FURTHER
INFORMATION

viZaar
industrial imaging AG



CATALOGUE

REVISION 4.4

INDUSTRIAL ENDOSCOPES

Item No.: DXX-80-000202

RIGID ENDOSCOPES | FLEXIBLE ENDOSCOPES | ACCESSORIES

VIZAAR INDUSTRIAL IMAGING AG

Contact

GERMANY

viZaar industrial imaging AG
Hechinger Straße 152
72461 Albstadt / Germany
+49 7432 98375-0
+49 7432 98375-50

www.vizaar.com info@vizaar.com

WORLDWIDE

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Industrial Endoscopes

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To ensure that finding the right product for your application is as easy as possible, all of our products featured in this catalogue are color coded. Products with the same color code are compatible with each other.

In certain cases, different color codes are compatible with each other. Should you require any further help or assistance, please do not hesitate to contact your local viZaar representative directly.

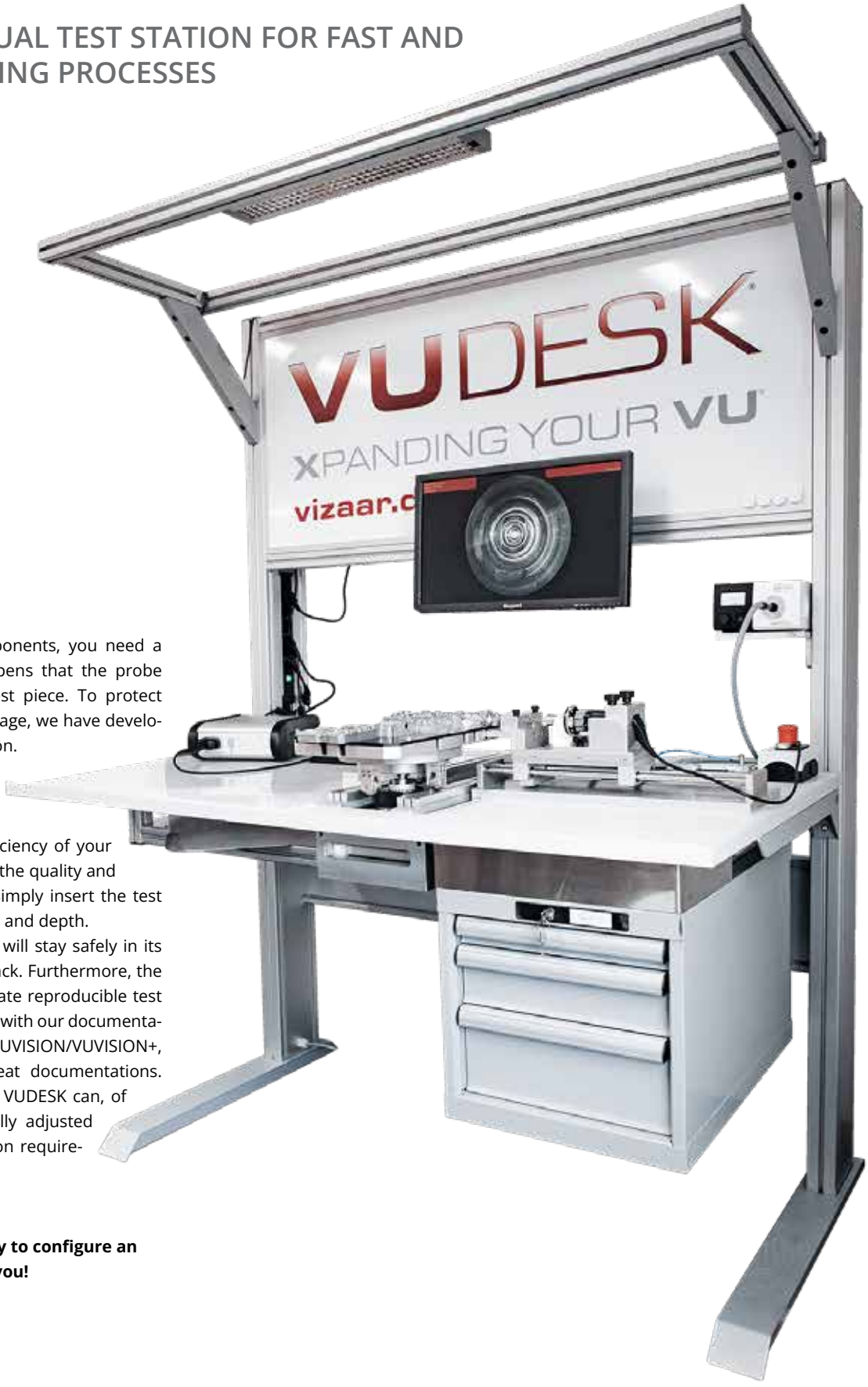
And if you have not found what you are looking for, please contact us.
Our experts are here to find a solution for you.

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1 VIDEO BORESCOPE SYSTEM

1.1 VUDESK® Test Station

YOUR INDIVIDUAL TEST STATION FOR FAST AND RELIABLE TESTING PROCESSES



When testing serial components, you need a steady hand. Still, it happens that the probe shaft collides with the test piece. To protect your borescope from damage, we have developed the VUDESK test station.

The test device integrated in the VUDESK will help you increase the efficiency of your production and to ensure the quality and safety of your products. Simply insert the test piece and lick test position and depth. This way, the probe shaft will stay safely in its proper position and on track. Furthermore, the VUDESK allows you to create reproducible test processes. In combination with our documentation units MATRIX E3 or VUVISION/VUVISION+, you will also achieve great documentations. Other components of the VUDESK can, of course, also be individually adjusted to your personal inspection requirements.

Contact us! We are happy to configure an optimal test station for you!

1 VIDEO BORESCOPE SYSTEM

1.2 VUVISION / VUVISION+ Control Unit

VUVISION

- Premium Full HD image quality
- Proprietary image enhancement algorithms
- Split screen
- Documentation
- Flawless error detection
- Selective color enhancement
- Many connection types



MEET HIGHEST REQUIREMENTS IN QUALITY CONTROL

The split screen function allows you to show a static image next to the live image of the inspection. Using special video algorithms, defects can be identified more quickly and efficiently. The high definition image display shows tested surfaces sharp, rich in contrast and colorfast. For improved traceability and better documentation of your inspection results, the inspection images can be saved directly on a USB drive.

1 VIDEO BOROSCOPE SYSTEM

1.2 Control Unit VUVISION / VUVISION+



VUVISION

TECHNICAL SPECIFICATIONS		ITEM-NO.	CODE
Control unit	Contrast, brightness, color saturation, windows, noise reduction, pattern removal, edge enhancement, digital zoom, image rotation and mirroring	HVT-82-000102	●
Video output	2 x DVi, 2 x HD-SDi, 2 x 3.5 mm jack plug for foot switch		
Advanced software features	-		
Front connections	Socket for connection devices, socket for USB drive		
Connection devices	VUSCOPE, VUHD-CAM		
Dimensions	(W) 225 x (H) 91 x (D) 282 mm		
Power supply	100-240 VAC, 50/60 Hz over external power supply		
Operating elements	ON/OFF switch, menu, menu navigation, brightness +/-, photo, white balance		
Weight	4 kg		



VUVISION+

TECHNICAL SPECIFICATIONS		ITEM-NO.	CODE
Control unit	Contrast, brightness, color saturation, windows, noise reduction, pattern removal, edge enhancement, digital zoom, image rotation and mirroring	HVT-82-000103	●
Video output	2 x DVi, 2 x HD-SDi, 2 x 3.5 mm jack plug for foot switch		
Advanced software features	Selective color enhancement, smoke reduction, split screen		
Front connections	Socket for connection devices, socket for USB drive		
Connection devices	VUSCOPE, VUHD-CAM		
Dimensions	(W) 225 x (H) 91 x (D) 282 mm		
Power supply	100-240 VAC, 50/60 Hz over external power supply		
Operating elements	ON/OFF switch, menu, menu navigation, brightness +/-, photo, white balance		
Weight	4 kg		

1 VIDEO BOROSCOPE SYSTEM

1.3 Cameras for VUVISION



VUSCOPE

TECHNICAL SPECIFICATIONS		ITEM-NO.	CODE
Image sensor	1/3" CMOS	HVT-82-000104	●
Resolution lines	1920 x 1080 pixels, Full HD		
Picture format	16:9		
Illumination	Integrated LED lighting		
Weight	125 g		
Dimensions	(L) 155 x (W) 19 x (D) 29 mm		
Zoom	-		
Delivery contents	Transport and storage case		
Compatibility	FSC-2 and VUSCOPE probes		
Operating elements	-		
Lenght of camera cable	2.5 m		

All FSC-2 and VUSCOPE probes are suitable!



VUHD-CAM

TECHNICAL SPECIFICATIONS		ITEM-NO.	CODE
Image sensor	1/3" CMOS	HVT-82-000105	●
Resolution lines	1920 x 1080 pixels, Full HD		
Picture format	16:9		
Illumination	Light source and fiber optic cable required		
Weight	220 g (without cable)		
Dimensions	(L) 135 mm, 50 mm in diameter		
Zoom	integrated parfocal zoom (f=14.25 - 28 mm)		
Delivery contents	Transport and storage case		
Compatibility	All endoscopes with DiN eyepiece		
Operating elements	3 programmable and illuminated buttons		
Lenght of camera cable	3.5 m		

All Boroscopes with DIN-okular are suitable!

1.4 VUVISION-Sets



VUVISION-Set with VUSCOPE

VUVISION SETS WITH VUSCOPE	ITEM-NO.	CODE
VUVISION SET with VUSCOPE	HVT-82-000106	●
VUVISION+ SET with VUSCOPE	HVT-82-000107	●



VUVISION-Set with VUHD-CAM

VUVISION SETS WITH VUHD-CAM	ITEM-NO.	CODE
VUVISION SET with VUHD-CAM	HVT-82-000108	●
VUVISION+ SET with VUHD-CAM	HVT-82-000109	●

Including transport and storage case.

Please note:
It is not possible to upgrade a VUVISION to a VUVISION+ version afterwards.
The camera handles VUSCOPE and VUHD-CAM are only usable in combination with a VUVISION comtrol unit.

1 VIDEO BOROSCOPE SYSTEM

1.5 VUSCOPE and FSC-2 Borescopes



VUSCOPE and FSC-2 borescopes

OUTER Ø	LENGTH	DOV	FOV	RESOLUTION	PROBE[1]	ITEM-NO.	CODE
0.7 mm	150 mm	0°	70°	6.000 px	elastic gum hose	HVT-92-000169	●
1.0 mm	150 mm	0°	60°	17.000 px	nickel titanium tube	HVT-92-000170	●
1.6 mm	135 mm	0°	85°	30.000 px	nickel titanium tube	HVT-92-000173	●
1.6 mm	150 mm	0°	70°	17.000 px	elastic gum hose	HVT-92-000174	●
1.6 mm	135 mm	0°	30°	17.000 px	stainless steel tube	HVT-92-000252	●
1.6 mm	150 mm	30°	75°	17.000 px	elastic gum hose	HVT-92-000253	●
1.6 mm	150 mm	70°	75°	17.000 px	elastic gum hose	HVT-92-000254	●
1.6 mm	150 mm	90°	75°	17.000 px	elastic gum hose	HVT-92-000255	●
2.0 mm	135 mm	0°	90°	50.000 px	stainless steel tube	HVT-92-000178	●
2.0 mm	135 mm	70°	75°	30.000 px	stainless steel tube	HVT-92-000256	●
2.0 mm	135 mm	90°	75°	30.000 px	stainless steel tube	HVT-92-000257	●
2.7 mm	110 mm	0°	75°	rod lenses	stainless steel tube	HVT-92-000183	●
2.7 mm	110 mm	70°	75°	rod lenses	stainless steel tube	HVT-92-000185	●
2.7 mm	179 mm	0°	85°	rod lenses	stainless steel tube	HVT-92-000274	●
2.7 mm	179 mm	30°	85°	rod lenses	stainless steel tube	HVT-92-000245	●
2.7 mm	179 mm	70°	75°	rod lenses	stainless steel tube	HVT-92-000276	●
2.7 mm	290 mm	0°	75°	rod lenses	stainless steel tube	HVT-92-000277	●
2.7 mm	290 mm	70°	75°	rod lenses	stainless steel tube	HVT-92-000279	●
4.0 mm	170 mm	0°	85°	rod lenses	stainless steel tube	HVT-92-000188	●
4.0 mm	170 mm	30°	85°	rod lenses	stainless steel tube	HVT-92-000189	●
4.0 mm	170 mm	45°	85°	rod lenses	stainless steel tube	HVT-92-000190	●
4.0 mm	170 mm	70°	85°	rod lenses	stainless steel tube	HVT-92-000191	●
4.0 mm	298 mm	0°	70°	rod lenses	stainless steel tube	HVT-92-000280	●
4.0 mm	298 mm	27°	70°	rod lenses	stainless steel tube	HVT-92-000281	●
4.0 mm	300 mm	65°	70°	rod lenses	stainless steel tube	HVT-92-000269	●
4.0 mm	425 mm	45°	65°	rod lenses	stainless steel tube	HVT-92-000260	●
4.0 mm	425 mm	0°	65°	rod lenses	stainless steel tube	HVT-92-000266	●
4.0 mm	425 mm	65°	65°	rod lenses	stainless steel tube	HVT-92-000268	●

[1]Elastic gum hose = flexible
Nickel titanium tube = partially flexible
stainless steel tube = rigid

1 VIDEO BOROSCOPE SYSTEM

1.6 Stengthening Tubes for VUSCOPE and FSC-2 Borescopes



Strengthening tubes

OUTER Ø	LENGTH	FOV	FOR BORESCOPES	ITEM-NO.	CODE
1.0 mm	150 mm	70°	HVT-92-000169	HVT-92-000171	●
1.2 mm	150 mm	60°	HVT-92-000170	HVT-92-000172	●
1.8 mm	100 mm	85°	HVT-92-000273	HVT-92-000282	●
1.8 mm	135 mm	85°	HVT-92-000173	HVT-92-000175	●
1.9 mm	150 mm	70°	HVT-92-000174	HVT-92-000176	●
2.4 mm	135 mm	0°	HVT-92-000178	HVT-92-000283	●
2.4 mm	132 mm	0°	HVT-92-000179	HVT-92-000284	●
3.0 mm	100 mm	90°	HVT-92-000185	HVT-92-000187	●
3.0 mm	111 mm	90°	HVT-92-000184	HVT-92-000285	●
3.0 mm	111 mm	75°	HVT-92-000183	HVT-92-000186	●
3.0 mm	172 mm	75°	HVT-92-000245	HVT-92-000332	●
3.0 mm	174 mm	85°	HVT-92-000274	HVT-92-000287	●
3.0 mm	293 mm	75°	HVT-92-000277	HVT-92-0002343	●
3.0 mm	293 mm	75°	HVT-92-000279	HVT-92-000288	●



Holding device

HOLDING DEVICE FOR CAMERA HANDLES	ITEM-NO.	CODE
Holding device for VUSCOPE camera handle	HVT-92-000300	●

2 RIGID BORESCOPES





DIAMETER



WORKING LENGTH



DIRECTION OF VIEW (DOV)*



FIELDOF VIEW (FOV)**



0°



30°



45°



70°



90°



110°

Rigid borescopes are a well-proven technology and still play a vital part in the remote visual inspection sector as they provide direct view and high quality images that allow for confident quality decisions to be made. By using borescopes in conjunction with video or digital cameras, an image can be comfortably viewed at high magnification, shared with others and/or stored. Utilizing optical lenses to relay the image ensures that rigid borescopes offer high quality images in a tough and durable package.

- Integrated visualization systems
- Borescopes with fixed focus
- Swivel prism borescopes
- Mirror tubes
- Strengthening tubes

* Borescopes are available with different directions of view.
** Field of view varies with borescopes. Wide angle is available for straight view and side view optics.

2 RIGID BORESCOPES

2.1 Standard Borescopes - Focusable (Ø 2.8 mm - 4.0 mm)



Standard borescopes

OUTER Ø	LENGTH	DOV	FOV	ITEM-NO.	CODE
2.8 mm	115 mm	0°	70°	HVT-19-000163	●
2.8 mm	115 mm	30°	70°	HVT-19-000164	●
2.8 mm	240 mm	0°	70°	HVT-19-000177	●
2.8 mm	240 mm	30°	70°	HVT-19-000178	●
4.0 mm	130 mm	0°	70°	HVT-19-000165	●
4.0 mm	130 mm	30°	70°	HVT-19-000166	●
4.0 mm	130 mm	70°	70°	HVT-19-000167	●
4.0 mm	150 mm	90°	60°	HVT-19-000168	●
4.0 mm	258 mm	0°	70°	HVT-19-000169	●
4.0 mm	258 mm	30°	70°	HVT-19-000170	●
4.0 mm	258 mm	70°	70°	HVT-19-000171	●
4.0 mm	265 mm	90°	60°	HVT-19-000172	●
4.0 mm	385 mm	0°	70°	HVT-19-000173	●
4.0 mm	385 mm	30°	70°	HVT-19-000174	●
4.0 mm	385 mm	70°	70°	HVT-19-000175	●
4.0 mm	335 mm	90°	60°	HVT-19-000176	●

2.2 Rigid Borescopes with Wide Angle Optic



Wide angle borescopes

Borescopes with wide-angle optics can be found in Chapter 2.8. Other wide-angle endoscopy options available on request.

2 RIGID BORESCOPES

2.3 Rigid Borescopes - Focusable



Borescopes for mirror tubes

OUTER Ø	LENGTH	DOV	FOV	ITEM-NO.	CODE
1.9 mm	105 mm	0°	30°	HVT-19-000158	●
2.8 mm	102 mm	0°	30°	HVT-19-000159	●
2.8 mm	169 mm	0°	30°	HVT-19-000160	●
2.8 mm	240 mm	0°	30°	HVT-19-000161	●
2.8 mm	295 mm	0°	30°	HVT-19-000162	●
3.8 mm	168 mm	0°	35°	HVT-19-000237	●
3.8 mm	298 mm	0°	35°	HVT-19-000238	●
4.0 mm	385 mm	0°	40°	HVT-19-000221	●



Mirror tubes

OUTER Ø	LENGTH	DOV	FOR BORESCOPE	ITEM-NO.	CODE
2.3 mm	110 mm	70°	HVT-19-000158	HVT-99-000103	●
2.3 mm	110 mm	90°	HVT-19-000158	HVT-99-000104	●
2.3 mm	110 mm	110°	HVT-19-000158	HVT-99-000105	●
3.2 mm	110 mm	45°	HVT-19-000159	HVT-99-000106	●
3.2 mm	110 mm	70°	HVT-19-000159	HVT-99-000107	●
3.2 mm	110 mm	90°	HVT-19-000159	HVT-99-000108	●
3.2 mm	110 mm	110°	HVT-19-000159	HVT-99-000109	●
3.2 mm	175 mm	70°	HVT-19-000160	HVT-99-000114	●
3.2 mm	175 mm	90°	HVT-19-000160	HVT-99-000115	●
3.2 mm	175 mm	110°	HVT-19-000160	HVT-99-000116	●
3.2 mm	240 mm	45°	HVT-19-000161	HVT-99-000110	●
3.2 mm	240 mm	70°	HVT-19-000161	HVT-99-000111	●
3.2 mm	240 mm	90°	HVT-19-000161	HVT-99-000112	●
3.2 mm	240 mm	110°	HVT-19-000161	HVT-99-000113	●
3.2 mm	300 mm	70°	HVT-19-000162	HVT-99-000117	●
3.2 mm	300 mm	90°	HVT-19-000162	HVT-99-000118	●
3.2 mm	300 mm	110°	HVT-19-000162	HVT-99-000119	●
4.7 mm	175 mm	70°	HVT-19-000237	HVT-99-000141	●
4.7 mm	175 mm	90°	HVT-19-000237	HVT-99-000142	●
4.7 mm	175 mm	110°	HVT-19-000237	HVT-99-000143	●
4.8 mm	300 mm	70°	HVT-19-000238	HVT-99-000138	●
4.7 mm	300 mm	90°	HVT-19-000238	HVT-99-000139	●
4.7 mm	300 mm	110°	HVT-19-000238	HVT-99-000140	●
4.7 mm	385 mm	70°	HVT-19-000221	HVT-99-000144	●
4.7 mm	385 mm	90°	HVT-19-000221	HVT-99-000145	●
4.7 mm	385 mm	110°	HVT-19-000221	HVT-99-000146	●

2 RIGID BORESCOPES

2.4 Long Borescopes - Focusable (Ø 6.0 mm - 10.0 mm)



Long borescopes

OUTER Ø	LENGTH	DOV	FOV	ITEM-NO.	CODE
6.0 mm	450 mm	0°	70°	HVT-19-000113	
6.0 mm	450 mm	30°	70°	HVT-19-000114	
6.0 mm	450 mm	70°	70°	HVT-19-000115	
6.0 mm	450 mm	90°	60°	HVT-19-000108	
6.0 mm	640 mm	0°	70°	HVT-19-000116	
6.0 mm	640 mm	30°	70°	HVT-19-000117	
6.0 mm	640 mm	70°	70°	HVT-19-000118	
6.0 mm	560 mm	90°	60°	HVT-19-000109	
6.0 mm	860 mm	0°	70°	HVT-19-000119	
6.0 mm	860 mm	30°	70°	HVT-19-000120	
6.0 mm	860 mm	70°	70°	HVT-19-000121	
6.0 mm	760 mm	90°	60°	HVT-19-000110	
8.0 mm	650 mm	0°	70°	HVT-19-000122	
8.0 mm	640 mm	30°	70°	HVT-19-000123	
8.0 mm	640 mm	70°	70°	HVT-19-000124	
8.0 mm	560 mm	90°	60°	HVT-19-000125	
8.0 mm	860 mm	0°	70°	HVT-19-000126	
8.0 mm	860 mm	30°	70°	HVT-19-000127	
8.0 mm	895 mm	90°	60°	HVT-19-000128	
8.0 mm	1050 mm	0°	70°	HVT-19-000129	
8.0 mm	1200 mm	90°	60°	HVT-19-000130	
10.0 mm	860 mm	0°	70°	HVT-19-000131	
10.0 mm	680 mm	90°	60°	HVT-19-000132	
10.0 mm	1050 mm	0°	70°	HVT-19-000133	
10.0 mm	1440 mm	0°	70°	HVT-19-000134	
10.0 mm	1440 mm	90°	60°	HVT-19-000135	

Please note: For borescopes in lengths of 600 mm and longer, it is due to logistics mandatory to order a transport case with it.

2.5 Swivel Prism Borescopes (Ø 5.5 mm - 9.0 mm)



Swivel prism borescopes

OUTER Ø	LENGTH	DOV	FOV	ITEM-NO.	CODE
5.5 mm	260 mm	+45° to +110°	50°	HVT-11-000123	
5.5 mm	460 mm	+45° to +110°	50°	HVT-11-000117	
6.0 mm	175 mm	-7° to +130°	45°	HVT-16-000101	
6.0 mm	315 mm	-7° to +130°	45°	HVT-16-000102	
6.0 mm	455 mm	-7° to +130°	45°	HVT-16-000103	
8.0 mm	185 mm	-7° to +130°	45°	HVT-16-000104	
8.0 mm	260 mm	+45° to +110°	50°	HVT-11-000118	
8.0 mm	325 mm	-7° to +130°	45°	HVT-16-000105	
8.0 mm	395 mm	-7° to +130°	45°	HVT-16-000106	
8.0 mm	460 mm	+45° to +110°	50°	HVT-11-000119	
8.0 mm	465 mm	-7° to +130°	45°	HVT-16-000107	
8.0 mm	605 mm	-7° to +130°	45°	HVT-16-000108	
8.0 mm	660 mm	+45° to +110°	50°	HVT-11-000120	
9.0 mm	305 mm	-7° to +130°	45°	HVT-16-000109	
9.0 mm	405 mm	-7° to +130°	45°	HVT-16-000110	
9.0 mm	605 mm	-7° to +130°	45°	HVT-16-000111	
9.0 mm	805 mm	-7° to 130°	45°	HVT-16-000112	

2 RIGID BORESCOPES

2.6 Automotive Borescopes (Ø 2.9 mm - 4.8 mm)



Automotive borescopes

OUTER Ø	LENGTH	DOV	FOV	ITEM-NO.	CODE
2.9 mm	159 mm	0°	80°	HVT-19-010104	●
2.9 mm	168 mm	30°	80°	HVT-19-010105	●
2.9 mm	161 mm	70°	80°	HVT-19-010106	●
2.9 mm	158 mm	90°	80°	HVT-19-010107	●
2.9 mm	285 mm	0°	80°	HVT-19-010112	●
2.9 mm	287 mm	30°	80°	HVT-19-010113	●
2.9 mm	289 mm	70°	80°	HVT-19-010114	●
2.9 mm	285 mm	90°	80°	HVT-19-010115	●
3.8 mm	165 mm	0°	80°	HVT-19-010120	●
3.8 mm	162 mm	30°	80°	HVT-19-010121	●
3.8 mm	164 mm	70°	80°	HVT-19-010122	●
3.8 mm	160 mm	90°	80°	HVT-19-010123	●
3.8 mm	291 mm	0°	80°	HVT-19-010128	●
3.8 mm	288 mm	30°	80°	HVT-19-010129	●
3.8 mm	290 mm	70°	80°	HVT-19-010130	●
3.8 mm	286 mm	90°	80°	HVT-19-010131	●
4.5 mm	435 mm	0°	80°	HVT-19-010136	●
4.5 mm	432 mm	30°	80°	HVT-19-010137	●
4.5 mm	434 mm	70°	80°	HVT-19-010138	●
4.3 mm	430 mm	90°	80°	HVT-19-010139	●
4.8 mm	291 mm	0°	80°	HVT-19-010144	●
4.8 mm	288 mm	30°	80°	HVT-19-010145	●
4.8 mm	287 mm	90°	80°	HVT-19-010146	●

Different lengths are available upon request

2 RIGID BORESCOPES

2.7 Protective Tubes for Automotive and Automotive-Wideangle-Borescopes (Ø 3.5 mm - 6.3 mm)



Protective tubes for automotive borescopes

OUTER Ø	LENGTH	DOV	FOR BORESCOPE	ITEM-NO.	CODE
3.5 mm	159 mm	0°	HVT-19-010104 HVT-19-010204	HVT-99-010104	●
3.5 mm	168 mm	30°	HVT-19-010105 HVT-19-010205	HVT-99-010105	●
3.5 mm	161 mm	70°	HVT-19-010106 HVT-19-010206	HVT-99-010106	●
3.5 mm	158 mm	90°	HVT-19-010107 HVT-19-010207	HVT-99-010107	●
3.5 mm	285 mm	0°	HVT-19-010112 HVT-19-010212	HVT-99-010112	●
3.5 mm	287 mm	30°	HVT-19-010113 HVT-19-010213	HVT-99-010113	●
3.5 mm	289 mm	70°	HVT-19-010114 HVT-19-010214	HVT-99-010114	●
3.5 mm	285 mm	90°	HVT-19-010115 HVT-19-010215	HVT-99-010115	●
4.5 mm	165 mm	0°	HVT-19-010120 HVT-19-010220	HVT-99-010120	●
4.5 mm	162 mm	30°	HVT-19-010121 HVT-19-010221	HVT-99-010121	●
4.5 mm	164 mm	70°	HVT-19-010122 HVT-19-010222	HVT-99-010122	●
4.5 mm	160 mm	90°	HVT-19-010123 HVT-19-010223	HVT-99-010123	●
4.5 mm	291 mm	0°	HVT-19-010128 HVT-19-010228	HVT-99-010128	●
4.5 mm	288 mm	30°	HVT-19-010129 HVT-19-010229	HVT-99-010129	●
4.5 mm	290 mm	70°	HVT-19-010130 HVT-19-010230	HVT-99-010130	●
4.5 mm	286 mm	90°	HVT-19-010131 HVT-19-010231	HVT-99-010131	●
5.6 mm	435 mm	0°	HVT-19-010136 HVT-19-010236	HVT-99-010136	●
5.6 mm	432 mm	30°	HVT-19-010137 HVT-19-010237	HVT-99-010137	●
5.6 mm	434 mm	70°	HVT-19-010138 HVT-19-010238	HVT-99-010138	●
5.0 mm	430 mm	90°	HVT-19-010139 HVT-19-010239	HVT-99-010139	●
6.3 mm	291 mm	0°	HVT-19-010144 HVT-19-010244	HVT-99-010144	●
6.3 mm	288 mm	30°	HVT-19-010145 HVT-19-010245	HVT-99-010145	●
6.3 mm	287 mm	90°	HVT-19-010146 HVT-19-010246	HVT-99-010146	●

2 RIGID BORESCOPES

2.8 Automotive Wide Angle Borescope (Ø 2.9 mm - 4.8 mm)



Automotive wide angle borescope

OUTER Ø	LENGTH	DOV	FOV	ITEM-NO.	CODE
2.9 mm	159 mm	0°	95°	HVT-19-010204	●
2.9 mm	168 mm	30°	95°	HVT-19-010205	●
2.9 mm	161 mm	70°	95°	HVT-19-010206	●
2.9 mm	159 mm	90°	95°	HVT-19-010207	●
2.9 mm	285 mm	0°	95°	HVT-19-010212	●
2.9 mm	287 mm	30°	95°	HVT-19-010213	●
2.9 mm	289 mm	70°	95°	HVT-19-010214	●
2.9 mm	285 mm	90°	95°	HVT-19-010215	●
3.8 mm	165 mm	0°	95°	HVT-19-010220	●
3.8 mm	162 mm	30°	95°	HVT-19-010221	●
3.8 mm	164 mm	70°	95°	HVT-19-010222	●
3.8 mm	160 mm	90°	95°	HVT-19-010223	●
3.8 mm	291 mm	0°	95°	HVT-19-010228	●
3.8 mm	288 mm	30°	95°	HVT-19-010229	●
3.8 mm	290 mm	70°	95°	HVT-19-010230	●
3.8 mm	287 mm	90°	95°	HVT-19-010231	●
4.5 mm	435 mm	0°	95°	HVT-19-010236	●
4.5 mm	432 mm	30°	95°	HVT-19-010237	●
4.5 mm	434 mm	70°	95°	HVT-19-010238	●
4.3 mm	430 mm	90°	95°	HVT-19-010239	●
4.8 mm	291 mm	0°	95°	HVT-19-010244	●
4.8 mm	288 mm	30°	95°	HVT-19-010245	●
4.8 mm	287 mm	90°	95°	HVT-19-010246	●

Different lengths are available upon request.

2 RIGID BORESCOPES

2.9 Elastoscopes (Ø 1.7 mm - 2.4 mm)



Elastoscopes

OUTER Ø	LENGTH	DOV	FOV	ITEM-NO.	CODE
1.8 mm	120 mm	0°	87°	HVT-11-000125	●
1.8 mm	180 mm	0°	87°	HVT-11-000126	●
1.8 mm	300 mm	0°	87°	HVT-11-000127	●
2.4 mm	270 mm	0°	80°	HVT-11-000128	●
2.4 mm	350 mm	80°	60°	HVT-11-000129	●
2.4 mm	580 mm	0°	80°	HVT-11-000104	●
2.4 mm	580 mm	80°	60°	HVT-11-000124	●

3 FLEXIBLE ENDOSCOPES



DIAMETER



WORKING LENGTH



DIRECTION OF VIEW (DOV)



FIELD OF VIEW (FOV)



ARTICULATING / NON-ARTICULATING



RESOLUTION

Fiberscopes are a well-proven technology. If used in combination with video or digital cameras, an image can be comfortably viewed at high magnification, shared with others and/or stored.

As the products have no integrated motors, sensors or electronics they can be easily deployed in high risk areas and are simple and intuitive to use. Fiberscopes also offer an additional benefit: Due to the lack of an image sensor in the tip of the scope, the articulating section of the scope (sometimes referred to as the “bending section“) is noticeably shorter than the bending section of the videoscope equivalent. This enables fiberscopes to inspect smaller and more complex castingssections than videoscopes.



3 FLEXIBLE ENDOSCOPES

3.1 Fiberscopes with Tip Articulation



Flexible endoscopes
with articulation

OUTER Ø	LENGTH	ARTICULATION	DOV	FOV	90°	RESOLUTION	PROBE	ITEM-NO.	CODE
2.5 mm	700 mm	2 x 125°	0°	75°	-	8.200 px	Tungsten	HVT-49-000135	●
3.8 mm	700 mm	2 x 125°	0°	75°	-	18.000 px	Tungsten	HVT-49-000134	●



3 FLEXIBLE ENDOSCOPES

3.2 Fiberscopes without Tip Articulation (Ø 0.35 mm to 2.5 mm)



Micro fiberscopes non-articulating

OUTER Ø	LENGTH	DOV	FOV	RESOLUTION	PROBE	ITEM-NO.	CODE
0.5 mm	500 mm	0°	70°	4.000 px	Kunststoff	HVT-40-000100	●
0.5 mm	1000 mm	0°	70°	4.000 px	Kunststoff	HVT-40-000107	●
0.5 mm	1500 mm	0°	70°	4.000 px	Kunststoff	HVT-40-000108	●
0.5 mm	2000 mm	0°	70°	4.000 px	Kunststoff	HVT-40-000109	●
0.75 mm	500 mm	0°	70°	6.000 px	Kunststoff	HVT-40-000110	●
0.75 mm	1000 mm	0°	70°	6.000 px	Kunststoff	HVT-40-000111	●
0.75 mm	1500 mm	0°	70°	6.000 px	Kunststoff	HVT-40-000112	●
0.75 mm	2000 mm	0°	70°	6.000 px	Kunststoff	HVT-40-000113	●
0.9 mm	200 mm	0°	70°	6.000 px	Kunststoff	HVT-49-000108	●
0.9 mm	750 mm	0°	70°	6.000 px	Kunststoff	HVT-49-000110	●
1.0 mm	500 mm	0°	70°	10.000 px	Kunststoff	HVT-40-000114	●
1.0 mm	1000 mm	0°	70°	10.000 px	Kunststoff	HVT-40-000115	●
1.0 mm	1500 mm	0°	70°	10.000 px	Kunststoff	HVT-40-000116	●
1.0 mm	2000 mm	0°	70°	10.000 px	Kunststoff	HVT-40-000117	●
1.2 mm	140 mm	0°	70°	6.000 px	Kunststoff	HVT-49-000111	●
1.4 mm	750 mm	0°	70°	10.000 px	Kunststoff	HVT-49-000117	●
1.5 mm	1500 mm	0°	60°	30.000 px	Kunststoff	HVT-40-000120	●
1.5 mm	2000 mm	0°	60°	30.000 px	Kunststoff	HVT-40-000121	●
1.6 mm	300 mm	0°	70°	10.000 px	Kunststoff	HVT-49-000118	●
1.6 mm	750 mm	0°	70°	10.000 px	Kunststoff	HVT-49-000119	●
2.0 mm	2000 mm	0°	70°	30.000 px	Kunststoff	HVT-40-000122	●
2.0 mm	3000 mm	0°	70°	30.000 px	Kunststoff	HVT-40-000123	●
2.0 mm	4000 mm	0°	70°	30.000 px	Kunststoff	HVT-40-000124	●
2.0 mm	5000 mm	0°	70°	30.000 px	Kunststoff	HVT-40-000125	●
2.5 mm	2000 mm	0°	70°	30.000 px	Kunststoff	HVT-40-000126	●
2.5 mm	5000 mm	0°	70°	30.000 px	Kunststoff	HVT-40-000127	●
2.5 mm	10000 mm	0°	70°	30.000 px	Kunststoff	HVT-40-000128	●
2.5 mm	15000 mm	0°	70°	30.000 px	Kunststoff	HVT-40-000129	●

The HVT-90-0002006 adapter is required for operating the HVT-40 endoscope series with mobile light sources (e.g., MOBILED5)

3 FLEXIBLE ENDOSCOPES

3.3 Guide Tubes



Guide tubes

Guide tubes are designed to assist flexible probes during difficult/complex inspections or to ensure that the probe reaches a defined location. They can be semi rigid or preformed.

OUTER Ø	FOR PROBES WITH Ø	LENGTH	CONSTRUCTION	FOR PRODUCTS	ITEM-NO.
8 mm	4.0 mm	200 mm 400 mm 600 mm 800 mm	Semi Rigid	VISIO probes VUCAM® Fiberscopes	HVT-90-000157 HVT-90-000158 HVT-90-000159 HVT-90-000160
12 mm	6.0 mm	200 mm 400 mm 600 mm 800 mm	Semi Rigid	VISIO probes VUCAM® Fiberscopes	HVT-90-000161 HVT-90-000162 HVT-90-000163 HVT-90-000164
15 mm	8.4 mm	200 mm 400 mm 600 mm 800 mm	Semi Rigid	VUMAN® Fiberscopes	HVT-90-000165 HVT-90-000166 HVT-90-000167 HVT-90-000168
6 mm	4.0 mm	200 mm 400 mm 600 mm 800 mm	Rigid	VISIO probes VUCAM® Fiberscopes	HVT-90-000169 HVT-90-000170 HVT-90-000171 HVT-90-000172
8 mm	6.0 mm	200 mm 400 mm 600 mm 800 mm	Rigid	VISIO probes VUCAM® Fiberscopes	HVT-90-000173 HVT-90-000174 HVT-90-000175 HVT-90-000176
10 mm	8.4 mm	200 mm 400 mm 600 mm 800 mm	Rigid	VISIO probes VUCAM® Fiberscopes	HVT-90-000152 HVT-90-000153 HVT-90-000154 HVT-90-000155

4 ACCESSORIES



COLOR TEMPERATURE

INTENSITY

TOTAL COST OF OWNERSHIP (TCO)

ILLUMINATION

Light is very important in remote visual inspection. The amount of lighting needed depends on the application. Modern LED technology provides more of a white light than the older filament type lamps and has a lower total cost of ownership due to the increased lifetime of the LED. However, it is important to consider your application and to choose the right light source for you. Color temperature, light intensity, environment and cost are all important factors. For this reason, viZaar offers a wide range of light sources and accessories to ensure that you can choose the perfect product for your application.



4 ACCESSORIES

4.1 Light Sources



LUMLED 4000

LUMLED 4000		HVT-92-000115
Control panel	ON/OFF, LED brightness control	
Outlets	1 x USB, 1 x Jack 2.5 mm, 1 x ESD, 1 x mains connection socket	
Power	65 Watt	
Illumination	High power LEDs	
Color temperature	Approx. 5.800 K	
Luminosity	Approx. 470 lm at Ø 5 x 1000 mm | Approx. 640 lm at Ø 8 x 1000 mm	
Lamp lifetime	25.000 hours (70% illumination power)	
Main supply	100 - 240V, 12V DC, 5.420 mA	
Dimensions	(W) 170 x (H) 98 x (D) 196 mm, without projecting parts	
Weight	2.0 kg	

COLOR FILTERS LUMLED 4000 (RED, YELLOW, GREEN, BLUE)	HVT-92-000194



LUMLED 7000

LUMLED 7000		HVT-92-000264
Control panel	ON/OFF, LED brightness control	
Outlets	1 x USB, 1 x Jack 2.5 mm, 1 x ESD, 1 x mains connection socket	
Power	100 Watt	
Illumination	High power LEDs	
Color temperature	Approx. 6.500 K	
Luminosity	Approx. 1.400 lm at Ø 5 x 1000 mm	
Lamp lifetime	25.000 hours (70% illumination power)	
Main supply	100 - 240V, 24V DC, 4.100 mA	
Dimensions	(W) 170 x (H) 98 x (D) 205 mm, without projecting parts	
Weight	2.0 kg	



F1-LED

F1-LED		HVT-92-000342
Light source	Hi-Power LEDs with continuous light regulation	
Brightness	280 lm max.	
Color temperature	approx. 6,000 K	
Maximum fiber diameter	9 mm	
Lifespan L70	approx. 50,000 h (70% of initial brightness)	
Cooling	Passive - fanless	
Power supply	24 V DC, 1,000 mA	
Power consumption	22 Watts	
Ambient conditions	10° - 30° C, max. 70% relative humidity	
Light guide connection	Ø 15 mm	
Dimensions	110 x 175 x 96 mm	
Weight	approx. 2.5 kg	



MOBILED-5

MOBILED-5		HVT-99-000125
Control unit	ON/OFF, LED 4 steps brightness control	
Color temperature	Approx. 6.000 K	
Luminosity	Max. 960 lm	
Main supply	Rechargeable lithium-ion battery 18650	
Battery charger	100 - 240V AC, 50/60 Hz	
Operating time	Up to 9 hours	
Charging time	Approx. 3.5 hours	
Dimensions	(W) 140 x (Ø) 25 mm	
Weight	123 g (without battery)	

4 ACCESSORIES

4.1 Light Sources



F-3000-P

F-3000-P		HVT-99-000126
Control panel	ON/OFF, LED brightness control	
Outlets	Light connector Ø 15 mm	
Power	44 Watt	
Illumination	High power LEDs	
Color temperature	Approx. 5.700 K	
Luminosity	Approx. 650 lm at Ø 9 x 1000 mm	
Lamp lifetime	Approx. 50.000 hours (70% illumination power)	
Main supply	100 - 240V, 12V DC, 4.100 mA	
Dimensions	(W) 259 x (D) 174 x (H) 81 mm	
Weight	3.7 kg	
Cooling	Passiv without fan	



LUMLED

LUMLED		HVT-90-000111
Control panel	Light dimmer	
Power	8 Watt	
Color temperature	4.500 K	
Illumination	High power LEDs	
Lamp lifetime	50.000 hours	
Main supply	230V - 50/60 Hz	
Operating environment	Operating: 0°C to +40°C | Storage: +10°C to +60°C	
Dimensions	(H) 70 x (W) 110 x (D) 170 mm	
Weight	0.85 kg	



GLI 154 LED

GLI 154 LED		ITEM-NO.	CODE
Power	12 Watt	HVT-90-000102	
Color temperature	5.000 K		
Illumination	LED		
Light adjustment	Progressive diaphragm		
Main supply	115V - 240V, 50/60 Hz		
Operating environment	Operating: 0°C to +40°C | Storage: +10°C to +60°C		
Dimensions	(W) 140 x (H) 170 x (D) 190 mm		
Weight	1.8 kg		

4 ACCESSORIES

4.2 Light guides



Light guides

OUTER Ø	LENGTH	OPERATING TEMPERATURE	DESCRIPTION	ITEM-NO.	CODE
4.8 mm	2300 mm	Up to +300°C	Glas fiber optics	HVT-99-000177	●



Light guides

FIBER OPTIC Ø	LENGTH	DESCRIPTION	ITEM-NO.	CODE
4.0 mm	1800 mm	Flexible, PVC cover	HVT-90-000116	●
4.0 mm	1800 mm	Flexible, PVC cover	HVT-90-000112	●
4.0 mm	3600 mm	Flexible, PVC cover	HVT-90-000115	●
4.0 mm x 2	1800 mm	Flexible, PVC cover, 2 outputs	HVT-90-000113	●



Light guides
with stainless steel covering

FIBER OPTIC Ø	LENGTH	DESCRIPTION	ITEM-NO.	CODE
3.5 mm	1800 mm	Flexible, glas fiber optics with stainless steel covering	HVT-99-000182	●
4.8 mm	1800 mm	Flexible, glas fiber optics with stainless steel covering	HVT-99-000122	●
4.8 mm	2500 mm	Flexible, glas fiber optics with stainless steel covering	HVT-99-000123	●
4.8 mm	3000 mm	Flexible, glas fiber optics with stainless steel covering	HVT-99-000124	●

Liquid light guides and adapters upon request.
UV-light guides and adapters upon request.

4.3 Light Probes



ACMI - Light probes*

OUTER Ø	LENGTH	TYP	ITEM-NO.	CODE
5.0 mm	100 mm	Rigid	HVT-99-000147	●

* Sales unit: 5 Pieces

5 DOCUMENTATION





DIGITALIZATION &
DOCUMENTATION

SIMULTANEOUS
VIEWING

EASY TO OPERATE

The camera adapter converts the image from the eyepiece into a video signal for presentation on a monitor or for digital recording. The inspection can be followed by fellow technicians and/or colleagues. And most importantly: Your inspection results can be saved as digital images or videos.



5 DOCUMENTATION

5.1 Camera Adapters



VUVISION/VUVISION+ Sets

You can find a current overview of the VUVISION sets, borescopes and strengthening tubes on page 5 to 9.

5.2 Video Camera Adapters



Video camera adapters

FOCAL LENGTH	MOUNTING (CAMERA)	MOUNTING (ENDOSCOPE)	FOCUS	ENDOSCOPES	ITEM-NO.	CODE
F 30	C-Mount	32 mm DIN eyepiece	Focusable	● ● ●[2] ●	HVT-90-000104	●
F 40	C-Mount	32 mm DIN eyepiece	Focusable	● ● ●[2] ●	HVT-90-000105	●

1 = Video camera adapters in combination with ● micro fiberscopes require the interface ring HVT-90-000144.
2 = Video camera adapters in combination with ● endoscopes requires the eyepiece adapter HVT-91-000129.

Additional Video-Objectives available on request

5 DOCUMENTATION

5.3 Adapters



Eyepiece adapter

EYEPIECE ADAPTER RICHARD WOLF FOR 32 MM OBJECTIVE ADAPTER	ITEM-NO.	CODE
	HVT-91-000129	●



Light source Adapter

FROM LIGHT GUIDE	TO LIGHT SOURCE	ITEM-NO.	CODE
●	●	HVT-91-000123	●
●	●	HVT-90-000127	●

Further adapter upon request



Adapter
endoscope to light guide

FROM ENDOSCOPE	TO LIGHT GUIDES	ITEM-NO.	CODE
●/ ●	●	HVT-92-000113	●



Adapter
light guide to endoscope

FROM LIGHT GUIDE	TO ENDOSCOPE	ITEM-NO.	CODE
ACMI ●	●	HVT-99-000165	●



Adapter mobile
light source to fiberscope

FROM LIGHT SOURCE	TO FIBERSCOPE	ITEM-NO.	CODE
MOBIL / ACMI	●	HVT-90-000206	●



Light guide
angle adapter

FROM LIGHT GUIDE	TO ENDOSCOPE	ITEM-NO.	CODE
ACMI	ACMI	HVT-99-000127	●

5.4 Monitors



Monitor

For an overview of our currently offered monitors, please send an e-mail to info@vizaar.com.

XPANDING YOUR VU

viZaar industrial imaging AG
Headquarter
Hechinger Straße 152
72461 Albstadt / Germany
Tel.: +49 7432 98375-0
Fax: +49 7432 98375-50
Freecall 0800 3600371 (only within Germany)
www.vizaar.com
info@vizaar.com

viZaar industrial imaging AG
VT Service / Rental Service / Sales / Training Center
Lupusstraße 17
35789 Weilmünster-Wolfenhausen / Germany
Tel.: +49 6475 91129-0
Fax: +49 6475 91129-29

viZaar industrial imaging AG
Branch North Germany
Hasklintweg 8
29339 Wathlingen / Germany
Tel.: +49 170 5703130
Fax: +49 6475 91129-29

OUR SALES AND SERVICE OFFICES

viZaar NRW
Sales and Service Office
46348 Raesfeld / Germany
Tel.: +49 170 5703130

viZaar Küste/Maritim
Sales and Service Office
25361 Krempe / Germany
Tel.: +49 171 5524094

viZaar South
Sales and Service Office
88161 Lindenberg im Allgäu / Germany
Tel.: +49 172 6019601

viZaar industrial imaging SA
3 rue Lambert
Parc Lavoisier
91410 Dourdan / France
Tel.: +33 1608 11818
Fax: +33 1645 99573
www.vizaar.fr
info@vizaar.com

Authorised sales and service distributor of viZaar®: