating time logger	Using an algorithm, cynapse® approximately calculates the gearbox's operating time to efficiently control maintenance intervals.
Data logger	Based on an integrated data memory, selected information from cynapse® can be stored on the component over its entire lifetime. The data logger creates transparency regarding historical temperature, acceleration and vibration data, as well as changes in these datapoints over time.

Mechanical parameters	
Housing material	Thermelt 869 Black
Weight	20 g
Dimensions (W x L x H)	34.2 x 24.5 x 17.5 mm
Electrical parameters	
Nominal voltage	24V DC
Operating voltage range	15 to 30 V DC
Current consumption max.	15 mA
Interface	
Electrical connection: M8 socket with internal thread, 4-pin (standard IO-Link pin assignment)	
Interface	IO-Link 1.1 (according to standard IEC 61131-9)
Baud rate	COM3 (230.4 kbaud)
Process data profile	Configurable
Process data IN	16 bytes
Process data OUT	0 bytes
Firmware update	Supported according to IO-Link specification
Technical sensor specifications - Temperature sensor	
Sampling rate	100 Hz
Measuring range	-50 to +150 °C
Resolution	0.2 K
Accuracy	+/-1.3 K
Technical sensor specifications - Acceleration sensor	
Sampling rate	3.2 kHz
Measuring range	+/-16 g
Resolution	0.5 mg
RMS calculation interval (exponential evaluation)	1 sec.
Peak to peak interval	1 sec.

Ambient conditions	
Operating temperature	-15 to +90 °C
Air humidity	20 to 80% without condensation
Protection class	IP 65
Standards	IEC 61000-6-2 IEC 61000-6-4
Data logger - Historical data	
Logging interval	15 min
Measured value at each measuring point	Max. temperature Max. acceleration (vector from X, Y and Z direction)
Resolution/coding Temperature	8 bits
Max. storage capacity Temperature history	480,000 values (120,000 h)
Acceleration vector components	
Resolution/coding X	10 bits
Resolution/coding Y	10 bits
Resolution/coding Z	10 bits
Max. storage capacity per acceleration history	150,000 values (37,600 h)
Data logger - Histograms	
Logging interval	1 min
Acceleration max. RMS	Number of class intervals: 40 (set logarithmically)
Acceleration average RMS	Number of class intervals: 40 (set logarithmically)
Acceleration peak to peak value	Number of class intervals: 40 (set logarithmically)
Acceleration crest factor	Number of class intervals: 40 (set logarithmically)
Temperature	Number of class intervals: 100 (set linearly)

Please refer to our [operating manual](#) for more information.