

OEM/Designer Handbook:

Model KV Video Long-Distance Microscope



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Manufacturers of precision optical instruments.

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Infinity Model KV Video Long-Distance Microscope

Model KV is a miniaturized video-only version of our Model K2 Long-Distance Microscope. Although much more compact than a typical K2, the Model KV attains nearly identical video magnification at similar working distances. This is made possible by the use of special optics to compress the mechanical tubelength with virtually no change in image quality. The tubelength compression also made it possible to use smaller parts, considerably reducing overall dimensions and weight. This makes the KV an ideal video solution whenever and wherever the K2 is too large or heavy. The KV is particularly designed and recommended for use on assembly lines or for incorporation in proprietary machine vision systems. As the Model KV is related to Model K2, the latter's instructions can be considered definitive, with the following exceptions/limitations:

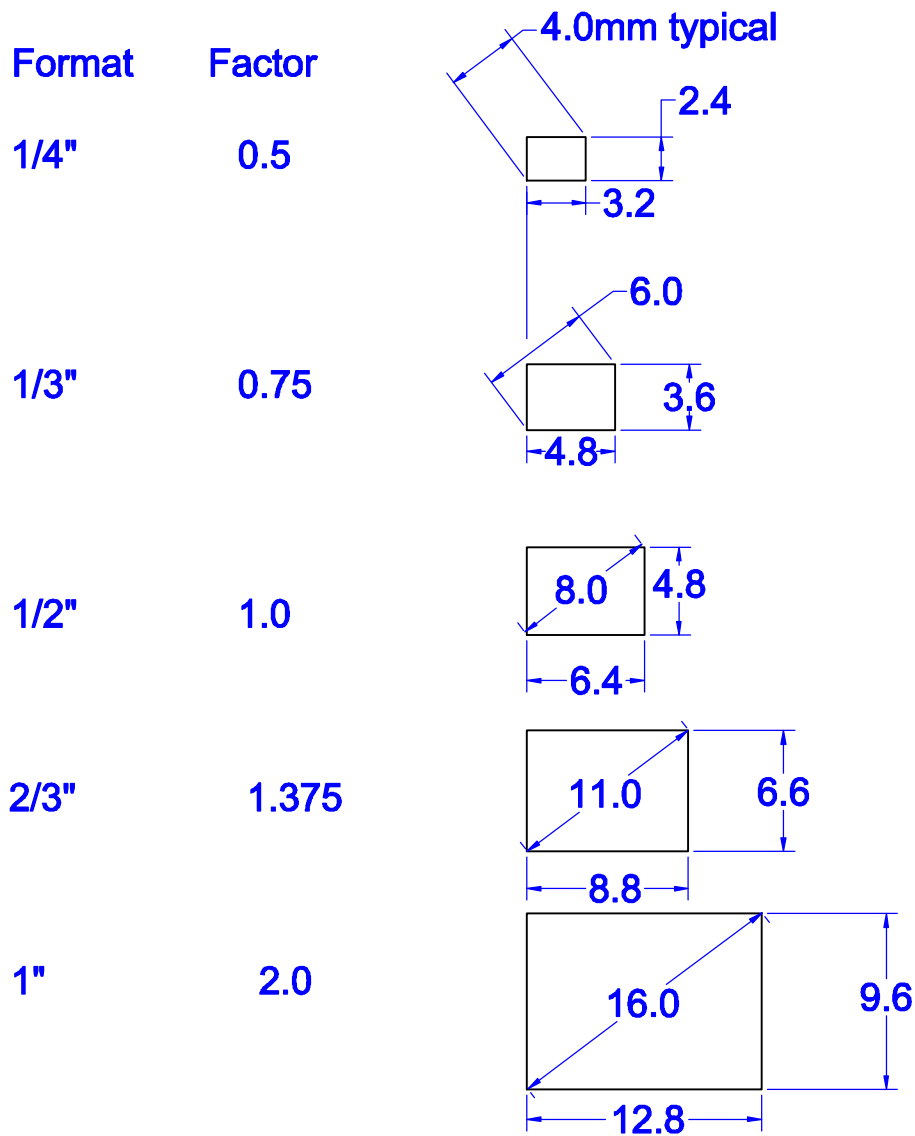
Model KV is video-dedicated. Options such as the Zoom Module, TR Tube, Mirror-Diverter (dual-ports), Eyepiece Holders or Unipar are not generally applicable or, if so, quickly add to dimension and weight, defeating the reason for the KV: compactness.

The KV's Objectives are screwed-on. Although the KV's objectives are optically more complex than their K2 counterparts, the bulkier dovetail exchangers used on Model K2 have been rejected in favor of more compact screw-in mounts. KV-type objectives are designated by a "V" engraved after the same K2-type designation. Another virtue of the KV-type objectives is that their outside diameters equal the inside diameter of our standard mounting clamp, affording an additional position for securing the KV to special mounts or jigs.

Model KV is supplied with a Focusing Ring Lock. Your unit is equipped with an integral Focusing Ring Lock. As many as three 2-56 setscrews can be used (gently) to lock the fluted focusing ring at a specific point. One of these 2-56 setscrews is a capscrew and can be turned by hand or secured by using an appropriate wrench.

Please see the warranty for details of coverage. Should you have additional questions, please contact your dealer or Infinity Photo-Optical Company directly.

Video Formats

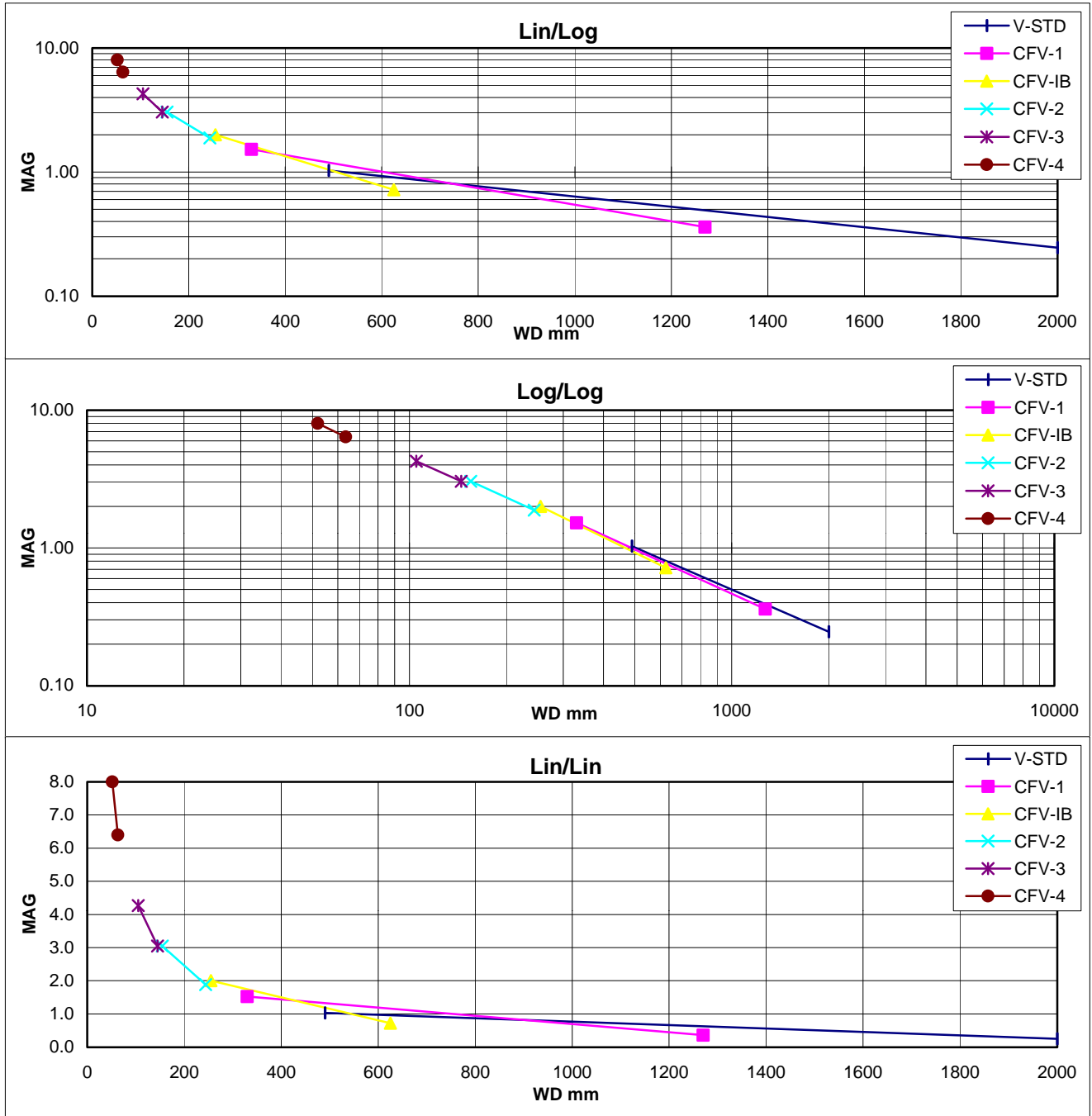


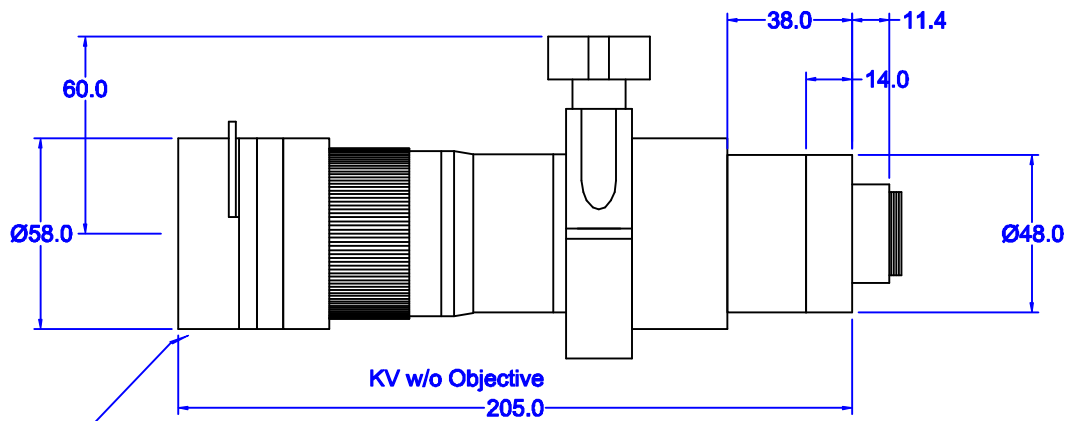
Unless otherwise noted all data is given for 1/2" camera sensors. For FOV or magnification in other sensor sizes use the factors listed. For example a FOV of 25mm listed for a 1/3" camera would be $25 \times 0.75 = 18.75\text{mm}$.

KV OPTICAL DATA

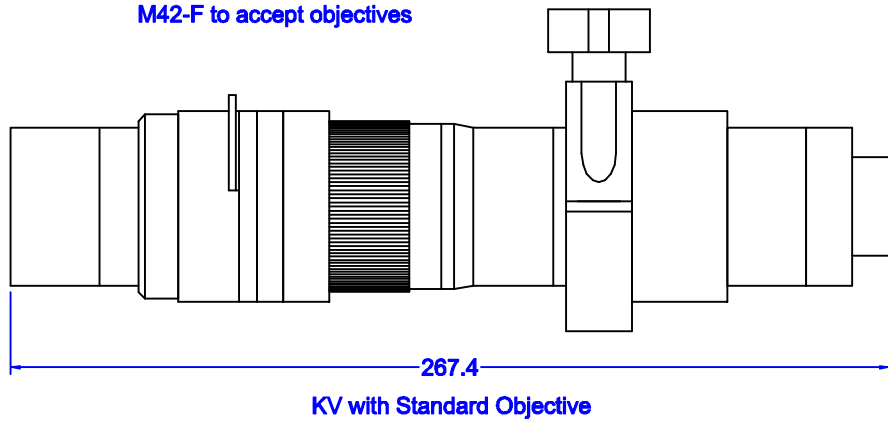
KV	V-STD		CFV-1		CFV-IB		CFV-2		CFV-3		CFV-4	
	Near	Far	Near	Far	Near	Far	Near	Far	Near	Far	Near	Far
WD mm	490	2000	330	1270	255	625	155	244	105	145	52	63.5
MAG	1.03	0.25	1.52	0.36	2.00	0.72	3.05	1.88	4.27	3.05	8.00	6.40
FOV mm	6.2	26	4.2	17.8	3.2	8.9	2.1	3.4	1.5	2.1	0.8	1

*FOV based on 1/2" video format (6.4mm horizontally). See Video Format Page.





see KV OBJECTIVES
M42-F to accept objectives



ALL DIM ARE mm.
FOR REFERENCE
ONLY. SUBJECT TO
CHANGE.

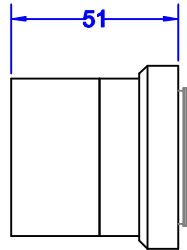
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KV System

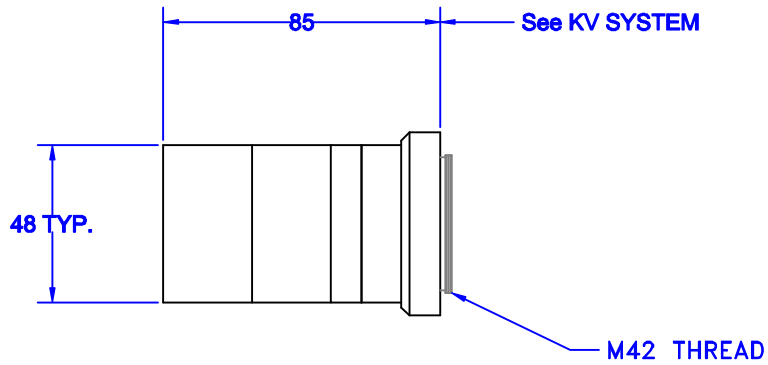
SIZE B	FSCM NO.	DWG NO.	REV
SCALE NONE	SHEET 1 OF 1		

1/30/97

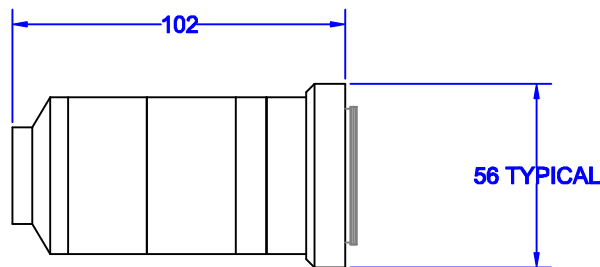
V-Standard
 CFV-1
 CFV-1/B
 CFV-2



CFV-3



CFV-4



Notes: See attached tables and graphs for specifications.

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3/11/97		KV Objectives		REV
SIZE B	FSCM NO.	DWG NO.		REV
SCALE NONE	K2-0BJ-DWG	SHEET		1 OF 1