

GT71 Series Laser distance sensors

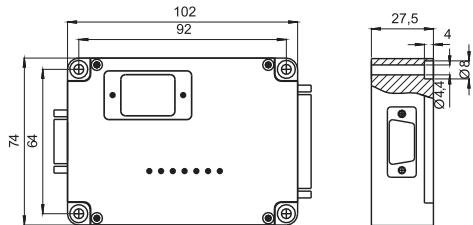


GT 71 series

The sensors of the GT 71 series are digital laser distance sensors for highest precision. They allow to measure at a speed of 250 km/h the deflection of a car body for example. Owing to the special analog module most precise measurements on almost all surfaces can be realized. Also the capture of small parts is possible due to the small light spot diameter. The electronic of the sensors is placed in an external controller because of that the weight and dimensions have been significantly reduced. The separate electronic and the connection cable are included in delivery.

- Measuring frequency 10 kHz
- Ethernet interface
- Analog output
- Ranges 0,5 mm up to 400 mm
- Low-noise
- Reliable results also with white/black transition
- Replacable protection glasses

Electronic unit (300 g)



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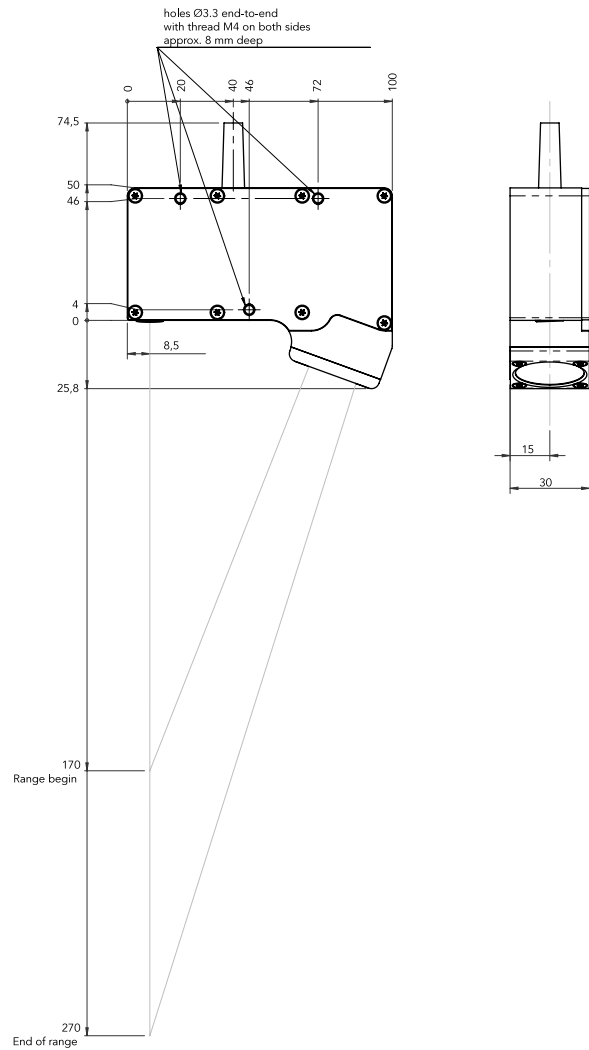
	GT 71-0,5	GT 71-002	GT 71-004	GT 71-010	GT 71-020	GT 71-050	GT 71-100	GT 71-200	GT 71-400
Measuring range	0,5 mm	2 mm	4 mm	10 mm	20 mm	50 mm	100 mm	200 mm	400 mm
Range begin ¹	23,75 mm	23 mm	22 mm	40 mm	55 mm	115 mm	170 mm	240 mm	480 mm
Linearity ±	1 µm	4 µm	8 µm	20 µm	40 µm	100 µm	200 µm	400 µm	700 µm
Resolution ²	0,3 µm	1,3 µm	2,6 µm	6,5 µm	13 µm	32,5 µm	65 µm	200 µm	600 µm
Resolution ³	0,02 µm	0,1 µm	0,2 µm	0,5 µm	1 µm	2,5 µm	6 µm	20 µm	60 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	10 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: IP64, electronic unit: IP40								
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)								

¹ measured from casing edge

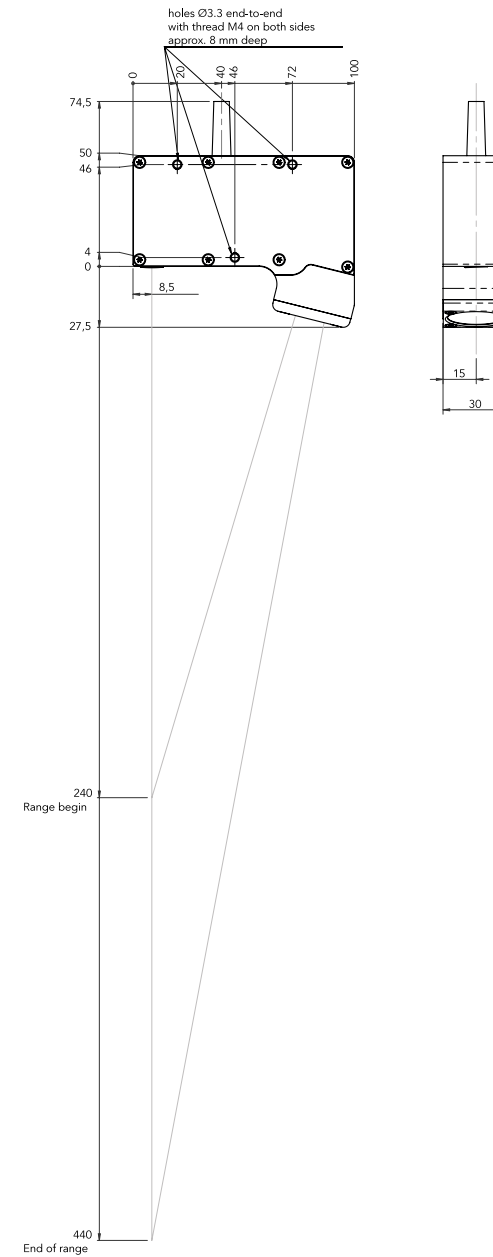
² Measurement at 10 kHz, object colour matt white

³ Measurement at 20 Hz, object colour matt white

Dimensions GT 71-100

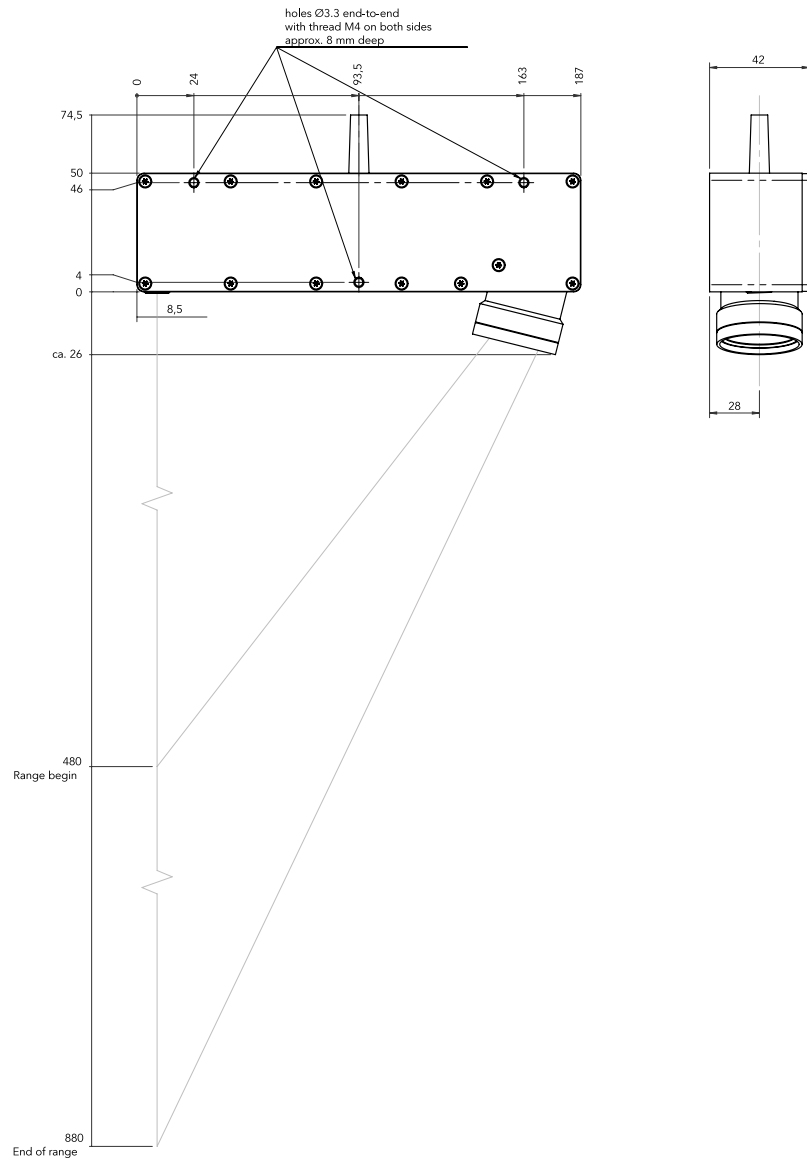


Dimensions GT 71-200



GT71 Series Laser distance sensors

Dimensions GT 71-400



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Casati is using a ISO 9001:2008 certified quality management system • All specifications are subject to change