

# ROTEC Training Week on RASdelta measurement system

## Week 21, 2026 in Munich

During our training week, you will receive a comprehensive introduction to the ROTEC measurement system RASdelta, along with hands-on training in its practical application. The program also covers detailed instruction on configuring measurement settings within the software and conducting evaluations using filter and spectral analysis.

### Content

- ✓ ROTEC RAS Software including measurement settings and analyses in time domain and spectral domain
- ✓ Essential methods of signal processing in torsional vibration analysis (spectrum and filter)
- ✓ Practical training in sensor technology and application

### Seminar duration

3.5 days

### Language

English

### Location

Rotec Munich GmbH  
Joseph-Dollinger-Bogen 28  
80807 Munich

### Registration deadline

April 30th, 2026

### Hotel recommendation

HolidayInn - the niu Loco  
Frankfurter Ring 228 | 80807 Munich

PLAZA Premium  
Frankfurter Ring 228 | 80807 Munich

B&B Hotel München City Nord  
Frankfurter Ring 243 | 80807 Munich

# Program

## BASIC TRAINING (ONE DAY)

- ✓ RASdelta measurement system: application areas
- ✓ What is torsional vibration?
- ✓ Measuring torsional vibration
- ✓ Measuring torsional vibrations - Sources of error
- ✓ RASdelta equipment: Hardware
- ✓ RASdelta measurement principle
- ✓ RASdelta software
- ✓ File Manager

## MEASUREMENT DATA

- Restricting the time range of a measurement
- Cursor function & determining the number of teeth
- Correction of measurement

## MEASUREMENT SETTINGS

- RASdelta "Choose Frontend" and "Configure Frontend"
- Hardware wizard
- General settings
- Online graphics
- Speed, Analog, CANbus, etc.

## EVALUATION

- Syntheses, Analyses, Extras, Diagrams, Pages
- Evaluation examples
- Edit layout

## DEFAULT SETTINGS

- ✓ Placeholder and Sequences
- ✓ Integration of measurement data from previous ROTEK system generations
- ✓ Question & answer session

## Spectral & Filter Training (two days)

### PART 1: SPECTRUM

- ✓ Basics of the spectral transformation
  - Continuous, Discrete and Fast Fourier transformation
  - Spectrum as a harmonic analysis
  - How FFT works (Animation)
  - Integral and derivative
- ✓ Specifics of the discrete Fourier transformation
  - Leakage, Aliasing, Sampling transformation
- ✓ Specifics of speed signals
  - Amplitude damping in speed
  - measurement Reference of order spectra
- ✓ Spectrum in ROTEK evaluation
  - e.g. Remove ramp (before FFT), Speed ramp filter, FFT window functions
- ✓ In-depth studies and additions
  - Leakage and window functions
  - Undersampling and aliasing
- ✓ Summation
  - Summation in time domain and spectral
  - domain Summation and FFT window functions

### PART 2: FILTER

- ✓ Basic types of filters
- ✓ Filter characteristics
- ✓ Transfer behavior of typical filters
- ✓ Example for filtering a signal
- ✓ Filter without phase shift
- ✓ Filter operations with the ROTEK software
- ✓ Speed signals and filtering summary on the spectrum

## Practical Training (half day)

- ✓ ROTEC Laser Sensors (LaserTachometer3)
- ✓ ROTEC Speed Sensors
- ✓ Strain gauge application
- ✓ Temperature board application
- ✓ Grounding
- ✓ ROTEC ENGINEERING Demo Vehicle