Condition monitoring: Push Pull Force Detection System - PPDS

The PPDS-System is an electronic diagnostics tool that performs online monitoring of the forces on the e-chains® in order to avoid system damage and stoppages. Excessive dirt, ice, and snow and foreign objects that fall into the e-chain® can block the system, causing the e-chain® to break. The PPDS system measures the forces on the e-chain® several times per second, and compares the information with the calculated specification. If a variance occurs the system can be automatically stopped with the help of the PPDS system.

- 3 PPDS systems are available
- Easy installation by means of non-interchangeable connectors
- Easy programming using the membrane keypad directly at the device
- Compact housing, strong, corrosion resistant, sealed in accordance with IP 65
- The force limit is programmed in tensile and compression direction
- The plant stops when the force is exceeded
- Custom programmable and event logging in the data memory

Typical industries and applications
- Malfunction-sensitive plants, such as conveyor systems in power plants
- Waste incineration systems
- Chemical plants
- Crane building
- Generally with long travel distances that have high fail-safe requirements
- For long travel applications, if tensile and compressive force monitoring is needed
PPDS | basic | advanced | pro

PPDS basic - safety as standard
So far the realization of Condition Monitoring Systems was limited to large-scale projects, e.g., ship-to-shore cranes. PPDS basic now makes this technology available for all standard industrial appliances. The simple force measuring function conducted at the mounting bracket of the e-chain® new also provides an emergency stop function for e-chains® in gliding applications under 100 m stroke at a reasonable price. ● Low-cost system protection ● Emergency Shutdown or alarming in case of system overload ● Space - saving design ● Floating moving end available for PPDS basic
More information ►www.igus.eu/PPDSbasic

PPDS advanced - for long gliding applications
The system for very long gliding applications with an igus® floating moving arm (used to compensate lateral movements). The force sensor is integrated in the floating moving arm and works in connection with the PPDS evaluation unit. When planning integration of this product, please consult igus®.
More information ►www.igus.eu/PPDSadvanced

PPDS pro - for extreme operational reliability requirements
The system for long travel applications when extreme operational reliability is essential. The PPDS pro analysis unit can analyse force thresholds by position. Here as well, a load cell is installed in the floating moving end. When planning integration of this product, please consult igus®.
More information ►www.igus.eu/PPDSpro

Floating moving end as separate component
● Compensates parallel errors - compensates lateral offset tolerances between moving end and e-chain® system (horizontal ± 25 m)
● Easy assembly, small, light, and affordable
● Compatible with PPDS basic
● Max. acceleration: 2 m/s² (speed depends on e-chain® type)
More information ►www.igus.eu/FTAbasic

Electronic pull/push force monitor with the igus® PPDS system

PPDS system test facility in the igus® lab

Product range
<table>
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<tr>
<th>Part No. floating moving end as separate component</th>
<th>For e-chain® series</th>
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<tbody>
<tr>
<td>FTA.B.01.2500. XX</td>
<td>2500, E2/000</td>
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More series available upon request, please consult igus® for delivery time.
Supplement Part No. with the required e-chain® width-index.
Example: FTA.B.01.2500.05