VisionGauge® 500 Series

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Single Magnification Configurations

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modello	CAMPO VISIVO			WORKING DISTANCE	DEPTH OF FIELD
	HORIZONTAL	VERTICAL	DIAGONAL		
VGDOC-30H-5X VGDOC-30V-5X	(119.4)	(88.9)	(148.8)	(398.0)	(339.0)
VGDOC-30H-10X VGDOC-30V-10X	(78.7)	(58.4)	(98.0)	(279.5)	(145.0)
VGDOC-30H-20X VGDOC-30V-20X	(43.2)	(30.5)	(52.9)	(228.0)	(45.0)
VGDOC-30H-50X VGDOC-30V-50X	(13.1)	(9.7)	(16.3)	(45.3)	(5.0)
VGDOC-30H-100X VGDOC-30V-100X	(3.9)	(3.9)	(6.5)	(63.0)	(1.0)

Multi-Magnification Configurations

Model Number	WORKING DISTANCE	DEPTH OF FIELD	Field-of-View		
			HORIZONTAL	VERTICAL	DIAGONAL
VGDOC-30H-5/10/20X VGDOC-30V-5/10/20X	300 300 300	339.0 114.8 31.9	119.4 78.7 39.37	88.9 58.4 27.66	148.8 98.0 48.12
VGDOC-30H-10/20/50X VGDOC-30V-10/20/50X	166.2 166.2 166.2	114.8 31.9 9.7	61.5 30.73 13.13	46.2 23.37 9.73	76.9 38.61 16.34
VGDOC-30H-20/50/100X VGDOC-30V-20/50/100X	122.3 122.3 122.3	37.0 5.0 1.0	39.37 13.13 39.37	27.66 9.73 27.66	48.12 16.34 48.12

Note: specifications subject to change without notice.

VisionGauge® 500 Series Options

Available Options	
Part Number	**Description**
VGDOC-30-RI	High-intensity LED reflected illumination module (programmable and computer-controlled) fully integrated with VisionGauge® Digital Optical Comparator
VGDOC-30-CAL	Adapted NIST-traceable stage micrometer with certificate of calibration (this will allow you to carry out the yearly re-calibration yourselves). Note: this stage micrometer is especially designed for the VisionGauge® Digital Optical Comparator
VGDOC-30-01XY	Upgrade of the X- and Y-axis encoders from 0.5 um resolution to 0.1 um resolution. Applicable for either the horizontal or vertical configuration of the VisionGauge® Digital Optical Comparator
VGDOC-24XH	Extended (**610 mm**) X-axis travel stage upgrade (from the standard 300 mm travel) for Horizontal configuration VisionGauge® Digital Optical Comparator
VGDOC-12YH	Extended (**300 mm**) Y-axis travel column upgrade (from the standard 150 mm) for Horizontal configuration VisionGauge® Digital Optical Comparator
VGDOC-24X24YV	Extended (**610x610 mm**) X-axis and Y-axis travel stage upgrade (from the standard 300x300 mm travel) for the Vertical configuration VisionGauge® Digital Optical Comparator
VGDOC-12Z	Extended (**300 mm**) Z-axis travel. Applicable for either the horizontal or vertical configuration of the VisionGauge® Digital Optical Comparator
VGDOC-30-XMON	"5th monitor option" to automatically load and display inspection instructions & criteria or other related documents when the work order barcode is scanned to automatically load the appropriate CAD file
VGDOC-30-COAXRI	On-axis reflected LED illumination module (programmable and computer-controlled) fully integrated with VisionGauge® Digital Optical Comparator. This reflected (i.e. "front") illumination module produces a very different type of front illumination that is very "flat" (i.e. "shadow free" and low glare) that is more appropriate for certain types of parts. This illumination module is mounted on a "swing arm" to allow the operator to easily put it in position & retract it when it is not needed.

Available Options

Part Number	Description
VGDOC-30-RS	4th motorized axis with encoded rotary stage (i.e. to rotate the part), including: • All required motion control hardware for 4th motorized axis (for part rotation). This motion control hardware is completely and seamlessly integrated with the system's existing motion control hardware • Motorized encoded high-accuracy rotary stage • Fixture to mount the stage to the system's dovetail grooves • All required cables & power supplies
VGDOC-30-LASER	LASER module for Z-axis measurements, including: • High-accuracy structured LASER module • LASER controller hardware (to completely control the LASER's operation from within the software) • Adapted fixture to mount the LASER module onto the Z axis stage • Software upgrade • All required cables & power supplies
VGDOC-SASWL	Optional standalone "desktop" software license (to allow you to remotely view your CAD files, setup tolerances, create automated inspection and measurement programs, etc...)
VGDOC-ASUP-Renewal	VisionGauge® Annual Support and Update Program Membership Renewal (which provides users with unlimited technical support and free software updates for a full 1-year period). Note that unlimited technical support and free software updates are included for the 1st year with every VisionGauge® Digital Optical Comparator (Patent Pending) system.
VGDOC-EW2	2nd year hardware warranty for the VisionGauge® Digital Optical Comparator (i.e. the VisionGauge® Digital Optical Comparator comes with a complete 1 year hardware warranty and this optional item extends it to the 2nd year).
VGDOC-RAF	Replacement air filter

Other accessories, system configurations, fixturing, etc. available upon request. Please inquire.

500 Series Specifications		
	Horizontal Configurations	**Vertical Configurations**
Standard Optical Magnifications (equivalent to traditional comparators)	5X, 10X, 20X, 50X and 100X [1]	
Image view area	**850** l x **654.05** h (= **1066.8** diagonal) **mm**	
Software Interface	Intuitive, Windows-based graphical user interface (i.e. "point & click")	
Motorized X-, Y- & Z-axes	Yes	
X-, Y- & Z-stage movement	High-accuracy crossed-roller movement	
X-axis travel	**304.8 mm**	
Y-axis travel	**152.4 mm**	**304.8 mm**
X- & Y-axis encoder resolution	0.25 micron [3]	
Z stage travel	**101.6 mm**	
Auto-Focus	Yes	
Part fixturing configuration	Dual standard dovetail grooves	Threaded mounting hole pattern
Encoded Z-axis	Optional [4]	
LASER module (for Z-axis measurement)	Optional [4]	
High-accuracy rotary axes	Optional [4]	
Fully programmable 3D motion	Yes	
Camera	High-resolution, digital (9 MegaPixel)	
Illumination	• LED-based (for very stable illumination conditions, with a very long life) • Programmable & computer-controlled (for repeatable illumination conditions) • Both reflected (i.e. front) & transmitted (i.e. back) illumination modules are available	
Lens	Very low distortion telecentric, with long working distance & extended depth-of-field	

VisionGauge® 500 Series Specifications

	Horizontal Configurations	Vertical Configurations
Real-time mathematical image processing, enhancement and correction	Yes	
Patented CAD Auto-Align™ tool	Yes, with user-specified bi-directional tolerances	
Patented CAD Auto-Pass/Fail tool	Yes, with user-specified bi-directional tolerances	
Extended set of high-accuracy measurement tools	Yes, with sub-pixel-accurate edge detection	
Image annotation tools	Yes	
Automatic electronic documentation	Yes	
Built-in SPC capabilities, with automatic numerical charts & PASS/FAIL graphs, etc...	Yes	
Automatic data export to Excel™ and other applications	Yes	
Compare a part to its CAD data across the entire stage travel	Yes	
Quick CAD data and settings change over & recall	Yes ("1-button recall")	
Supervisor/operator password protection	Yes	
Operating System	Windows™ 7 [5]	
Built-in "F1 Help"	Yes	
Fan & filter unit on main cabinet	Yes (to create a positive pressure and keep dust out)	
Power requirements	220V	
Operating temperature	10 °C - 30 °C	
Support (by phone, fax & email)	Included for a full year	
Warranty	1 year (complete)	