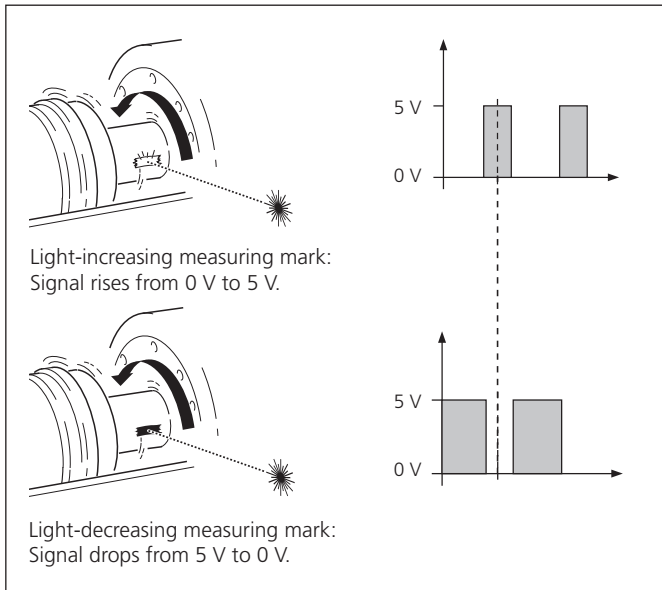


FUNCTION

The sensor acquires the signal optically using a red laser. The laser beam exits from the sensor head and hits a measuring mark on the rotating shaft. The measuring mark can be light-increasing (e.g., reflective foil VIB 3.306) or light-reducing (contrast mark, e.g., black line on bright surface). Whenever the sensor acquires a brightness difference, it outputs an electrical pulse. Based on the repetition rate of the voltage pulses, the measuring device calculates the shaft speed.

Signal profile



MAINTENANCE

No maintenance is possible for this sensor. Moisten a clean, lint-free cloth with water to clean the optical lens. Avoid direct contact with the lens. Do not use alcohol for cleaning!

TRANSPORTATION AND STORAGE

- Put the sensor, cable and stand in the measuring device case.
- Short-circuit the magnetic pole at the stand using the washer.

TECHNICAL DATA

PARAMETER		VIB 6.631 / VIB 6.631 EX
Measurement	Measuring principle	Optical
	Measuring range	3 to 120,000 rpm
	Temperature range	-20 °C ... +50 °C
Electrical	Power supply	< 5.8 V (from measuring device)
	Output	5 V (TTL)
	Laser wavelength	630 - 680 nm (red)
	Laser class	2 (DIN EN 60825-1, 2014)
Mechanical	Connection	Trigger cable VIB 5.432-2,9
	Degree of protection	IP 65
	Weight	76 g
	Dimensions (L x D)	125 mm x 34 mm
EX	Marking	Ⓔ II 2 G Ex ib op is IIC T4

Information regarding EX protection

Sensor VIB 6.631 EX is only provided for the "connection to a corresponding measuring device / operating equipment with separate EC type-examination certificate" or for the "connection to certified intrinsically safe circuits taking into account the maximum values":

U_i	= 12 V DC
P_i	= 600 mW
I_i	= 160 mA
C_i	= 328 nF
L_i	= negligibly small

The information in type-examination certificate Z elm 1 0 ATEX 0429 must be observed (www.pruftechnik.com). Furthermore, the European Installation Regulations (EN 60079-14) in the current version must be observed!

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 PRÜFTECHNIK

FLUKE®

Reliability

**Laser Trigger
RPM Sensor**
VIB 6.631, VIB 6.631 EX

Installation and Operation



The laser trigger / RPM sensor (in short: sensor) is used as trigger for vibration measurements and for RPM measurements using a PRUFTECHNIK measurement data collector.

SAFETY INFORMATION

- Read these instructions carefully prior to use.
- Use original accessories only.
- Do not use defective sensors.
- Do not open the housing.
- Prior to the installation of measuring components, switch off the machine and secure it against restarting according to the applicable regulations.
- Comply with the applicable safety regulations when performing measurements on machines.
- Check that the measuring setup can move freely prior to restarting the machine. Avoid contact of the measuring setup with rotating machine parts. Risk of injury and property damage!
- For storage and transportation, short-circuit the magnetic pole at the stand using the washer supplied.
- The sensor is in compliance with the relevant European Directives. The complete Declaration of Conformity is available at www.pruftechnik.com/certificates.

INSTALLATION

- Switch the machine off and secure it against unintentional restarting.

Mount sensor to stand:

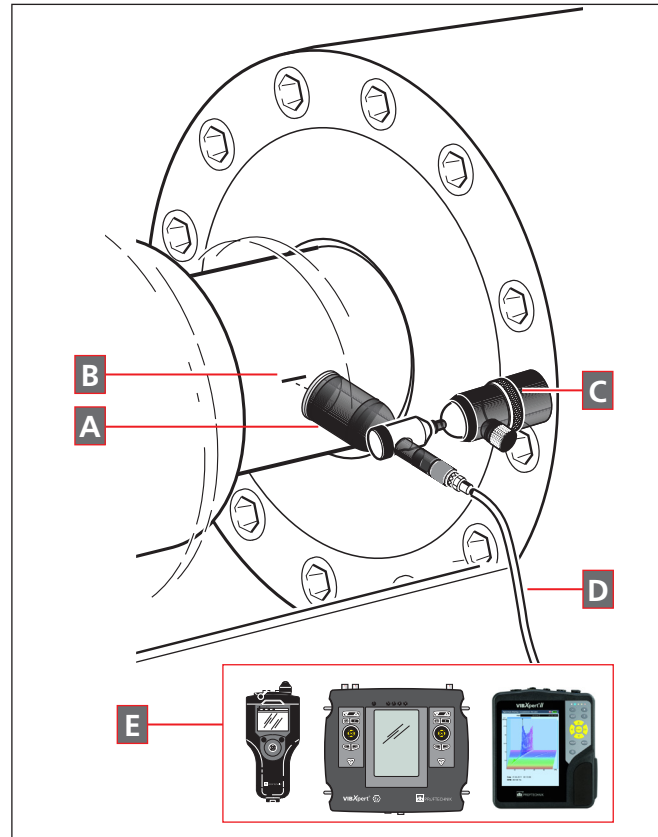
- Guide the sensor mount through the clamping device, until the knurled nut is centered above the mount.
- Hand-tighten the knurled nut.



Mount stand to machine:

- Select a suitable position on the machine according to the following criteria: Cleanliness, magnetic properties, permissible measuring distances, minimum diameter for curved surface: 40 mm.
- Carefully place the magnetic base with one edge first to avoid high impact loads.
- Attach the measuring mark to the machine shaft.
- Using the cable, connect the sensor to the measuring device.

Typical setup



- A:** Sensor VIB 6.631 / VIB 6.631 EX
- B:** Measuring mark (reflective foil VIB 3.306, contrast mark)
- C:** Stand VIB 6.632
- D:** Connection cable VIB 5.432-2.9
- E:** VIBXPERT II, VIBXPERT EX, VIBSCANNER, VIBSCANNER EX

Operation and area of application

	VIB 6.631	VIB 6.631 EX
Measuring device	VIBXPERT II, VIBSCANNER	VIBXPERT EX, VIBSCANNER EX
Area of application		

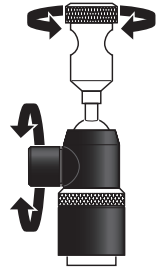
ADJUSTMENT

- Align the sensor with the laser to the measuring mark.
- Switch on the laser as follows for adjustment purposes:
 - In "Balancing" operating mode, switch on the laser via the dialog menu on the measuring screen.
 - In "Multimode" operating mode, start a RPM measurement, or activate the "Coast-down Analysis" measuring task. The laser switches on automatically.

CAUTION!

Do not look into the laser beam! Risk of eye injury!

- Unlock the ball joint at the stand.
- Rotate and tilt the fixture, until the laser beam hits the measuring mark. To achieve stable signals, align the sensor with a slight angle to shaft surface and shaft axis.
- Lock the ball joint.



Measuring distances and angle range

