Z CALC 2.2 Quick Guide

Toric & non-toric IOL calculation and ordering with Z CALC®

Seeing beyond

Z CALC:
Z CALC is a software intended to support a user in selecting intraocular lenses by calculation of intraocular lens power and predicted residual refraction. Z CALC can also be used for IOL power calculations for patients with previous LASIK, LASEK and PRK treatments.

The new Z CALC is compatible with the following browsers:
Microsoft Edge Version 18 or higher, Apple Safari Version 13 or higher, Mozilla Firefox Version 69.0 or higher (PC/Mac), Google Chrome Version 76.0 or higher (PC/Mac), Internet Explorer Version 11, Google Chrome Mobile for Android Version 77.0 or higher and Apple Safari mobile 12.1 for iPhone/iPad Version 12.4 or higher.

Preconditions for use:
Please ensure that your pop-up blocker is deactivated. For detailed instructions on how to deactivate the pop-up blockers, please review our Z CALC 2.2 Quick Guide Addendum. Before using the product, please consult the instructions for use.

1. Region Selection / Terms & Condition / Data Protection

- Select region.
- Please read "Terms and Conditions of Use" and "Data Protection guidelines". Click both checkboxes.
- Click "Agree and continue".

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2. Patient Information

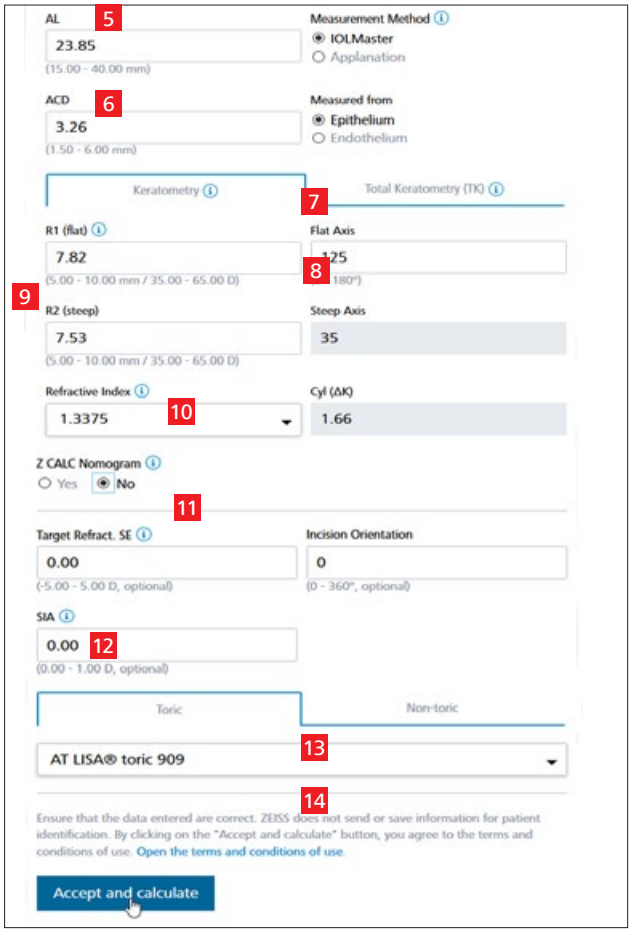
1 Enter patient ID (Please do not enter the patient's name!).

2 Select whether or not patient has undergone a previous LASIK/LASEK/PRK laser vision correction procedure:
- LVC status must be selected for both eyes.
- If yes; be sure to enter whether myopic or hyperopic treatment has occurred.

3 Enter biometry examination date (optional).

4 Enter surgery date (optional).

3. Calculation Screen



5 Enter axial length from the patient's record. Select IOLMaster for measurements with an optical biometry device or immersion ultrasound. Select applanation for measurements with applanation ultrasound.

6 Enter the ACD from the patient's record and indicate if it has been measured from the epithelium or endothelium.

7 Please choose if you want to enter standard (K) Keratometry values or "Total Keratometry (TK)" values, if you want to use the TK values incorporating the posterior corneal curvature measurements from the IOLMaster 700.

8 Enter Flat Axis.

9 Enter the K- or TK-readings either in dpt or radii in mm.

10 Select the Refractive Index from the drop down menu.

11 Select Z CALC Nomogram*, if desired.

12 Insert target refraction, incision orientation and SIA for personalized calculation (optional).

13 Choose between toric or non-toric IOL calculation.

14 Select the desired IOL from the drop-down menu.

Click "Accept and calculate".

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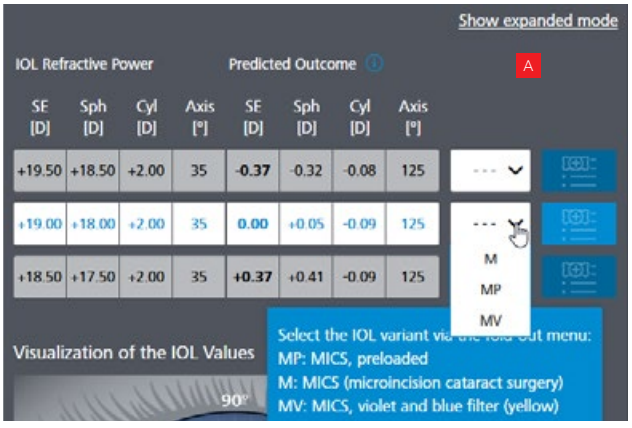
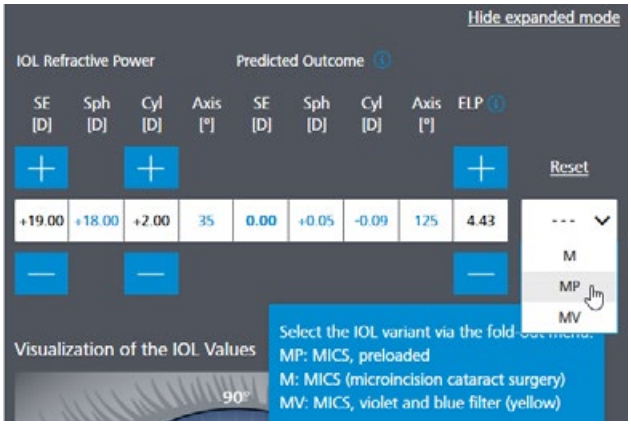
4. Result Screen

Standard Mode



Expanded Mode



A You may switch between "Standard Mode" or "Expanded Mode" by clicking the desired mode (top right corner).

- Standard Mode: Z CALC presents three calculations from which you may choose the most appropriate based on your requirements.
- Expanded Mode: You may vary Spherical Equivalent (SE) and cylinder powers (toric IOLs only) to review associated residual refraction and Effective Lens position (ELP).

** Mathematical compensation for the posterior corneal astigmatism (first implemented with v2.0).*

5. IOL type selection

15 Choose between different IOL types from the drop-down menu from the generated readings.

16 Click on the "Add to wish list" button adjacent to the drop-down menu to transfer the result to the wish list.

M **M**ICS (Micro Incision Cataract Surgery), suitable for 1.8mm incision size

MP **M**ICS (Micro Incision Cataract Surgery), suitable for 1.8mm incision size & **P**reloaded

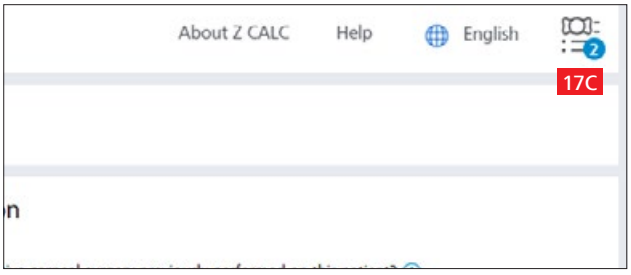
MV **M**ICS (Micro Incision Cataract Surgery), suitable for 1.8mm incision size & **V**iolet and blue filtering (yellow)

P Fully **P**reloaded in injector

PY Fully **P**reloaded in injector & **Y**ellow blue-light filtering

"-" No variant

6. Navigate to the Wishlist/PDF-Printouts



17A Click on Save as PDF button to save the selected results as PDF directly from the calculation screen.

17B Click on wish list button at the bottom. This will lead you to the second screen, where you can select lenses for ordering or PDF-print-outs.

OR

17C Click on the wish list symbol in the right upper corner, which will lead you to the same screen as the wish list button at the bottom of the page.

7. Create PDF printouts for selected IOLs or order via e-mail

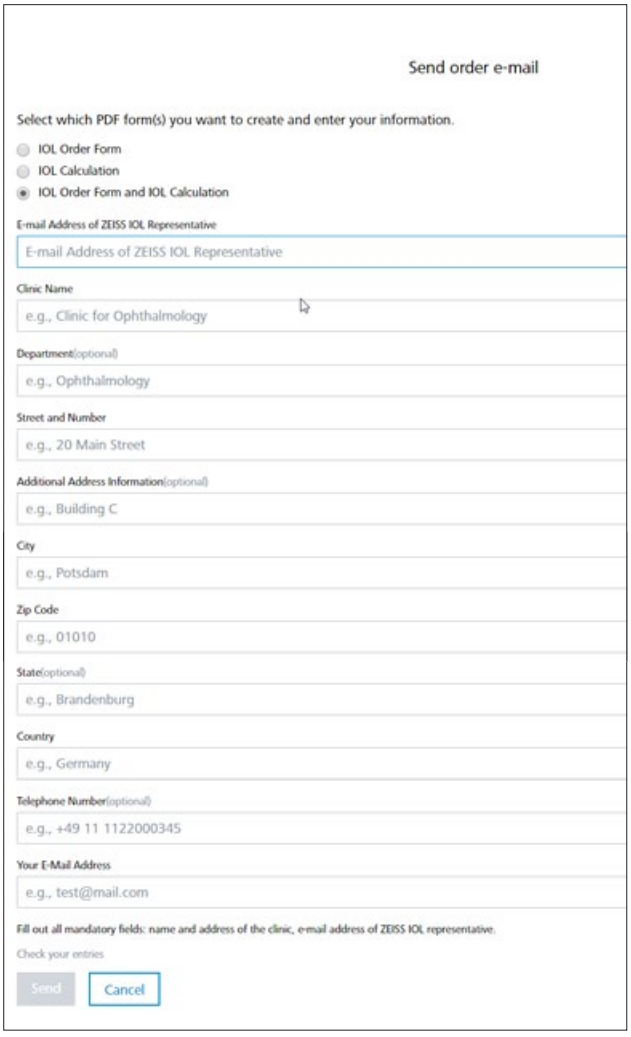
18 Select the desired quantity for the IOL.

19A Click "Order by E-Mail" (to directly send your order to the local ZEISS sales representative).

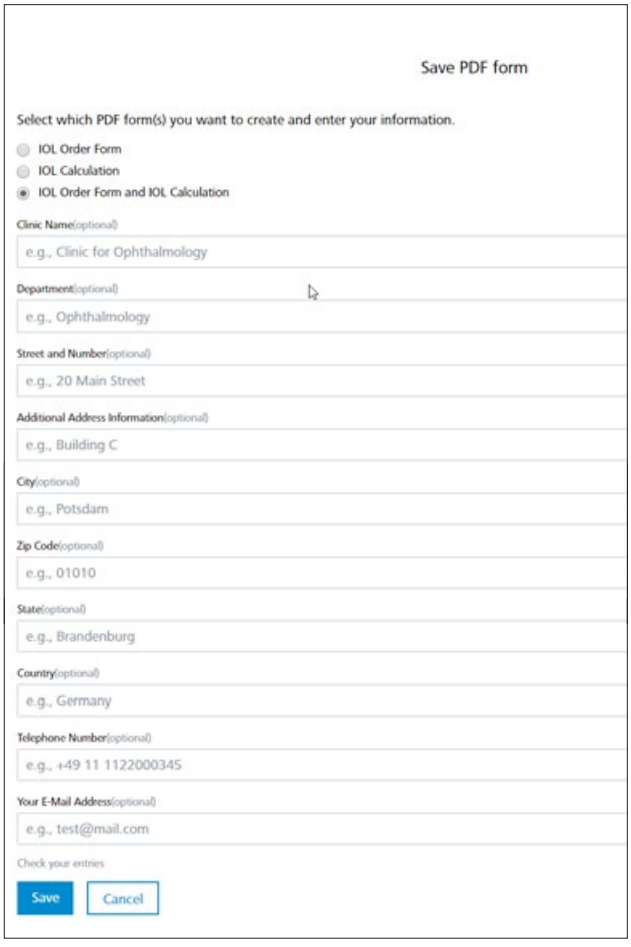
OR

19B Click "Save as PDF" to create a PDF with the calculation results and ordering information of the selected IOLs in the wish list.

8. Order by e-mail or create PDF printouts



For Ordering



For Printing

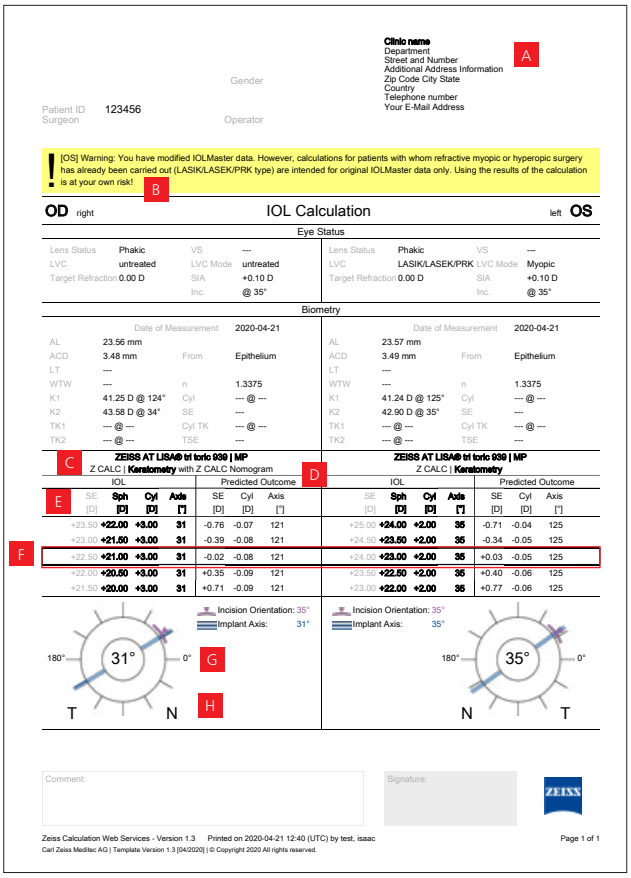
For Ordering:

- Enter all the relevant details including clinic name, department, address, phone number and email address (your local ZEISS partner's email address is filled in automatically based on your country selection).
- By hitting the "Send" button, an email with your order is sent out to the local ZEISS business partner (automatically filled based on your country selection).

For Printing and/or manually faxing

- For saving as PDF, you don't need to enter your data (data entry is only required for direct ordering).
- Please just scroll down and click "Save", the PDFs will be created and open in a new tab window in your browser.

Note: Please ensure the pop-up blocker is deactivated in your browser. Otherwise please follow the instruction in the addendum: Z CALC 2.2 Quick Guide Addendum**.**



Clinic name
Department
Street and Number
Additional Address Information
Zip Code City State
Country
Telephone number
Your E-Mail Address

Gender

Patient ID 123456
Surgeon

Operator

[OS] Warning: You have modified IOLMaster data. However, calculations for patients with whom refractive myopic or hyperopic surgery has already been carried out (LASIK/LASEK/PRK type) are intended for original IOLMaster data only. Using the results of the calculation is at your own risk!

OD right — IOL Calculation — left **OS**

Eye Status

Lens Status	Phakic	VS	---	Lens Status	Phakic	VS	---
LVC	untreated	LVC Mode	untreated	LVC	LASIK/LASEK/PRK	LVC Mode	Myopic
Target Refraction	0.00 D	SIA	+0.10 D	Target Refraction	0.00 D	SIA	+0.10 D
		Inc.	@ 35°			Inc.	@ 35°

Biometry

Date of Measurement	2020-04-21			Date of Measurement	2020-04-21		
AL	23.56 mm			AL	23.57 mm		
ACD	3.48 mm	From	Epithelium	ACD	3.49 mm	From	Epithelium
LT	---			LT	---		
WTW	---	n	1.3375	WTW	---	n	1.3375
K1	41.25 D @ 124°	Cyl	--- @ ---	K1	41.24 D @ 125°	Cyl	--- @ ---
K2	43.58 D @ 34°	SE	---	K2	42.90 D @ 35°	SE	---
TK1	--- @ ---	Cyl TK	--- @ ---	TK1	--- @ ---	Cyl TK	--- @ ---
TK2	--- @ ---	TSE	---	TK2	--- @ ---	TSE	---

ZEISS AT LISA® tri toric 939 | MP
Z CALC | **Keratometry** with Z CALC Nomogram

IOL				Predicted Outcome		
SE [D]	Sph [D]	Cyl [D]	Axis [°]	SE [D]	Cyl [D]	Axis [°]
+23.50	**+22.00**	**+3.00**	**31**	-0.76	-0.07	121
+23.00	**+21.50**	**+3.00**	**31**	-0.39	-0.08	121
+22.50	**+21.00**	**+3.00**	**31**	-0.02	-0.08	121
+22.00	**+20.50**	**+3.00**	**31**	+0.35	-0.09	121
+21.50	**+20.00**	**+3.00**	**31**	+0.71	-0.09	121

Incision Orientation: 35°
Implant Axis: 31°

ZEISS AT LISA® tri toric 939 | MP
Z CALC | **Keratometry**

IOL				Predicted Outcome		
SE [D]	Sph [D]	Cyl [D]	Axis [°]	SE [D]	Cyl [D]	Axis [°]
+25.00	**+24.00**	**+2.00**	**35**	-0.71	-0.04	125
+24.50	**+23.50**	**+2.00**	**35**	-0.34	-0.05	125
+24.00	**+23.00**	**+2.00**	**35**	+0.03	-0.05	125
+23.50	**+22.50**	**+2.00**	**35**	+0.40	-0.06	125
+23.00	**+22.00**	**+2.00**	**35**	+0.77	-0.06	125

Incision Orientation: 35°
Implant Axis: 35°

Comment:

Signature:

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A Clinic-specific information (Optional).

B Warning for patients with previous refractive surgery.

C Name and type of the lens.

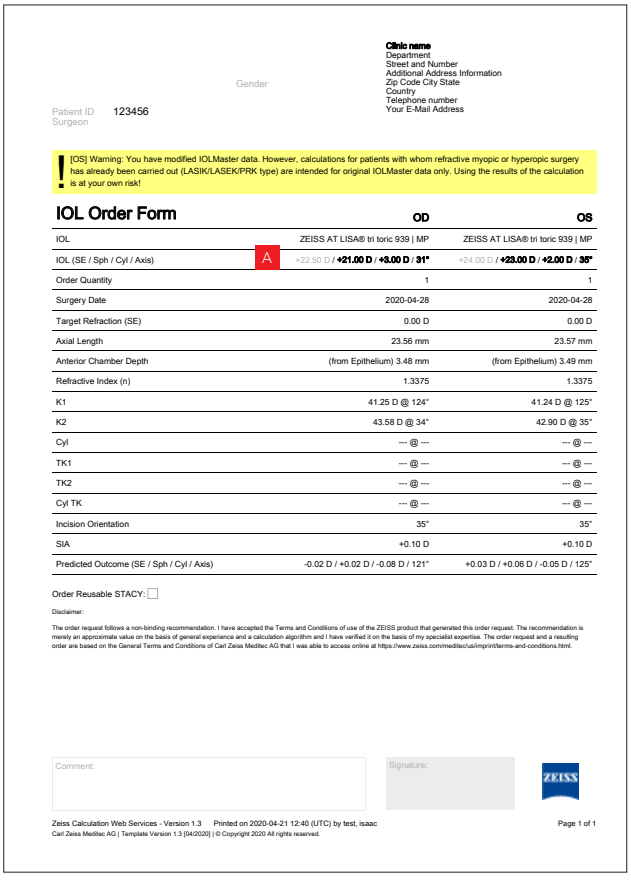
D Formula and type of mesaurement (Keratometry or Total Keratometry).

E Labeled values on the product package of the calculated lenses are highlighted with bold font and not labeled ones greyed out.

F Selected lenses from the wishlist for OD and OS.

G Eye schematic with main incision position and implant axis for toric IOLs.

H Anatomical position.



Clinic name
Department
Street and Number
Additional Address Information
Zip Code City State
Country
Telephone number
Your E-Mail Address

Gender

Patient ID 123456
Surgeon

[OS] Warning: You have modified IOLMaster data. However, calculations for patients with whom refractive myopic or hyperopic surgery has already been carried out (LASIK/LASEK/PRK type) are intended for original IOLMaster data only. Using the results of the calculation is at your own risk!

IOL Order Form

	OD	OS
IOL	ZEISS AT LISA® tri toric 939 | MP	ZEISS AT LISA® tri toric 939 | MP
IOL (SE / Sph / Cyl / Axis)	+22.50 D / **+21.00 D / +3.00 D / 31°**	+24.00 D / **+23.00 D / +2.00 D / 35°**
Order Quantity	1	1
Surgery Date	2020-04-28	2020-04-28
Target Refraction (SE)	0.00 D	0.00 D
Axial Length	23.56 mm	23.57 mm
Anterior Chamber Depth	(from Epithelium) 3.48 mm	(from Epithelium) 3.49 mm
Refractive Index (n)	1.3375	1.3375
K1	41.25 D @ 124°	41.24 D @ 125°
K2	43.58 D @ 34°	42.90 D @ 35°
Cyl	--- @ ---	--- @ ---
TK1	--- @ ---	--- @ ---
TK2	--- @ ---	--- @ ---
Cyl TK	--- @ ---	--- @ ---
Incision Orientation	35°	35°
SIA	+0.10 D	+0.10 D
Predicted Outcome (SE / Sph / Cyl / Axis)	-0.02 D / +0.02 D / -0.08 D / 121°	+0.03 D / +0.06 D / -0.05 D / 125°

Order Reusable STACY: ☐

Disclaimer:

The order request follows a non-binding recommendation. I have accepted the Terms and Conditions of use of the ZEISS product that generated this order request. The recommendation is merely an approximate value on the basis of general experience and a calculation algorithm and I have verified it on the basis of my specialist expertise. The order request and a resulting order are based on the General Terms and Conditions of Carl Zeiss Meditec AG that I was able to access online at https://www.zeiss.com/meditec/us/imprint/terms-and-conditions.html.

Comment:

Signature:

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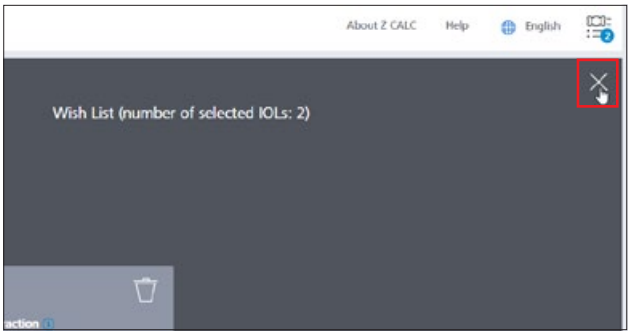
A Based on the labeling of the selected lens, ordering relevant values are displayed bold.

OD: Oculus Dexter
OS: Oculus Sinister
OU: Oculus Uterque
LVC: Laser Vision Correction
SIA: Surgical Induced Astigmatism
Inc: Incision
AL: Axial Length
ACD: Anterior Chamber Depth
LT: Lens Thickness
WTW: White-to-White
K1 & K2: Keratometry Values
TK1 & TK2: Total Keratometry Values
n: Refractive Index
Cyl: Cylinder
ELP: Effective Lens Position

9. Start new calculation



- Close the wish list window by clicking the cross on the top right of the screen.
- Start a new calculation by clicking on the "New calculation" button. Please note, that all input data and the calculation results including the wish list, **will be deleted** when you click this button. If you only want to add another calculation to add to your wish list, do not click "New Calculation".

CE Z CALC 2.2.0

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