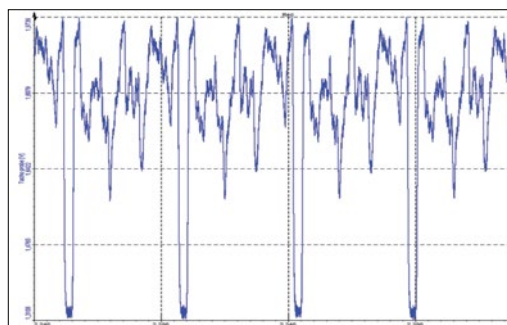


Tacho Probe



Sensor in application



Useful trigger signal per revolution

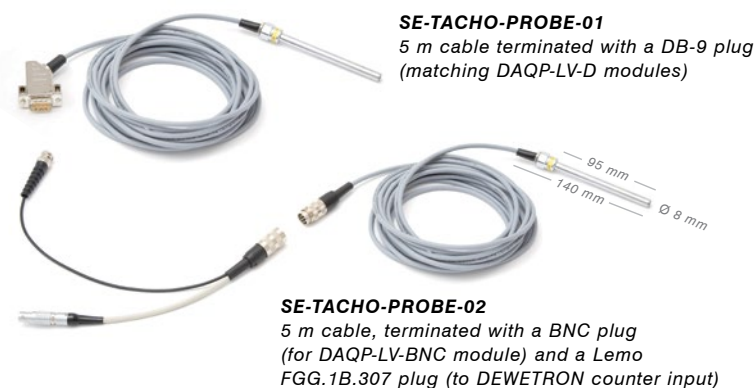
Applications

- Order tracking
- Balancing
- Simple rpm measurements
- Angle based display

TACHO-PROBE-01 /-02

The optical SE-TACHO-PROBE-x creates a trigger signal based on light reflections from a screw head, a flute, a color mark or a reflective tape on a rotating shaft. From this trigger signal rpm and angle information are extracted in software.

The tacho probe outputs an analog signal and has a bandwidth of 10 kHz. The probe must be adjusted to get a clear trigger signal per revolution. The typical distance of the probe to the object is about 1 to 2 cm.



SE-TACHO-PROBE-01
5 m cable terminated with a DB-9 plug
(matching DAQP-LV-D modules)

SE-TACHO-PROBE-02
5 m cable, terminated with a BNC plug
(for DAQP-LV-BNC module) and a Lemo
FGG.1B.307 plug (to DEWETRON counter input)

Specifications	SE-TACHO-PROBE-01 /-02
Length	95 mm (140 mm incl. connector)
Diameter	8 mm
Temperature range	-10 to +60 °C
Min. frequency	<10 Hz depending on reflection
Max. frequency	~10 kHz depending on reflection
Supply voltage	9 - 15 VDC
Current consumption	25 mA
Typical phase shift	@1 pulse/rev 50 kHz sampling rate 600 rpm 0 deg 6000 rpm 6 deg (depends on reflection, measured on testbed)

Quick mounting kit

SE-TACHO-PROBE-02 with magnetic quick mounting kit, connected to a DEWETRON instrument. The quick mounting kit is recommended for test installations only, for robust measurements the tacho probe must be mounted stiff and secure at the test bench.



TACHO-PROBE-03

The SE-TACHO-PROBE-03 is especially designed for contact-free speed measurements on rotating or reciprocating machine parts. It produces a voltage pulse for each rotation of a shaft or cycle of a machine part.

It is used with the included retroreflective tape which has the advantage that it can be located any distance from 1.5 to at least 70 cm (0.6 to 27") from the test object, thus safely separating the probe from possible contact with moving parts or an otherwise hazardous environment.

The tacho probe can be used with any IEPE constant current line drive supply that provides 3 mA to power the tacho probe, like TRION-dACC.



Specifications	SE-TACHO-PROBE-03
RPM range	0 - 300 000 @ 1 pulse/rev
Operating range	1.5 - 50 cm / requires retroreflective tape
Laser spot	<5 mm at 50 cm
Current requirements	3 to 20 mA
Voltage requirements	≥20 V
Signal output	-0.8 Vp +0.2 V re DC bias output, Rise and Fall time <500 ns
Laser	Class 3R, visible 660-690nm, CW, P[Optical] < 2 mW. Complies with EN/IEC 60825-1:2007
Temperature range	Operating: -10 to +50°C Storage: -20 to +80°C
Weight	50 g
Dimensions	Diameter 22.5 mm, length 91 mm
Mounting	Mounting: 1/4" - 20 UNC (camera tripod), 10-32UNF and M4 on the flat side of the probe; M22-1 thread with flange on front