

Complex for measuring bullet speed Regula 6001



The complex is intended for measuring bullet speed and for testing small arms and sporting/hunting weapons in the process of forensic ballistics expertise.



Regula 6001 consists of two separate units: a measuring unit and a sensor unit. The units are connected with the help of a cable.

Principle of operation

The complex measures time necessary for a bullet to cross planes that are controlled by the sensors. The latter are located at a certain distance from each other.

Measurement

1. A bullet passes through the sensors operation area, it covers a part of the light flow going from the light emitting diodes to photodetectors.
2. An electric pulse is generated on the photodetectors.
3. The pulses are received by the measuring unit.
4. The delay period between the pulses is calculated.
5. The bullet speed is calculated.
6. Measurement results are displayed on the digital indicator of the measuring unit. When the complex is connected to a PC, the results are transferred via an RS-232 port or a USB port and are displayed in the form of a report.

Application

- Law-enforcement agencies
- Court expertise
- Forensic departments
- Military departments
- Sport, hunting, fishing communities, etc.

Delivery set

- Complex for measuring bullet speed **Regula 6001-01**
- **Bullet** software for operating the complex, measuring and recording bullet speed
- Optionally:
 - PC (model is selected at customer's request)



Speed measuring range, m/s — 35–1250

Allowable relative measurement error, % — $\pm 1,5$

Interval between the shots, s, min — 1

Time of nonstop operation, h — 8

Bullet caliber, mm — 4,5–20

Dimensions (length×width×height), mm:

- measuring unit — 260×180×90
- sensor unit — 560×280×315

Weight, kg:

- measuring unit — 1,68
- sensor unit — 20

Power consumption, W — 40

Power supply:

- voltage, V — 220–230
- frequency, Hz — 50

Regula Bullet Speed Meter (2.0.1.7)

File Help

COMS Connect Registration

General information

Series of measurements: D:\KD Software\BulletNew.SLD
 Creation date: 25.07.2012 10:19:52
 Device: Regula 8001

Weapon Assumptions

Projectile

Type:
 Length: 5.89 mm
 Weight: 9.5 g
 Diameter: 7.4 mm
 Shape:

Barrel

Length: 12.7 mm
 Diameter: 8.3 mm
 Shape:

Measurements Expertize

Cross-sectional area of projectile: 43.008 mm²
 Distance between sensors: 500 mm

Nr	Time, ms	Speed, m/s	Kinetic energy, J	Specific kinetic energy, J/cm ²
1	24.07.2012 12:45:35	523.78	1029.4	5033.41
2	24.07.2012 12:45:39	523	956	4341.2
3	24.07.2012 16:51:58	523	956	4341.2
4	24.07.2012 16:52:00	523	956	4341.2
4	523.195	974.350	4514.253	104.962