# RLA 4200

## Robust linear absolute encoders


**THE LINEAR encoder RLA 4200 from Leine Linde prove themselves both reliable and withstanding. Their robust absolute inductive scanning make them suitable in heavy duty industrial processes where accuracy is a prerequisite and tough operating conditions are commonplace.**

The rolling stands in a steel or aluminium mill work in the toughest of environments, with high temperatures, aggressive chemicals, shocks and vibrations. The gap control has to be extremely reliable and accurate, to assure both the quality of the end product and the lowest possible material consumption. The RLA 4200 features an encapsulated inductive absolute linear encoder designed to withstand all challenges provided by this application.

One of the benefits of the RLA 4200 model is that it does not need to be mounted inside a cylinder. It is mounted directly on the hydraulic cylinder of the rolling stand, which makes it easily accessible, both for installation and service.

Thanks to the robust absolute inductive scanning, this linear encoder withstands both shocks and vibrations. Its construction, with a separate air channel for the bellows, eliminates the need for air compression or filtering. Thereby it becomes more cost effective in operations than other solutions.

The RLA 4200 provides an absolute position value to control the position of the rolls, and can be ordered with EnDat or SSI output. EnDat interface works together with Leine Linde fieldbus gateways for PROFIBUS, PROFINET and EtherNet/IP output.

The RLA 4200 is available with measuring lengths 140, 200 and 260 mm to cover the whole process from the roughing mill to the finishing mill.

PROFIBUS®

PROFINET®

EtherNet/IP™

SSI

EnDat™

LEINE LINDE

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# Technical data

| | EnDat | SSI |
|---|---|---|
| **Ingress protection class [IEC 60529]** | IP67 | IP67 |
| **Operating temperature** | -10°C ... + 80°C | -10°C ... + 80°C |
| **Shock** | 200 g | 200 g |
| **Vibration** | 10 g | 10 g |
| **Grating period** | 1000 µm | 1000 µm |
| **Resolution** | 0,1 µm | 0,25 µm |
| **Accuracy within the grating period** | ± 0,5 µm | ± 2 µm |
| **Linearity** | ± 5 µm/m | ± 5 µm/m |
| **Clock pulses per position** | 28 | 28 |

# Dimensions

### RLA 4200 – EnDat/SSI

| Dimension chart | | | |
|---|---|---|---|
| Scale Length | L1 | L tot min | L tot max |
| 140 | 400 | 508 | 648 |
| 200 | 460 | 568 | 768 |
| 260 | 520 | 628 | 888 |