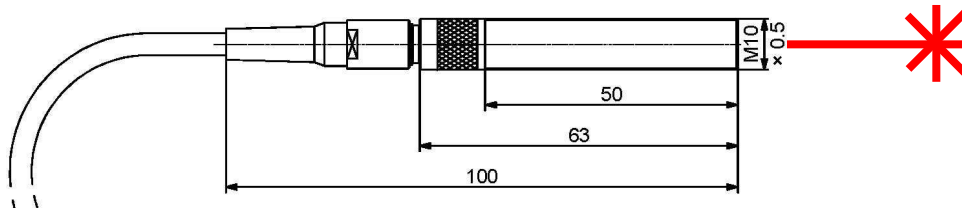


## PROSPEKT TS350 TURBOSPEEDSENSOR



The AVL Turbo-Speed Sensor TS350 is an optical sensor specially designed for contactless measurement of turbocharger speed up to 200.000 rpm in stationary and transient engine-mode.



A Laser-beam is sent to the compressor wheel, scattered back by means of a reflecting mark. The scattered light is detected and converted into a periodical sequence of voltage signals that is available for further processing (e.g. AVL Trigger-Box TB350 for test-stand-connection, oscilloscope, counter). The large optical range enables measurement without interference of inlet mass flow.

### Technical Specification

#### Sensor

Speed range

6000. rpm ... 200.000 rpm,  
(100 Hz ... 3.300Hz)

Sensor material

stainless steel body with cable (1.5m)

Temperature range

operation: -10°C ... 70°C  
storage: -30°C ... 85°C



#### Laserbeam

Wavelength

645nm (red, visible)

Output

0,9mW ± 0,1mW

Cross-section

elliptical, app. 3mm × 6mm in 100mm distance

#### Input-/Output specification

Power supply

+5V ± 0,5%, app. 100mA (e.g. by TB350)

Signal range

0V ... +5V

Quiescent signal

+2,5V ±10%

#### Trigger-Box TB350

Power supply

24V DC, app. 50mA (selectable 5V DC, app. 100mA)

Digital Signal

for counter, open collector, 5V, 1kOhm, TTL low: ≤ 50mA sink current for ≤ 0,4V

Analog Signal

0V ... +5V via 1kOhm series resistor

Dimensions

78mm × 40mm × 11.7mm

provided for snap-on mounting