

The **DTN 38** is a standard measure for calibrating torque measurement systems.



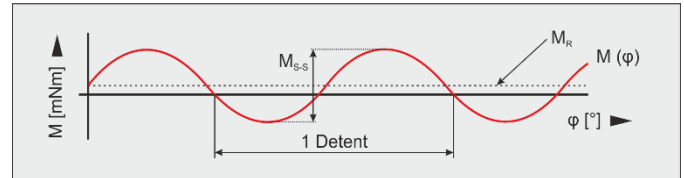
Controls such as knobs are used in many technical devices and are increasingly subject to a complete quality test in the course of increasing quality requirements.



Specially developed rotary haptic systems register the characteristic torque curve of the knobs. The test system needs to be calibrated regularly to ensure that it functions properly. PANOVO tec GmbH manufactures a wide range of different test systems and has looked in great depth at the calibration of rotary haptic measuring systems. PANOVO tec has developed the standard measure DTN 38 which makes it possible to calibrate the entire haptic test system for the first time. This standard measure works on the basis of reluctance force to embody a calibrated torque curve in a defined form.

## ■ Features

Torque curve is characterized by an approximately constant amplitude height and low frictional torque. The sinusoidal curve makes it easier to interpret the calibration results.



Calibration of the DTN 38 uses a specially developed process that minimizes transverse sensitivity and ensure coincidence of the calibration results with the actual torque curve.

A standard measure such as the DTN 38 is indispensable for calibrating rotary haptic systems. The DTN 38 stands out among others with the following features:

- Calibrated torque curve
- Low frictional torque
- Low mass moment of inertia of the rotor
- Low temperature influence
- Screening from external magnetic fields
- No EMC impact on the environment
- No energy supply required

## ■ Accuracy

The DTN 38 has an accuracy of  $\pm 0,05$  Nmm for the Peak-peak torque  $M_{s-s}$  and  $\pm 0,1$  Nmm for the frictional torque  $M_r$  caused by the bearings of the DTN38. Preset of 100 revolutions before measure reduces the torque down to  $\pm 0,05$  mNm.