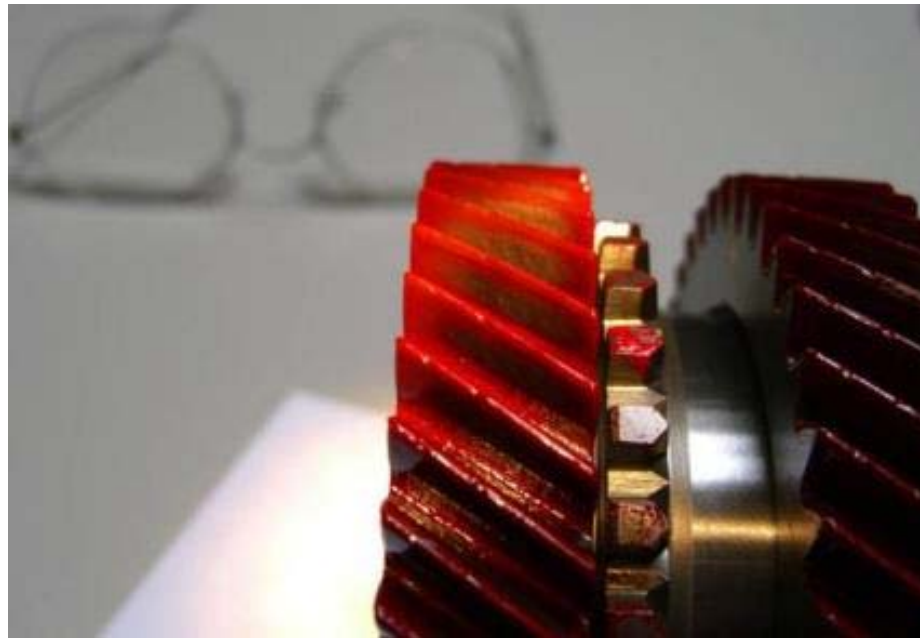
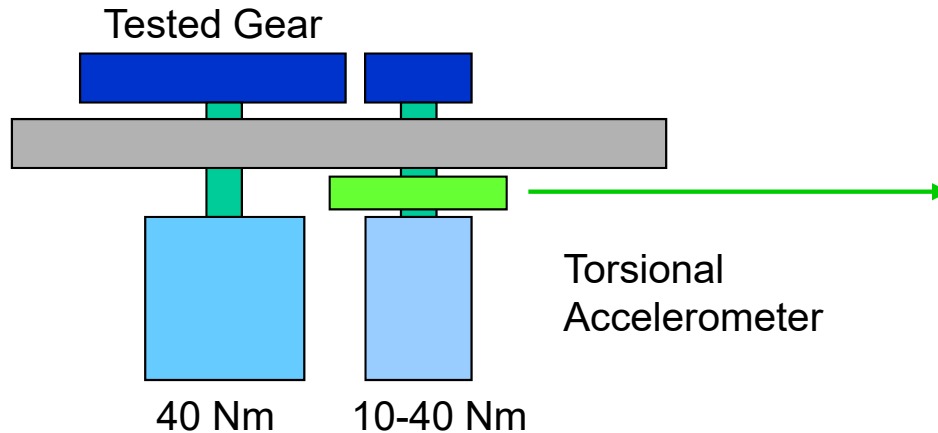


Rotas-TAC15: Sensor for Torsional Acceleration on Gear testers, Axle and Transmission Test Stands

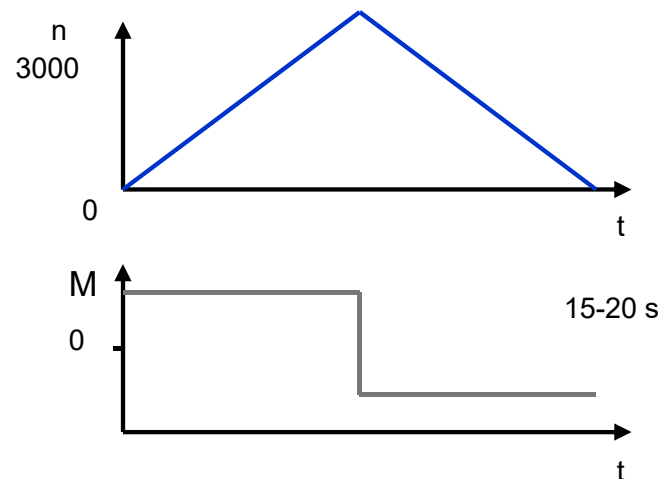


MTE/Torsional Of Gears

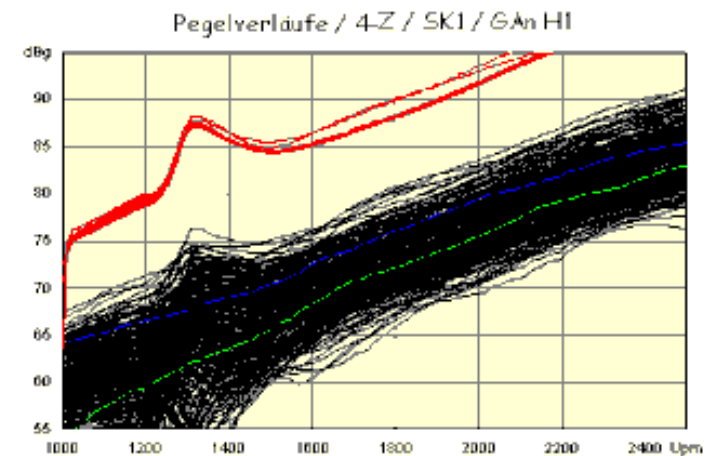
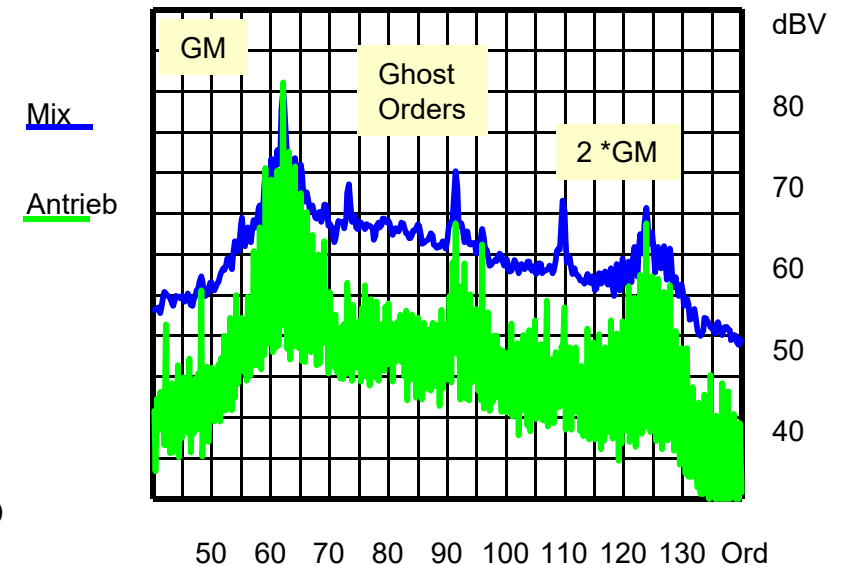
Mechanical Layout of Test Machine



Test Sequence is steady speed or ramp

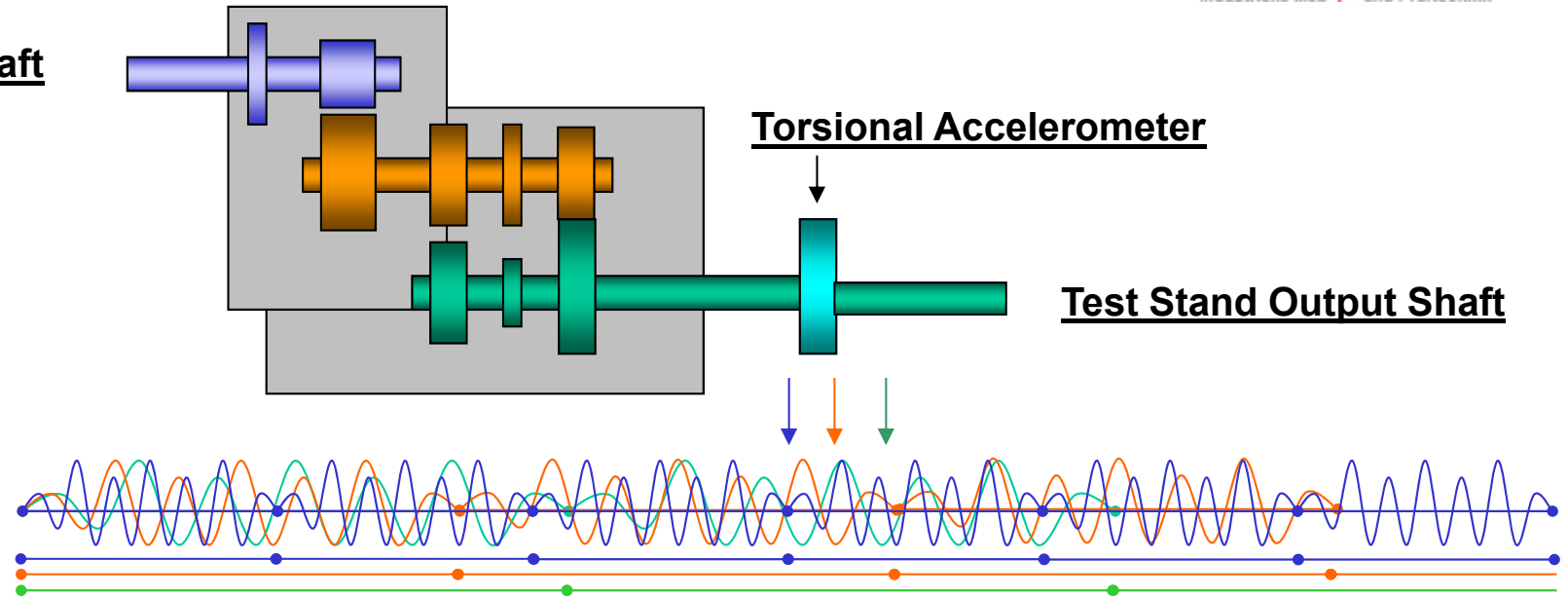


Rotas NVH Analysis

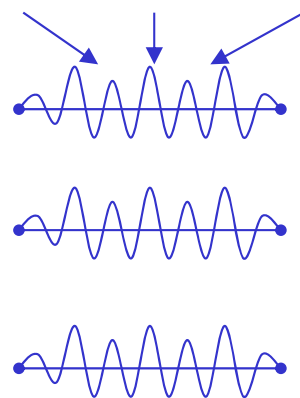


Torsional Analysis of Machines

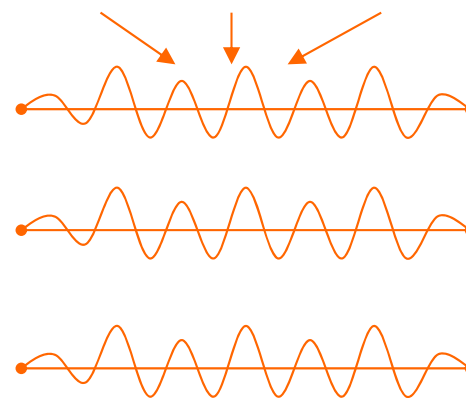
Test Stand Input Shaft



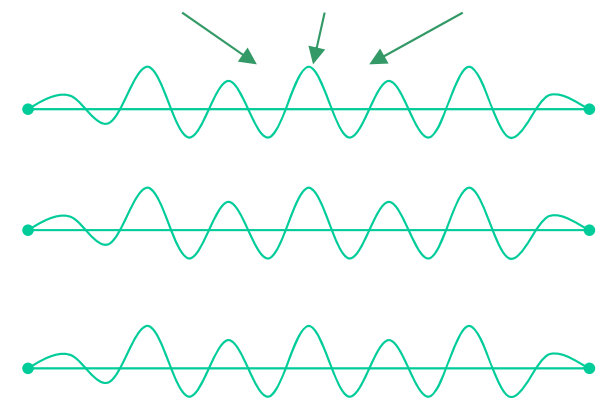
**Synchronous
order analysis:**
The signals are
acquired synchronous
to the inner shafts.
**Acoustical
Stroboscope**



Input Shaft



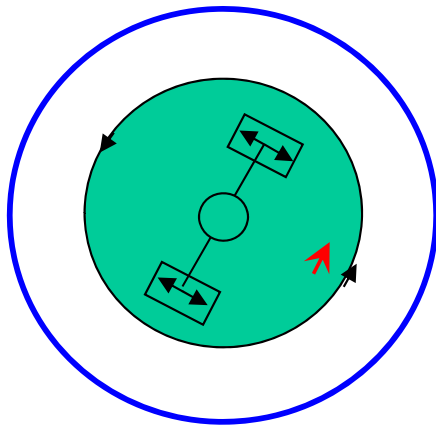
Interm. Shaft



Output Shaft

TAC 15 Torsional Accelerometer

Accelerometers measure the deviation from uniform circular motion. Here a the torsional accelerometer is integrated into a coupling disk for an rear axle test stand



Optical Senders

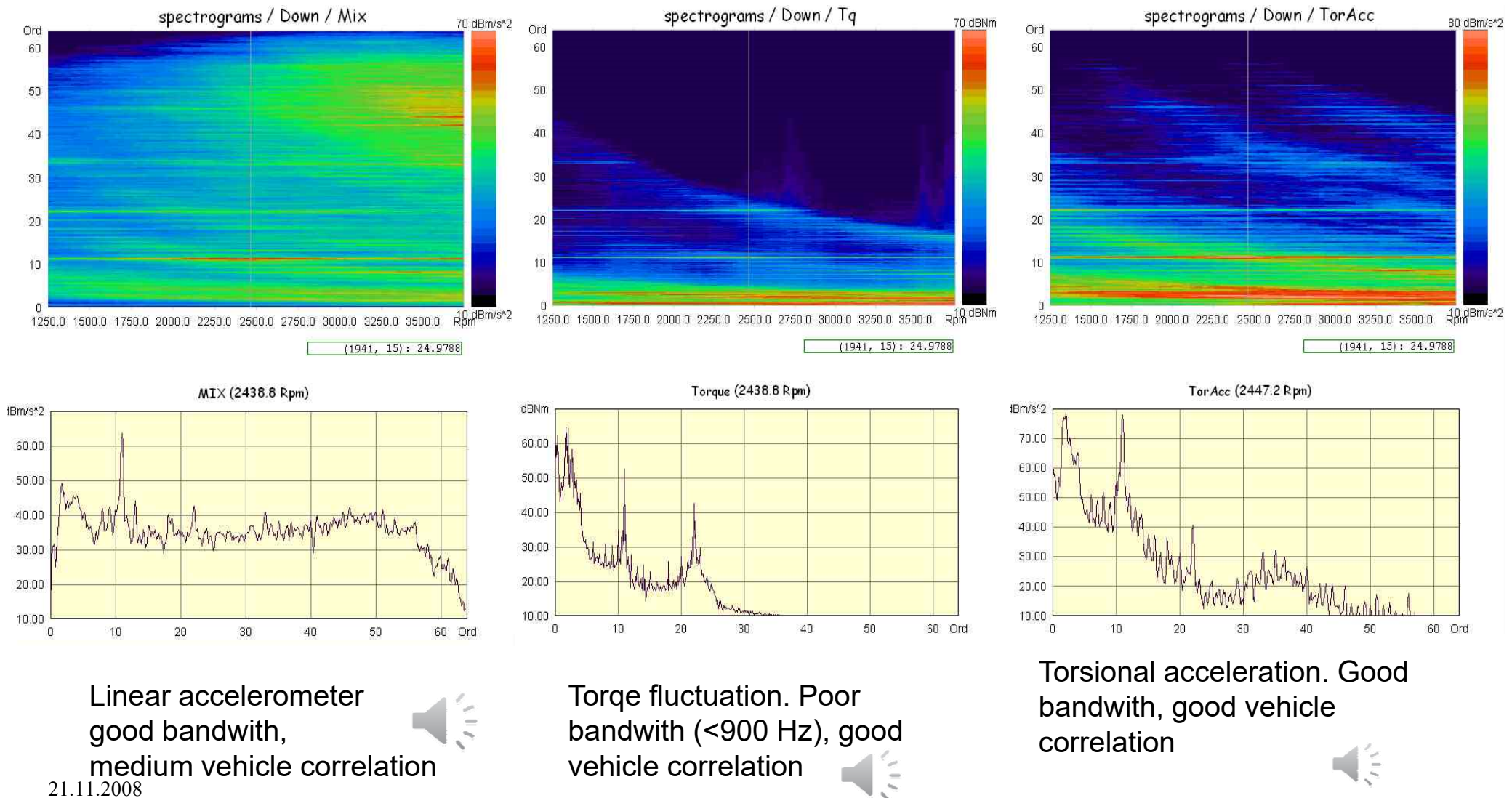
Accelerometers



Rotating Sensor

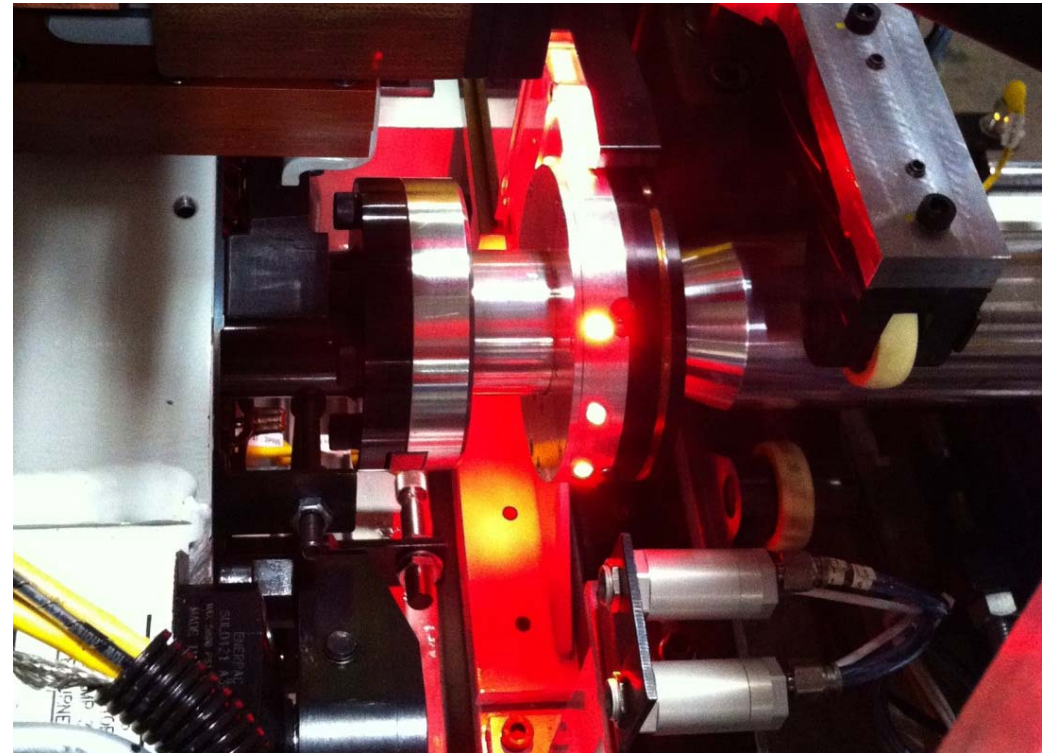
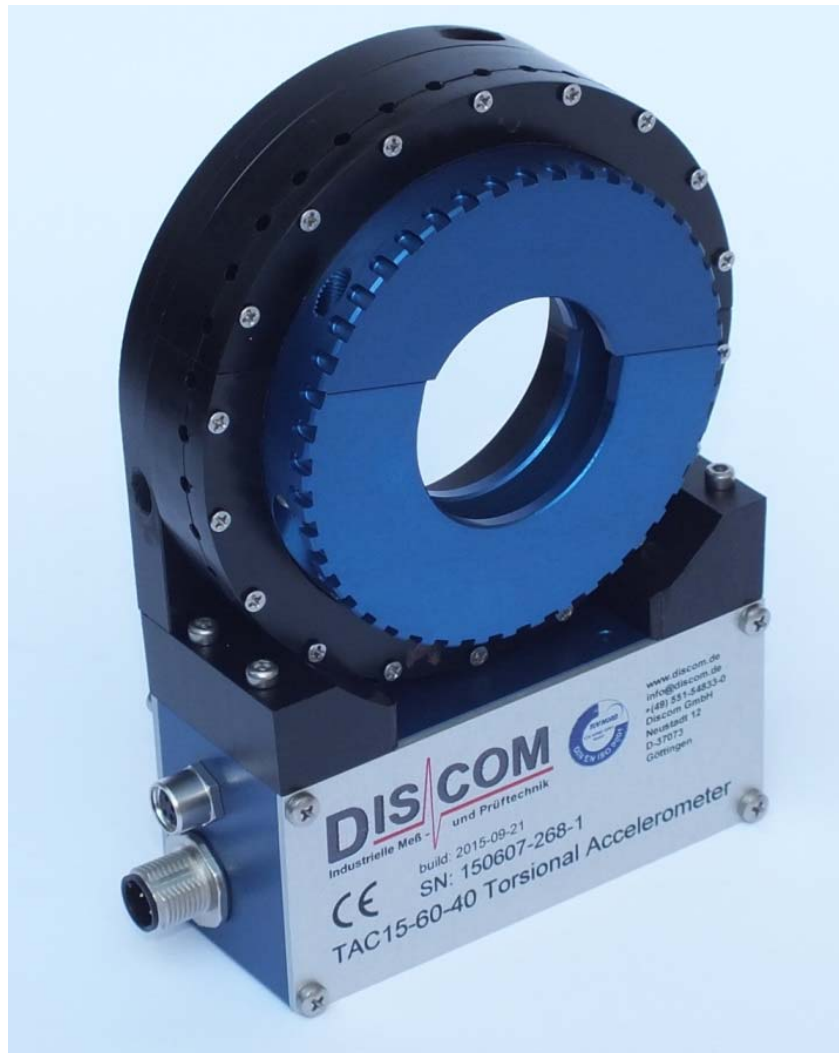
Accel, Torque and Torsional Accel on Axle

Data from a vehicle axel with linear acclerometer, torque fluctuation and torsional acceleration



Torsional Accelerometer TAC15

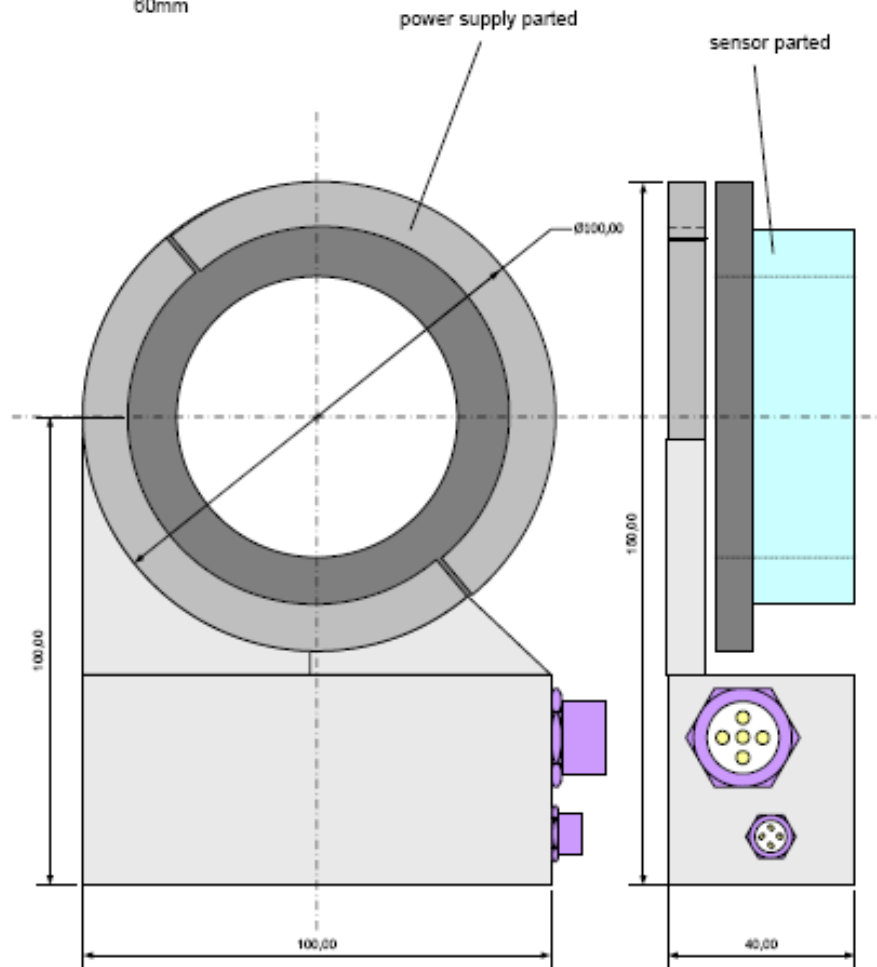
Torsional Accelerometer TAC15 for shafts in test stands



Torsional Accelerometer TAC15

RotasTac15

Shaft diameter up to
60mm

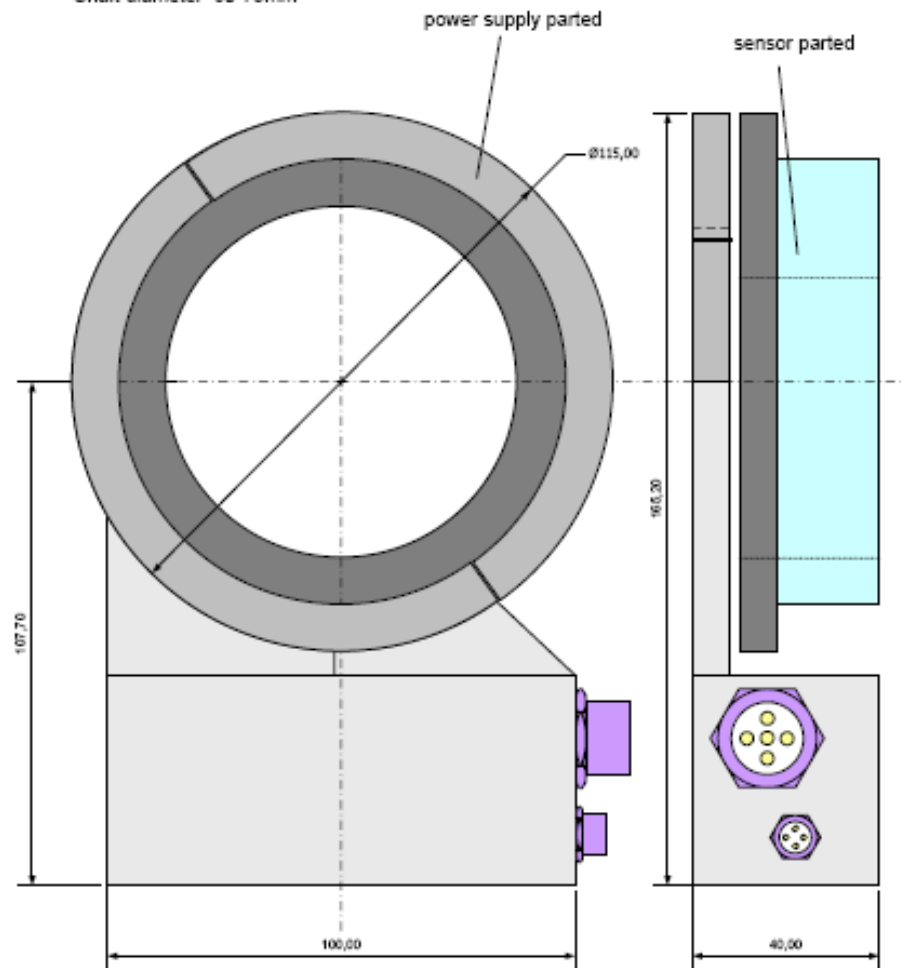


TAC15 split rotor for easy mounting

Torsional Accelerometer TAC15

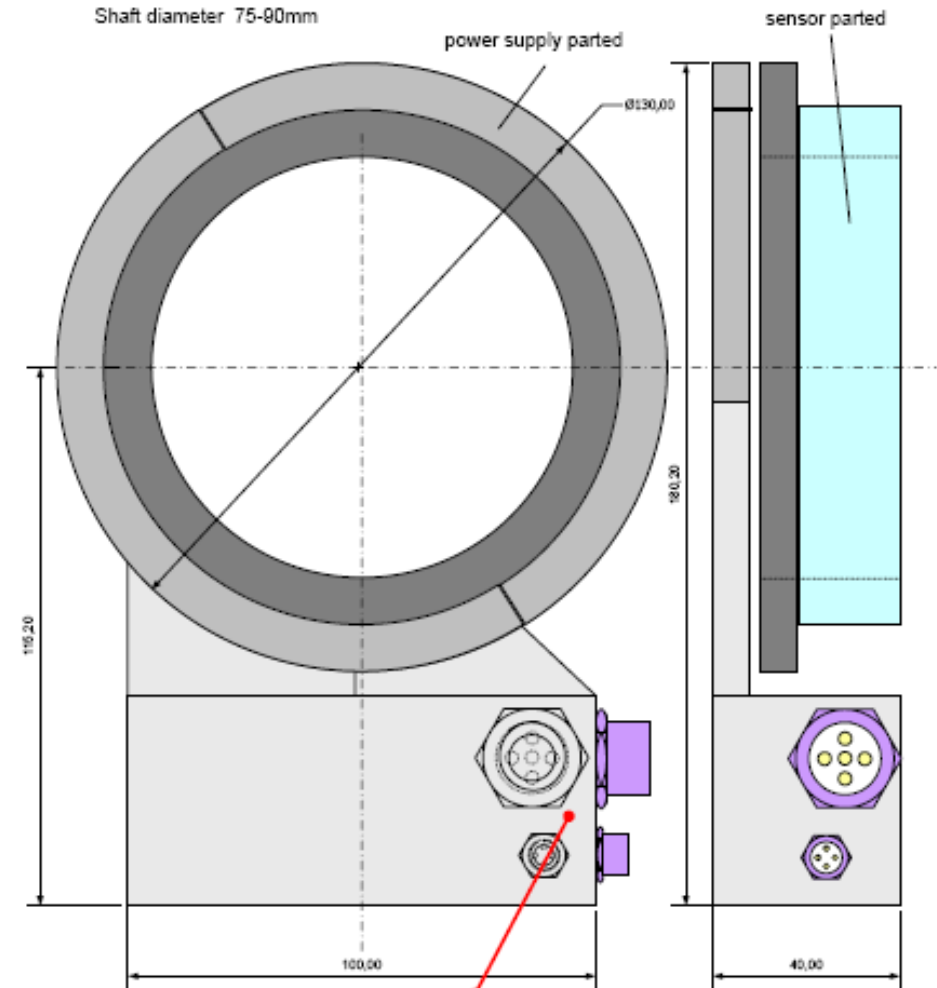
RotasTac15

Shaft diameter 60-75mm



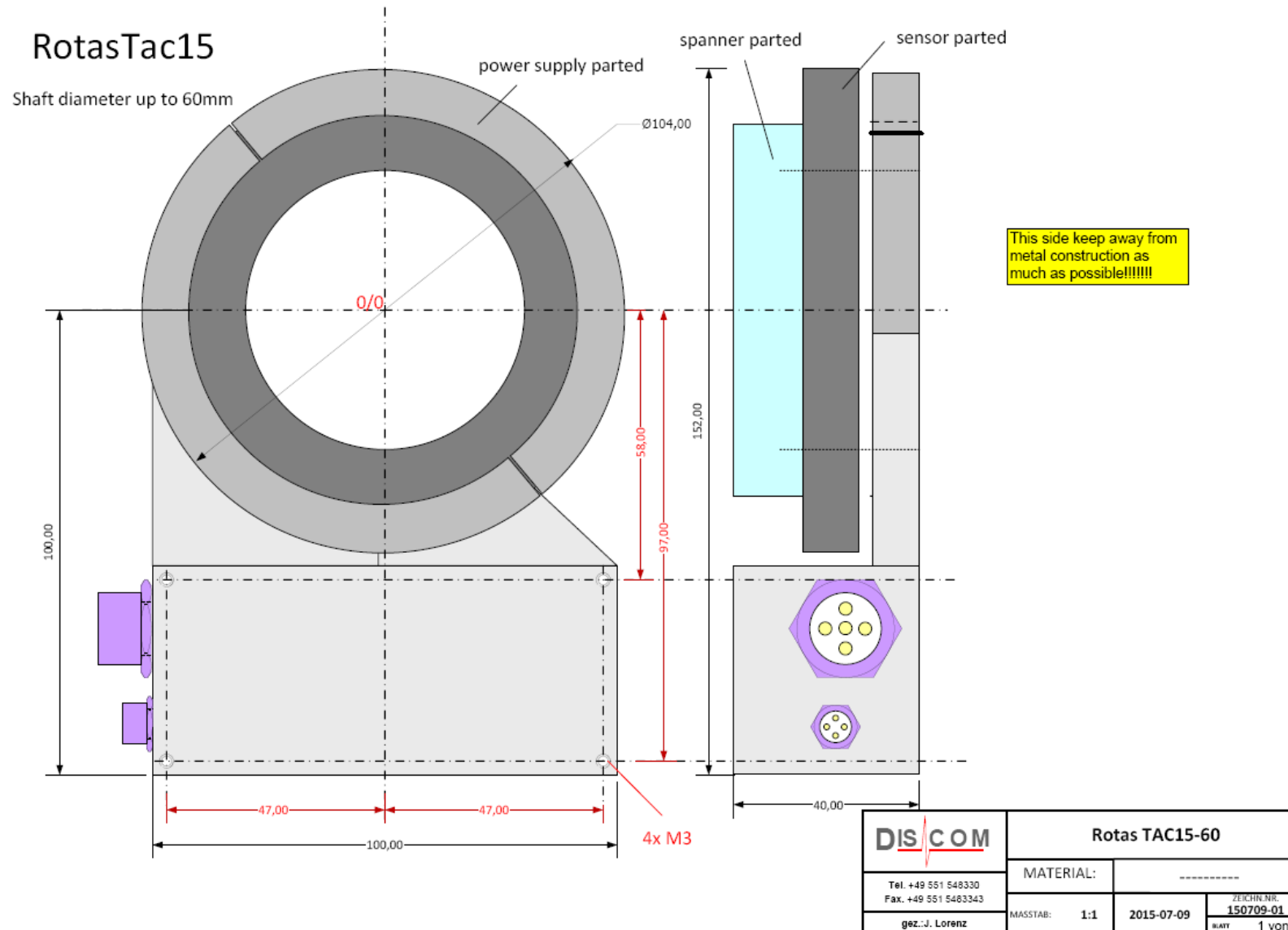
RotasTac15

Shaft diameter 75-90mm

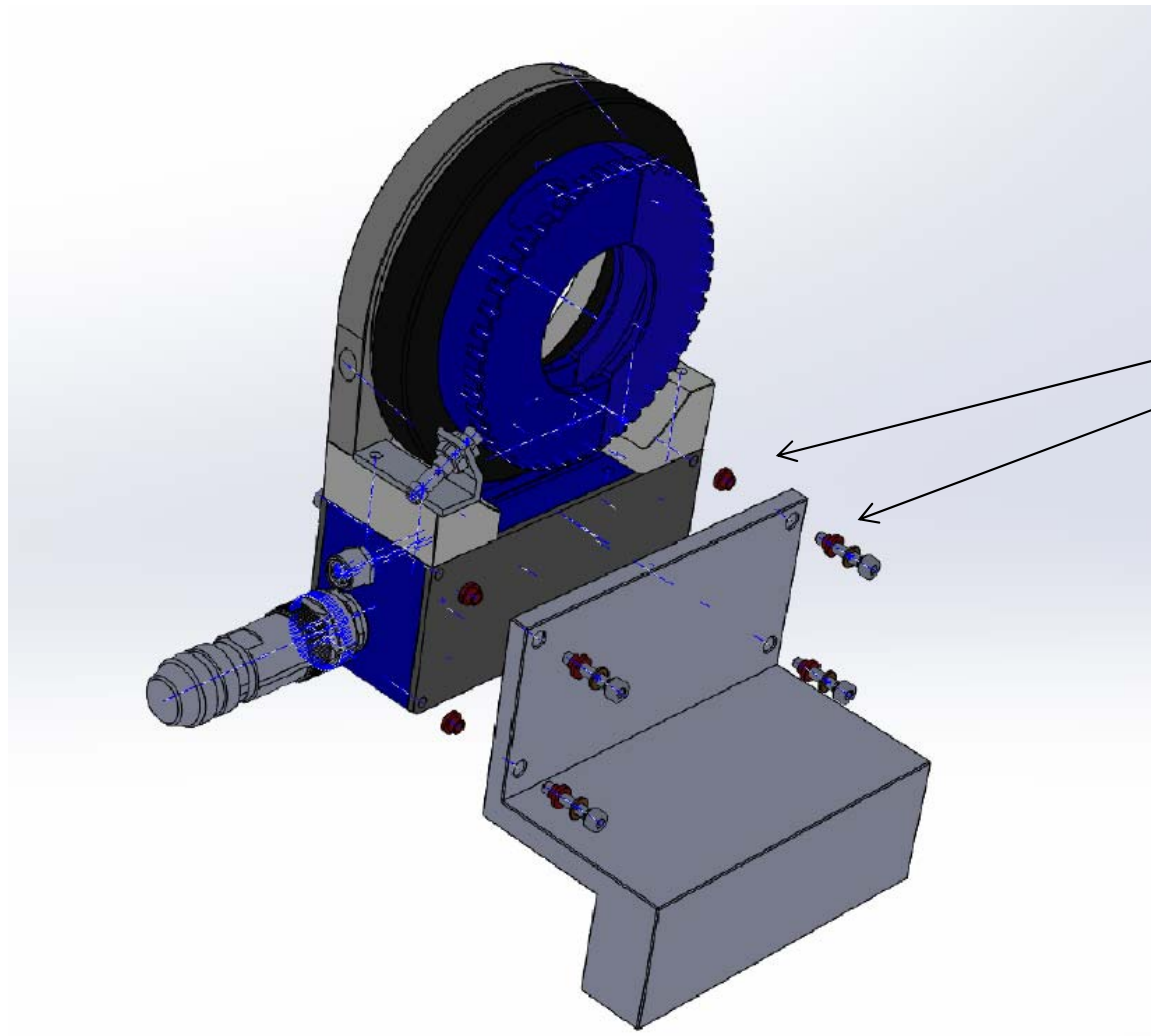


In all versions the position of the plugs may be changed as shown

TAC15 60 mm Dimensions

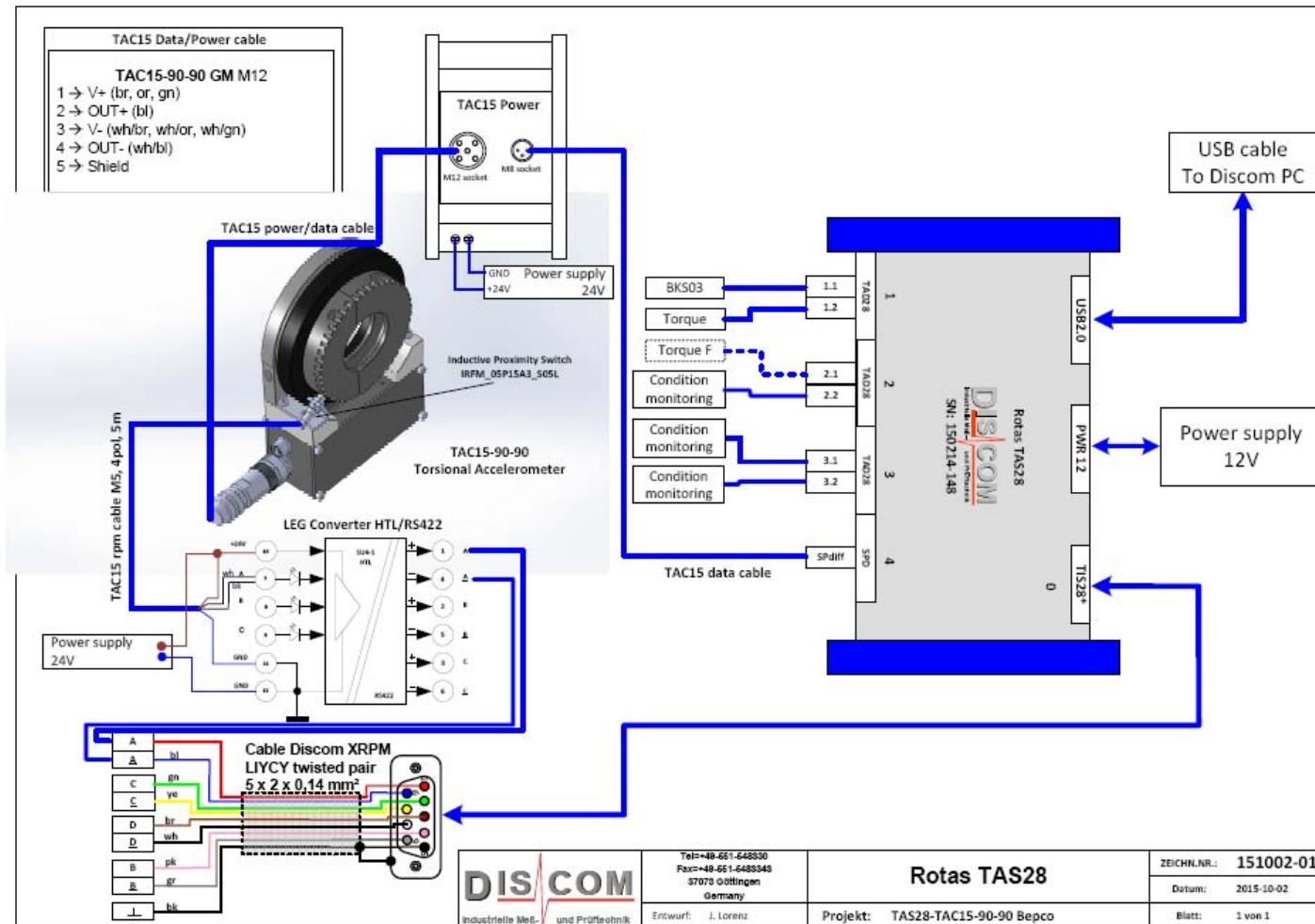


Mounting Example



Electrical insulation
washers required

Connecting the TAC15 sensor



Block Diagram for a measurement system using accelerometers, torque signals and the TAC15 sensor

Technical Data TAC15

Supply	Power	24 V 1.5 A
Transfer Capabilities	Level	10 mV/g Acceleration
	Max Amplitude	70 g Peak FS
	Output	SPDIF/Interface to SPD28 interface card in the TAS28
	Signal/Noise Ratio	> 100 dB in regards to FS
	Bandwidth	10 Hz – 20 kHz
Speed pulse ring		Designed for proximity switch Baumer IFRM 05P15A3/S05L