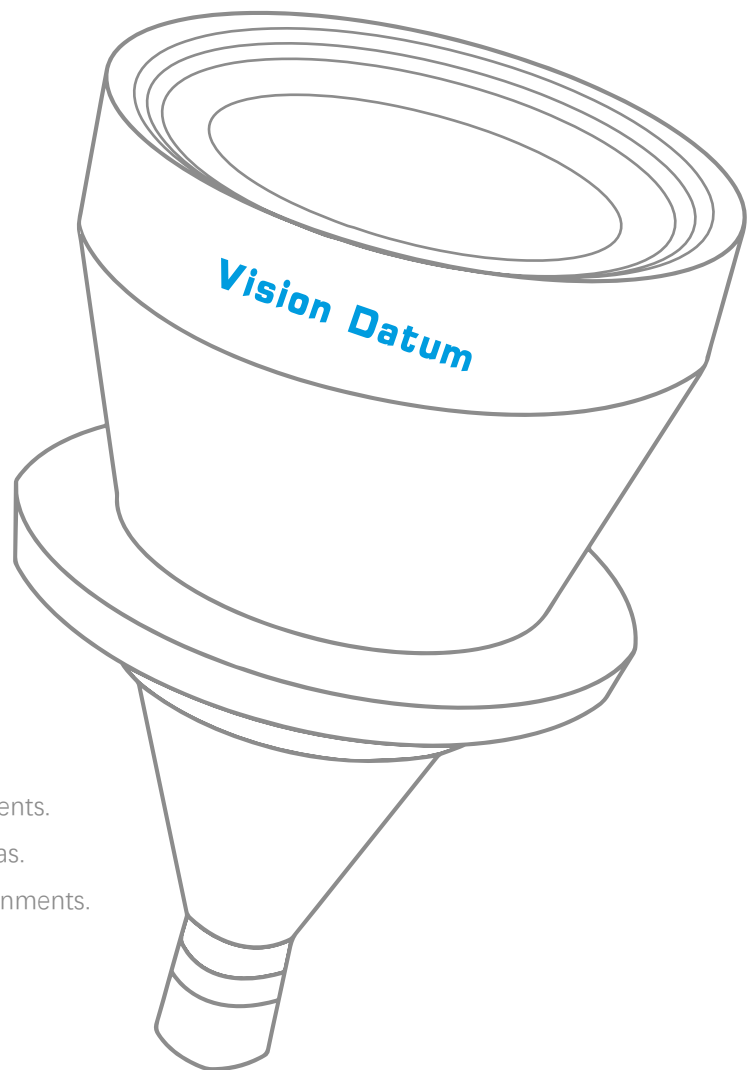




# TELECENTRIC ILLUMINATION TI SERIES

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## MAIN FEATURES

- ◆ **High telecentricity** for thick object imaging.
- ◆ **Nearly zero distortion** for accurate measurements.
- ◆ **Excellent resolution** for high resolution cameras.
- ◆ **Simple and robust design** for industrial environments.

# ABOUT US

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Hangzhou Vision Datum Technology Co.,Ltd. is a leading imaging technology company with 20+ years of expertise in machine vision, optical imaging, and intelligent data processing.

Our flagship telecentric lenses, together with 360° telecentric lenses and telecentric light sources, deliver distortion-free imaging and precise measurement, with stable illumination for advanced automation and inspection.

Beyond standard products, we provide customized optical solutions—including infrared, ultraviolet, and multispectral designs—to tackle the most demanding applications.

Today, Vision Datum telecentric technology powers leading-edge AI vision systems worldwide, enabling high-precision inspection, intelligent recognition, and reliable data acquisition. By combining world-class performance with optimized cost control, we help customers cut costs by 30–50% while achieving top-tier performance and efficiency.

# Telecentric Illumination

## TI Series

### Features

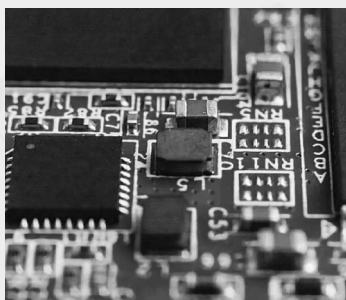
- Complete light coupling, Increased distance between object and illumination source;
- Border effects removal, offer higher edge contrast and higher measurement accuracy;
- Field depth and telecentricity improvement.

### Applications

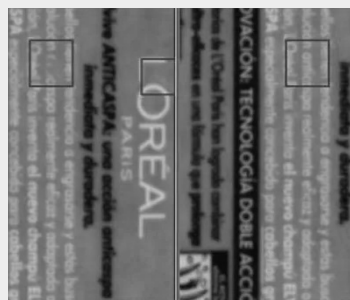
- Inspection of LCD, TP screen, LTO circuit, PCB circuit;
- Appearance inspection of food or medicine.



### Examples of Telecentric Light Images



PBC detection



Printing defect detection

### Common Specifications

Output beam diameter	20-200mm
LED power rating	1W/3W (Standard 1W)
Color	Red 630nm: 3.5V / 350mA Blue 460nm: 3.5V / 350mA Green 520nm: 3.5V / 350mA White 430~680nm: 3.5V/350mA

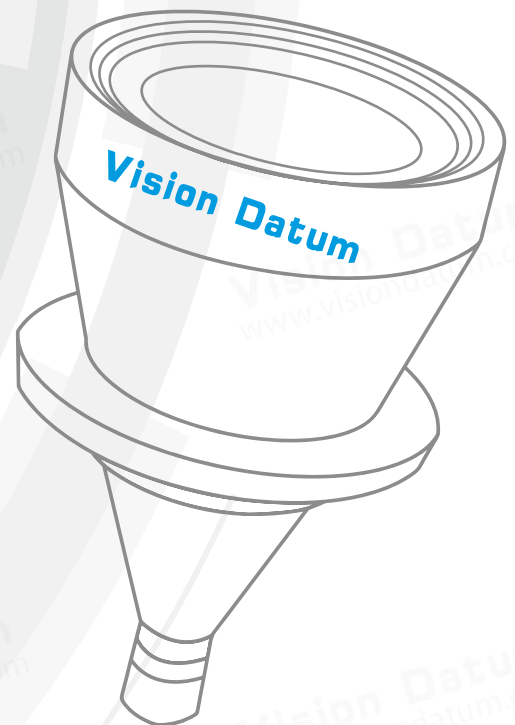
### Explanation of Model Code

VT-TI	20
Series	Illum. Diam.

Model No.	EFL (mm)	Power cons. (W)	Supply Voltage (v)	Max Current (mA)	Effective Illum. Dia. (mm)	Recommend WD (mm)	WD Variation Range (±mm)	Recommended Collimation (°)	Recommended Parallelism (°)
VT-TI-20	100.000	3	3	1000	20	110	50	0.52	0.060
VT-TI-37	79.300	5	24	208	37	56	40	1.73	3.480
VT-TI-50	-	3	3	1000	50	110	34	0.29	0.048
VT-TI-60	131.400	5	24	208	60	90	66	1.05	2.556
VT-TI-70	-	3	3	1000	70	150	77	0.33	0.060
VT-TI-80	160.300	5	24	208	80	120	80	0.86	1.800
VT-TI-80-L	160.300	5	24	208	80	120	80	0.86	1.800
VT-TI-100-L	220.700	5	24	208	100	165	110	0.62	1.740
VT-TI-120	-	3	3	1000	120	250	47	0.55	0.048
VT-TI-152-L	418.992	5	24	208	152	419	209	0.33	0.144
VT-TI-195-L	508.382	5	24	208	195	508	254	0.27	0.173
VT-TI-238-L	753.723	5	24	208	238	751	377	0.18	0.079
VT-TI-300	-	1W / 3W	5V(External Controller)/ 12V(Direct Current)	700	300	155-310	155-310	0.11	0.09

### Dimension (mm)

# TELECENTRIC ILLUMINATION TI DIAGRAM





# VISION DATUM

Machine Vision Expert



Imaging Solutions  
OEM/ODM



Kepler Pro

Software

No Need  
Programming



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