

*1" Megapixel Anti-Vibration and Shock*  
**NEW** Ruggedized Megapixel Lenses  
**HC-V SERIES**

**High Resolution lens**

Kowa's new HC-V series is made for use in high vibration and high shock environments. With a design based on Kowa's standard 1" HC lenses, this new ruggedized megapixel lens series is ideal for applications that require increased durability and high optical performance.



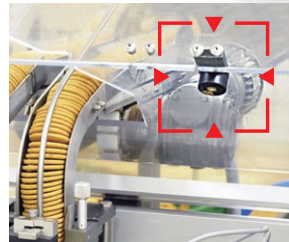
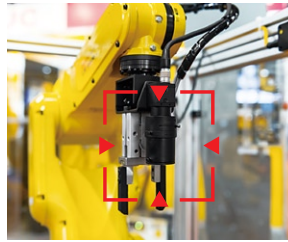
**Features**

- For megapixel applications requiring a sensor size of 1" ( $\Phi 16\text{mm}$ ).
- Unique mechanical design to guard against strong vibration and shock.
- Two way reversible nut is utilized to tightly lock the focus adjustment ring in place.
- All internal glass elements are glued to the inside housing to improve stability.
- Interchangeable iris plates are used to select the F-stop.

# HC-V SERIES

## I. Background

Lenses used in vision systems for manufacturing, quality inspection, packaging, and robotics applications are often placed in environments that directly or indirectly produce strong vibration and shock. Due to an increasing demand for more durable high quality optics, Kowa has developed a brand new megapixel anti-shock and vibration HC-V lens series designed for ruggedized use.



## II. Specifications

1. The conventional locking screw system for fixing adjustable iris blades has been replaced with a system that utilizes robust interchangeable iris plates to set the F-Stop.

*Variable step up rings*

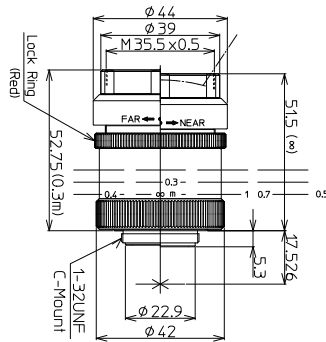


2. The conventional locking screw system for fixing the focus ring position has been replaced with a system that utilizes a two way reversible nut to lock in the focus position.



3. All internal lens elements are glued together for maximum stability.

*Two way Reversible nut*



**NEW**

**LM12HC-V**

1" 2/3" 1/1.8" 12.5mm **FIXED** **MEGA** **C-mt** **METAL**  
Fixed Focal Megapixel C-mount Metal Body

Model	LM8HC-V	LM12HC-V	LM16HC-V	LM25HC-V	LM35HC-V	LM50HC-V
Focal Length (mm)	8	12.5	16	25	35	50
Image Size (mm)	12.8×9.6 (Φ16)	12.8×9.6 (Φ16)	12.8×9.6 (Φ16)	12.8×9.6 (Φ16)	12.8×9.6 (Φ16)	12.8×9.6 (Φ16)
Iris Range (F-stop)	F1.4/F2.8/F4/F8	F1.4/F2.8/F4/F8	F1.4/F2.8/F4/F8	F1.4/F2.8/F4/F8	F1.4/F2.8/F4/F8	F1.4/F2.8/F4/F8
Focusing Range (m)	0.1~∞	0.3~∞	0.3~∞	0.3~∞	0.3~∞	0.5~∞
Control Iris	Manual	Manual	Manual	Manual	Manual	Manual
Focus	Manual	Manual	Manual	Manual	Manual	Manual
Shooting Range at M.O.D. (mm)	196.0(H)×143.0(V)	330.6(H)×243.5(V)	251.5(H)×186.2(V)	160.7(H)×119.2(V)	110.1(H)×82.0(V)	121.8(H)×91.3(V)
Angle of View	1 Inch 79.7×63.0	55.6×42.5	44.3×33.6	29.3×22.0	20.9×15.8	14.5×10.8
View (Degrees)	2/3 Inch 58.3×44.7	39.1×29.5	30.8×23.2	20.2×15.1	14.4×10.8	10.0×7.5
	1/1.8 Inch 48.5×36.9	32.1×24.2	25.3×19.0	16.5×12.4	11.8×8.8	8.2×6.2
TV Distortion (%)	-1.2	-1.58	-1.0	-1.0	-0.5	0.05
Mount	C-mount	C-mount	C-mount	C-mount	C-mount	C-mount
Filter Thread (mm)	M55×P0.75	M35.5×P0.5	M35.5×P0.5	M35.5×P0.5	M35.5×P0.5	M40.5×P0.5
Size (mm)	Φ58×58	Φ44×51.5	Φ44×53	Φ44×43	Φ46×44.1	Φ50×48
Temperature Range	-10°C~+50°C	-10°C~+50°C	-10°C~+50°C	-10°C~+50°C	-10°C~+50°C	-10°C~+50°C

† Images may differ from the actual product.



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