

GT70 Series Laser distance sensors

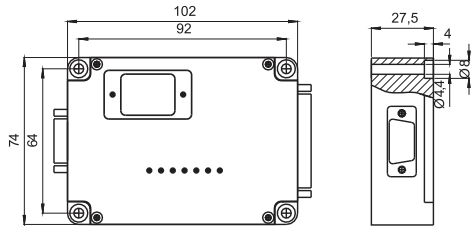


GT 70 series

Laser distance sensors in the GT 70 series are characterized by their high speed. With up to 100,000 measurements per second, these sensors may be regarded as the fastest in the world and are therefore ideal for carrying out oscillation and vibration measurements. The sensors are equipped with a clogging indicator, a synchronization option, two analogue outputs and a serial port. The Ethernet port also allows comfortable remote maintenance to be carried out. The electronic components are located in an external controller.

- Measuring frequency 100 kHz
- Ethernet interface
- Analog output
- Ranges 0,5 mm up to 400 mm
- Low-noise
- Reliable results also with white/black transition
- Replaceable protection glasses

Electronic unit (300 g)



GT70 Series Laser distance sensors

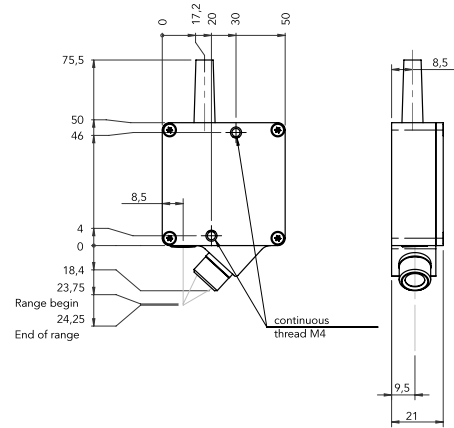
	GT 70 -0,5	GT 70 -002	GT 70-004	GT 70-010	GT 70-020	GT 70-050	GT 70-100	GT 70-200	GT 70-400
Measuring range	0,5 mm	2 mm	4 mm	10 mm	20 mm	50 mm	100 mm	200 mm	400 mm
Range begin ¹	23,75 mm	23 mm	22 mm	40 mm	55 mm	115 mm	170 mm	240 mm	480 mm
Linearity ±	1,5 µm	6 µm	12 µm	30 µm	60 µm	150 µm	300 µm	600 µm	1200 µm
Resolution ²	0,8 µm	3,5 µm	7 µm	17,5 µm	35 µm	50 µm	100 µm	330 µm	990 µm
Resolution ³	0,05 µm	0,2 µm	0,4 µm	1 µm	2 µm	7,5 µm	15 µm	50 µm	150 µm
Light spot diameter	0,1 mm	0,2 mm	0,3 mm	0,6 mm	0,9 mm	1,5 mm	1,5 mm	2 mm	4 mm
General data									
Laser class	class 2 according to DIN EN 60825-1:2001-11, optional: enhanced laser power								
Light source	Laser, wave length 670 nm, red visible								
Sampling rate	54 kHz								
Distance output	4 ~ 20 mA; ±10 V (optional 0 ~ 20 mA, 0 ~ 10 V, 0 ~ 5 V, ±5 V)								
Interface	Ethernet								
Impedance	approx. 0 Ω (10 mA max.)								
Measuring rate	100 kHz (-3 db)								
Temperature drift	0.02% of range / K								
Light intensity output	0 ~ 10 V								
MIN	+24 V / 10 mA when lower than MIN, LED yellow								
OK	+24 V / 10 mA when higher than MIN and lower than MAX, LED green								
MAX	+24 V / 10 mA when higher than MAX, LED orange								
Error output	+24 V / 10 mA, LED red								
Switching hysteresis	approx. 0.5% of range								
Ambient light	20.000 Lux								
Operation time	50,000 h for laser diode								
Isolation voltage	200 V DC, 0 V against casing								
Max. vibration	5 g up to 1 kHz								
Operation temperature	0° ~ +50°C								
Storage temperature	-20° ~ +70°C								
Humidity	up to 90% RH, non condensing								
Protection class	Sensor head: IP 64, electronic unit: IP 40								
Weight	250 g	260 g	260 g	260 g	270 g	420 g	420 g	420 g	850 g
Power supply	+24 V DC / 250 mA (10 ~ 30 V)								

om casing edge

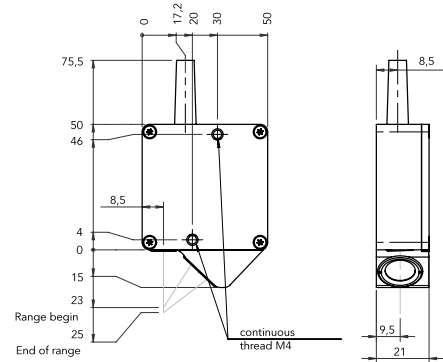
² Measurement at 100 kHz, object colour matt white

³ Measurement at 20 Hz, object colour matt white

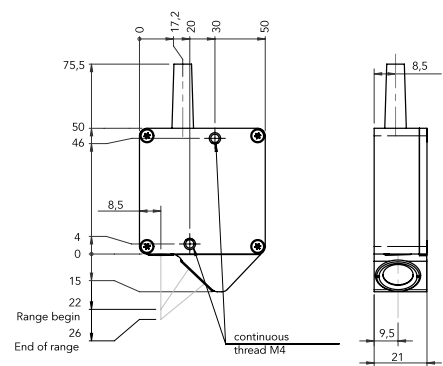
Dimensions GT 70-0,5



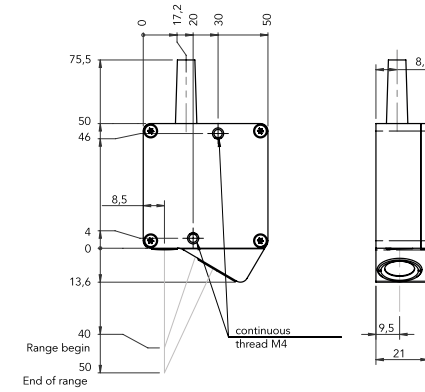
Dimensions GT 70-002



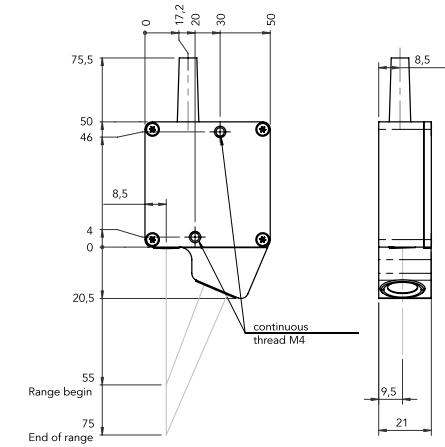
Dimensions GT 70-004



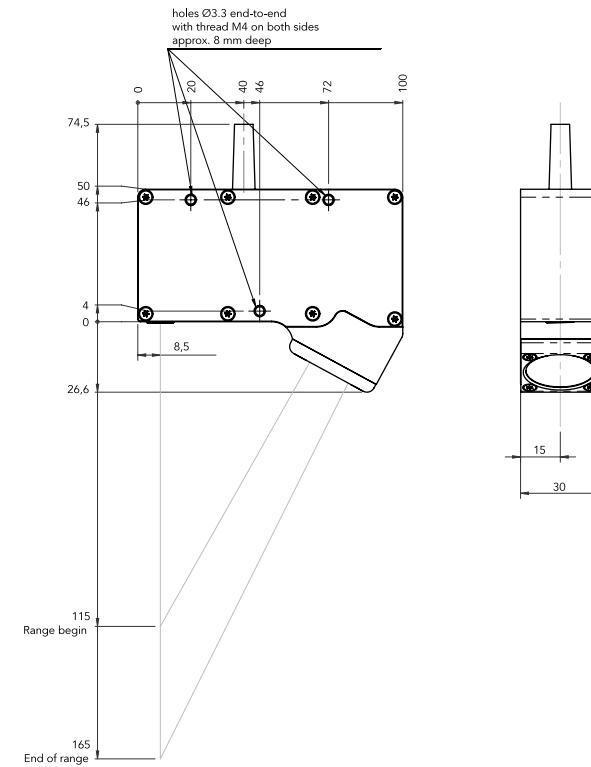
Dimensions GT 70-010



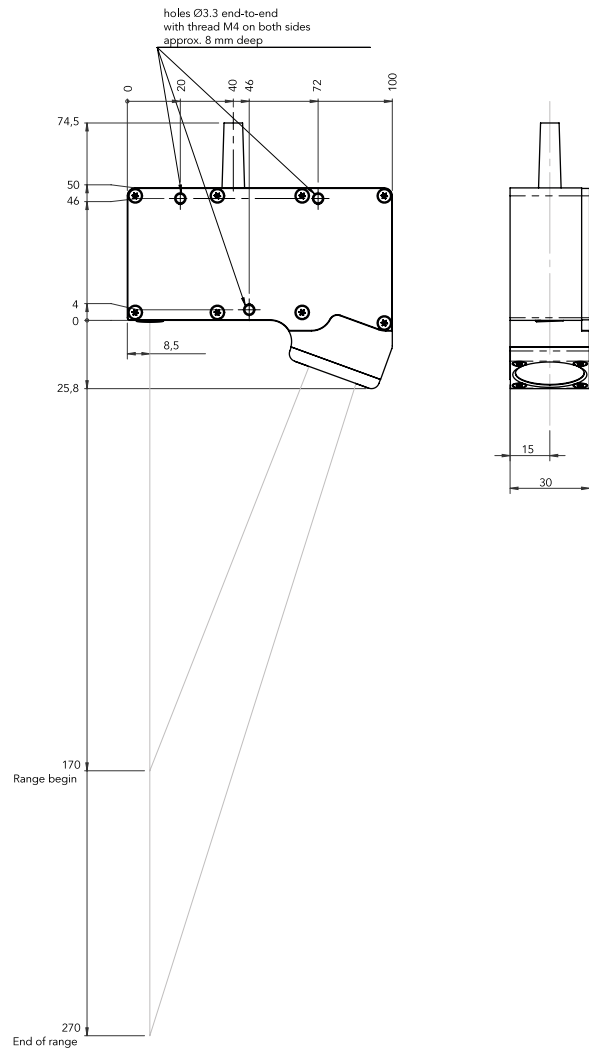
Dimensions GT 70-020



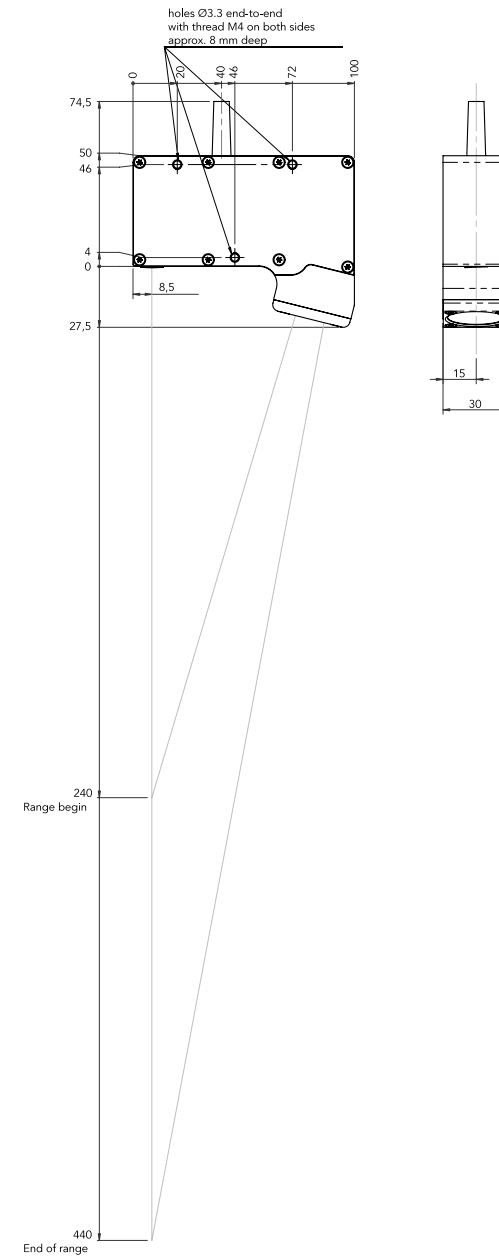
Dimensions GT 70-050



Dimensions GT 70-100

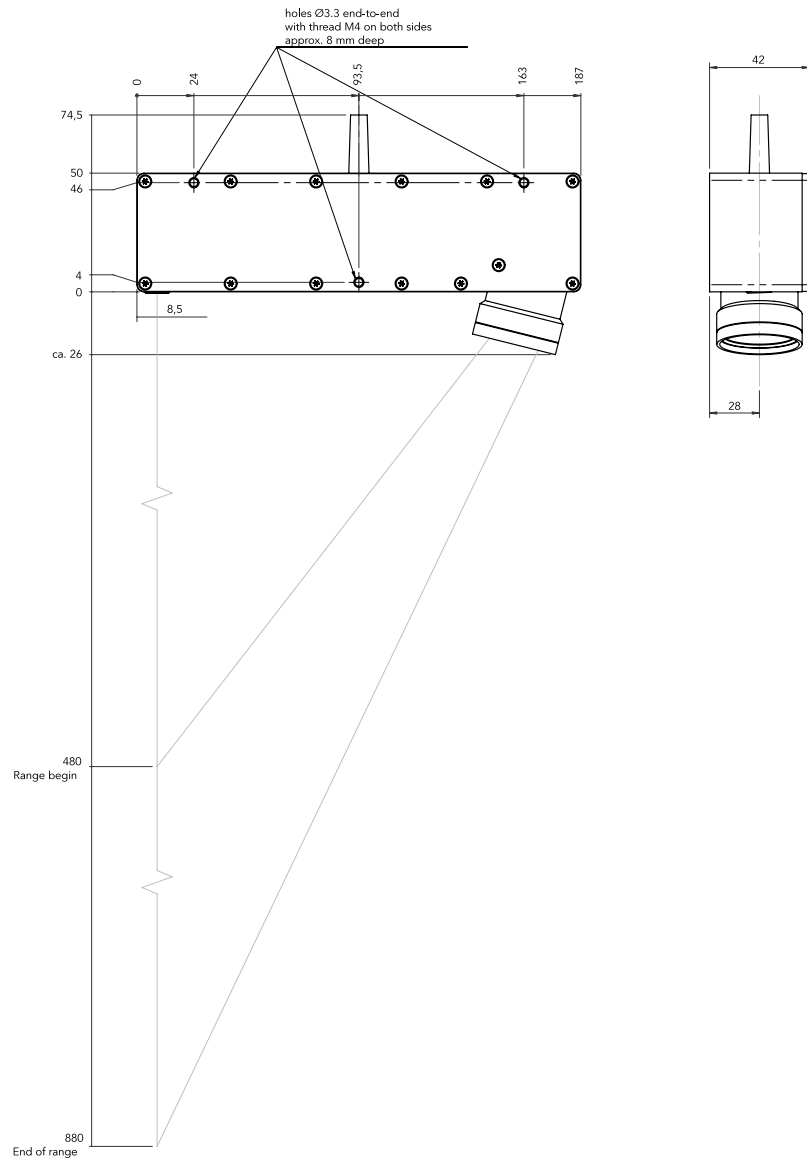


Dimensions GT 70-200



GT70 Series Laser distance sensors

Dimensions GT 70-400



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