

# Checking Device for Force, Torque, Displacement and Pressure TRANS CAL

Model 7280

Code:	7280 EN
Delivery:	ex stock
Warranty:	24 months



- Measurement ranges selectable
- DKD-/Manufacturer calibration certificate over the complete measurement chain available (optional)
- Sensors: Strain gauge/standard signal 5V/0/4-20mA
- RS232 interface/USB
- Simple sensor integration into flux possible
- Accuracy 0.1 % F.S. ± 1 digit
- 10 parameter sets

7280 EN

## Application

The portable digital indicator model 7280 is a universal checking device for instrumentation examination of mechanical components like presses, equipment of torque and so on. The fields of application range from quality assurance over start-up installations to process monitoring.

Very fast reaction times to the measuring signals are possible with the high measuring rates available. A min/max-memory enables this device for further applications. A universally configurable data logger can store up to 2000 measured values. Different calibration data such as sensor designation and physical units are possible with the help of 10 possible parameter sets. Measured values or logging values can be transferred via RS232 interface to a PC or a printer.

In order to have traceable results from this measurement chain a manufacturer calibration certificate can be provided. The traceability of the calibration is based on the references applied.

## Description

The model 7280 can either be battery- or accu-operated in the field or supplied with an external power supply unit. A high measuring accuracy paired with a fast measuring rate are ensured by the employment of highly precise amplifiers, the 16 bit A/D converter and a microprocessor. The handy digital indicator model 7280 supports sensors on strain gauge basis and active sensors up to 5 V/20 mA. The 10 mm high LCD main display will inform about the presently measured value. An existing basic load can be tared away with the function tare. Because of the small measurement error, the device could be used in highly accurate measurements. For a measuring chain we recommend to use the tension/compression load cell model 8524.

Depending on the existing press force this load cell features measuring ranges from 500 N up to 200 kN (divided in 9 levels).

## Technical Data

### Digital indicator model 7280

Accuracy:	0.1% F.S. ± 1 digit
Measuring rate:	1/10/100/1000/sec.
Average value:	x/1, x/2, x/4, x/8, x/16, x/32
Display counts:	± 9.999 + 3 dig. unit
Zero point alignment:	automatic/manual
Sensor selection for measurement mode:	10
Data logger adjustment:	window, diagram, manual, auto
Memory values:	max. 2000
Bridge resistance of the strain gauge:	350 ... 2000 Ω
Sensitivity, passive:	0.35 ... 3.3 mV/V
Sensitivity, active:	0 ... ±1.0 ... ± 5 V
Sensitivity, current:	0/4 ... 20 mA at 75 Ω
Power connection:	2 or 3 wire
Voltage supply passive/active:	5V/20 mA / 12V/100 mA
Working time with 50 % cyclic duration	
with power pack (4 x Mignon 1600 mA/h)	> 20 h
with batteries	> 30 h
Nominal temperature range:	+ 15 °C ... + 35 °C
Customs temperature range:	+ 5 °C ... + 45 °C
Storage temperature range:	- 10 °C ... + 70 °C
Dimensions [D x W x H]:	200 x 100 x 40 [mm]
Protection class:	IP40

### Order Information

Digital indicator TRANS CAL model 7280 with battery and test certificate including traceability **Model 7280**

### Other Accessories

6 V plug-in power supply for mains operating and accumulator charging **Model 7280-Z001**

Accumulator set 4x Mignon 1,2V/2300 mA **Model 7280-Z002**

MIN D connector plug 15 pin for sensor connection **Model 9900-V280**

Complete set of mating plugs **Model 7280-Z003**

Measuring and evaluation software for model 7280 via RS232 interface/data cable **Model 7280-P001**

Adapter cable, length 0.2 m; for TRANS CAL model 7280 to strain gauge sensors with 12 pin connector 9941  
Min D connector model 9900-V280 **Model 99280-540A-0090002**

USB/serial RS232 converter 9 pin **Model 9900-K350**

Aluminium case for TRANS CAL model 7280 and accessories



**Model 4493-V005**

Protective case for TRANS CAL model 7280 **Model 4499-Z001**  
For a large selection of load cells see section 8.4 and 8.5 in our catalog.

### Manufacturer Calibration Certificate

DKD Manufacturer Calibration Certificate of the force measuring chain in compressive direction in 20 % steps, up and down, installation position. **Model 72 WKS-7280**

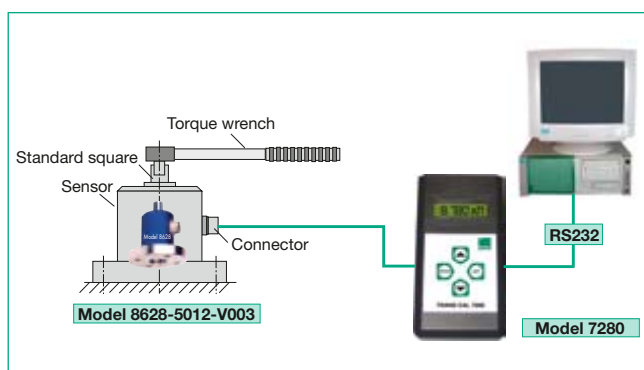
### DKD Calibration Certificate

Manufacturer Calibration Certificate of a measuring chain in compression direction, calibration according to standard EN ISO 376

## Applications

### Test object - torque wrench

Measuring range 0 ... 30 Nm



With torque wrenches the desired torque is set through turning the handle. The tolerance of the torque and the repeating accuracy must therefore be examined at regular intervals before and during use. With TRANS CAL model 7280 and torque sensor model 8628 this values can be determined with high accuracy fast and economically.

### Test object - power press



The model TRANS CAL 7280 together with a load cell is a universal reference measuring chain for the calibration of press-fit and force measurement systems.

During calibration on-site the reference force is brought into the flux of the press-fit measurement system. For traceability reasons a DKD- or manufacturer calibration certificate can be supplied.

### Order Information

Measuring range 20 kN with manufacturer calibration in compression direction:

Tension and compression load cell	<b>Model 8524-6020</b>
Connector	<b>Model 9900-V280</b>
Mounting of connector	<b>Model 99004</b>
Checking device	<b>Model 7280</b>
Calibration of entire measuring chain	<b>Model 72ABG</b>
Load button	<b>Model 8580-V012</b>
DKD/WKS manufacturer calibration certificate	
Calibration in 20 % steps,	<b>Model 72DKD-7280</b>
Compressive direction	<b>Model 72WKS-7280</b>