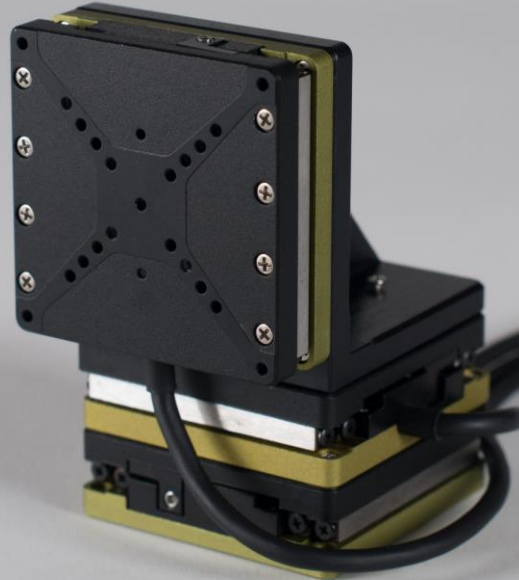


GO



Lift 0,5 kg @  
5 mm/s with  
nanometer  
resolution

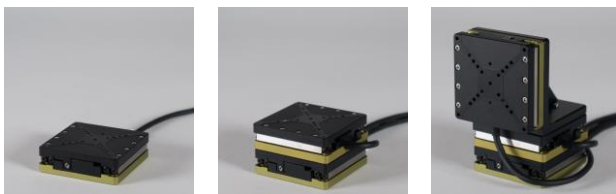
## PRECIBEO GO Stages

# Precise & Powerful Piezo Stages

### Nanometer Resolution Motion for Semicon & LifeSci

The PRECIBEO GO Stages move with nanometer precision over centimeter distances, lift up to 500 grams and are self-locking at rest.

The PRECIBEO GO Stages come with an integrated position sensor and are designed for delivering the precision, load capacity and ease of use needed for fast and simple set up.



Choose one, two or three stages together with the optional L-bracket and create your multi axis system. Plug the stage cable connectors into the PRECIBEO GO Controller and you are ready to GO!

### Modular Multi Axis System

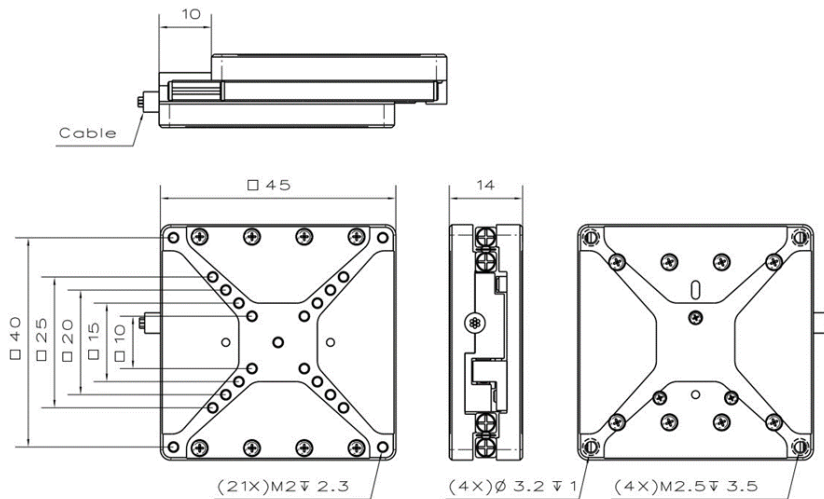
- 5 N Push / Pull Force
- Lifts up to 0,5 kg at >5 mm/s
- 2 nm Minimum Incremental Motion
- Smooth Continuous Motion
- Fast Step & Settling Times
- Self-Locking at Rest



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 **PRECIBEO**  
MAKING PRECISION AVAILABLE



## Technical Specification

MODEL	GO STAGE LLS4545	GO STAGE LLS6545	GO STAGE LLS8545
<b>POSITIONING</b>			
TRAVEL (X)	20 mm	35 mm	50 mm
POSITION SENSOR	Optical Encoder		
SENSOR RESOLUTION	2 nm		
MIN INCREMENTAL MOTION	2 nm		
BIDIRECTIONAL REPEATABILITY	+/- 100 nm (typ. @ full travel)		
STRAIGHTNESS & FLATNESS	+/- 2 µm (typ.)		
PITCH	+/- 150 µrad (typ.)		
YAW	+/- 150 µrad (typ.)		
<b>MOTION</b>			
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.)		
<b>DRIVE TYPE</b>			
MOTOR TYPE	Piezo Drive		
<b>MECHANICAL</b>			
MAX LOAD (IN X,Y OR Z DIRECTION)	0,5 kg		
GUIDE TYPE	Crossed Roller		
SIZE	45x45x14 mm	65x45x14 mm	85x45x14 mm
WEIGHT (W/O CABLE & CONNECTOR)	75 g (+-10%)	105 g (+-10%)	135 g (+-10%)
<b>MISCELLANEOUS</b>			
CABLE	2 m cable (+-5%)		
MATERIAL	Anodized Aluminum		

- 10 N versions available on request, with 10 N (min.) Max Operating Force, 11 N (min.) Holding Force, 8 mm/s Max Speed at No Load, 1 mm/s (min.) Max Speed at Max Operating Force.
- High vacuum versions for  $10^{-6}$  mbar are available on request.

## Order Information

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

PRODUCT	DESCRIPTION
<b>GO-LLS4545</b>	One GO Stage LLS4545 with Cable and Connector including: <ul style="list-style-type: none"> <li>• 4 M2 screws for mounting the stage to a substrate.</li> </ul>
<b>GO-LLS6545</b>	One GO Stage LLS6545 with Cable and Connector including: <ul style="list-style-type: none"> <li>• 4 M2 screws for mounting the stage to a substrate.</li> </ul>
<b>GO-LLS8545</b>	One GO Stage LLS8545 with Cable and Connector including: <ul style="list-style-type: none"> <li>• 4 M2 screws for mounting the stage to a substrate.</li> </ul>
<b>VM-LLS4545</b>	One L-Bracket for vertical mounting of the stages, e.g. YZ-configuration, including: <ul style="list-style-type: none"> <li>• 8 M2 screws for mounting two stages to the L-Bracket.</li> </ul>

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.

# GO Stage HV

## High Vacuum

## Precision Motion

### Nanometer Resolution Motion in High Vacuum

The PRECIBEO GO Stage HV is built for high vacuum environments down to  $10^{-6}$  mbar. Each stage is fitted with a vacuum side cable (PTFE coated wires in a braided metal sleeve) ended with a female D9SUB connector. Each stage also comes with an air side female D9SUB to ix-Industrial cable.

Connect the vacuum side and air side cables to your D9SUB feedthrough, the air side ix-connector to the GO Controller, and you are ready to GO!



### Technical Specification

MODEL (GO STAGE)	LLS4545 HV	LLS6545 HV	LLS8545 HV
<b>POSITIONING</b>			
TRAVEL (X)	20 mm	35 mm	50 mm
POSITION SENSOR	Optical Encoder		
SENSOR RESOLUTION	2 nm		
MIN INCREMENTAL MOTION	2 nm		
BIDIRECTIONAL REPEATABILITY	+/- 100 nm (typ. @ full travel)		
STRAIGHTNESS & FLATNESS	+/- 2 $\mu$ m (typ.)		
PITCH	+/- 150 $\mu$ rad (typ.)		
YAW	+/- 150 $\mu$ rad (typ.)		
<b>MOTION</b>			
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.)		
<b>DRIVE TYPE</b>	Piezo Drive		
<b>MOTOR TYPE</b>	Piezo Drive		
<b>MECHANICAL</b>			
MAX LOAD (IN X,Y OR Z DIRECTION)	0,5 kg		
GUIDE TYPE	Crossed Roller		
SIZE	45x45x14 mm	65x45x14 mm	85x45x14 mm
WEIGHT (W/O CABLE & CONNECTOR)	75 g (+-10%)	105 g (+-10%)	135 g (+-10%)
<b>MISCELLANEOUS</b>			
VACUUM SIDE CABLE	0,5 m cable (+-5%) with f. D9SUB connector		
AIR SIDE CABLE	2 m cable (+-5%) with f. D9SUB & ix Industrial™ connectors		
MATERIAL	Aluminum		

### Order Information

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

PRODUCT	DESCRIPTION
<b>GO-LLS4545HV</b>	One GO Stage HV LLS4545 with Cable and f. D9SUB Connector including: <ul style="list-style-type: none"> <li>Air side cable with f. D9SUB &amp; ix Industrial™ connectors.</li> <li>4 M2 screws for mounting the stage to a substrate.</li> </ul>
<b>VM-LLS4545HV</b>	One L-Bracket for vertical mounting of the stages, e.g. YZ-configuration, including: <ul style="list-style-type: none"> <li>8 M2 screws for mounting two stages to the L-Bracket.</li> </ul>

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.