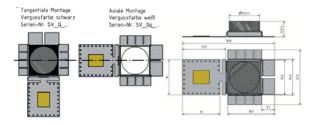


### Shaft TelMA Torque element

- Depending on customer requirements, one or two elements can be used for automatic (bending moment compensation)

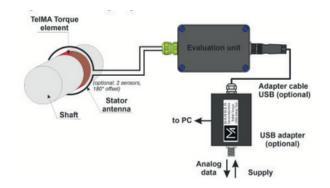


### Stator antennas:

- M Flexible realization no adjustment necessary:
- M Simple support for a copper loop



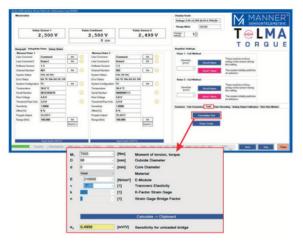
### General measurement configurations



Final configuration step after installation – Setting the measurement range via software with an integrated calculation tool

#### **Stator units:**

- M Supply voltage 9-30 V for flexible applications, e.g., in vehicle operation
- ✓ Voltage output 2.5 ± 2.25 V and current output 4...20 mA available
- M CAN interface for direct signal transmission

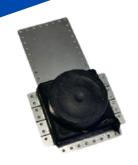


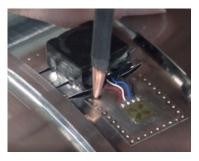
MANNER Sensortelemetrie GmbH, Eschenwasen 20, 78549 Spaichingen Tel. Nr.: +49 7424 93290 Email: info@sensortelemetrie.de

# T O R Q U E

TelMA Torque - the revolutionary torque acquisition for Industry 4.0 and machine monitoring ("patented") in a stamp format

System for the inductive & maintenance free measurement of:





- M Torque
- RPM
- M Speed







### New possibilities for

- Machine monitoring/early diagnosis/ predictive maintenance
- Process optimization for control loop integration
- Recording of dynamics and torsional vibrations for Detection of the cause of force/vibration breaks
- M Performance and efficiency analyses "Safe" and reliable machine operation

TelMA Torque offers a revolutionary and cost-effective solution for torque measurement in serial gearboxes or drive trains as enabler for Industry 4.0!

"...As long as real machines and plants produce real products, it will always be a question of executing products, it will always be a question of executing movements precisely and quickly with the necessary force." Dr. Steffen Haack, Vorstandsmitglied Indust. Applic und Rexroth AG

## Advantages at a glance

- Miniaturized dynamic torque measurement using strain gauge technology on a rotating shaft in stamp format
- M Compact TelMA Torque element with integrated sensor and telemetry interface
- M No soldering gun or gluing process
- M Simple assembly in series by means of microwelding technology without affecting the shaft strength
- M Integrated rotation speed measurement
- M Possible compensation of the bending moment influence by mounting 2 sensor elements
- M Analogue or digital signal output
- M Digital and contactless signal transmission
- M Completely maintenance-free operation
- M Diameter according to customer requirements 30 mm - 400 mm

# Easy mounting of the TelMA Torque Element:

- Mounting by means of micro welding, without damaging the shaft properties mounting time: approx. 2.5 minutes
- M Link to the video on YouTube





