



# FIELD system

**igus® - smart plastics i.Cee**



CONNECT



MONITOR



THINK



DRIVE

## DESCRIPTION

For more than 25 years, igus® has carried out condition monitoring on its products (e-chain systems, cables and polymer bearings) in its test laboratory, which at 3800m<sup>2</sup>, is the world's biggest laboratory for dynamic energy transfer applications. For the last 14 years, condition monitoring tests using more than 1,000 installed push/pull force detection systems have been carried out by igus. In 2018 based on this experience, igus® smart plastics launched the first cloud based IoT predictive maintenance lifetime calculation, with a clear indication of number of days until next recommended maintenance. Info regarding next suggested maintenance and alerts were displayed in a web browser and by email/SMS notification. At HMI 2019 igus® presented the first «offline» module «icom.plus» which interacts with the machine's internal PLC. Last year igus® has renamed its predictive maintenance concept into a whole new product range: smart plastics - "i.Cee".

igus® i.Cee provides predictive maintenance information for e-chain systems and polymer bearings to FIELD system. The dashboard app informs customers about the condition of the e-chain system by advising number of days until the next suggested maintenance. In addition to this predictive lifetime information, the i.Cee app has a feature for sending alerting messages in case of unexpected conditions or upcoming maintenance needs, which can be easily defined by the customer.

## KEY BENEFITS

- Prevent unexpected downtime and related costs by precisely planning upcoming maintenance
- Maximise product lifetime by condition monitoring approach (25 years experience)
- Costs can be minimised through timely replacement of igus components at maximum product life
- The sensor data is provided via the converter to other FIELD system applications
- Maintain machines and equipment protectively before shutdown or quality losses occur
- Increased safety and machine efficiency due to regular detection of the machine's condition
- Unplanned system downtime is avoided by precisely planning upcoming maintenance work

## KEY FEATURES

- With the new FIELD system converter all e-chains@ lifetime and condition data of several applications can be used by other MES / SCADA APPS for giving clear maintenance advice to their customer
- The igus® i.Cee system for energy chains uses smart sensors, in combination with intelligent algorithms, to determine preventive maintenance messages and alarms
- The system detects changes early and prolongs the life of an e-chain system by providing predictive info
- Optional online data analytics for up-to-date IoT cloud service
- Unexpected operating conditions such as blockages, stiffness or broken chains are detected early and communicated with the system control as a switch-off recommendation
- Early information in the case of malfunctions beginning, or unusual conditions, are provided to prevent creeping malfunctions, which can lead to crashes and system downtime
- "On edge" offline functionality
- Full integration in FIELD system

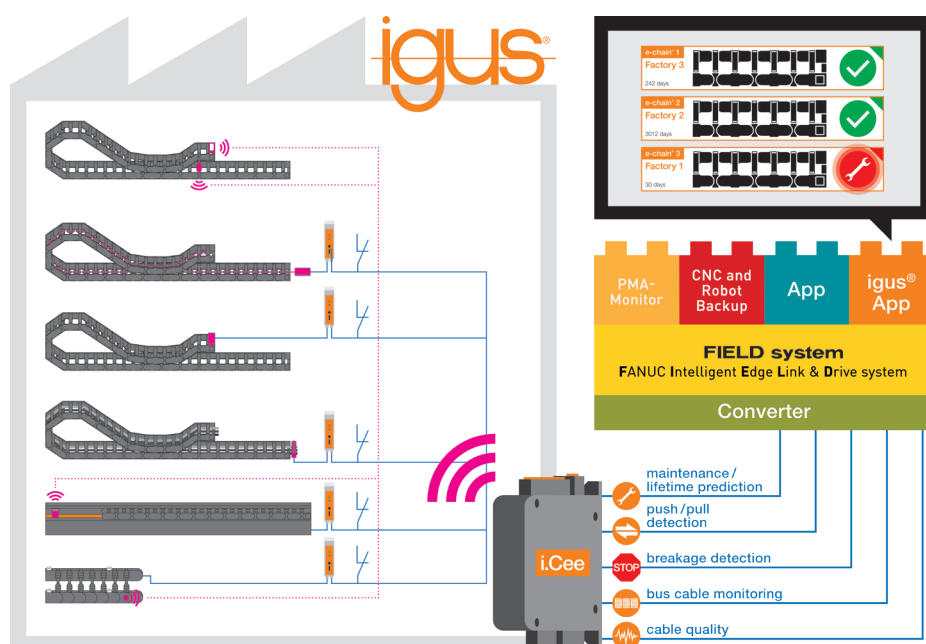


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## APP PREVIEW



Contact igus GmbH (Richard Habering):

+49(0) 2203 9649 9806

rhabering@igus.net

www.igus.eu/smartplastics



WWW.FANUC.EU