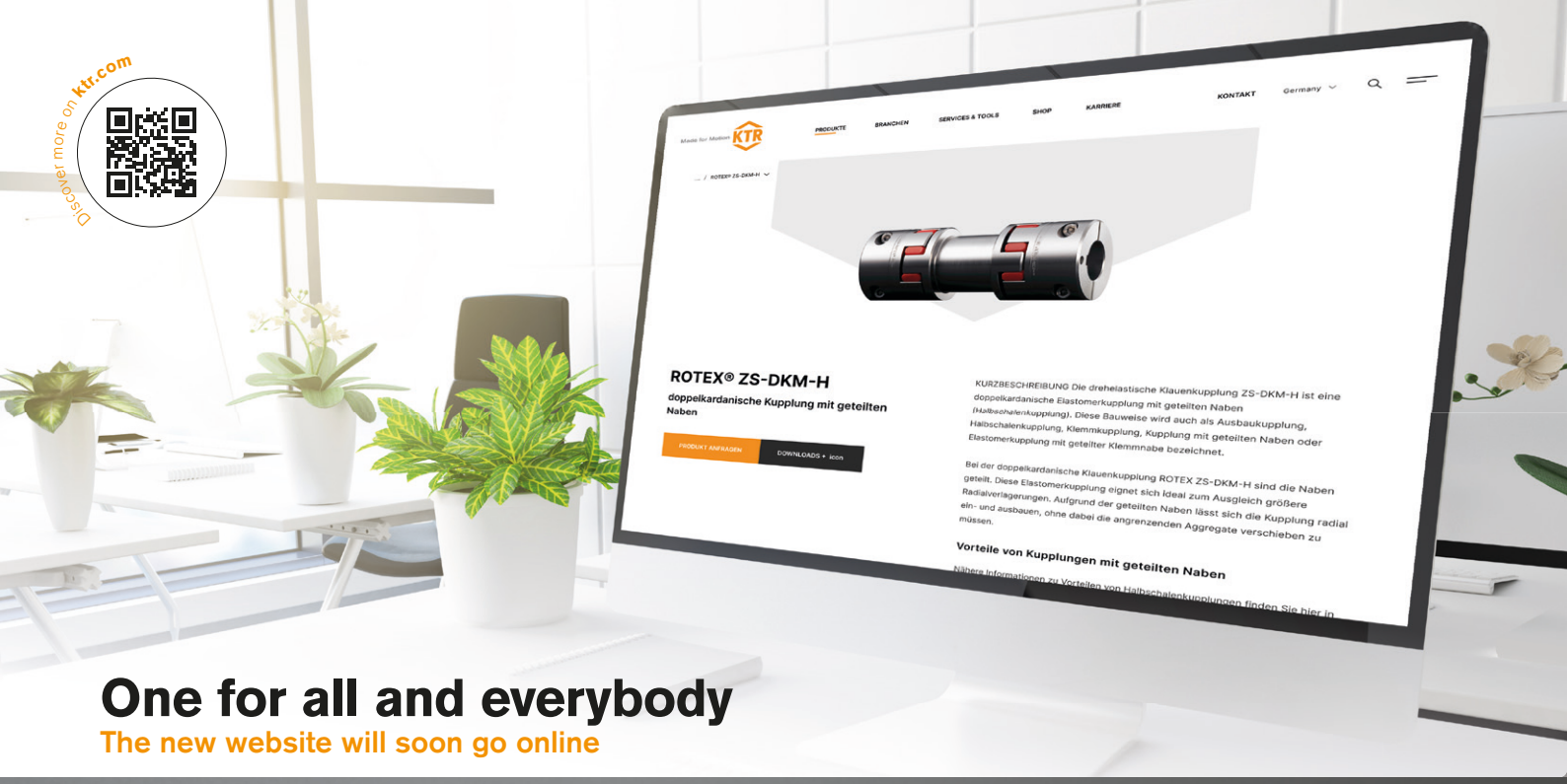
Made for Motion KTR

MONITEX® BT

Torque measuring coupling hub

ktr.com



One for all and everybody

The new website will soon go online

There will be no alteration, no revision, nor merely a facelift: There will rather be a comprehensive relaunch of our website making our company, our products and our services digitally accessible in a more detailed and convenient way than ever before.

The conception stage of the relaunch project managed by Melanie Gunka and Julian Birich already started in September 2021. Initially numerous international specifications of requirements as well as in-house and external surveys were executed. The target was to provide only one digital platform for all in the future - accordingly for example integrate the platforms ktr360.com and ktr-events.com completely in the new website.

„The focus is definitely on improving the services and usability of the website for visitors", Melanie Gunka underlines. „All contents are concentrated in one place and the performance is significantly increased. The objective is to raise the user experience to a new level.“ For that purpose a new, comfortable and quick search function is integrated, as an example. The streamlined structure as well as links to products and services facilitate navigation and consequently locating the numerous offers of KTR. Besides, its responsive design makes the new website equally easy to access for all terminal devices. The login area is significantly facilitated as well: In the future customers only have to log in once to have access to all contents and applications, from miscellaneous downloads and services to 3D-CAD drawings.

After launching both the KTR configuration tools are to be natively embedded in the website and all national versions of the website are to be adapted in the course of 2023 - to make sure all customers are able to benefit from the advantages of our retreated website in the respective national language step by step worldwide.

Our 2D/3D publishers as an extension of our online tools

Having calculated the right product by means of the coupling configurator, you can be provided with the result as a 2D, 3D, dimensional drawing or as a 3D-PDF file as of now. What is special: Clicking the download the requested drawings and models are generated in real time in the background.

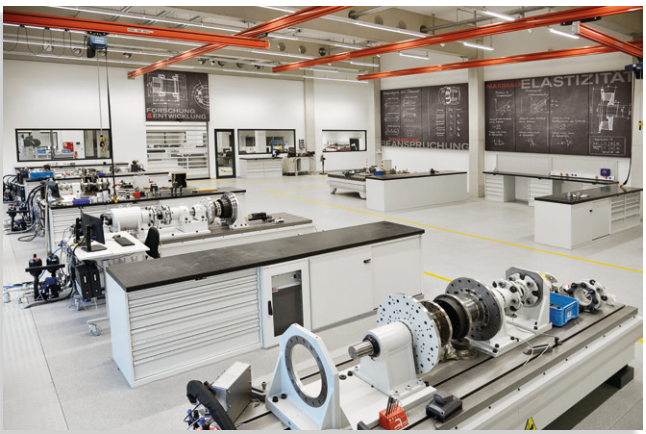
Discover more on ktr.com

Online tools

Tailor-made to your specifications - make use of our online tools

Examples of application

Machine monitoring



Test stand technology

Process management

Quality assurance

Mounted with a few steps, the new MONITEX® BT is a precise tool for daily measuring tasks in test stand technology. With the help of the apps or the PC software, torques and speed data can be displayed and saved in a matter of seconds.

Thanks to its compact dimensions it can also be used for machine monitoring and process control where integration of measuring shafts with long design failed previously.

The outputs of our analogue gateway directly supply the voltages for the PLC and the control. Furthermore, the data can be saved to a clode via an edge device so that nothing stands in the way of more complex monitoring.

Especially in quality assurance, it is often an advantage to not only save data, but also read them directly for setting purposes. The integrated display of the MONITEX® BT informs the user directly and at any time about the current load on the drive.

MONITEX® BT 28/200, 42/800
TORQUE MEASURING COUPLING HUB

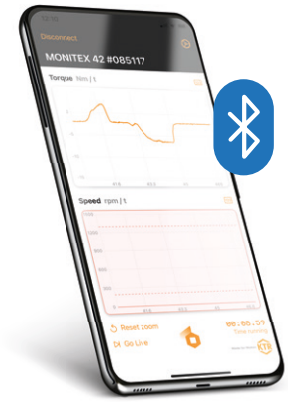
Description of product

ROTEX® goes digital – MONITEX® BT, the coupling hub that measures torque

MONITEX® BT is a backlash-free coupling hub that can measure torques and speeds. In contrast to classical torque measurement, the torque is no longer measured via an intermediate shaft or intermediate falnge, but the measurement takes place within the measurement hub. Thanks to this, the new measurement coupling can be integrated into the drive in a few simple steps, even when there is little space available.

The energy is transmitted contactless and permits a permanent operation of the measurement hub. To this end, the inductive energy transmitter is installed with a clearance of about 10 mm radially of the coupling.

As soon as the inductive head is switched on, the torque and speed data determined are sent by MONITEX® BT by Bluetooth and, using the free MONITEX®-app, they can be received by a smart phone or a PC andsubsequently saved. The "MONITEX® BT“ app is available for Android and iOS and can be downloaded from the app stores.



The data can be displayed in the app either as a curve progression or as numeric numbers. Minimum, maximum and average figures are continuously calculated. The data are recorded during the measurement and can then be analysed. A visual and acoustic alert informs the user once the set limit values are exceeded or fallen below.

If you have a PC or laptop with Bluetooth connection, you can download the free KTR Windows software from our homepage. It permits a high scanning frequency of the torque signal of 500 Hz and offers the possibility to save the data in a CSV file.

Limitless connectivity

In many cases, the user requires live data to feed into the system control for monitoring or controlling the powertrain.

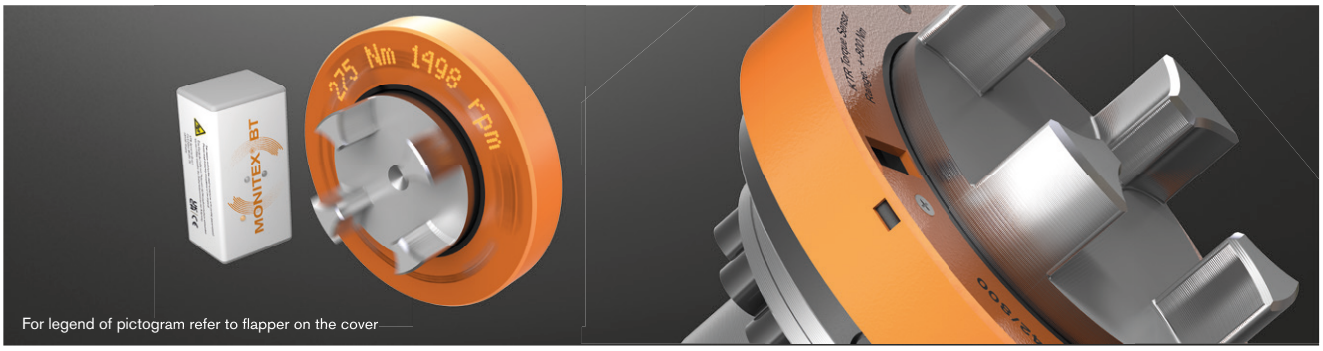
This can either be done by means of a DAC (Digital-Analogue Converter), which establishes the connection to MONITEX® BT and outputs the torque and speed values as analogue voltage signals, or by means of an edge device, which connects the MONITEX® BT with the large data network.

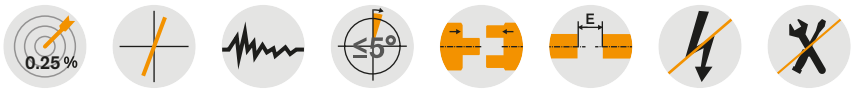
In addition to smartphone, edge device and analogue outputs, MONITEX® BT also has a display that shows the current torque and speed when in rotation. Like this, the data are also available even if you do not have your smartphone at hand or simple monitoring of the load is sufficient.

Connectivity				
Terminal device	**Direct connection to MONITEX® BT**	**Prerequisites**	**Measuring frequency torque/speed in Hz**	**Reference source**
Android				
Smartphone	•	from Android Version 6	60 / 3	
Tablet	•			
iOS				
Smartphone	•	from iOS Version 15.5	60 / 3	
Tablet	•			
Windows				
PC	•	Windows 10, hardware with Bluetooth connection	500 / 5	www.ktr.com
Laptop	•			
Analogue gateway (DAC)	•	–	500 / 5	Contacting the KTR
Edge gateway	•	Programming in consultation	500 / 5	Contacting the KTR

MONITEX BT® 28/200, 42/800
TORQUE MEASURING COUPLING HUB

For torques from 200 to 800 Nm





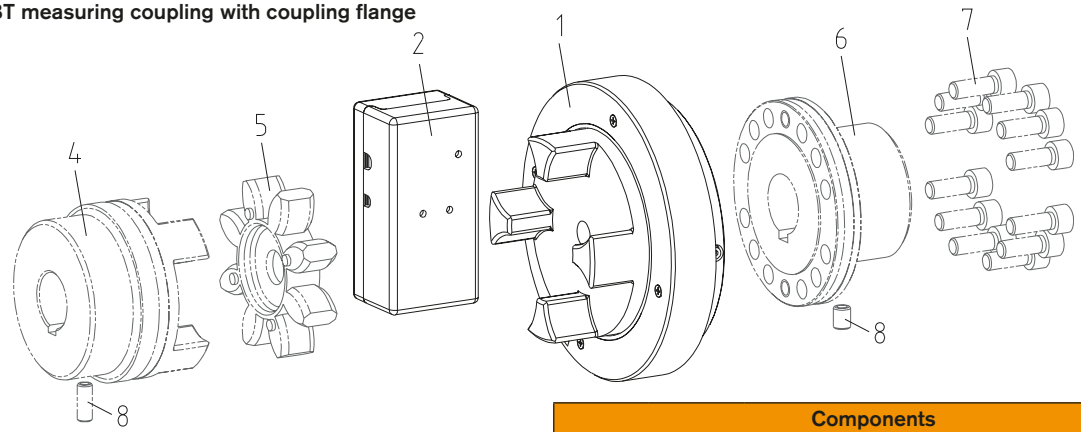
General properties				
MONITEX BT® type	Coupling type	Supply voltage in V [2]	Current consumption in mA [2]	Operating temperature range in °C
28/200	ROTEX® GS 28	24 ±4	<200	0 ... 55
42/800	ROTEX® GS 42			

Technical data of torque signal					Technical data of speed signal			Technical data of display		
MONITEX BT® type	Measuring range T_{KN} in Nm	Inaccuracy in % von T_{KN}	Measuring frequency of App/Windows software in Hz	Influence of temperature [1] in %/10 °C	Measuring range T_{KN} in 1/min	Resolution in rpm	Measuring frequency of App/Windows software in Hz	Number of digits of torque	Number of digits of speed	Turn-on threshold in rpm
28/200	-200 ... +200	±0.25	60 / 500	0.05	30-3500	1	5/3	3+1 decimals + ± sign	4	300
42/800	-800 ... +800									

Mechanical data of the coupling hub										
MONITEX BT® type	Static load limit [1] T_K max in %	Breaking load T_K Bruch [1] in %	Max. bending torque in Nm	Max. radial force in N	Max. axial force in kN	Weight in kg	Torsion spring stiffness C_T in Nm/rad	Torsion angle with T_{KN} in degrees	Mass moment of inertia in kgmm²	Max. speed in rpm
28/200	150	300	22	250	8	0.84	46000	0.25	765	3500
42/800			86	700	20	1.72	194000	0.24	2690	

[1] Referring to rated torque T_{KN}
[2] MONITEX® BT inductive head

MONITEX® BT measuring coupling with coupling flange



Components		
Component	Quantity	Subassembly
1	1	MONITEX® BT measuring hub
2	1	MONITEX® BT inductive head (inductive current transmission)
3 [1]	1	MONITEX® BT connection cable
4 [2]	1	ROTEX®/ROTEX® GS hub
5 [2]	1	ROTEX® GS spider
6 [2]	1	ROTEX® coupling flange N
7 [2]	see page 7	Cap screws DIN EN ISO 4762 - 12.9
8 [2]	2	Setscrew DIN EN ISO 4029

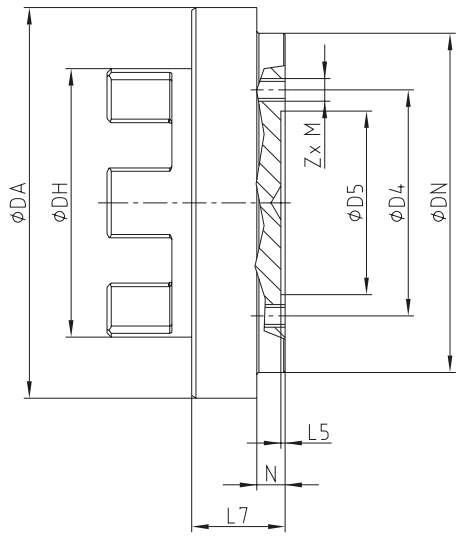
[1] not shown graphically in the left image
[2] Optionally available

Ordering example:

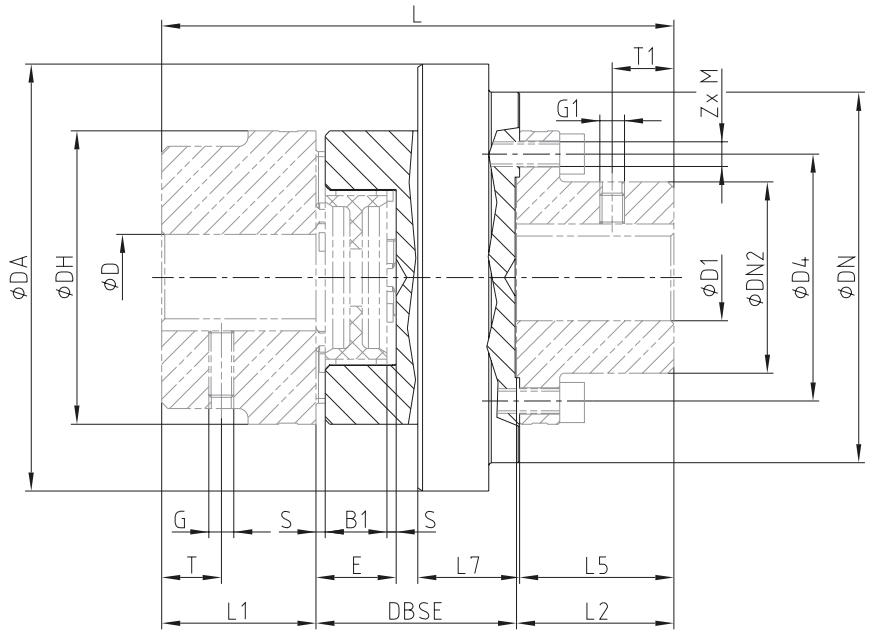
MONITEX BT® 42/800	Inductive head	2 m	Ø38	ROTEX® GS 2.5 - Ø38	98 ShA-GS
Measuring hub size	Inductive power supply	Connection cable	ROTEX® coupling flange N, finish bore	Hub type, finish bore	Spider hardness, see catalogue page 127

Components

MONITEX® BT measuring coupling



Dimensions [mm]									
MONITEX® BT type	DA	DH	DN	D4	D5	L5	L7	N	Z x M
28/200	112.4	65	90	54	44	1.5	28	10	8 x M6
42/800	138.4	95	120	80	65	1.5	33	10	12 x M8



Dimensions in mm									
MONITEX® BT type	ROTEX® GS size	Max. finish bore		DA	DH	DBSE	DN	DN2	D4
		D	D1						
28/200	28	35	30	112.4	65	54.5	90	42	54
42/800	42	55	45	138.4	95	65.0	120	62	80

Dimensions in mm											
MONITEX® BT type	L	L1	L2	L5	L7	E	B1	S	Cap screws DIN EN ISO 4762		
									Number Z	M	T_A in Nm
28/200	125	35	35.5	35	28	20	15	2.5	8	M6	17
42/800	166	50	51.0	50	33	26	20	3.0	12	M8	41

Setscrew DIN EN ISO 4029		
Size	28	42
Dimension G, G1 in mm	M8	M8
Dimension T, T1 in mm	15	20
Tightening torque T_A in Nm	10	10

NOTES

NOTES

KTR Germany:

Headquarters:
KTR Systems GmbH
Carl-Zeiss-Straße 25
D-48432 Rheine
Phone: +49 5971 798-0
Fax: +49 5971 798-698 or 798-450
E-mail: mail@ktr.com
Internet: www.ktr.com

KTR Brake Systems GmbH
Competence Center for Brake Systems
Zur Brinke 14
D-33758 Schloß Holte-Stukenbrock
Phone: +49 5207 99161-0
Mobile: +49 175 2650033

Leiter Vertrieb Bremsen Wind
Lino Gioroglou
Zur Brinke 14
D-33758 Schloß Holte-Stukenbrock
Phone: +49 5207 991 61-72
Mobile: +49 160 90 58 97 41
E-mail: l.gioroglou@ktr.com

Leiter Vertrieb Bremsen Industrie
Thomas Wienkotte, Dipl.-Ing. (FH)
Am Rott 18
D-50171 Kerpen
Phone: +49 2237 971796
Mobile: +49 172 5859448
E-mail: t.wienkotte@ktr.com

Außendienst Norddeutschland für Hydraulik-Komponenten
Gunnar Ehlers
Finkenstieg 4b
21629 Neu Wulmstorf
Mobile: +49 174 3301536
E-mail: g.ehlers@ktr.com

Außendienst Bayern, Baden-Württemberg und Österreich für Hydraulik-Komponenten
Klaus-Peter Sprödhuber
Blumenstraße 6
95499 Harsdorf
Phone: +49 9203 9739450
Mobile: +49 172 1096496
E-mail: k.sproedhuber@ktr.com

Schleswig-Holstein, Nord-Niedersachsen, Hamburg, Bremen
Martin Lau, Maschinenbautechniker
KTR Ingenieurbüro Hamburg
Geschwister-Scholl-Allee 44
25524 Itzehoe
Phone: +49 4821 4050812
Mobile: +49 172 5310014
E-mail: m.lau@ktr.com

NRW: Großraum Düsseldorf, Köln, Aachen
John Wein,
B. Sc. Wirtschaftsingenieurwesen
Carl-Zeiss-Straße 25
48432 Rheine
Phone: +49 5971 798 7437
Mobile: +49 151 62489605
E-mail: j.wein@ktr.com

Emsland, Mitte- und Süd-Niedersachsen, Ostwestfalen
Rainer Lüttmann
KTR Systems GmbH
Carl-Zeiss-Straße 25
48432 Rheine
Phone: +49 5971 798-340
Mobile: +49 172 5322164
E-mail: r.luettmann@ktr.com

NRW: Süd, Westfalen und Nordhessen
René Szabó,
Techniker u. techn. Betriebswirt (IHK)
Waldstr. 67
57080 Siegen-Niederschelden
Phone: +49 5971 798 7777
Mobile: +49 175 81 64 844
E-mail: r.szabo@ktr.com

Hessen, Rheinland-Pfalz, Saarland
Martin Dietrich, Ingenieur Maschinenbau
KTR Ingenieurbüro Frankfurt
Schorbachstr. 9
35510 Butzbach
Phone: +49 6033 9248494
Mobile: +49 172 5329968
E-mail: m.dietrich@ktr.com

Berlin, Mecklenburg-Vorpommern Südost, Sachsen-Anhalt, Brandenburg Thüringen Nord, Sachsen
Norman Schlag, Tech. BW (IHK)
KTR Ingenieurbüro Leipzig
Hauptstraße 101
04416 Markkleeberg
Phone: +49 341 35416467
Mobile: +49 173 4716266
E-mail: n.schlag@ktr.com

Baden-Württemberg Nord
Eberhard Maier, Dipl.-Ing. (FH)
Hortensienweg 1
70374 Stuttgart, Sommerrain
Phone: +49 71 16 5842957
Mobile: +49 172 5355056
E-mail: e.maier@ktr.com

Baden-Württemberg Süd
Jochen Glöckler, Maschinenbautechniker
KTR Ingenieurbüro Balingen
Hölzlestraße 44
72336 Balingen
Phone: +49 7433 91381
Mobile: +49 172 5310049
E-mail: j.gloeckler@ktr.com

Bayern-Nord, Thüringen Süd
Alexander Ennulat, Dipl.-Ing.
KTR Ingenieurbüro Römerstein
Grabenstetter Str. 28
72587 Römerstein
Phone: +49 7382 9369226
Mobile: +49 162 4160354
E-mail: a.ennulat@ktr.com

Bayern-Süd, Baden-Württemberg Ost
Peter Benkard, Dipl.-Ing. (FH)
KTR Ingenieurbüro Adelsried
Am Mittelfeld 13
86477 Adelsried
Phone: +49 8293 9605-04
Mobile: +49 172 5313059
E-mail: p.benkard@ktr.com

For all representatives and sales partners refer to www.ktr.com.

KTR worldwide:

Algeria
KTR Algérie
Phone: +213 661 92 24 00
Phone: +33 4 78 64 54 66
E-mail: ktr-dz@ktr.com

Brazil
KTR do Brasil Ltda.
Rua Jandaia do Sul 471 -
Bairro Emiliano Perneta
Pinhais - PR - Cep: 83324-440
Phone: +55 41 36 69 57 13
E-mail: ktr-br@ktr.com

Chile
KTR Systems Chile SpA
Calle Bucarest 17
Oficina 33 Providencia
Santiago de Chile
Phone: +56 23 22 46 674
Mobile: +56 9 44 75 57 02
E-mail: ktr-cl@ktr.com

China
KTR Power Transmission Technology (Shanghai) Co. Ltd.
Building 1005, ZOBON Business Park
999 Wangqiao Road
Pudong
Shanghai 201201
Phone: +86 21 58 38 18 00
Fax: +86 21 58 38 19 00
E-mail: ktr-cn@ktr.com

Czech Republic
KTR CR, spol. s r.o.
Brněnská 559
569 43 Jevíčko
Czech Republic
Phone: +420 461 325 014
E-mail: ktr-cz@ktr.com

Denmark
KTR Systems Danmark ApS
Vejlsøvej 51, Bygning N
8600 Silkeborg
Phone: +45 39 39 10 50
E-mail: ktr-dk@ktr.com

Finland
KTR Finland OY
Tiistinniityntie 4
FIN-02230 Espoo
Phone: +358 2 07 41 46 10
E-mail: ktr-fi@ktr.com

France
KTR France SAS
5 Chemin de la Brocardière
CS 71359
F-69573 DARDILLY CEDEX
Phone: +33 4 78 64 54 66
Fax: +33 4 78 64 54 31
E-mail: ktr-fr@ktr.com

India
KTR Couplings (India) Pvt. Ltd.,
T - 36 / 37 / 38 / 39, MIDC Bhosari,
Pune Maharashtra 411026
Phone: +91 20 27 12 73 24 / 25
Fax: +91 20 27 12 73 23
E-mail: ktr-in@ktr.com;
india.sales@ktr.com

Italy
KTR Systems GmbH
Sede Secondaria Italia
Via Giacomo Brodolini, 8
I - 40133 Bologna (BO)
Phone: +39 051 613 32 32
Fax: +39 051 298 55 77
E-mail: ktr-it@ktr.com

Japan
KTR Japan Co., Ltd.
c/o The Sumitomo Warehouse Co., Ltd.
Kobe Branch, Chuo Logistics Center L-6
7-14 Minatojima, Chuo-ku, Kobe City,
Hyogo 650-0045 Japan
Phone: +81 78 381 84 01
Fax: +81 78 945 85 60
E-mail: ktr-jp@ktr.com

Korea
KTR Korea Ltd.
#604, Songwon bldg., 89-10,
Galmaejungang-ro, Guri-si,
Gyeonggi-do, 11901 Korea
Phone: +82 3 15 69 45 10
Fax: +82 3 15 69 45 25
E-mail: ktr-kr@ktr.com

Netherlands
KTR Benelux B. V.
Postbus 87
Oosterveldsingel 3
NL-7558 PJ Hengelo (O)
Phone: +31 74 2553680
E-mail: ktr-nl@ktr.com

Norway
KTR Systems Norge AS
Lahaugmoveien 81
N-2013 Skjetten
Phone: +47 64 83 54 90
E-mail: ktr-no@ktr.com

Poland
KTR Polska Sp. z.o.o.
ul. Czerwone Maki 65
PL–30-392 Kraków
Phone: +48 12 267 28 83
E-mail: ktr-pl@ktr.com

Singapore
KTR Systems Singapore Pte. Ltd.
2 Venture Drive
#13-02 Vision Exchange
Singapore 608526
Phone: +65 69 04 12 32
Mobile: +65 96 33 66 92
E-mail: a.low@ktr.com

South Africa
KTR Couplings SA (Pty) Ltd.
28 Spartan Road, Kempton Park,
Spartan Ext. 21
Phone: +27 87 260 62 63
Fax: +27 82 922 43 65
E-mail: ktr-za@ktr.com

Spain
KTR Systems GmbH
Estartetxe, nº 5–Oficina 322
E-48940 Leioa (Vizcaya)
Phone: +34 9 44 80 39 09
Fax: +34 9 44 31 68 07
E-mail: ktr-es@ktr.com

Sweden
KTR Sverige AB
Box 7010
S-187 11 Täby
Phone: +46 86 25 02 90
E-mail: info.se@ktr.com

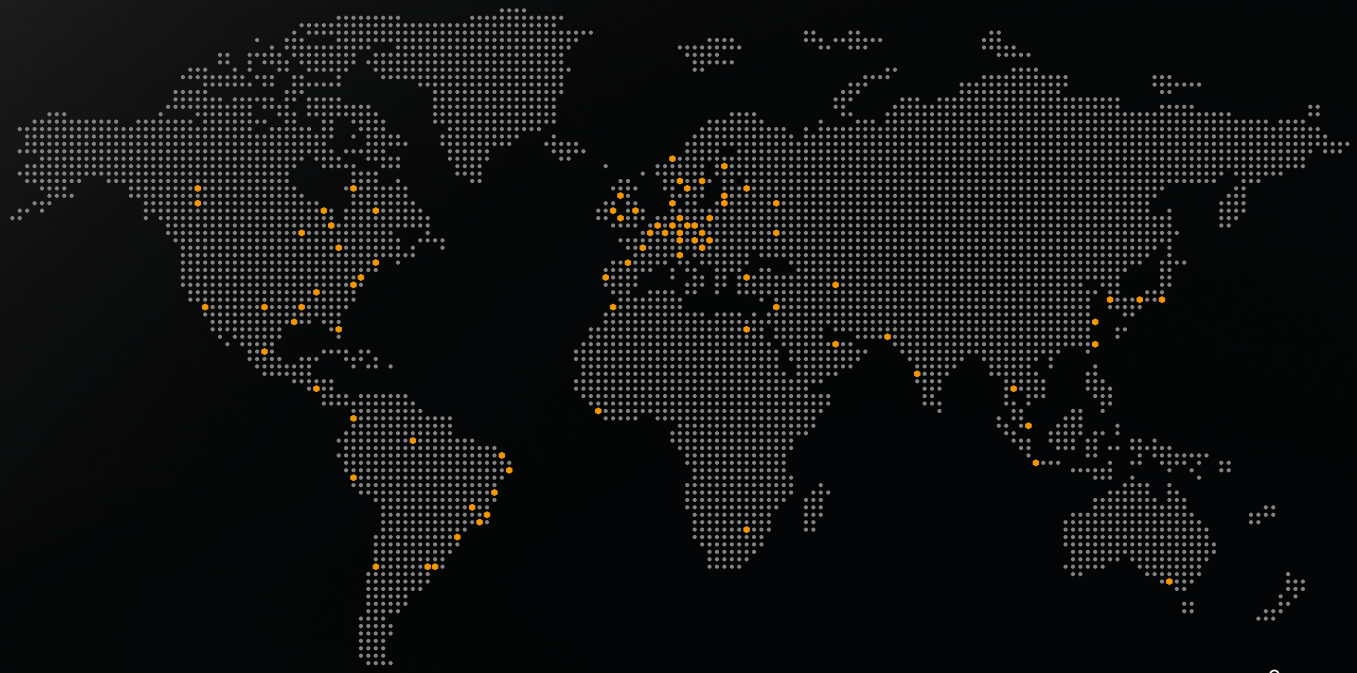
Switzerland
KTR Systems Schweiz AG
Bahnstr. 60
CH-8105 Regensdorf
Phone: +41 4 33 11 15 48
Fax: +41 4 33 11 15 56
E-mail: ktr-ch@ktr.com

Taiwan
KTR Taiwan Ltd.
No. 30-1, 36 Rd., Taichung Industry Zone,
Xitun Dist., Taichung City 40768,
Taiwan (R.O.C)
Phone: +886 4 23 59 32 78
Fax: +886 4 23 59 75 78
E-mail: ktr-tw@ktr.com

Turkey
KTR Turkey
Güç Aktarma Sistemleri San. ve Tic. Ltd.
Sti. Kayışdagı Cad. No: 117/2
34758 Atasehir -İstanbul
Phone: +90 216 574 37 80
Fax: +90 216 574 34 45
E-mail: ktr-tr@ktr.com

United Kingdom
KTR U.K. Ltd.
Robert House
Unit 7, Acorn Business Park
Woodseats Close
Sheffield
United Kingdom, S8 0TB
Phone: +44 11 42 58 77 57
Fax: +44 11 42 58 77 40
E-mail: ktr-uk@ktr.com

USA
KTR Corporation
122 Anchor Road
Michigan City, Indiana 46360
Phone: +1 2 19 8 72 91 00
Fax: +1 2 19 8 72 91 50
E-mail: ktr-us@ktr.com



Headquarters
KTR Systems GmbH
Carl-Zeiss-Straße 25
D-48432 Rheine
Phone: +49 5971 798-0
Fax: +49 5971 798-698 or 798-450
E-mail: mail@ktr.com
Internet: www.ktr.com

Made for Motion KTR

Certificates and approvals of our varied products

Being one of the first companies in the field of drive technology, KTR was certified in accordance with DIN EN ISO 9001 already in 1993, including the plants in Poland, China, India and USA.

Currently KTR products have been approved by numerous internationally renowned societies for standardization and classification. Individual approvals by other societies can be implemented on request without fail.

Legend of pictograms

torsionally stiff


Light-weight


maintenance-free

torsionally flexible

Axial compensation

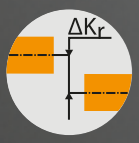

Protected against corrosion

Highly flexible

Angular compensation


Electrically insulating


Damping vibrations



Radial compensation

Maximum speed


Axial plug-in


Shiftable at standstill


No eddy current losses

Consider shaft distance


double-cardanic

Torque limiter slipping

Relatively short shaft distance


Radial disassembly, ease of service

Torque limiter with synchronous ratcheting

Maximum operating temperature


standard drop-out centre lengths available

Torque limiter with idle rotation type


High speeds

Available in accordance with API


Hardened surface


backlash-free

Complying with ATEX
For details refer to our ATEX leaflet

Accuracy X %


shear type, separating, slipping

Certified in accordance with ABS


Consider axial displacement


Additional features compared to standard version