



## Product information

### INDUcoder LINEAR MOTION TRANSDUCER

#### PLE/PLA 85, PLE/PLA 115 und PCE/PCA 180

Linear motion transducer with incremental encoder or absolute encoder

Measuring range from 2,500 mm to 30,000 mm

Package diameter 85 mm, 115 mm or 180 mm

For incremental encoder ED 58 up to 10,000 pulses per revolution and multi-turn encoder with resolution up to 25 bit

Interfaces: RS422, push-pull, SSI, INTERBUS, ETHERNET Powerlink, PROFIBUS, CANopen and Device Net

## INDUcoder LINEAR MOTION TRANSDUCER now with ETHERNET Powerlink

The linear motion transducer of model range PLE, PLA, PCE and PCA are robust and compact position displacement measuring systems with measuring range up to 30,000 mm.

This measuring system acquires a linear motion by unwinding a high flexible steel cable from a precision cable drum. Spring mechanics keep the stainless steel cable under permanent tension and enable the drum to wind up the cable on reversed moving direction. Due to especially strong springs high accelerations of cable up to  $100 \text{ ms}^{-2}$  are permissible. This allows the application of this transducer in highly dynamical systems. By means of a spindle with adequate pitch according to the cable diameter, the cable drum is tracked so that the stainless steel cable is wound up in a single layer over the whole measuring length. Therefore a high linearity over the full measuring range is guaranteed.

The incremental or absolute encoders with package diameter of 58 mm mounted to the cable drum convert the rotation into electrical signals and make the exact position data available.

The following linear motion transducer with case height and measuring length are selectable by the customer:

<b>PLE 85 / PLA 85</b>	case height	85 mm	and measuring length	2,500 mm
<b>PLE 115 / PLA 115</b>	case height	155 mm	and measuring length	5,000, 7,500, 10,000 and 15,000 mm
<b>PCE 180 / PCA 180</b>	case height	180 mm	and measuring length	20,000 mm and 30,000 mm

The linear motion transducer can be operated with incremental shaft encoders as well as with absolute encoders.

Using the incremental shaft encoder ED 58 / EE 58 resolutions up to  $20 \mu\text{m}$  are achievable. The incremental signals are transmitted via RS422 line driver or push-pull outputs. Supply voltage is 5 VDC TTL or 10 – 30 VDC.

Using absolute encoders resolutions up to  $24 \mu\text{m}$  are achievable. The complex wiring reduces a lot when using encoders with field bus interfaces. Also the more and more used field bus interface ETHERNET Powerlink, with its well known advantages, is available for the **linear motion transducer with mounted ABSOLUT ENCODER EAM 58 ETHERNET Powerlink.**

INDUcoder Messtechnik GmbH  
Kaiserstrasse 316 - 47178 Duisburg - Germany

phone: +49 203 / 57047-0  
fax: +49 203 / 57047-20

Internet: <http://www.inducoder.de>

E-Mail: [info@inducoder.de](mailto:info@inducoder.de)