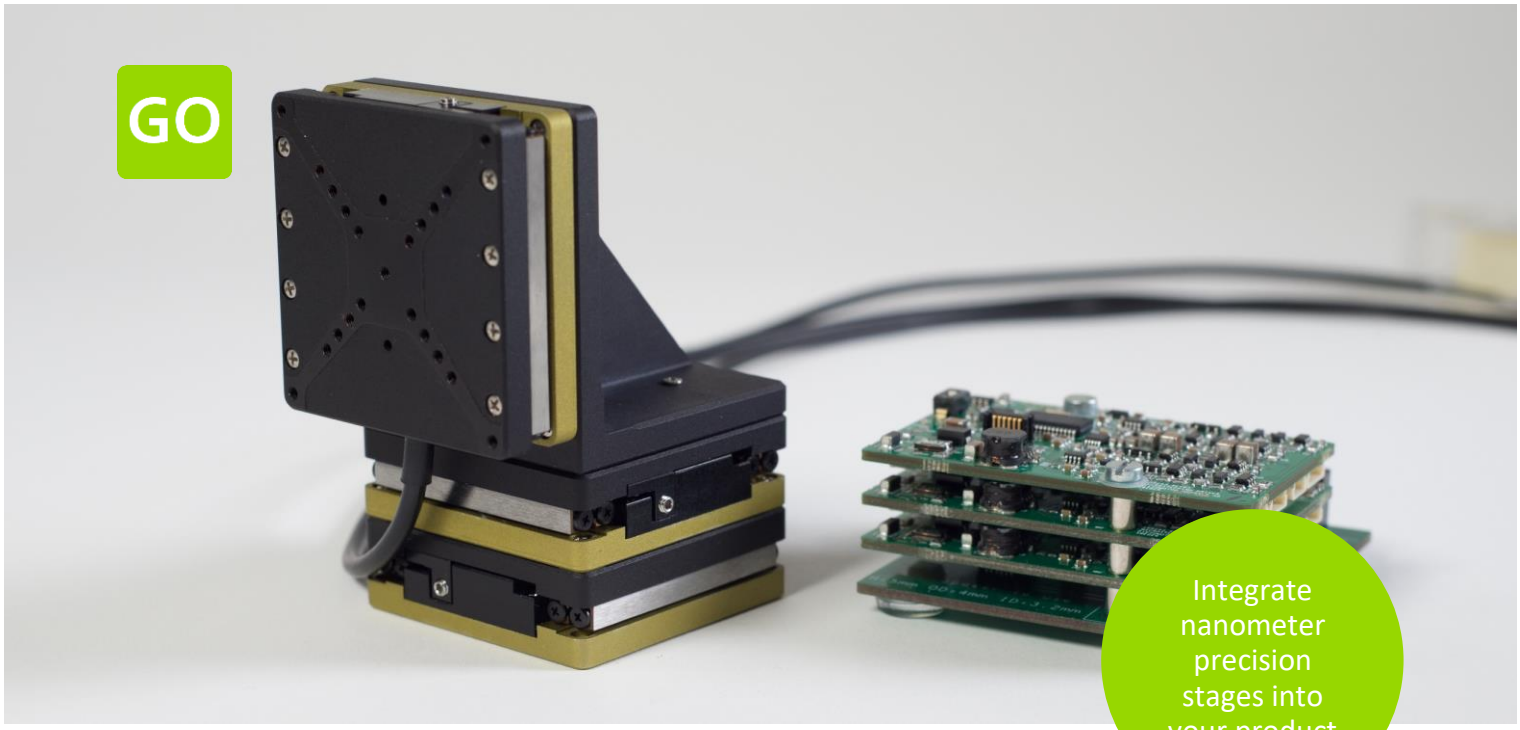


PRECIBEO GO OEM

Fast & Simple OEM Integration

Nanometer Precision over Centimeter Distances

The PRECIBEO GO OEM System allows you to easily move an object from A to B with nanometer precision over centimeter distances. The system is designed for delivering the precision, load capacity and ease of use needed for fast and simple integration into compact OEM solutions.

The high precision linear stages has an operating force of 5 N, lifting up to 500 grams at more than 5 mm/s. The stages provide smooth motion, fast step & settling times and are self-locking at rest, allowing you to hold position when power is off.

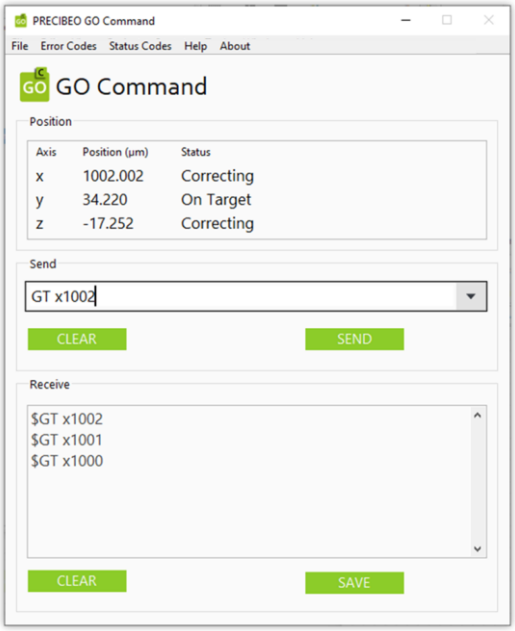
Get Started with the Development Kit

Integrate one or more stages into your product and control the stages simultaneously with easy to use commands. For instance, to reach the position (x=1000, y=100, z=0.010)µm in a 3-stage system, simply send the GoTo command “GT x1000 y100 z0.01”.

Get started with the GO Command App and the Development Kit, where the D1E Mini Driver Board is stacked on a Breakout Board with Power Supply and RS485/USB Converter Cable. Just plug the Power Supply into the wall socket and the RS485/USB cable into your computer and you are ready to GO!

Modular Multi Axis System for Integration

- 5 N Push / Pull Force
- Lifts up to 0,5 kg at >5 mm/s
- Fast Step & Settling Times
- Point-to-Point Motion with PID
- Trapezoidal Velocity Profiles
- Smooth Continuous Motion



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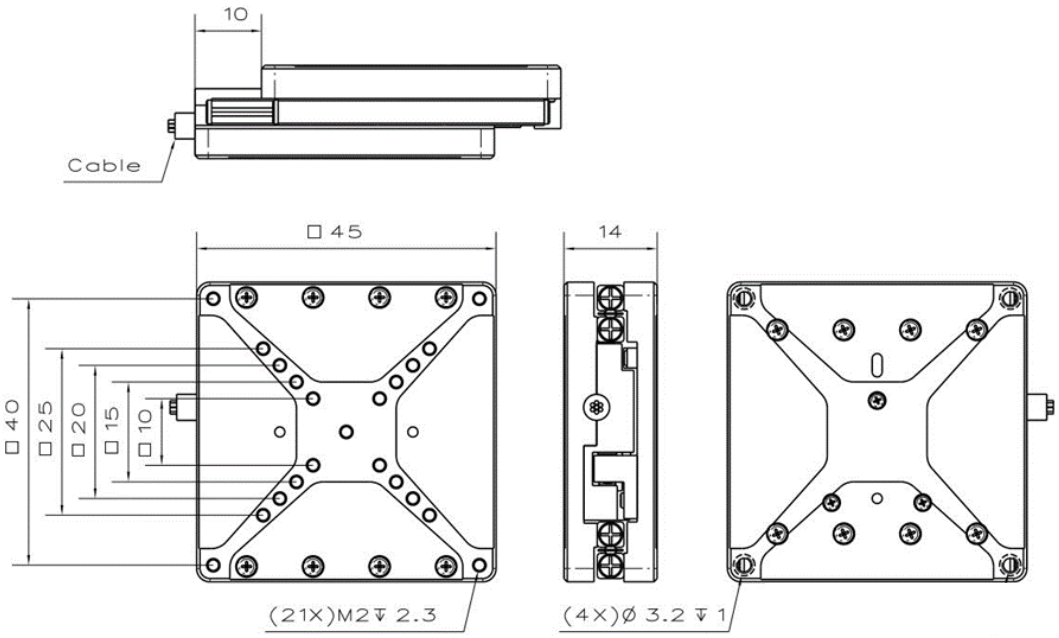
MAKING PRECISION AVAILABLE



Technical Specification

MODEL	GO STAGE LLS4545 OEM
POSITIONING	
TRAVEL (X)	20 mm (Stages with longer travel are available on request)
POSITION SENSOR	Optical Encoder
SENSOR RESOLUTION	2 nm
MIN INCREMENTAL MOTION	2 nm
BIDIRECTIONAL REPEATABILITY	+- 100 nm (typ. @ +- 10mm travel)
STRAIGHTNESS & FLATNESS	+- 2 µm (typ.)
PITCH	+- 150 µrad (typ.)
YAW	+- 150 µrad (typ.)
MOTION	
MAX OPERATING FORCE (PUSH / PULL)	5 N (min.)
HOLDING FORCE (WHEN POWER IS OFF)	6 N (min.)
MAX SPEED (AT NO LOAD)	8 mm/s
MAX SPEED (AT MAX OPERATING FORCE)	5 mm/s (min.)
DRIVE TYPE	
MOTOR TYPE	Piezo Drive
MECHANICAL	
MAX LOAD (IN X,Y OR Z DIRECTION)	0,5 kg
GUIDE TYPE	Crossed Roller Bearings
SIZE	45x45x14 mm
WEIGHT (W/O CABLE & CONNECTOR)	75 g (+-10%)
CONNECTIONS	
CABLE	2 m cable (+-5%)
MOTOR DRIVE CONNECTOR	5-pole, JST SM05B-SRSS-TB
SENSOR COMMUNICATION CONNECTOR	6-pole, JST SM06B-SURS-TF
CONTROLLER	D1E Mini Controller Board
MISCELLANEOUS	
OPERATING TEMPERATURE	0-50 °C
MATERIAL	Aluminum

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MODEL	D1E MINI CONTROLLER BOARD
OPERATION	
AXES	1 board controls one axis
COMMAND SET	PRECIBEO ASCII Rapid
COMMUNICATION INTERFACE	RS485 (ASCII Commands, 115.2 kbps)
CONNECTIONS	
BOARD TO BOARD POWER AND RS485 CONNECTOR*	6-pole, ERNI MicroStac 114711
CABLE TO BOARD POWER CONNECTOR*	2-pole, JST SM02B-SRSS-TB
CABLE TO BOARD RS485 CONNECTOR*	3-pole, JST SM03B-SRSS-TB
MISCELLANEOUS	
OPERATING TEMPERATURE	0-50 °C
OVERHEAT PROTECTION	Motion Stopped at 75 °C
POWER SUPPLY	48 VDC, 5W (48 VDC +-5%)
SIZE	39x59x10 mm

DK-LLS4545 Development Kit.

AS-LLS4545 Additional Stage Kit.

VM-LLS4545 L-Bracket.

Order Information

Please contact us by phone (+46 18 700 13 40) or email (sales@precibeo.com) for any enquiries.

PRODUCT	DESCRIPTION
DK-LLS4545	Development Kit including: • One GO Stage LLS4545 OEM with Cable • One Breakout Board with Power Supply and RS485/USB Cable • One stackable D1E Mini Controller Board mounted on the Breakout Board
VM-LLS4545	One L-Bracket for vertical mounting of the stages, e.g. YZ-configuration, including: • 8 M2 screws for mounting two stages to the L-Bracket.
AS-LLS4545	Additional Stage Kit including: • One GO Stage LLS4545 OEM with Cable • One stackable D1E Mini Controller Board with Screws • 4 M2 screws for mounting two stages together (e.g. XY-configuration)

Disclaimer: Specifications of the product do not constitute a warranty of the properties. They are intended for information purposes only and are subject to change.

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