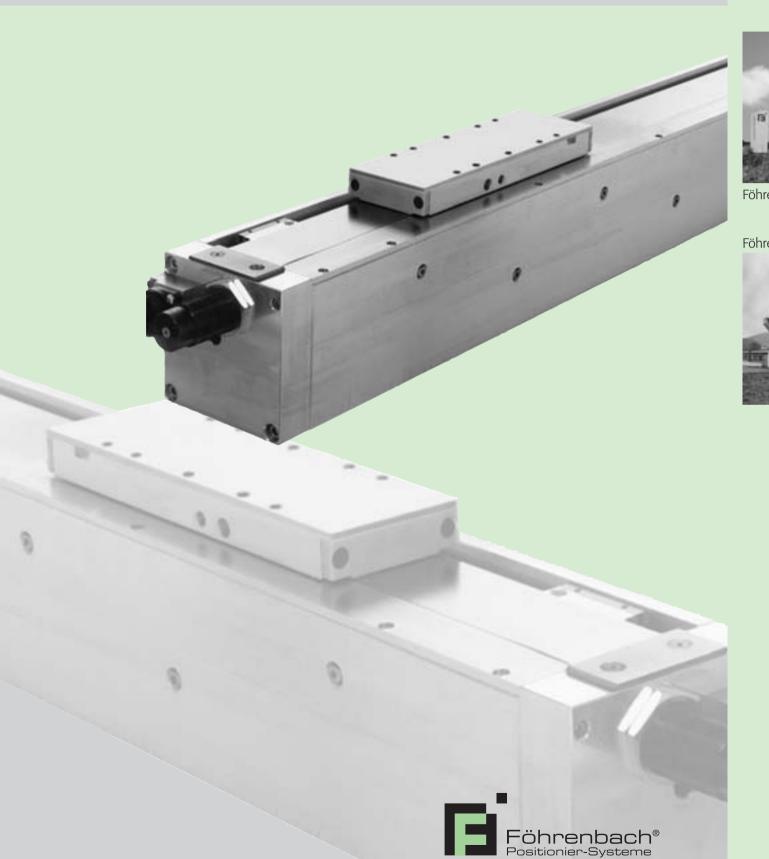
Handling Module, Type LDH

with direct drive



25



Föhrenbach GmbH

Föhrenbach AG



Our range of products

- Plain Bearing Guides
- Dovetail guides
- Flatbed guides
- Co-ordinate tables

Roller Bearing Guides

- Roller and ball bearing guides
- Co-ordinate tables with ball and roller bearings ■ Ball bushing slides

Accessories

- Seals
- Mounting flanges
- Turntables
- Guide rails
- Covers

Rotary Tables

- with stepper motor
- with servo motor
- with direct drive

Control Systems

- Straight line control systems
- Continuous path control systems with integrated PLC

Drives

- Electric motors stepper motors 2 ph./3 ph./5 ph. AC servomotors
- Power amplifiers Amplifiers Servo controllers

The Föhrenbach Group Founded in 1975 by Manfred Föhrenbach, the Group today numbers among the leading producers in the automation systems and machine building branch.

- The wide-spread product line offers nearly all components you need to cover the full spectrum of your special automation technique tasks.
- The large manufacturing range, made possible by our plants located in Löffingen-Unadingen (Germany), Weinfelden (Switzerland) and Sligo (Ireland) and latest production facilities assure permanent high quality.

Shape-tailored complete solutions for almost all branches: Föhrenbach units are on duty worldwide, e.g. for measuring, checking, assorting, palletising, adjusting, milling, boring, grinding, welding, gluing, screwing, riveting,....



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Modification reserved 007/E/0401/BE/1000

Handling Module, Type LDH

with direct drive

The LDH is an extremly compact direct driven linear module. Higly integrated components, optimally tuned to each another, guarantee for high efficiency and operating facility. Design and construction of the LDH assure optimum smoothness of running.

Drive

Electronically commutated 3 phase synchronous linear motor with permanent magnetic secondary part.

Measuring system

Incremental measuring system with optic scanning and resolution up to 0.1 μ m.

Guide

A profile guide rail with ball deflection guarantees for high run-out accuracy, rigidity and loading capacity.

Mounting and add-on options

Standard drilling patterns in inside and outside part cover a large number of the occuring mounting cases.

Connection

Technical data

2) Without load; limited by the mechanism of the guide rails 3) Depending on resolution of measuring system

Dimensions in mm

Max. speed¹⁾

Max. acceleration²⁾

Variation of position³³

Uncertainly of position³⁾

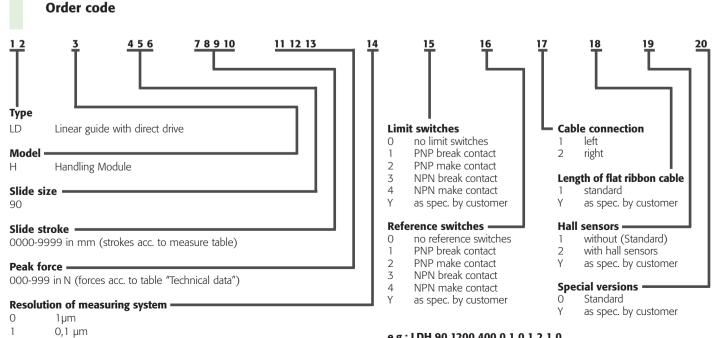
| Туре | stroke | В | B ₁ | L4) | L ₁ ⁴⁾ | L ₂ ⁴⁾ | L5) | L12) | L ₂ 5) | L6) | L ₁ 6) | L ₂ 6) | Н | H, | 0 |
|-------------|--------|----|----------------|------|------------------------------|------------------------------|------|------|-------------------|------|-------------------|-------------------|----|----|----|
| | | | | | | | | | | | | | | | |
| LDH 90 0500 | 500 | 90 | 176 | 940 | 200 | 800 | 990 | 250 | 800 | 1040 | 300 | 900 | 91 | 27 | 25 |
| LDH 90 0600 | 600 | 90 | 176 | 1040 | 200 | 900 | 1090 | 250 | 900 | 1140 | 300 | 1000 | 91 | 27 | 25 |
| LDH 90 0700 | 700 | 90 | 176 | 1140 | 200 | 1000 | 1190 | 250 | 1000 | 1240 | 300 | 1100 | 91 | 27 | 25 |
| LDH 90 0800 | 800 | 90 | 176 | 1240 | 200 | 1100 | 1290 | 250 | 1100 | 1340 | 300 | 1200 | 91 | 27 | 25 |
| LDH 90 0900 | 900 | 90 | 176 | 1340 | 200 | 1200 | 1390 | 250 | 1200 | 1440 | 300 | 1300 | 91 | 27 | 25 |
| LDH 90 1000 | 1000 | 90 | 176 | 1440 | 200 | 1300 | 1490 | 250 | 1300 | 1540 | 300 | 1400 | 91 | 27 | 25 |
| LDH 90 1200 | 1200 | 90 | 176 | 1640 | 200 | 1500 | 1690 | 250 | 1500 | 1740 | 300 | 1600 | 91 | 27 | 25 |
| LDH 90 1400 | 1400 | 90 | 176 | 1840 | 200 | 1700 | 1790 | 250 | 1700 | 1940 | 300 | 1800 | 91 | 27 | 25 |
| LDH 90 1600 | 1600 | 90 | 176 | 2040 | 200 | 1900 | 2090 | 250 | 1900 | 2140 | 300 | 2000 | 91 | 27 | 25 |
| LDH 90 1800 | 1800 | 90 | 176 | 2240 | 200 | 2100 | 2290 | 250 | 2100 | 2340 | 300 | 2200 | 91 | 27 | 25 |
| LDH 90 2000 | 2000 | 90 | 176 | 2440 | 200 | 2300 | 2490 | 250 | 2300 | 2540 | 300 | 2400 | 91 | 27 | 25 |

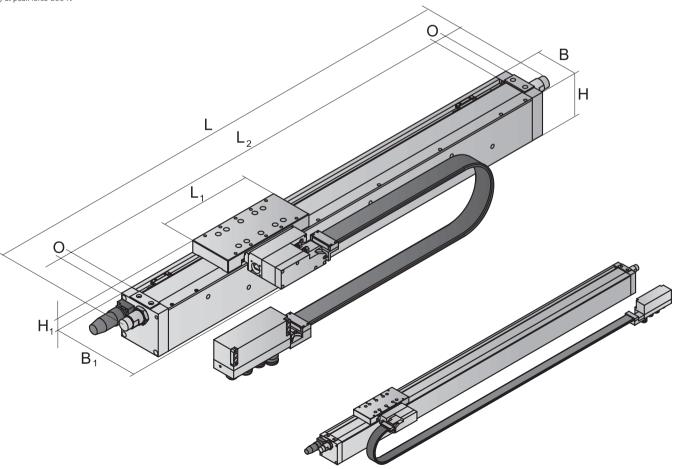
4) at peak force 400 N 5) at peak force 600 N 6) at peak force 800 N

A flat ribbon cable, especially developed for use with Föhrenbach positioning systems, is delivered with it which provides the necessary electric supply lines to the slide. It also includes two flexible tubes for pneumatically operated add-on assemblies.

Application options

Highly dynamic adjusting movements as well as general handling tasks, e.g. in the following fields: laser optics, electronic production, testing and measuring devices, mounting cells, manufacture etc.





e.g.: LDH 90 1200 400 0 1 0 1 2 1 0

1 Vss analogue as specified by customer



1 / 5 / 10

100

0.02

0.04

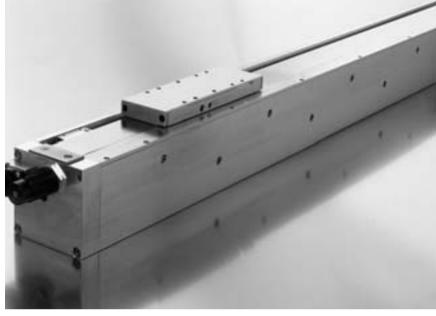
[m/s]

 $[m/s^2]$

[mm]

[mm]

1) Depending on resolution of measuring system (0.1 μ m / 1 μ m / 1 V_{ss}) on the stroke resp.



Driving forces

| Туре | Peak force [N] | Cont. force [N] |
|-----------------|----------------|-----------------|
| LDH 90 XXXX 400 | 400 | 65 |
| LDH 90 XXXX 600 | 600 | 98 |
| LDH 90 XXXX 800 | 800 | 131 |