TECHNICAL PRODUCT INFORMATION

SERIES GT

Video endoscopes with Full HD resolution and interchangeable probes

Full HD resolution

Crystal-clear images for maximum precision

2000 cd/m² brightness

Brilliant visibility even in sunlight.

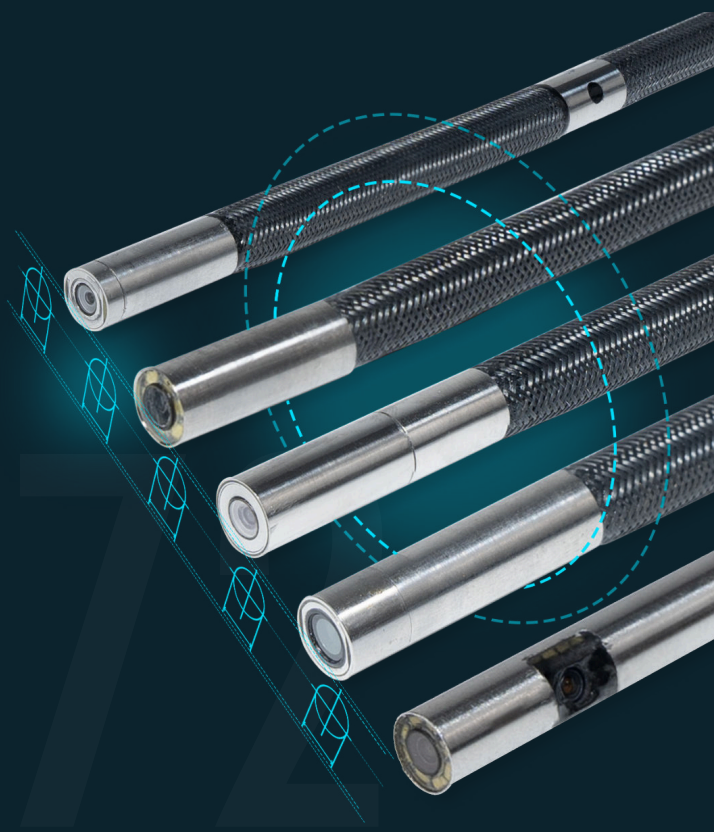
72 Probes

with a wide range of illumination system.

High quality & resolution

Specially developed for the demands of harsh industrial use, the GT video endoscope is excep- tionally robust. Razor-sharp images, simple and intuitive operation, and comprehensive features make the GT the ideal all-rounder for your inspections.

- + Intuitive touchscreen operation
- + Professional additional functions
- + Long battery life & expandable memory
- + Precise control of the probe tip



Basic components

- → Screen resolution: FULL HD 1920×1080
- → Display brightness: 2000 cd/m2
- → Processor: RK3288
- → RAM: 4 GB
- → Internal memory: 12 GB
- → Probes: 72 (Ø 0.78 mm to 12 mm)
- → SD card: 64 GB (supports up to 256 GB)

Play product video

5″ Full HD touchscreen with 1920×1080 resolution – crystal clear display

Extra bright display (2000 cd/m2) – perfectly readable even in sunlight

2D measurement, picture-in-picture, and optical focusing

Electric joystick control – precise, modern, and comfortable operation

Various lighting technologies: dual fiber optics, LED, IR, UV

Robust system with IP67 protection – reliable even under harsh operating conditions

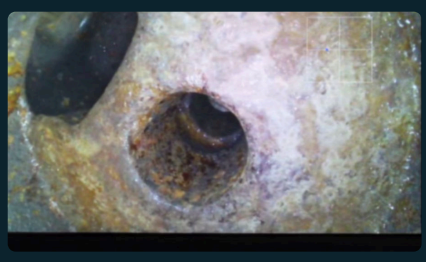
Crystal clear view down to the smallest detail

With Full HD resolution, dual camera function, and picture-in-picture display, complex areas can be easily captured. For professionals who don't compromise on accuracy and efficiency.

GT Series ★★★★★

GX Series ★★★

GM Series ★



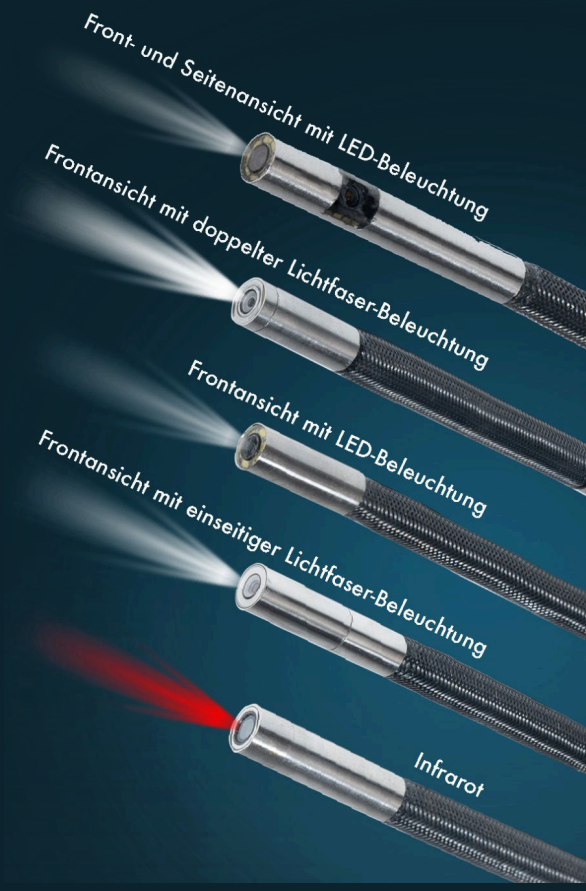
GT Video Endoscope Probes

GT endoscope probe portfolio from dia 0.78 mm to 12 mm from 1 m to 10 m

The GT probe portfolio offers a versatile selection of 72 inspection probes for different applications. Among other things, front-view probes and side-view probes are available, which, depending on the model, enable a targeted view to the front or to the side. Full HD probes are used for particularly high image quality, while IR probes and UV probes are suitable for special inspection tasks such as material or surface analysis. Probes with LED lighting ensure uniform illumination of the inspection area, and ultra-thin probes with a diameter of 0.78 mm or less allow use in very narrow structures. In addition, variants with focusing for close and distant ranges are available to accurately display different distances.

The probe portfolio with illumination systems includes:

- → Front view probes
- → Front/side view probes
- → Side view probes
- → Full HD probes
- → IR probes
- → UV probes
- → Probes with fiber optic lighting
- → Probes with LED lighting
- → Probes with interchangeable lenses
- → Probes with focusing for close-up and long-range
- → Probes with working channel
- → Ultra-thin probes from Ø 0.78 mm



Diverse applications in industry

Aviation

The GT enables the inspection of hard-to-reach engine and structural components with minimal disassembly effort and reduces maintenance times while ensuring a high level of safety.

Process industry

In automated systems, GT supports the rapid inspection of long and winding pipes and helps to efficiently avoid downtime.

Power generation

The GT provides reliable visualization of hard-to-reach components for preventive and short-term inspections in power plants and wind turbines.

Security

During inspection, reconnaissance and rescue operations, the GT impresses with its rapid readiness for use. Infrared illumination enables use both day and night.

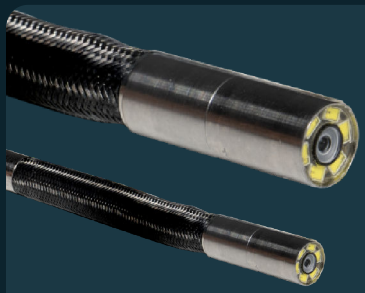
Vehicle technology & transport

The GT series is suitable for inspection and quality assurance in automotive and rail applications, e.g. for engines and cast parts.

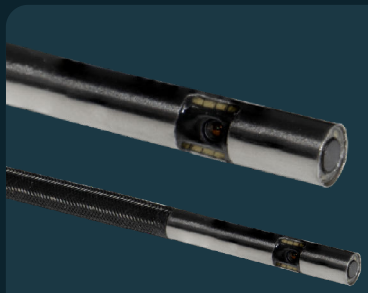
Infrastructure

For the inspection of structures, ducts and shafts, the GT enables an efficient condition assessment with simple documentation.

Our most popular probes at a glance

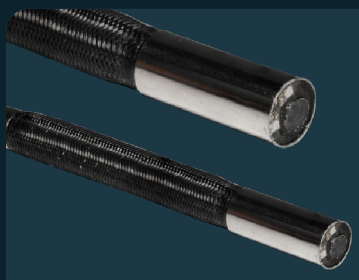


Front view probes



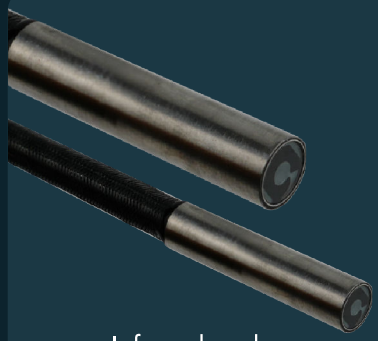
Front/side view probes

Ultra-thin probes



UV probes

Probes with working channel



Infrared probes

GT specification table for probes with different diameters

Probe variants

Ø	P		SP		FSP		IRP		UVP		f-P		CRP	
	DOF (mm)	FOV (°)	DOF (mm)	FOV (°)	DOF (mm)	FOV (°)	DOF (mm)	FOV (°)	DOF (mm)	FOV (°)	DOF (mm)	FOV (°)	DOF (mm)	FOV (°)
0.78mm	3-30	120	/		/									
0.85mm	3-30	120	/		/									
1.0mm	3-30	120	/		/									
1.2mm	3-30	120	/		/									
1.6mm	3-30	120	/		/									
1.8mm	5-50	120	/		/									
2.0mm	5-50	120	5-50	90	/									
2.4mm	5-50	120	5-50	90	/									
2.8mm	5-50	120	5-50	120	5-50/5-50	120								
2.9mm	10-100	90	/		/									
3.9mm	10-100	120	5-25	120	8-80/5-25	120			5-50	120				
4.5mm							60-infinity	80	8-80					
6.0mm							60-infinity				5-infinity	120		
6.2mm	10-100	120	8-60						8-80	120				
6.4mm				80	8-80/5-25	90								
8.4mm	10-100	120	8-60	80	8-80/5-25	90			8-80					
12.0mm													5-infinity	120

P: Front-view probe

SP: Side-view probe

FSP: Front/side-view probes

IRP: Infrared probe

UVP: Ultraviolet probe

f-P: Focusing probe

CRP: Probe with working channel

GT specification table for probes with different diameters

Ø	Probe length 1.0m	1.5m	2.0m	2.5m	3.0m	3.5m	5.0m	6.0m	6.5m	7.5m	10.0m	11.0m
0.78mm	✓											
0.85mm	✓											
1.0mm	✓	✓										
1.2mm	✓	✓										
1.6mm		✓										
1.8mm	✓	✓	✓									
2.0mm		✓	✓		✓							
2.4mm		✓	✓		✓							
2.8mm		✓	✓		✓							
2.9mm		✓	✓	✓	✓							
3.9mm		✓	✓		✓				✓			
4.5mm			✓		✓							
6.0mm			✓		✓	✓						
6.2mm			✓		✓	✓		✓			✓	
6.4mm			✓		✓	✓	✓					
8.4mm			✓		✓	✓	✓	✓			✓	✓
12.0mm			✓		✓		✓					

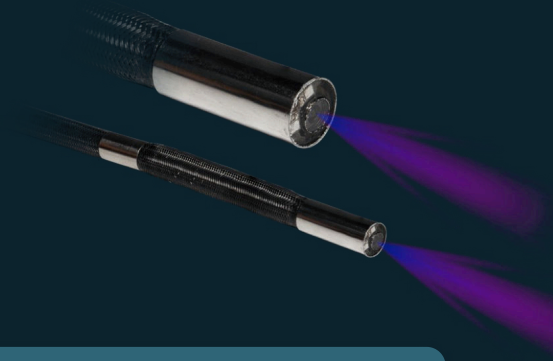
GT specification table for probe resolution

Probe variant	View	Diameter gauge	Sensor	Resolution	Note
P	Front view probes	0,78 mm bis 1,6 mm	CMOS	400 x 400	
P	Front view probes	1,8 mm bis 2,8 mm	CMOS	700 x 700	
P	Front view probes	2,9 mm	CMOS	1000 x 1000	
P	Front view probes	3,9 mm bis 8,4 mm	CMOS	1920 x 1080	Full HD
SP	Side-view probe	2,0 mm bis 2,4 mm	CMOS	700 x 700	
FSP	Front/side view probes	2,8 mm	CMOS	700 x 700	
FSP	Front/side view probes	3,9 mm	CMOS	1280 x 720	
FSP	Front/side view probes	6,4 mm	CMOS	1980 x 1080	Full HD
CRP	Probe with working channel	6,4 mm bis 8,4 mm	CMOS	1280 x 720	
CRP	Probe with working channel	12,0 mm	CMOS	1280 x 1080	Full HD
UVP	UV probe	3,9 mm	CMOS	700 x 700	
UVP	UV probe	6,2 mm bis 8,4 mm	CMOS	1280 x 720	
IRP	IR probe	4,5 mm bis 6,0 mm	CMOS	640 x 480	

UV endoscope probes of various diameters and lengths

The GT-UV endoscopes are equipped with a high-performance UV LED light source that emits ultraviolet light with a wavelength of 365 nm (UV-A). This illumination is used for the targeted excitation of fluorescent test media and substances that are not visible under normal white light or daylight – an indispensable feature for non-destructive material testing, especially dye penetration testing and contamination control.

UV endoscope dia 3.9 / 4.5 / 6.4 / 8.4



UV LED irradiance: 2,500 µW/cm² at a distance of 2 cm

The specification "2,500 µW/cm² @ 2 cm" describes the irradiance of the UV LED. It indicates that at a distance of exactly 2 cm from the light exit aperture, a UV power of 2,500 microwatts per square centimeter hits the test surface. This unit (µW/cm²) measures the power incident per area and is the decisive criterion for the intensity of fluorescence excitation.

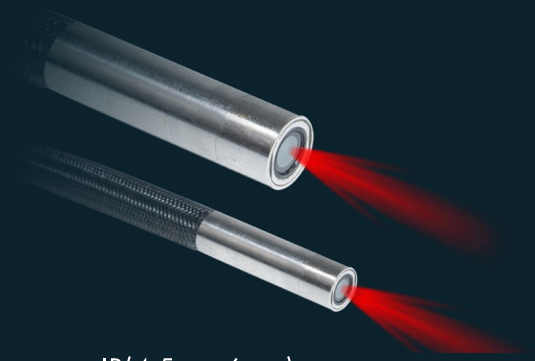
The reference distance of 2 cm is relevant in practice, as the irradiance decreases quadratically with increasing distance. A high value such as 2,500 µW/cm² ensures strong and reliable excitation even of weakly fluorescent penetrants, thereby enabling the reliable detection of even the smallest surface defects and residues.

The precise emission wavelength of 365 nm is optimally matched to common fluorescent testing agents and minimizes disruptive visible stray light. GT UV endoscopes thus meet the highest requirements of non-destructive testing technology and are particularly well established in aviation, automotive engineering, clean room and precision manufacturing.

IR endoscope probes, various diameters and lengths

An IR endoscope is a special endoscope that uses infrared radiation (heat radiation) instead of visible light. It captures images and videos from hard-to-reach areas and makes temperature differences visible – ideal for temperature measurement, heat analysis, and the detection of heat sources in industry, surveillance, police, customs, and security and special forces.

IR endoscopes are equipped with thermal imaging sensors that can clearly visualize hot surfaces and temperature distributions even in dark or hard-to-see areas. In summary, it is a highly specialized optical inspection device for non-destructive testing using infrared technology that makes thermal conditions and processes visible that would not be detectable with conventio-nal endoscopes.



IR(4.5mm,6mm)

GT endoscope probes with retrieval channel in various diameters and lengths

An endoscope with a retrieval channel is a special endoscope that, in addition to the normal functions such as lighting and image capture, has a channel through which small instruments (e.g., forceps, tongs) can be in-serted to retrieve or remove foreign bodies or samples. The retrieval channel therefore not only allows visual inspection, but also active intervention in the examination area.

Certain GT endoscope probes with fiber optic illumination dia 2.8 / 3.9 / 6 achieve more than twice the light intensity (lux value) compared to comparable probes with LED illumination.

HT-GTf3920-P | Ø 3,9mm | Lengh 2m
Fiber optic lighting: 60000 Lux ✓

HT-GTf3920-P | Ø 3,9mm | Lengh 2m
LED lighting: 18000 Lux

HIPP Endoskop Service GmbH

Your reliable partner for industrial endoscopes

Hipp Endoskop Service GmbH is certified according to DIN EN ISO 9001:2015.
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Hipp Endoskop Service GmbH | Glottertalstrasse 10 | 79108 Freiburg / Germany

+49 (0)761-52800 sales@hipp-es.com www.hipp-endoskopservice.com