



B.N.C.TOOLING Co.,Ltd.

BNCTOOLING.COM
BNCTOOLINGSHOP.COM

69/90 Hatairat Rd., Minburi ,Minburi Bangkok (Thailand) 10510



Vision Measuring Machine

Zoom Lens

Zoom745

Model	Zoom745
Certificate	CE



Feature

- Precision optical design, high resolution, low distortion, excellent optical performance.
- Super long working distance, big FOV range.
- Multiply coating technology, reduce the stray light and ghost, offering high quality image.
- Anodized metal part, improved endurance.
- Compact and reliable structure.

Application

Widely used in industry inspection, automation, electronic communication, semiconductor, scientific research, etc.



Vision Measuring Machine

Specification

Model	Zoom745	Zoom745C			Zoom745D	Zoom745DC		Zoom745M	Zoom745HC	
Type	Zoom Lens	Coaxial Illumination Zoom Lens			Detented Zoom Lens	Detented With Coaxial Illumination		Motorized Zoom	Motorized Zoom Lens With Coaxial Illumination	
Zoom Control	Manual Zoom	Manual Zoom			Manual Zoom	Manual Zoom		Motorized Zoom	Motorized Zoom	
Optical Magnification	0.7X~4.5X									
Working Distance	90±2mm							80±2mm		
Magnification	0.7X	1.0X	1.5X	2.0X	2.5X	3.0X	3.5X	4.0X	4.5X	
DOF (mm)	1.9	0.952	0.44	0.29	0.23	0.16	0.13	0.12	0.1	
N.A.	0.03	0.042	0.06	0.07	0.07	0.085	0.085	0.085	0.085	
F.No.	11.6	2.1	12.5	14.2	17.8	17.6	20.5	23.5	26.5	
Resolution (um)	11.18	7.99	5.59	4.79	4.79	3.95	3.95	3.95	3.95	
TV Distortion	0.019%	0.035%	0.002%	0.003%	0.004%	0.001%	0.001%	0.002%	0.002%	
FOV (mm)	2/3"	15.71x12.57x9.43	11.00x8.80x6.60	7.33x5.87x4.40	5.50x4.40x3.30	4.40x3.52x2.64	3.67x2.93x2.20	3.14x2.51x1.89	2.75x2.20x1.65	2.44x1.96x1.47
	1/2"	11.43x9.14x6.86	8.00x6.40x4.80	5.33x4.27x3.20	4.00x3.20x2.40	3.20x2.56x1.92	2.67x2.13x1.60	2.29x1.83x1.37	2.00x1.60x1.20	1.78x1.42x1.07
	DxHxV	1/3"	8.57x8.86x5.14	6.00x4.80x3.60	4.00x3.20x2.40	3.00x2.40x1.80	2.40x1.92x1.44	2.00x1.60x1.20	1.71x1.37x1.03	1.50x1.20x0.90
Max.Sensor Size	2/3"									
Mount	C-Mount									

Function

Coaxial Illumination

1. Infinity parallel incident light, with shadow-free and uniform illumination.
2. Coaxial illumination structure ensure even illumination.

Detented zoom lens

1. Mechanical positioning structure, high accuracy in zoom and repetitive positioning
2. 15-divided points for mechanical positioning
3. High hardness alloy material, for a long lifespan; Precision mechanical structure.

Motorized Zoom

1. High speed in zoom and focus and high accuracy in repetitive positioning; Imported DC servo motor, closed loop control.
2. Single or double motor control system via 9-PIN RS232.
3. Stable quality performance even in the strong vibration environment.

Fine-focus Device

1. Used in narrow space, adjust fine-focus part for focusing on different height surface of parts, no need to change WD;
2. Fine focus range: 3mm-12mm;
3. Manual and motorized structure.



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5. Order Code# of Linear Scales

Sinowon Precision Linear scales of Optical Measuring Machines									
Working Length (mm)	50	100	150	200	250	300	400	500	600
Resolution 1um	SG1-050	SG1-100	SG1-150	SG1-200	SG1-250	SG1-300	SG1-400	SG1-500	SG1-600
Resolution 0.5um	SG0.5-050	SG0.5-100	SG0.5-150	SG0.5-200	SG0.5-250	SG0.5-300	SG0.5-400	SG0.5-500	SG0.5-600
Resolution 0.1um	SG0.1-050	SG0.1-100	SG0.1-150	SG0.1-200	SG0.1-250	SG0.1-300	SG0.1-400	SG0.1-500	SG0.1-600

6.Scales Connector pin functions:

Pin No.	Signal	Signal Wire Color	Type	Current Spec
1	+5V	Red	Input	35mA
2	0V	Orange	Input	35mA
3	A	Yellow	Output	4mA
4	B	Green	Output	4mA
5	R	Brown	Output	4mA
6	—	—	—	—
7	—	—	—	—
8	—	—	—	—
9	FG	Silver	—	—