

# Chain Condition Monitoring

The new iwis chain elongation monitoring system CCM (Chain Condition Monitoring) measures the wear elongation of chains in operation, thus helping maintenance staff to recognise in advance when a chain will need to be replaced due to wear elongation.







Chain Condition Monitoring

**NEW**  
by iwis



**CCM** Chain Condition Monitoring (CCM)  
The Chain Elongation Monitoring

Chain Condition Monitoring

INTELLIGENT CHAIN MONITORING

- Gives maintenance staff time to (re)act!
- No long downtimes for plant or machinery
- No risk to promised delivery dates – no interruption of the logistics chain
- Prevents financial losses caused by missed production
- Monitoring of precision chain applications
- “Plug ’n’ play” principle applies – does not require calibration etc.

- ✓ Simple modular construction
- ✓ Revised design



HIGHLIGHTS

- Chain wear status is shown in 0.5% steps on a finely graduated LED display.
- Measurement results can be transferred to a computer via USB connection and displayed on a special interface.
- Different speed ranges and changes of load direction are not a problem for CCM.
- Use of the system is not restricted to a small number of chain sizes: CCM always detects wear on one chain strand only, so it is equally effective on simplex, duplex and triplex chains.
- Precise, contact-free measurement with no direct interference in the chain drive.
- CCM is quick and easy to integrate – including retrofitting with no need for any special additional components – in numerous chain applications.

PRODUCT RANGE

| Description  | Article no. |
|--------------|-------------|
| CCM-06B-IWIS | 40008846    |
| CCM-08B-IWIS | 40008847    |
| CCM-08A-IWIS | 40008897    |
| CCM-10B-IWIS | 40008850    |
| CCM-10A-IWIS | 40008898    |
| CCM-12B-IWIS | 40008851    |
| CCM-12A-IWIS | 40008899    |
| CCM-16B-IWIS | 40008853    |
| CCM-16A-IWIS | 40008900    |
| CCM-20B-IWIS | 40008854    |





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**iwis**  
antriebssysteme  
wir bewegen die welt

OPERATING CONDITIONS

- Normal industrial environment conditions
  - special version of CCM required for strongly or highly abrasive applications!
- Operating temperature range: 0 °C to 70 °C
- Special inspection by iwis required before use on chains with attachments on both sides and extended pins
- Protection type: IP67
- Resistant to non-magnetic contamination
- We recommend the installation of damping elements (e.g. between housing and mounting plate) if the system is fitted at a customer interface
- Installation of the CCM system on the tight span is recommended; installation on the slack side also possible
- USB connection to PC interface
  - connection via USB plug 2.0 Typ A
- External power supply (24 V DC ± 20 %)
  - connection via exposed cable ends to cable terminal

CCM: A COMPREHENSIVE SOLUTION

- Included in delivery:
  - CCM system including mounting plate
  - Power supply cable
  - USB cable
  - PC software
  - Installation and operating instructions
- 3D Data available and can be supplied on request
- Installation kit with standard default setting Depth D = 50 mm (Depth D\* depends on chain version and can be individually varied)
- See operating instructions for information on electrical and mechanical connections.

CONFIGURATIONS

| Chain size | Chain speed      |
|------------|------------------|
| 06B        | 0.10 – 4.80 m/s  |
| 08B / 08A  | 0.15 – 6.35 m/s  |
| 10B / 10A  | 0.15 – 7.90 m/s  |
| 12B / 12A  | 0.20 – 9.50 m/s  |
| 16B / 16A  | 0.25 – 12.50 m/s |
| 20B        | 0.35 – 15.50 m/s |

Lower and higher speed on request.

**IMPORTANT** The CCM system has a purely informative function – it explicitly offers neither protection against chain drive failures and machine breakdowns, nor information about the likelihood of chain elongation that may occur in future.

The customer is aware that the CCM system is supplied with a pre-set chain elongation reference value of 3%. This reference value was determined by iwis without taking any concrete application(s) into account. The customer will define the reference value himself and – on his own responsibility and for the specific application(s) in question – check whether the reference value is uncritical or can lead to critical situations or actual damage as a result of inadmissible chain elongation.

On request, and at an additional charge, iwis will change the pre-set reference value of 3% to a different value specified by the customer; however, the customer can also use the software supplied with the device to set a reference value suited to the requirements of his specific application.

