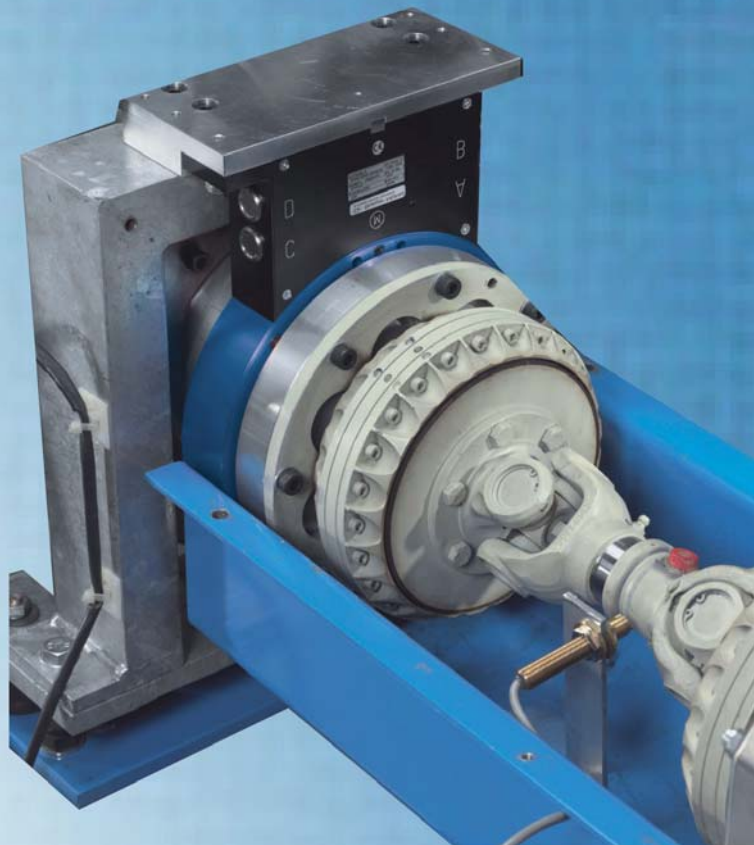


Torque Measurement with Kistler: Compact – Robust – Effective

We are turning the price down for you!



50 Years of Kistler:
Your Opportunity to Secure Torque
Measuring Systems at Anniversary Price

Accurate torque measurement can be an important factor in effective product development and subsequent production control.

We are currently offering you a **discount anniversary price** for selected torque measuring chains.

Valid until 31 December 2009!

www.kistler.com

Kistler Instrumente GmbH, Daimlerstraße 6, 73760 Ostfildern,
Tel. +49 711 34 07 0, Fax +49 711 34 07 159, info.de@kistler.com



KISTLER
measure. analyze. innovate.

Special Offer 1: Second Measuring Range for Torque Sensor Now Free

Kistler is now providing measuring range switching free of charge! This gives you what amounts to two sensors in one case!

The Type 4503A... gives you the option of reducing the measuring range to a fifth or a tenth of the rated torque. The output is always scaled to 10 V.

When you buy a sensor you now benefit from these advantages without paying a single cent extra!

Sensor Including Dual-Range Option at Cost Saving of More Than € 900,-*

- Rated torque of measuring ranges:
0 ... ± 1 N·m to 0 ... $\pm 5\,000$ N·m
- Second measuring range:
1:10 or 1:5 of rated torque
- Speed up to 50 000 rpm
- Accuracy class from 0,1
- Integral speed encoder
- Serial data output for torque measurements

Additional advantage when using the lower measuring range:

- Overload protection up to a factor of 10 of the rated torque

We will gladly advise and quote according to your needs.

Please refer to:

"Torque Offer – 50 Years of Kistler", Special Offer 1

Contact: see last page

The Sensor



*Torque sensor Type 4503A...
Dual-range version with integral
speed measurement*

Additional Advantages

- + Robust, wear-free design with contact free signal transmission between rotor and stator
- + Measurement signal unaffected by bearing friction in sensors up to 20 N·m, even at extremely high speeds

Special Offer 2: Replacement of Old with New Bringing Clear Advantages

Kistler will replace your single-range sensor Type 4503A..., 0160 or 0260 (from rated range of ± 1 N·m) with a dual-range version of the same design.

When you buy a new sensor you will be credited with € 1 300,- on returning your used one. The old sensor must be complete, but its condition is irrelevant!

Advantages for You

- + Immediate access to two calibrated measuring ranges selectable with a control signal
- + No longer any need to replace sensor when required range changes
- + Sensors are mechanically and electrical compatible, so
- + no need for mechanical modifications.

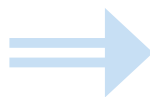
Credit of € 1 300,-*

We will gladly advise and quote according to your needs.

Please refer to:

"Torque Offer – 50 Years of Kistler", Special Offer 2

Contact: see last page



Special Offer 3: Torque Starter Package for Research and Development

We offer you a complete torque/speed measuring chain consisting of:

- Torque sensor from Types 4501A... to 4504A...
- PC software: SensorTool Type 4706A
- CoMo Torque Measuring and Evaluation Instrument Type 4700A...
- Matching junction cable

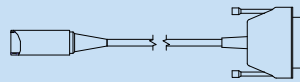
Measuring Chain Starter Package
from € 2 900,-*

Example of a measuring chain



Mini-Smart torque sensor Type 4501A10R

Data sheet 4501A_000-596e

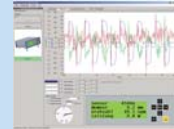


Connection cable Type KSM185350-2,5



CoMo Torque Evaluation Instrument for torque sensors Type 4700A...

Data sheet 4700A_000-620e



PC software: SensorTool for setting up and visualization Type 4706A

Data sheet 4706A_000-626e

The CoMo Torque Measuring and Evaluation Instrument Type 4700A... is ideal for both industrial and R&D applications. It enables direct connection of strain gage sensors and transmitters with voltage or frequency output.

We will gladly advise and quote according to your needs.

Please refer to:

"Torque Offer – 50 Years of Kistler", Special Offer 3

Contact: see last page

Special Offer 4: Monitoring Torque Curves in Volume Production

Kistler offers you a complete plug and measure torque monitoring system.

Choose a torque sensor from Types 4502A... or 4503A... and the matching controller "DMF-P A300" Type 4737A... From as little as € 3 900,- you will achieve comprehensive quality control of your production.

In addition to graphical representation and evaluation of torque/rotation angle or torque/time curves, the "DMF-P A300" offers all of the important interfaces for integration into the modern control environment.

Torque Measuring and Monitoring System
from € 3 900,-*

We will gladly advise and quote according to your needs.

Please refer to:

"Torque Offer – 50 Years of Kistler", Special Offer 4

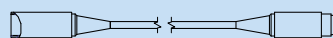
Contact: see last page

Example of a measuring chain



Mini-Smart torque sensor Type 4502A20RAU

Data sheet 4502A_000-597e

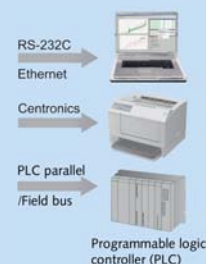


Connection cable Type KSM72030-5 + Y-cable Type KSM030551



Torque/rotation angle or torque/time controller DMF-P A300 Type 4737A...

Data sheet 4737A_000-684e



Special Offer 5: Measuring Chain for Reaction Torque with Piezo Sensors

We offer you high-quality measuring chains with all the advantages of piezoelectric measurement technology, such as:

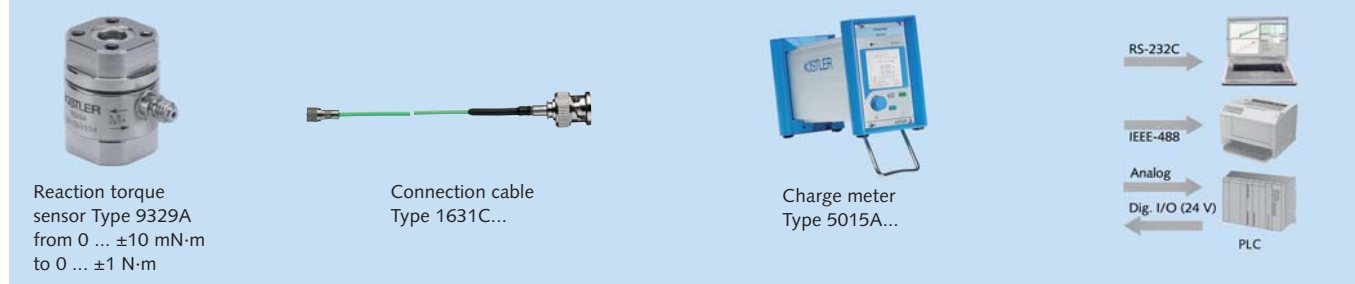
- Very wide measuring range with one same sensor
- Highly dynamic response ensured by cut-off frequency of up to a value in excess of 50 kHz
- High level of overload protection to cope with force peaks
- Extremely high rigidity ensuring negligible angle of twist
- Up to IP67 for enable sensor to withstand tough environmental conditions

Please select your preferred measuring chain from the alternatives!

You can choose from the following reaction torque sensors:

Type	Measuring range \pm N·m	Type	Measuring range \pm N·m
9329A	1	9339A	10
9349A	25	9369A	200
		9389A	1 000

Example 1: Measuring Chain with High-Precision Charge Meter



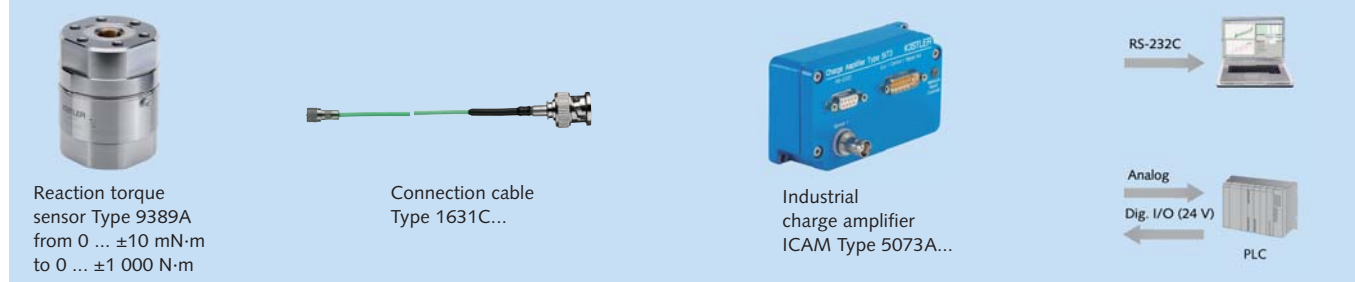
Data sheet 9329A_000-463e

Data sheet 5015A_000-297e

The piezo sensor can measure just as accurately in very small partial ranges as in the upper measuring range. Charge meters Types 5015A... and 5073A... support this advantage. The latter offers switching between two ranges by means of a control signal. The output is scaled to ± 10 V in each measuring range.

Measuring Chain for Reaction Torque in Laboratory and Reference Applications
from € 3 190,-*

Example 2: Measuring Chain with Industrial Charge Amplifier



Data sheet 9329A_000-463e

Data sheet 5073A_000-524e

Measuring Chain for Reaction Torque in Tough Machine Environments
from € 1 760,-*

We will gladly advise and quote according to your needs. Please refer to: "Torque Offer – 50 Years of Kistler", Special Offer 5
Contact: see last page

See our website (www.kistler.com) for more information about the products. Enter the relevant Type number under "Products". "Download" gives you access to all data sheets plus 3D models.

*The special offer prices are net, excluding VAT, for the standard version without other available options. They only apply until 31 December 2009.

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