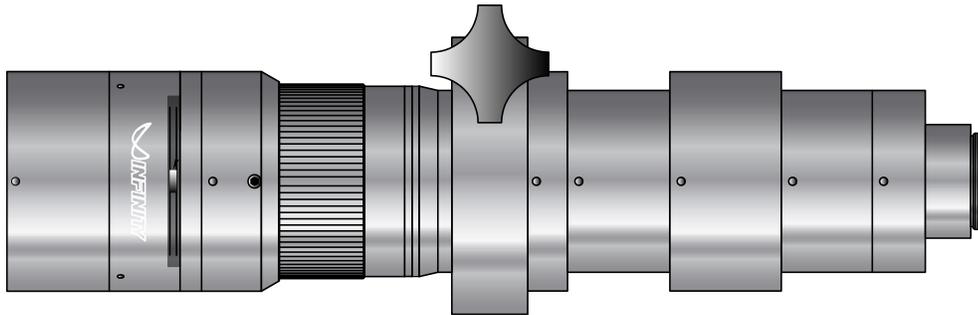


**Model KV™
Video Long-Distance
Microscope**



 **INFINITY** Photo-Optical Company • *Manufacturers of precision optical instruments.*
2530 Frontier Ave., Boulder, CO 80301 • Tel: (303) 440-4544 • Fax: (303) 440-4144 • E-mail: info@infinity-usa.com • Web: www.infinity-usa.com

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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:

The KV can also be used in the high-powered micro mode by simply attaching the Microscope Objective Holder and the appropriate adapter for whichever infinity-corrected objectives you wish to use (Achromat™, Mitutoyo, Olympus, Nikon, etc.). A coaxial illuminator may be integrated for use with highly-reflective objects.

Model KV is primarily video-dedicated. However, options such as the Zoom Module, TR Tube, Mirror-Diverter (dual-ports), Eyepiece Holders or Unipar are generally applicable, and may be quickly added to extend the versatility of the KV.

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

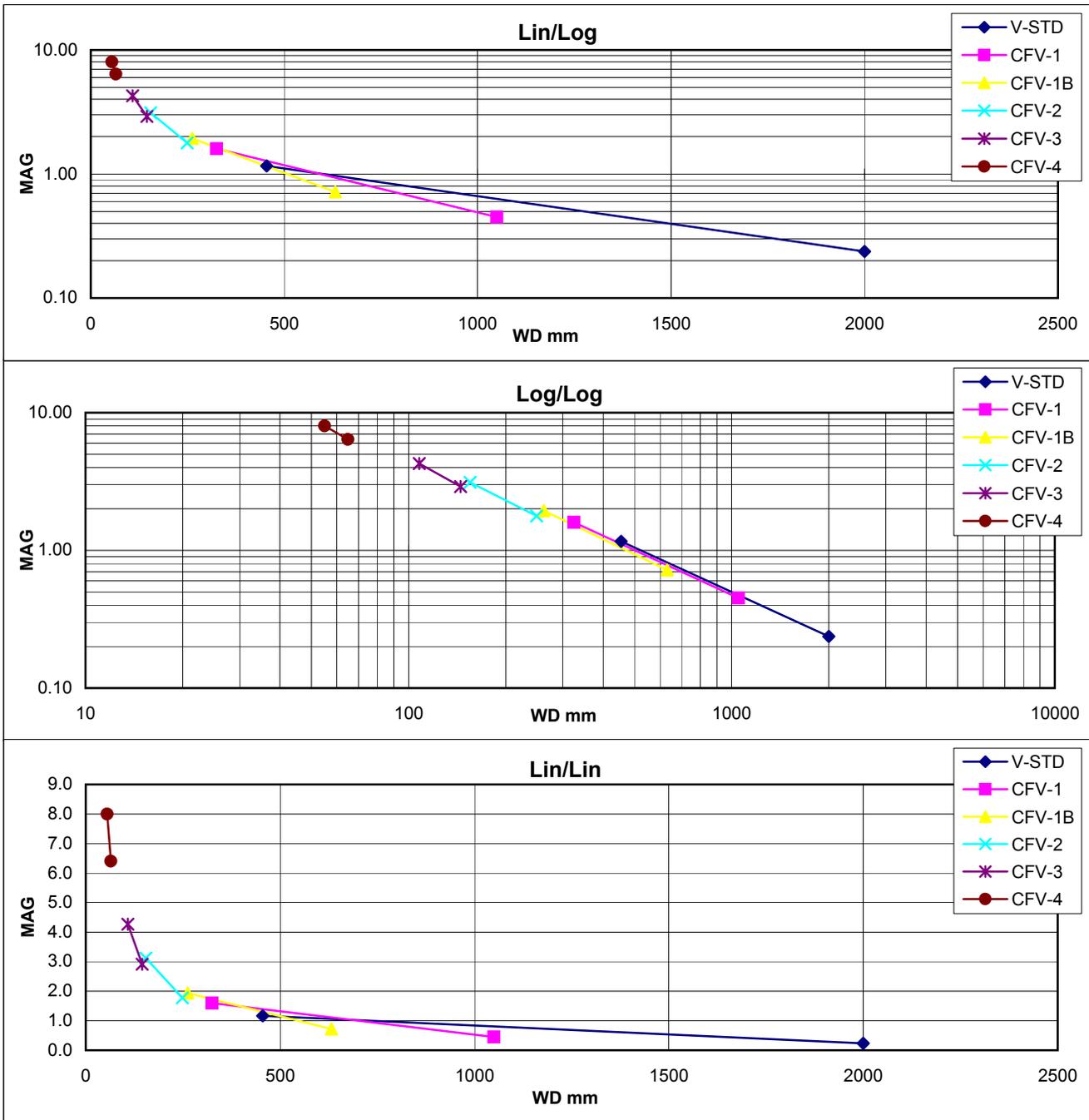
Format	Factor	Diagram
1/4"	0.5	
1/3"	0.75	
1/2"	1.0	
2/3"	1.375	
1"	2.0	

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

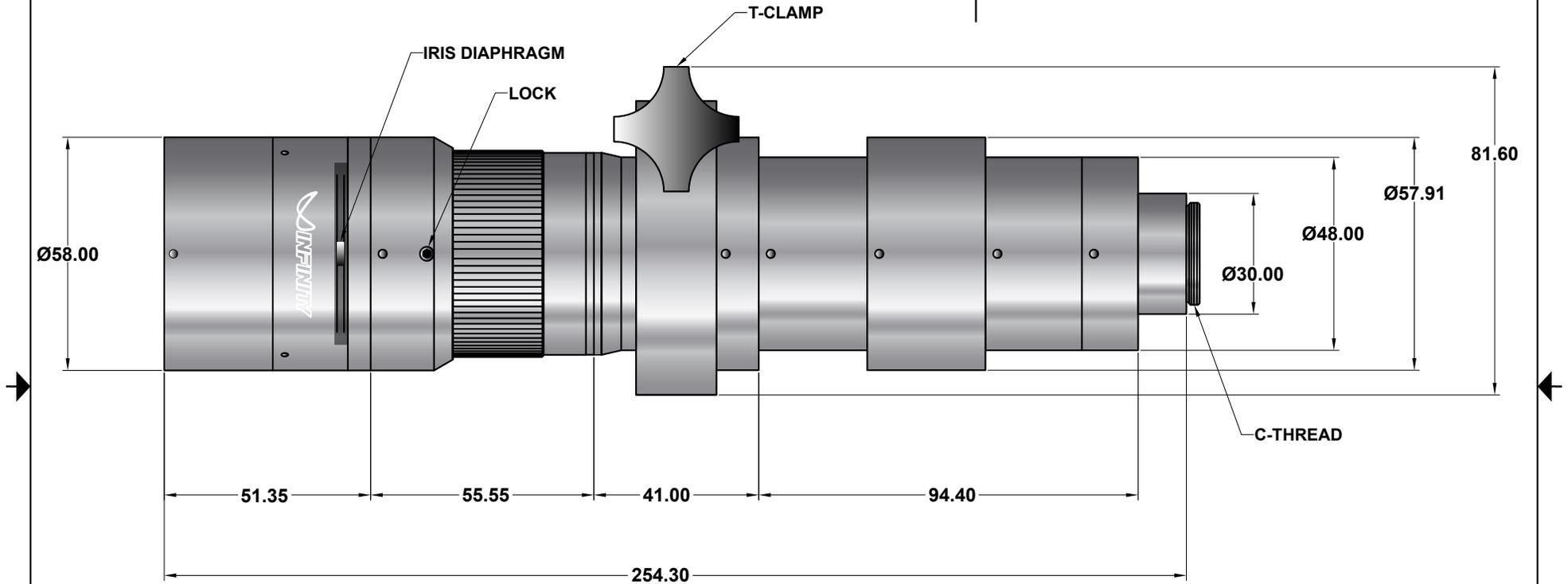
KV	V-STD		CFV-1		CFV-1B		CFV-2		CFV-3		CFV-4	
	Near	Far	Near	Far	Near	Far	Near	Far	Near	Far	Near	Far
WD mm	455	2000	325	1050	262	632	155	249	108	145	55	65
MAG	1.16	0.24	1.60	0.45	1.94	0.72	3.12	1.78	4.27	2.91	8.00	6.40
FOV mm	5.5	27	4	14.2	3.3	8.9	2.05	3.6	1.5	2.2	0.8	1

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



This drawing is for informational purposes only.
No other rights or privileges are granted or implied.

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



NOTES:

1. SURFACE ANODIZED BLACK.
2. MODEL KV SHOWN WITHOUT OBJECTIVE.
3. DIMS. ARE IN MILLIMETERS.

ALL DIM ARE mm
[inches] AND ARE FOR
REFERENCE ONLY AND
ARE SUBJECT TO
CHANGE.

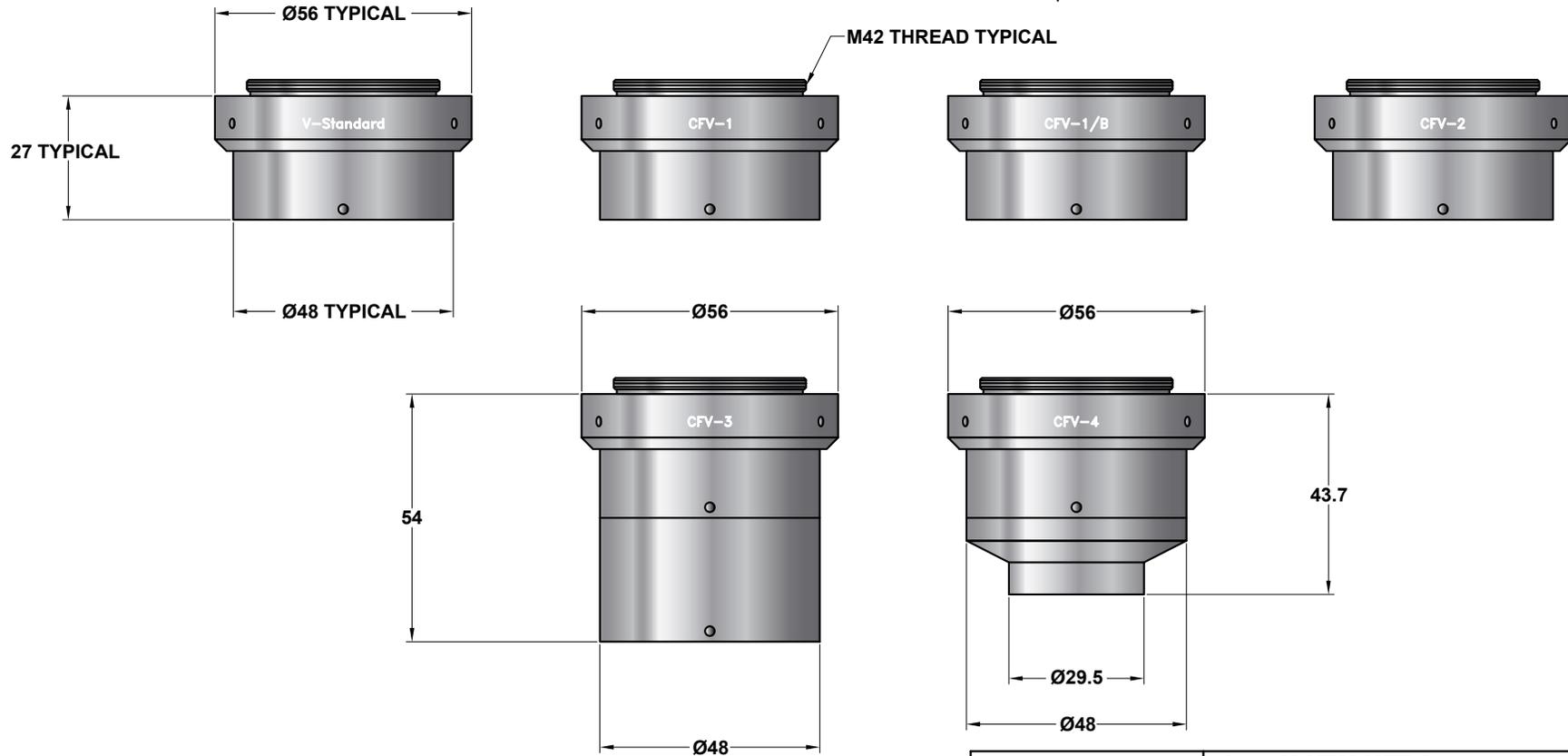
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303/440-4544 Fax 303/440-4144

MODEL KV, MAIN BODY

Date: 10/17/01 MB	SIZE B	FSCM NO.	DWG NO. -	REV -
Modified:	SCALE NONE	-	SHEET 1 OF 1	

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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



NOTES:

1. SURFACE ANODIZED BLACK.
2. DIMS. ARE IN MILLIMETERS.
3. SEE ATTACHED TABLES AND GRAPHS FOR SPECIFICATIONS.

ALL DIM ARE mm
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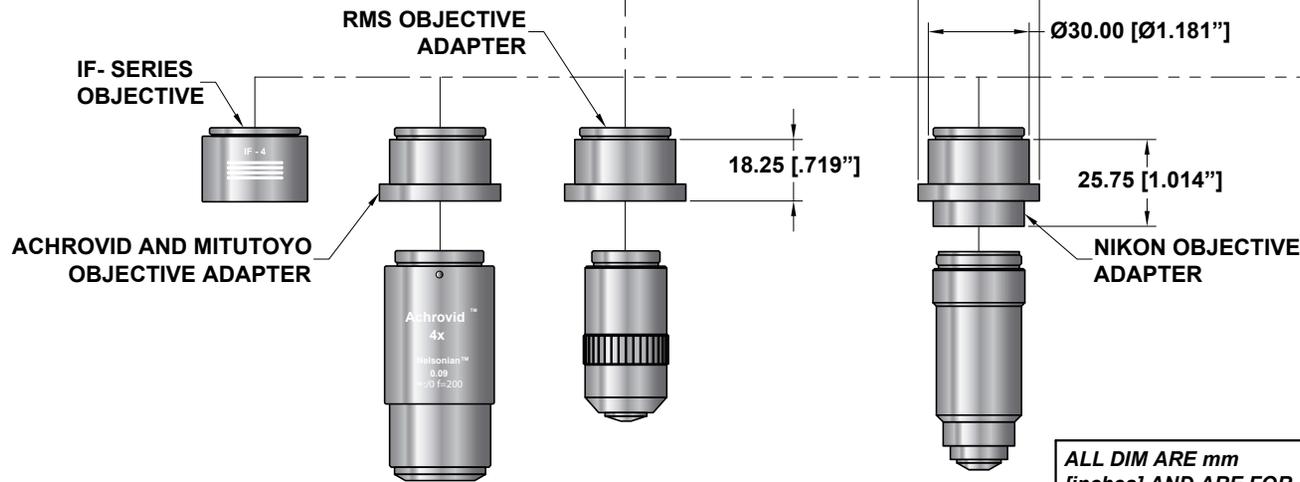
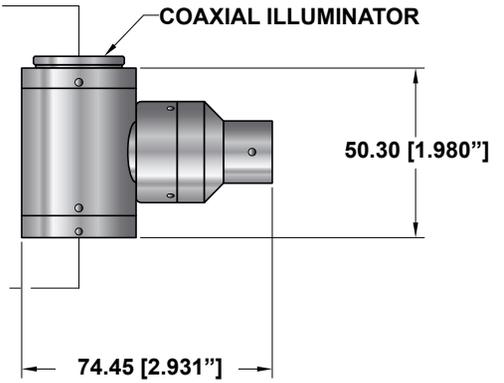
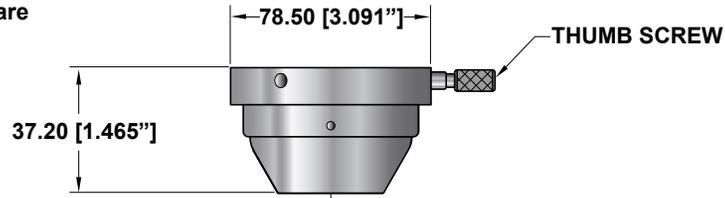
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KV OBJECTIVES

Date: 03/11/97 MS	SIZE B	FSCM NO.	DWG NO. -	REV A
Modified: 10/18/01 MB	SCALE NONE	-	SHEET 1 OF 1	

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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



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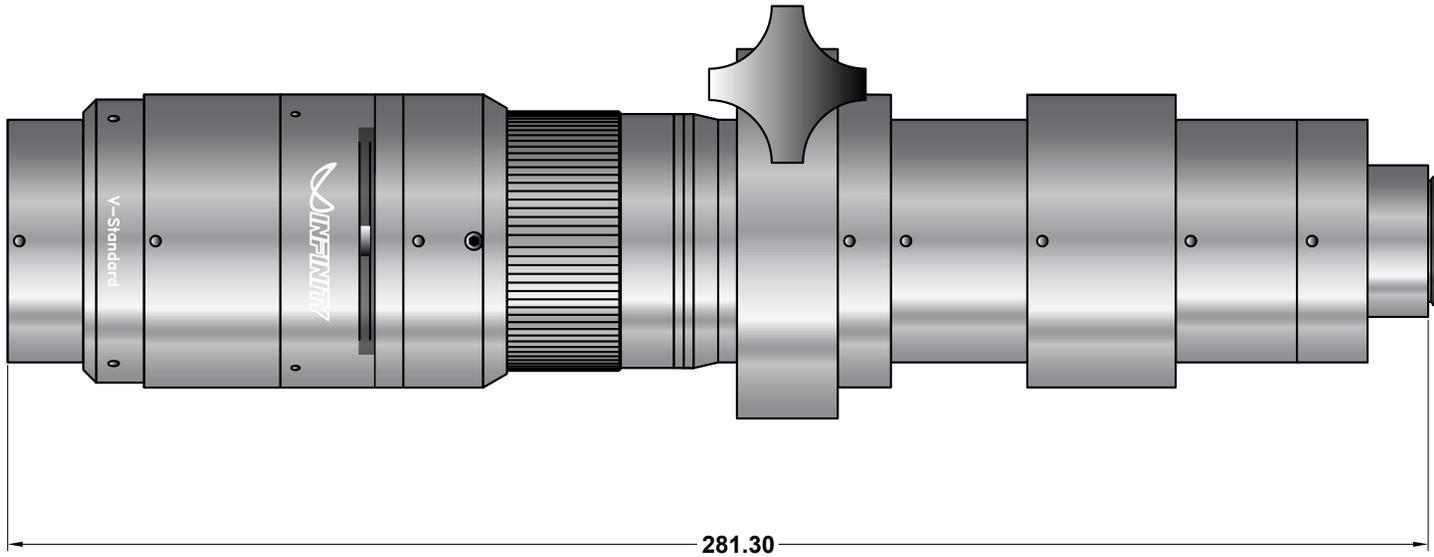
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303/440-4544 Fax 303/440-4144

OBJECTIVE HOLDER FOR MODEL KV

Date: 03/04/05 MB	SIZE B	FSCM NO.	DWG NO. -	REV -
Modified:	SCALE NONE	-	SHEET 1 OF 1	

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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



NOTES:

1. SURFACE ANODIZED BLACK.
2. MODEL KV SHOWN WITH V-STANDARD OBJECTIVE.
3. DIMS. ARE IN MILLIMETERS.

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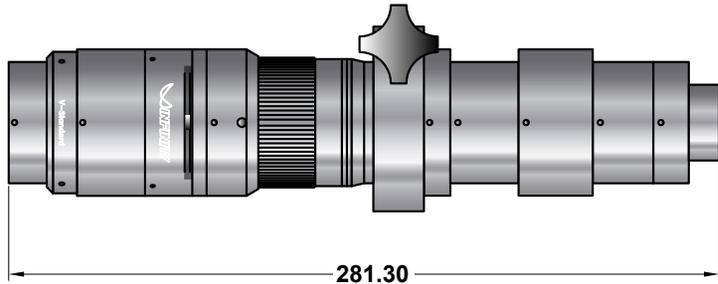
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**MODEL KV WITH V-STANDARD
OBJECTIVE**

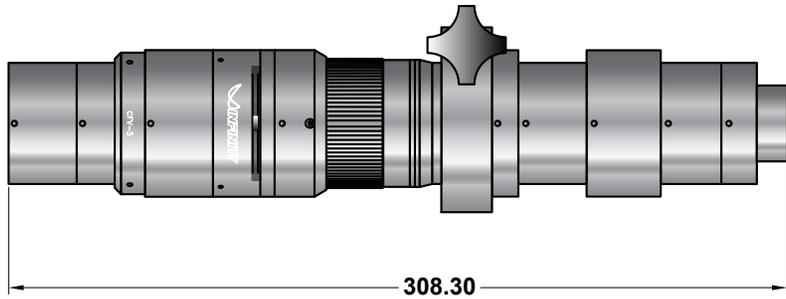
Date: 10/17/01 MB	SIZE B	FSCM NO.	DWG NO. -	REV -
Modified:	SCALE NONE	-	SHEET 1 OF 1	

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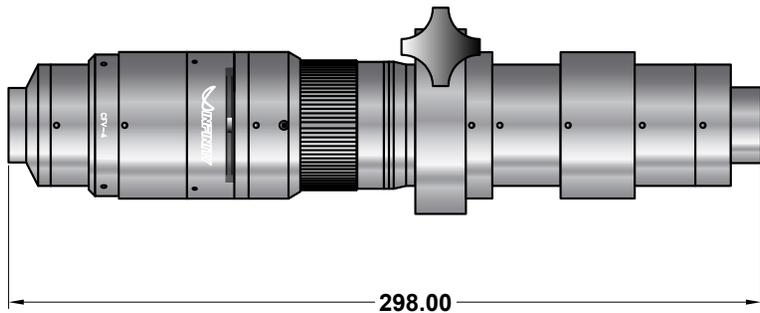
REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED



MODEL KC SHOWN WITH V-STANDARD OBJECTIVE.



MODEL KV SHOWN WITH CFV-3 OBJECTIVE.



MODEL KV SHOWN WITH CFV-4 OBJECTIVE.

NOTES:

1. SURFACE ANODIZED BLACK.
2. MODEL KV SHOWN WITH OBJECTIVES.
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MODEL KV WITH OBJECTIVES

Date: 10/17/01 MB	SIZE B	FSCM NO.	DWG NO. -	REV -
Modified:	SCALE NONE	-	SHEET 1 OF 1	

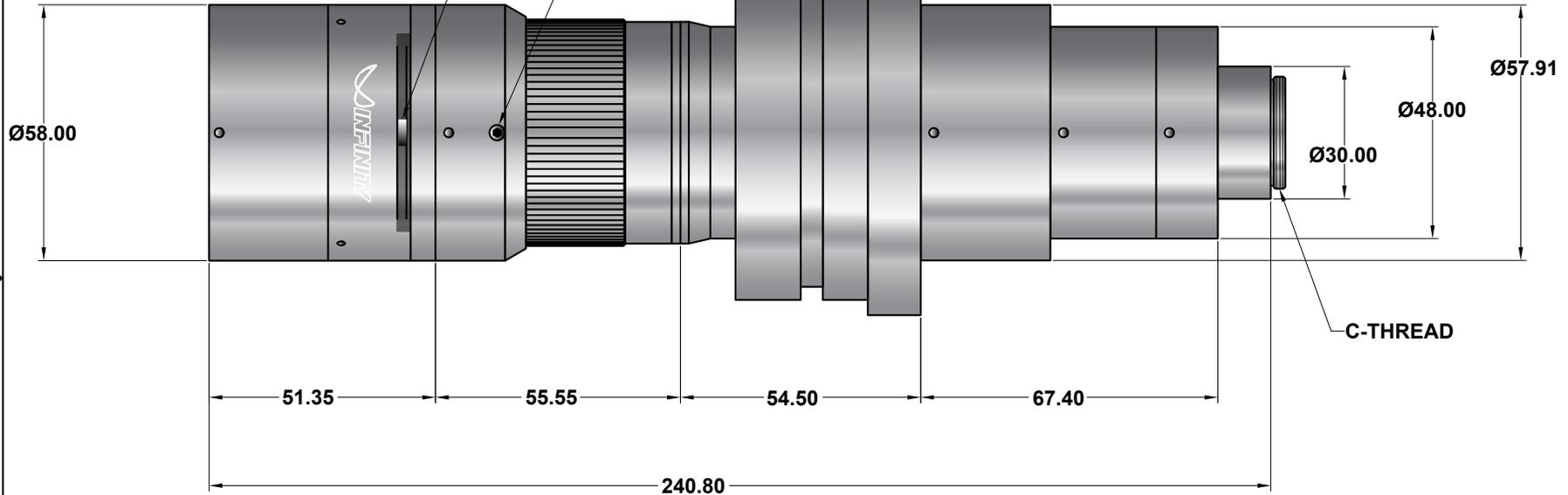
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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

STEREO STAND MOUNT
(OLYMPUS / NIKON SHOWN)

IRIS DIAPHRAGM

LOCK



NOTES:

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**MODEL KV WITH STEREO STAND
ADAPTER**

Date: 04/23/02 MB	SIZE B	FSCM NO.	DWG NO. -	REV -
Modified:	SCALE NONE	-	SHEET 1 OF 1	

INFINITY PHOTO-OPTICAL COMPANY LIMITED WARRANTY

INFINITY PHOTO-OPTICAL COMPANY hereby warrants its products to be free from defects in workmanship or materials for the warranty period set forth below. INFINITY PHOTO-OPTICAL COMPANY, at its option, shall repair or replace the defective product without cost to the purchaser, and such repair or replacement shall be the full extent of this express limited warranty. INFINITY PHOTO-OPTICAL COMPANY shall not be liable for any other damages either direct or consequential.

This warranty is made to the original purchaser, and is effective only on new equipment purchased from INFINITY PHOTO-OPTICAL COMPANY, or a dealer authorized by INFINITY PHOTO-OPTICAL COMPANY to sell the product.

This warranty is valid only when the product is returned to the authorized dealer from whom it was purchased, or returned directly to INFINITY PHOTO-OPTICAL COMPANY, freight prepaid, with proof of date of purchase.

This warranty does not extend to any defect, malfunction or failure caused by misuse, abuse or the use of the product with equipment for which it may not have been intended. Any unauthorized repair voids this warranty.

The warranty period for all products manufactured by INFINITY PHOTO-OPTICAL COMPANY is five (5) years from date of original purchase. Parts or components made or sourced from other manufacturers shall be solely covered by that manufacturer's warranty.

The warranty contained herein is the only warranty made by INFINITY PHOTO-OPTICAL COMPANY. Any implied warranty of merchantability and/or fitness for a particular purpose is expressly excluded from this warranty. INFINITY PHOTO-OPTICAL COMPANY shall not be liable for any expense, loss, incidental or consequential damages which may arise in connection with the use of this equipment. Recovery under this warranty is limited to repair or replacement of the equipment as provided above.

INFINITY PHOTO-OPTICAL COMPANY reserves the right to modify designs, equipment and accessories without notice.