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# ELPEX® HIGHLY FLEXIBLE COUPLINGS

jbj
TECHNIQUES
LIMITED

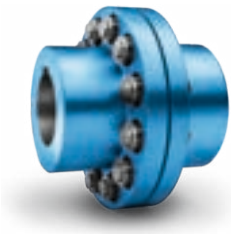
# Flender Mechanical Power Transmission Couplings available from jbj Techniques

FLENDER

## N-EUPEX®, RUPEX® and N-BIPEX®
### Flexible Couplings

Flexible Flender couplings have a wide range of possible applications. A broad standard modular system as well as specially designed application specific couplings are available.

**N-EUPEX**
cam couplings
Rated torque: 19 Nm … 85,000 Nm



**RUPEX**
pin-and-bush couplings
Rated torque: 200 Nm … 1,300,000 Nm

**N-BIPEX**
cam couplings
Rated torque: 12 Nm … 1,300 Nm

## ELPEX®, ELPEX-B® and ELPEX-S®
### Highly Flexible Couplings

ELPEX® couplings are free of circumferential back-lash. Their damping capacity and low torsional stiffness make them especially well-suited for coupling machines with widely variable torque characteristics or large shaft misalignment.

**ELPEX**
elastic ring couplings
Rated torque: 1,600 Nm … 90,000 Nm

**ELPEX-B**
elastic tire couplings
Rated torque: 24 Nm … 14,500 Nm

**ELPEX-S**
rubber disk couplings
Rated torque: 330 Nm … 63,000 Nm

## ZAPEX® gear couplings and ARPEX® all-steel couplings
### Torsionally Rigid Couplings

For transmission of high torques, we offer both ARPEX all-steel disc couplings and ZAPEX gear couplings in a range of versions. The applications vary according to specific requirements, with respect to shaft misalignment, temperature and torque.

**ZAPEX**
gear couplings
Rated torque: 1,300 Nm … 7,200,000 Nm

**ARPEX**
high performance disc couplings
Rated torque: 1,000 Nm … 80,000 Nm

**N-ARPEX and ARPEX**
all-steel disc couplings
Rated torque: 92 Nm … 2,000,000 Nm

## BIPEX-S® and SIPEX®
### Backlash-Free Couplings

The vibration-damping, electrically insulating plug-in BIPEX-S elastomer couplings and SIPEX metal bellows couplings deliver especially accurate component positioning.

**BIPEX-S and SIPEX**
Rated torque: 0.1 Nm … 5,000 Nm

FLENDER

## FLUDEX® couplings are hydrodynamic fluid couplings

**which operate on the Fottinger principle.**

FLUDEX® couplings limit starting and maximum torque in the drive train and, through the property of rotational slip, serve as an aid to starting the motor, as overload protection in the event of fault and for isolating torsional vibration. To compensate for shaft misalignment, the FLUDEX® coupling is combined with a displacement coupling e.g. of the N-EUPEX® type.

#FLUDEX

## Railway Couplings

**Couplings for rail vehicles developed, tested and produced for reliability and safety.**

**ZBG series** *read info . . .*

**LBK series** *read info . . .*

**GKG series** *read info . . .*

**MBG series** *read info . . .*

**MBG-ISO series** *read info . . .*

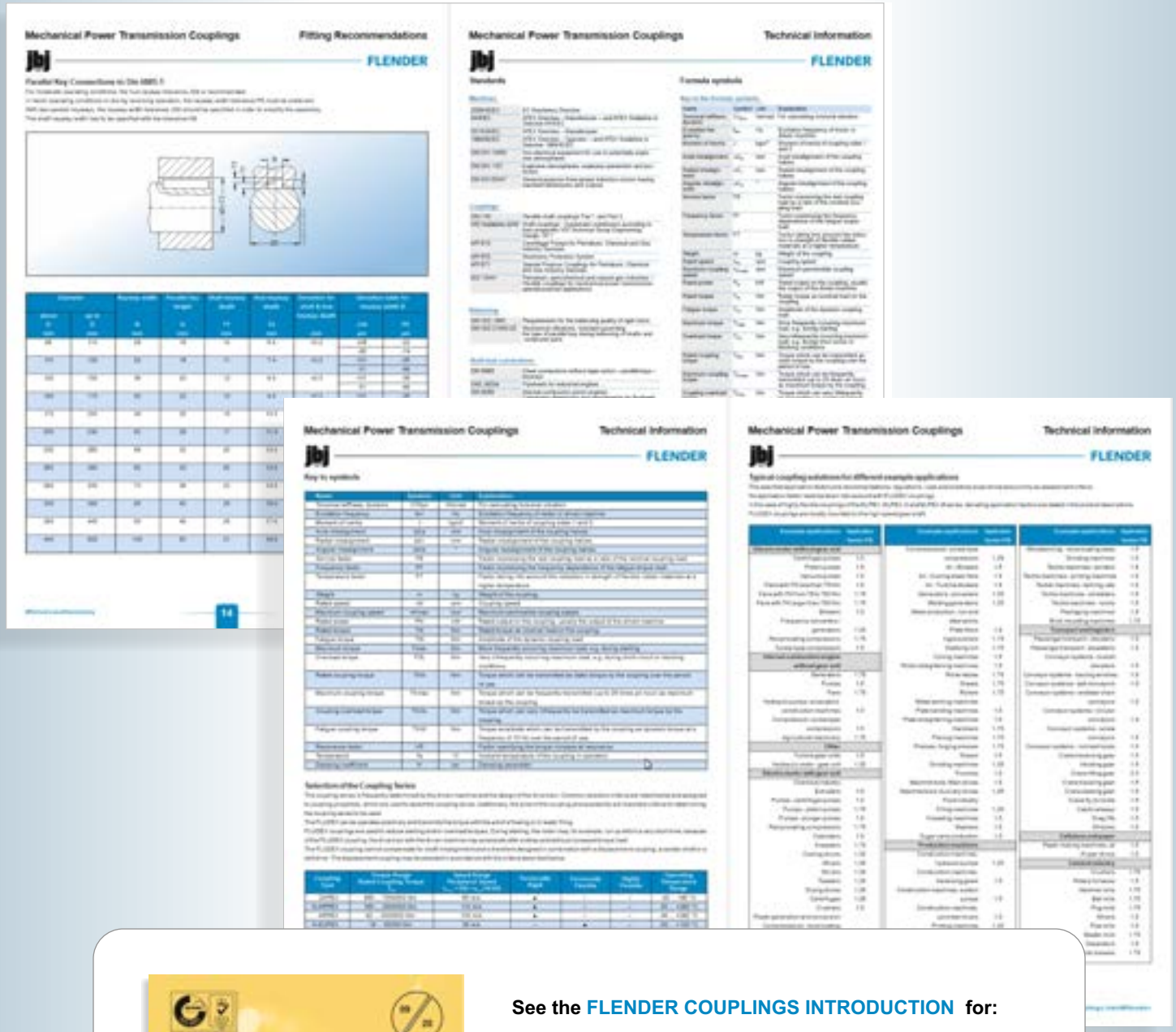
**ARS series** *read info . . .*

Couplings designed for partially and fully suspended drives which can be mounted between motor and gear unit or gear unit and wheel-set shaft. Designed and tested to withstand the high forces created by axle loads of up to 32 t, motor speeds of over 6,000 rpm and driving speeds of more than 400 km/h. All models tested under extreme conditions to guarantee maximum reliability. A broad range of products in all necessary sizes and designs as standard.

**FLENDER Railway Couplings offer:**

- High quality.
- 100% component traceability.
- Great depth within an extensive product range.
- Component compatibility with Flender gear units for rail vehicles.
- Low maintenance costs and a high level of serviceability.

#railway-couplings





**See the FLENDER COUPLINGS INTRODUCTION for:**

- Shaft coupling types.
- Shaft misalignment.
- Balancing.
- Shaft hub connections.
- Key to symbols & selection of coupling series.
- Typical coupling solutions for different applications.
- Selection of coupling size.
- Checking shaft hub connection & environmental conditions.
- Fitting recommendations including DIN ISO 286 details.
- Cylindrical shaft ends, extract from DIN 748 Part 1 (long) & central holes according to DIN 332 Part 2.
- Parallel Key Connections to Din 6885-1.

#couplings-technical-info

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**Flender**
9,544 followers
1w •

https://lnkd.in/eArCCRi

New distribution partnership in the UK: We have now partnered with **jbj Techniques Limited** as the official partner for our whole couplings range in the United Kingdom and kicked off our cooperation by a digital signing of the partnership contract. JBJ has a wealth of experience in established and niche applications, such examples are: Mechanical drives for subsea wave energy, steel works crucible handling equipment or marine winch drives. We are happy to have them on our side for our UK coupling customers, especially for the supply of the recently optimized N-EUPEX!

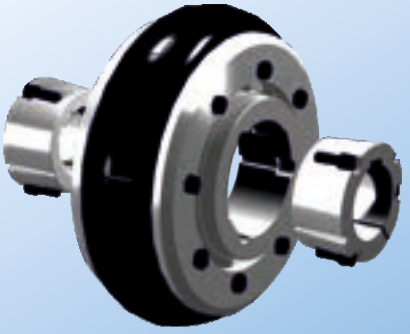
Get to know the industry benchmark in couplings and reach out to **Mat Jackson**, Product Manager Couplings at Flender UK, and **Mike Davis**, Managing Director at JBJ for further queries.

Learn more about our couplings range here: **https://lnkd.in/dAir-av**

**#flender #couplings #neupex #newpartnership #cooperation #WeMoveTheWorld**

Unfitted coupling

Fitted coupling
(shown without connecting shafts)



Fitted elastic tire

ELPEX-B® couplings are highly flexible and free of torsional backlash. Because of their low torsional stiffness and damping capacity, ELPEX-B® couplings are especially suitable for coupling machines with a highly non uniform torque pattern. ELPEX-B® couplings are also suitable for connecting machines with high shaft misalignment. The elastic tire can simply be slipped over the hub parts. The elastic tire is held firmly in place by fitting the clamping ring. The connection transmits the torque by frictional engagement.
Standard ELPEX-B® coupling types are designed as shaft-shaft connections. Application-related types can be implemented on request.

## Benefits

The ELPEX-B® coupling is suitable for horizontal and vertical mounting positions or mounting positions at any required angle.
The elastic tire is slit at the circumference and can be changed without having to move the coupled machines.
The elastic tyre is fitted without backlash and gives the coupling linear torsional stiffness, thus the torsional rigidity remains constant as the load on the coupling increases.
The ELPEX-B® coupling is especially suitable for reversing operation or operation with changing directions of load.
The coupling parts can be arranged as required on the shafts to be connected.
If the elastic tyre is irreparably damaged or worn, the metal parts can rotate freely against one another because they are not in contact with one another.

## Application

The ELPEX-B® coupling is available as a catalogue standard in 15 sizes with a rated torque of between 24 Nm and 14500 Nm. The coupling can be fitted with elastic tires made of natural rubber for ambient temperatures of -50 °C to +50 °C and with elastic tires made of chloroprene rubber for -15 °C to +70 °C.

The chloroprene rubber tire is marked FRAS, "Fire-resistant and Antistatic".

ELPEX-B® couplings are highly flexible and free of torsional backlash. Because of their low torsional stiffness and damping capacity, ELPEX-B® couplings are especially suitable for coupling machines with a highly non uniform torque pattern. ELPEX-B® couplings are also suitable for connecting machines with high shaft misalignment.
Standard ELPEX-B® coupling types are designed as shaft-shaft connections. Application-related types can be implemented on request.

## Design and Configurations

The ELPEX-B® coupling's transmission characteristic is determined essentially by the elastic tire. The elastic tire is manufactured from a natural rubber or a chloroprene rubber mixture with a multiply fabric insert. The elastic tire is fastened to the hubs with bolts and two clamping rings.
In type EBWT, the shaft-hub connection is achieved with Taper clamping bushes, in type EBWN with finish-drilled hubs and parallel keys. The type EBWZ connects the machine shafts additionally via a detachable adaptor.

## Metal part materials

» EN-GJL-250 grey cast iron or steel.

## Elastic Tire Material

| Material | Hardness | Marking | Ambient temperature |
|---|---|---|---|
| Natural rubber | 70 ShoreA | 48 | -50 ... +50 °C |
| Chloroprene rubber | 70 ShoreA | 068 FRAS | -15 ... +70 °C |

## ELPEX-B Coupling Types

| Type | Description |
|---|---|
| EBWN | Coupling as a shaft-shaft connection with drilled and grooved hubs |
| EBWT | Coupling as a shaft-shaft connection with Taper clamping bushes |
| EBWZ | Coupling as shaft-shaft connection with detachable adapter |

Further application-specific coupling types are available; dimension sheets for and information on these are available on request.
The coupling types set up for shaft-hub connections with Taper clamping bushes are designated as follows:

» Variant A: Coupling with part 3 – part 3
» Variant B: Coupling with part 4 – part 4
» Variant AB: Coupling with part 3 – part 4

In the case of part 3, the Taper clamping bush is screwed in from the shaft end face side. The coupling half must be fitted before the machines to be connected are pushed together.
In the case of part 4, the Taper clamping bush is screwed in from the machine-housing side. If there is insufficient room, the Taper clamping bushes cannot be fitted from this side. Besides fitting space for the Taper clamping bush bolts, space for the fitting tool (offset screwdriver) must be taken into account.
In the case of coupling type EBWT, part 3 and part 4 can be combined as required. Furthermore, the variant with a Taper clamping bush can be combined with the finish drilled hub.

## Power ratings of the ELPEX-B series

| Power Ratings | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Size | Rated Torque $T_{KN}$ (Nm) | Maximum Torque $T_{Kmax}$ (Nm) | Overload Torque $T_{KOL}$ (Nm) | Fatigue Torque $T_{KW}$ (Nm) | Maximum Speed $n_{Kax}$ (rpm) | Dynamic Torsional Stiffness $C_{Tdyn}$ (Nm/rad) | Permitted Shaft Misalignment at n = 1500rpm[1] | | |
| | | | | | | | Axial $\Delta K_a$ (mm) | Radial $\Delta K_r$ (mm) | Angle $\Delta K_w$ (degrees) |
| 105 | 24 | 48 | 72 | 7 | 4500 | 285 | 1.3 | 1.1 | 4 |
| 135 | 66 | 132 | 200 | 20 | 4500 | 745 | 1.7 | 1.3 | 4 |
| 165 | 125 | 250 | 375 | 38 | 4000 | 1500 | 2 | 1.6 | 4 |
| 190 | 250 | 500 | 750 | 75 | 3600 | 2350 | 2.3 | 1.9 | 4 |
| 210 | 380 | 760 | 1140 | 114 | 3100 | 3600 | 2.6 | 2.1 | 4 |
| 235 | 500 | 1000 | 1500 | 150 | 3000 | 5200 | 3 | 2.4 | 4 |
| 255 | 680 | 1360 | 2040 | 204 | 2600 | 7200 | 3.3 | 2.6 | 4 |
| 280 | 880 | 1760 | 2640 | 264 | 2300 | 10000 | 3.7 | 2.9 | 4 |
| 315 | 1350 | 2700 | 4050 | 405 | 2050 | 17000 | 4 | 3.2 | 4 |
| 360 | 2350 | 4700 | 7050 | 705 | 1800 | 28000 | 4.6 | 3.7 | 4 |
| 400 | 3800 | 7600 | 11400 | 1140 | 1600 | 44500 | 5.3 | 4.2 | 4 |
| 470 | 6300 | 12600 | 18900 | 1890 | 1500 | 78500 | 6 | 4.8 | 4 |
| 510 | 9300 | 18600 | 27900 | 2790 | 1300 | 110000 | 6.6 | 5.3 | 4 |
| 560 | 11500 | 23000 | 34500 | 3450 | 1100 | 160000 | 7.3 | 5.8 | 4 |
| 630 | 14500 | 29000 | 43500 | 4350 | 1000 | 200000 | 8.2 | 6.6 | 4 |

## Torsional Stiffness and Damping

The damping coefficient is Ψ = 0.9

The technical data for the elastic tires made of natural rubber and chloroprene rubber are virtually identical.

Torsional stiffness depends on the ambient temperature and the frequency and amplitude of the torsional vibration excitation. More precise torsional stiffness and damping parameters on request.

With flexible couplings the manufacturing process of the rubber elements and their aging primarily influence the stiffness value $C_{Tdyn}$. For this reason calculation must be made with a tolerance for the dynamic stiffness of ±20%. The specified damping coefficient Ψ is a minimum value with the result that the damping performance of the coupling corresponds at least to the specified value.

## Permitted Shaft Misalignment

The permitted shaft misalignment depends on the operating speed. As the speed increases, lower shaft misalignment values are permitted. The correction factors for different speeds are specified in the following table. The maximum speed for the respective coupling size must be noted.

ΔKperm = ΔK1500 · FKV

| | Speed in rpm | | | |
|---|---|---|---|---|
| | 500 | 1000 | 1500 | 3000 |
| Correction factor FKV | 1.2 | 1.1 | 1.0 | 0.7 |

The restorative force (including in the axial direction) depends on speed, system torque and shaft misalignment.

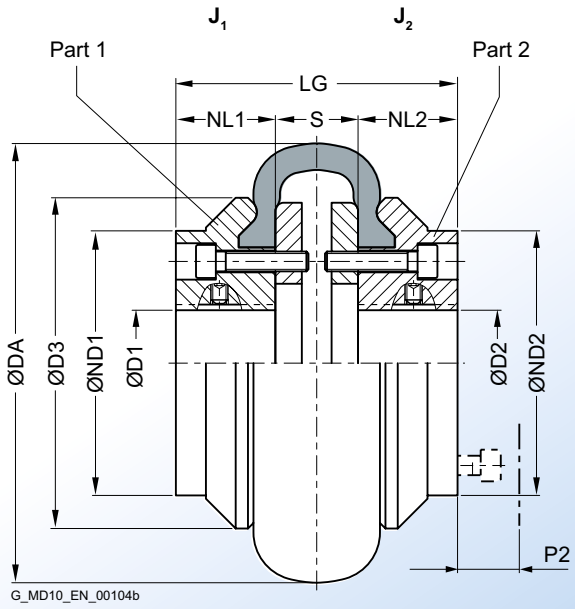
Restorative forces on request.

## Elastic Tire

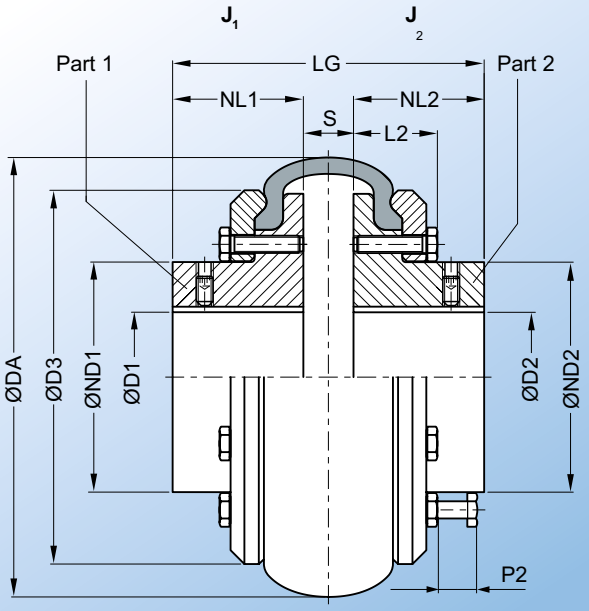
| Size | Natural Rubber Identification 048 | Weight (kg) | Chloroprene Rubber Identification 068 FRAS | Weight (kg) |
|---|---|---|---|---|
| 105 | 2LC0210-0WA00-0AA0 | 0.1 | 2LC0210-0WA00-0AA0-Z K01 | 0.1 |
| 135 | 2LC0210-1WA00-0AA0 | 0.2 | 2LC0210-1WA00-0AA0-Z K01 | 0.2 |
| 165 | 2LC0210-2WA00-0AA0 | 0.4 | 2LC0210-2WA00-0AA0-Z K01 | 0.4 |
| 190 | 2LC0210-3WA00-0AA0 | 0.5 | 2LC0210-3WA00-0AA0-Z K01 | 0.5 |
| 210 | 2LC0210-4WA00-0AA0 | 0.8 | 2LC0210-4WA00-0AA0-Z K01 | 0.8 |
| 235 | 2LC0210-5WA00-0AA0 | 1 | 2LC0210-5WA00-0AA0-Z K01 | 1 |
| 255 | 2LC0210-6WA00-0AA0 | 1.2 | 2LC0210-6WA00-0AA0-Z K01 | 1.2 |
| 280 | 2LC0210-7WA00-0AA0 | 1.4 | 2LC0210-7WA00-0AA0-Z K01 | 1.4 |
| 315 | 2LC0210-8WA00-0AA0 | 2.6 | 2LC0210-8WA00-0AA0-Z K01 | 2.6 |
| 360 | 2LC0211-0WA00-0AA0 | 2.9 | 2LC0211-0WA00-0AA0-Z K01 | 2.9 |
| 400 | 2LC0211-1WA00-0AA0 | 3.1 | 2LC0211-1WA00-0AA0-Z K01 | 3.1 |
| 470 | 2LC0211-2WA00-0AA0 | 5.3 | 2LC0211-2WA00-0AA0-Z K01 | 5.3 |
| 510 | 2LC0211-3WA00-0AA0 | 7.8 | 2LC0211-3WA00-0AA0-Z K01 | 7.8 |
| 560 | 2LC0211-4WA00-0AA0 | 10.8 | 2LC0211-4WA00-0AA0-Z K01 | 10.8 |
| 630 | 2LC0211-5WA00-0AA0 | 12.4 | 2LC0211-5WA00-0AA0-Z K01 | 12.4 |

### Notes

» The elastic tires are wear parts. The service life depends on the operating conditions.




Sizes 105 ... 165




Sizes 190 ... 630

| Size | Rated Torque Flexible Type 80 ShoreA $T_{KN}$ (Nm) | Dimensions (mm) | | | | | | | | | | Mass Moment of Inertia | Part Number[1] | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | D1, D2 keyway to DIN 6885 | | DA | ND1/ ND2 | NL1/ NL2 | D3 | L2 | S | P2 | LG | $J_1/J_2$ kgm² | | m (kg) |
| | | min | max | | | | | | | | | | | |
| 105 | 24 | – | 30 | 104 | 70 | 30 | 82 | – | 22 | 35 | 82 | 0.0011 | 2LC0210-0AA | 2.2 |
| 135 | 66 | – | 38 | 134 | 80 | 40 | 100 | – | 25 | 35 | 105 | 0.0025 | 2LC0210-1AA | 3.6 |
| 165 | 125 | – | 45 | 165 | 70 | 50 | 125 | – | 33 | 35 | 133 | 0.0056 | 2LC0210-2AA | 5.4 |
| 190 | 250 | – | 50 | 187 | 80 | 55 | 145 | 36 | 23 | 35 | 133 | 0.0095 | 2LC0210-3AA | 6.9 |
| 210 | 380 | – | 60 | 211 | 98 | 65 | 168 | 40 | 25 | 35 | 155 | 0.02 | 2LC0210-4AA | 11 |
| 235 | 500 | – | 70 | 235 | 111 | 70 | 188 | 45 | 27 | 35 | 167 | 0.023 | 2LC0210-5AA | 14.8 |
| 255 | 680 | – | 80 | 254 | 130 | 75 | 216 | 44 | 27 | 35 | 177 | 0.06 | 2LC0210-6AA | 20 |
| 280 | 880 | – | 90 | 280 | 145 | 80 | 233 | 45 | 25 | 35 | 185 | 0.083 | 2LC0210-7AA | 24.5 |
| 315 | 1350 | – | 95 | 314 | 155 | 90 | 264 | 50 | 29 | 35 | 209 | 0.129 | 2LC0210-8AA | 35 |
| 360 | 2350 | – | 125 | 359 | 200 | 100 | 311 | 50 | 32 | 35 | 232 | 0.32 | 2LC0211-0AA | 54 |
| 400 | 3800 | – | 135 | 402 | 216 | 125 | 345 | 59 | 30 | 35 | 280 | 0.55 | 2LC0211-1AA | 78 |
| 470 | 6300 | – | 160 | 470 | 260 | 140 | 398 | 67 | 46 | 35 | 326 | 1.12 | 2LC0211-2AA | 120 |
| 510 | 9300 | – | 140 | 508 | 250 | 150 | 429 | 73 | 48 | 35 | 348 | 1.6 | 2LC0211-3AA | 146 |
| | | 140 | 180 | | 290 | | | | | | | 1.7 | | 154 |
| 560 | 11500 | - | 140 | 562 | 250 | 165 | 474 | 82 | 55 | 35 | 385 | 2.5 | 2LC0211-4AA | 200 |
| | | 140 | 180 | | 300 | | | | | | | 2.7 | | 206 |
| 630 | 14500 | 80 | 140 | 629 | 250 | 195 | 532 | 82 | 59 | 35 | 449 | 4.1 | 2LC0211-5AA | 258 |
| | | 140 | 180 | | 300 | | | | | | | 4.4 | | 265 |

## Configurable variants[1]

» ØD1 Without finished bore.
With finished bore.

» ØD2 Without finished bore.
With finished bore.

## Notes

» Weight and mass moments of inertia apply to maximum bore diameters.

» The article no. applies to elastic tires made of natural rubber.

» P2 = fitting space for dismounting the elastic tire

## Ordering example

» ELPEX-B EBWN coupling, size 210.

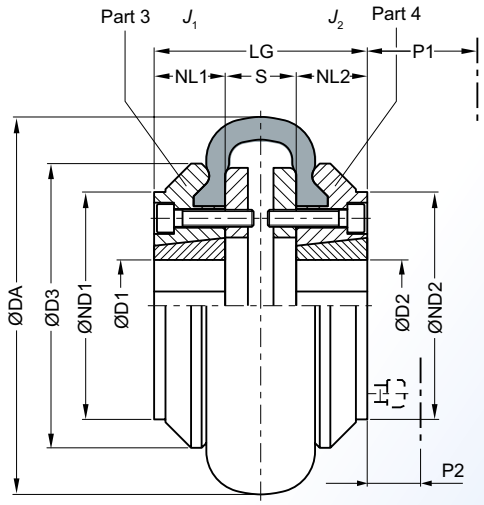
» Part 1: Bore 40H7mm, keyway to DIN 6885-1 and set screw.

» Part 2: Bore 45H7 mm, keyway to DIN 6885-1 and set screw.

**Ordering Code:** 2LC0210-4AA99-0AA0-Z L0W+M1A

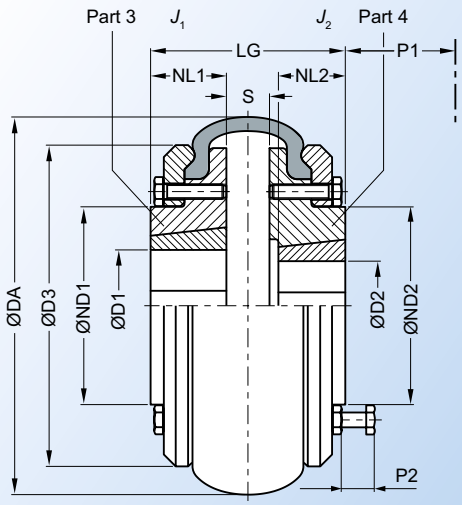
[1]To identify complete item numbers specifying the available finish boring options and further order options, please contact jbj Techniques Ltd. technical office, telephone: +44 (0)1737 767493 or email: info@jbj.co.uk

Sizes 105 ... 165



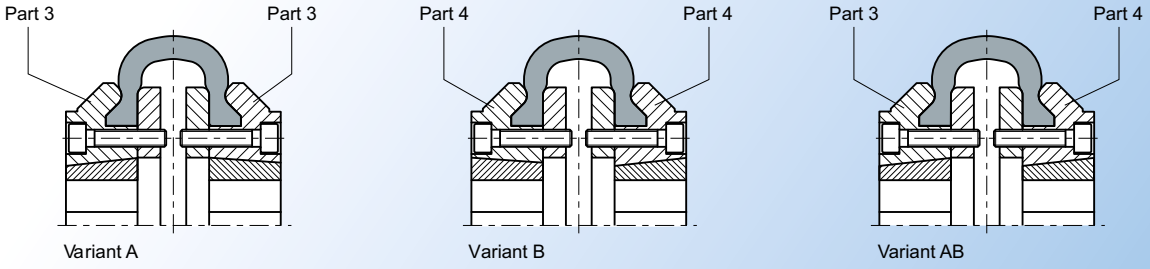

Variant AB

Sizes 190 ... 560



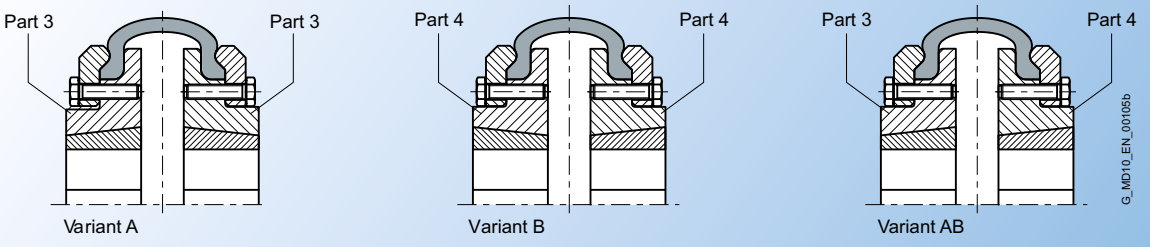

Variant AB

Sizes 105 ... 165




Variant A | Variant B | Variant AB

Sizes 190 ... 560




Variant A | Variant B | Variant AB

Part 3: Screw connection for Taper clamping bush from the shaft end face side
Part 4: Screw connection for Taper clamping bush from the machine-housing side

| Size | Rated Torque $T_{KN}$ (Nm) | Part No. | Taper Clamping Bush Size | Dimensions (mm) | | | | | | | | | | Mass Moment of Inertia $J_1/J_2$ kgm² | Part Number[1] | | | Weight m (kg) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | D1, D2 Keyway to DIN 6885 | | DA | ND1/ ND2 | NL1/ NL2 | D3 | S | P1 | P2 | LG | | A | B | AB | |
| | | | | min | max | | | | | | | | | | | | | |
| 105 | 24 | 3 | 1008 | 10 | 25 | 104 | – | 22 | 82 | 22 | 29 | 35 | 66 | 0.0009 | 2LC0210-0AB | 2LC0210-0AC | 2LC0210-0AD | 1.8 |
| | | 4 | | | | | | | | | | | | | | | | |
| 135 | 66 | 3 | 1210 | 11 | 32 | 134 | 80 | 25 | 100 | 25 | 38 | 35 | 75 | 0.0019 | 2LC0210-1AB | 2LC0210-1AC | 2LC0210-1AD | 2.4 |
| | | 4 | | | | | | | | | | | | | | | | |
| 165 | 125 | 3 | 1610 | 14 | 42 | 165 | 103 | 25 | 125 | 33 | 38 | 35 | 83 | 0.0049 | 2LC0210-2AB | 2LC0210-2AC | 2LC0210-2AD | 4 |
| | | 4 | | | | | | | | | | | | | | | | |
| 190 | 250 | 3 | 2012 | 14 | 50 | 187 | 80 | 32 | 145 | 23 | 42 | 35 | 87 | 0.0085 | 2LC0210-3AB | 2LC0210-3AC | 2LC0210-3AD | 5.4 |
| | | 4 | 1610 | 14 | 42 | | | 25 | | | 38 | | | | | | | |
| 210 | 380 | 3 | 2517 | 16 | 60 | 211 | 98 | 45 | 168 | 25 | 48 | 35 | 115 | 0.017 | 2LC0210-4AB | 2LC0210-4AC | 2LC0210-4AD | 8 |
| | | 4 | 2012 | 14 | 50 | | | 32 | | | 42 | | 89 | | | | | |
| 235 | 500 | 3 | 2517 | 16 | 60 | 235 | 108 | 46 | 188 | 27 | 48 | 35 | 119 | 0.019 | 2LC0210-5AB | 2LC0210-5AC | 2LC0210-5AD | 12 |
| | | 4 | | | | | | | | | | | | | | | | |
| 255 | 680 | 3 | 3020 | 25 | 75 | 254 | 120 | 51 | 216 | 27 | 55 | 35 | 129 | 0.05 | 2LC0210-6AB | 2LC0210-6AC | 2LC0210-6AD | 14 |
| | | 4 | 2517 | 16 | 60 | | 113 | 45 | | | 48 | | 117 | | | | | |
| 280 | 880 | 3 | 3020 | 25 | 75 | 280 | 134 | 52 | 233 | 25 | 55 | 35 | 129 | 0.075 | 2LC0210-7AB | 2LC0210-7AC | 2LC0210-7AD | 22 |
| | | 4 | | | | | | | | | | | | | | | | |
| 315 | 1350 | 3 | 3525 | 35 | 100 | 314 | 140 | 66 | 264 | 29 | 67 | 35 | 161 | 0.11 | 2LC0210-8AB | 2LC0210-8AC | 2LC0210-8AD | 23 |
| | | 4 | 3020 | 25 | 75 | | | 51 | | | 55 | | 131 | | | | | |
| 360 | 2350 | 3 | 3525 | 35 | 100 | 359 | 178 | 65 | 311 | 32 | 67 | 35 | 162 | 0.26 | 2LC0211-0AB | 2LC0211-0AC | 2LC0211-0AD | 38 |
| | | 4 | | | | | | | | | | | | | | | | |
| 400 | 3800 | 3 | 4030 | 40 | 115 | 402 | 200 | 77 | 345 | 30 | 80 | 35 | 184 | 0.44 | 2LC0211-1AB | 2LC0211-1AC | 2LC0211-1AD | 54 |
| | | 4 | | | | | | | | | | | | | | | | |
| 470 | 6300 | 3 | 4535 | 55 | 125 | 470 | 210 | 89 | 398 | 46 | 89 | 35 | 224 | 0.8 | 2LC0211-2AB | 2LC0211-2AC | 2LC0211-2AD | 72 |
| | | 4 | | | | | | | | | | | | | | | | |
| 510 | 9300 | 3 | 4535 | 55 | 125 | 508 | 208 | 89 | 429 | 48 | 89 | 35 | 226 | 1.5 | 2LC0211-3AB | 2LC0211-3AC | 2LC0211-3AD | 120 |
| | | 4 | | | | | | | | | | | | | | | | |
| 560 | 11500 | 3 | 5040 | 70 | 125 | 562 | 224 | 102 | 474 | 55 | 92 | 35 | 259 | 2 | 2LC0211-4AB | 2LC0211-4AC | 2LC0211-4AD | 120 |
| | | 4 | | | | | | | | | | | | | | | | |

## Configurable variants[1]

» ØD1 Without finished bore.
With finished bore.

» ØD2 Without finished bore.
With finished bore.

## Notes

» Weights and mass moments of inertia apply to couplings with taper clamping bushes with maximum bore diameter.
» The article no. applies to elastic tires made of natural rubber.
» P1 = fitting space for offset screwdriver and ejector bolt for dismounting the Taper clamping bush.
» P2 = fitting space for dismounting the elastic tire.

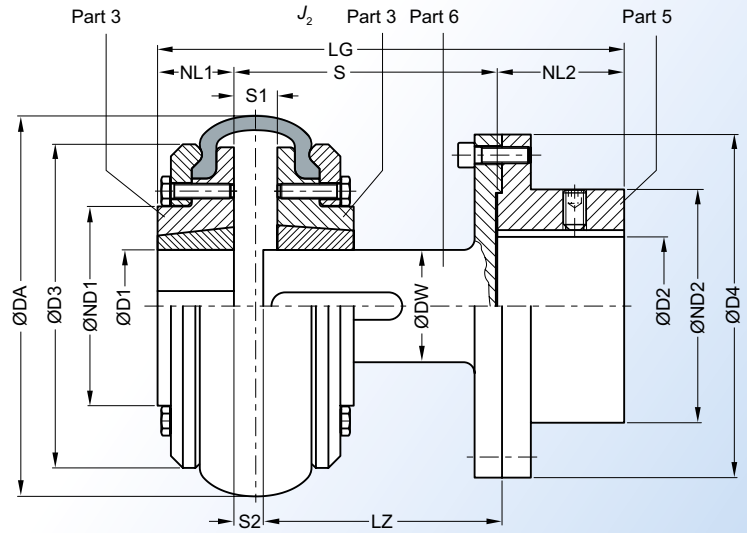
## Ordering example

» ELPEX-B EBWT coupling, size 210, variant AB, including Taper clamping bushes.
» Part 3: with Taper clamping bush, bore 60 mm.
» Part 4: with Taper clamping bush, bore 40 mm.

**Ordering code:** 2LC0210-4AD99-0AA0-Z L1E+M0W

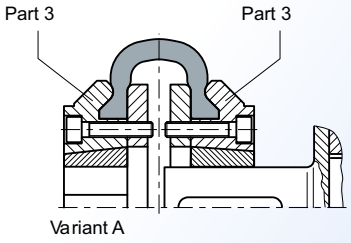
[1]To identify complete item numbers specifying the available finish boring options and further order options, please contact jbj Techniques Ltd. technical office, telephone: +44 (0)1737 767493 or email: info@jbj.co.uk

Sizes 190 ... 470

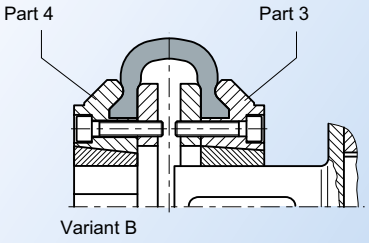



Variant A

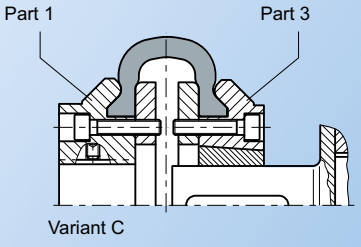
Sizes 105 ... 165




Variant A

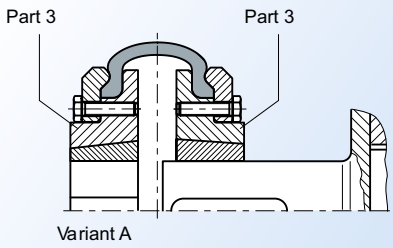



Variant B

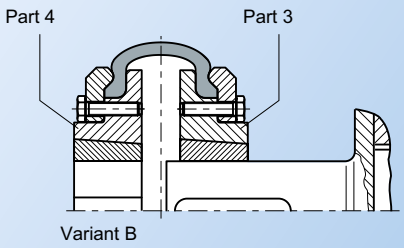



Variant C

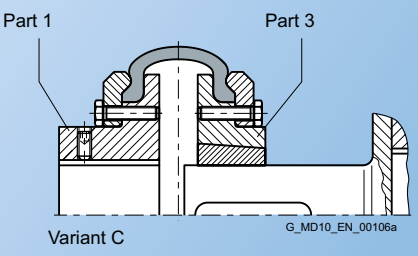
Sizes 190 ... 470




Variant A




Variant B




Variant C

Part 3: Screw connection for Taper clamping bush from the shaft end face side
Part 4: Screw connection for Taper clamping bush from the machine-housing side

| Size | Rated Torque | Dimensions (mm) | | | | | | | | | | | | Mass Moment of Inertia | Part Number[1] | | | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | D1, D2 Keyway to DIN 6885 | | DA | ND2 | D4 | DW | NL2 | LZ | S | | S1 | S2 | | | | | |
| | $T_{KN}$ (Nm) | min | max | | | | | | | min | max | | | $J_1/J_2$ kgm$^2$ | A | B | C | m (kg) |
| 105 | 24 | – | 42 | 104 | 70 | 95 | 25 | 45 | 96 | 100 | 116 | 22 | 6 | 0.0027 | 2LC0210-0AG | 2LC0210-0AH | 2LC0210-0AJ | 3.3 |
| | | | | | | | | | 133 | 140 | 156 | | | | | | | |
| 135 | 66 | – | 55 | 134 | 90 | 125 | 32 | 50 | 93 | 100 | 116 | 25 | 9 | 0.0085 | 2LC0210-1AG | 2LC0210-1AH | 2LC0210-1AJ | 5.4 |
| | | | | | | | | | 133 | 140 | 156 | | | | | | | |
| 165 | 125 | – | 55 | 165 | 90 | 125 | 32 | 50 | 93 | 100 | 124 | 33 | 9 | 0.012 | 2LC0210-2AG | 2LC0210-2AH | 2LC0210-2AJ | 6.2 |
| | | | | | | | | | 133 | 140 | 164 | | | | | | | |
| 190 | 250 | – | 75 | 187 | 125 | 180 | 48 | 80 | 93.5 | 100 | 114 | 23 | 9 | 0.046 | 2LC0210-3AG | 2LC0210-3AH | 2LC0210-3AJ | 16 |
| | | | | | | | | | 133.5 | 140 | 154 | | | | | | | |
| | | | | | | | | | 173.5 | 180 | 194 | | | | | | | |
| 210 | 380 | – | 75 | 211 | 125 | 180 | 48 | 80 | 133.5 | 140 | 156 | 25 | 9 | 0.053 | 2LC0210-4AG | 2LC0210-4AH | 2LC0210-4AJ | 17 |
| | | | | | | | | | 173.5 | 180 | 196 | | | | | | | |
| 235 | 500 | – | 75 | 235 | 125 | 180 | 48 | 80 | 133.5 | 140 | 158 | 27 | 9 | 0.056 | 2LC0210-5AG | 2LC0210-5AH | 2LC0210-5AJ | 25 |
| | | | | | | | | | 173.5 | 180 | 198 | | | | | | | |
| 255 | 680 | – | 90 | 254 | 150 | 225 | 60 | 100 | 133.5 | 140 | 158 | 27 | 9 | 0.15 | 2LC0210-6AG | 2LC0210-6AH | 2LC0210-6AJ | 29 |
| | | | | | | | | | 173.5 | 180 | 198 | | | | | | | |
| 280 | 880 | – | 90 | 280 | 150 | 225 | 60 | 100 | 133.5 | 140 | 156 | 25 | 9 | 0.17 | 2LC0210-7AG | 2LC0210-7AH | 2LC0210-7AJ | 33 |
| | | | | | | | | | 173.5 | 180 | 196 | | | | | | | |
| 315 | 1350 | 46 | 100 | 314 | 165 | 250 | 80 | 110 | 134.5 | 140 | 160 | 29 | 9 | 0.28 | 2LC0210-8AG | 2LC0210-8AH | 2LC0210-8AJ | 40 |
| | | | | | | | | | 174.5 | 180 | 200 | | | | | | | |
| 360 | 2350 | 46 | 100 | 359 | 165 | 250 | 80 | 110 | 134.5 | 140 | 163 | 32 | 9 | 0.43 | 2LC0211-0AG | 2LC0211-0AH | 2LC0211-0AJ | 48 |
| | | | | | | | | | 174.5 | 180 | 203 | | | | | | | |
| 400 | 3800 | 51 | 110 | 402 | 180 | 280 | 90 | 120 | 223.5 | 230 | 250 | 30 | 10 | 0.88 | 2LC0211-1AG | 2LC0211-1AH | 2LC0211-1AJ | 73 |
| 470 | 6300 | 51 | 120 | 470 | 200 | 315 | 100 | 140 | 207.5 | 214 | 250 | 46 | 10 | 0.97 | 2LC0211-2AG | 2LC0211-2AH | 2LC0211-2AJ | 104 |

## Configurable variants[1]

» ØD1 Without finished bore.
With finished bore.

» ØD2 Without finished bore.
With finished bore.

» S min. 100 mm
140 mm
180 mm

## Notes

» Dimensions D1, ND1, NL1, $J_1$ and fitting space for dismounting elastic tire and Taper clamping bush, see types EBWN or EBWT, pages 5 & 6.

» The product number applies to elastic tires made of natural rubber.

» Mass moment of inertia $J_2$ and weight m as total of part 3, part 5 and part 6 with maximum bore diameter.

## Ordering example

» ELPEX-B EBWZ coupling, size 360.

» Variant C, for fitting length S min. = 190 mm.

» Part 1: Bore 65H7 mm, keyway to DIN 6885-1 and set screw.

» Part 5: Bore 70H7 mm, keyway to DIN 6885-1 and set screw.

**Ordering code:** 2LC0211-0AJ99-0AC0-Z L1F+M1G

[1]To identify complete item numbers specifying the available finish boring options and further order options, please contact jbj Techniques Ltd. technical office, telephone: +44 (0)1737 767493 or email: info@jbj.co.uk


ELPEX-S

**Coupling suitable for use in potentially explosive atmospheres.**

**Complies with the current ATEX Directive for:**

CE II 2G Ex h IIC T4 ... T3 Gb X

II 2D Ex h IIIC T120 °C ... 160 °C Db X

I M2 Ex h Mb X

(Type EST is not available in Ex version.)

ELPEX-S couplings are highly torsionally flexible and because of their low torsional stiffness and damping capacity are especially suitable for coupling machines with a highly non uniform torque pattern. Standard ELPEX-S coupling types are designed as flange-shaft-connections or shaft-shaft connections. Application-related types can be implemented on request

## Benefits

The ELPEX-S coupling is suitable for horizontal and vertical mounting positions or mounting at any required angle. The coupling parts can be arranged as required on the shafts to be connected.

ELPEX-S couplings are especially suitable for reversing operation or operation with changing directions of load. The rubber disk elements are fitted virtually without backlash and give the coupling linear torsional stiffness, i.e. the torsion stiffness remains constant even when the load on the coupling increases. There are 4 different rubber element versions with different grades of torsional stiffness available for each size from stock.

On certain types the flexible rings can be changed without having to move the coupled machines.

If substantial overload occurs, the rubber disk element of the coupling is irreparably damaged, the coupling throws the load and thus limits the overload for particular operating conditions. The coupling can be inserted and fitted blind e.g. in a bell housing.

There are outer flanges with different connection dimensions available for each coupling size.

## Application

The ELPEX-S coupling is available as a catalog standard in 12 sizes with rated torques of between 330 Nm and 63000 Nm.

The coupling is suitable for ambient temperatures of between -40 °C and +120 °C.

The ELPEX-S coupling is frequently used for diesel motor drives or reciprocating compressor drives.

Because the different rubber versions enable the torsional stiffness to be adjusted to meet requirements, the coupling is also suitable for drives which require a specific and preferably precalculated torsional vibration behaviour setting.

## Design & Configurations

The rubber disk element is vulcanized onto a flange on the inside diameter. The flange can mount e.g. a taper clamping bush or a hub. On its outer diameter the rubber disk element has driving teeth, which are inserted into the outer flange. The torque is transmitted positively between the rubber disk element and the outer flange. In the type for shaft-shaft connection the outer flange is screwed to a flange hub mounted on a machine shaft.

## Materials

| | Type EST | Types ESN and ESD |
|---|---|---|
| Rubber disk element | EN-GJL-250 grey cast iron / elastomer | EN-GJL-400 spheroidal graphite cast iron / elastomer |
| Hubs, part 1, part 2 | Steel | Steel |
| Outer flange | Cast aluminum Zn10Si8Mg<br>Sizes 680 and 770 of spheroidal graphite cast iron<br>EN-GJS-500 | Cast aluminum Zn10Si8Mg<br>Sizes 680 and 770 of spheroidal graphite cast iron<br>EN-GJS-500 |

## Elastomer Materials of the Rubber Disc Element

| Material / Description | Hardness ShoreA | Marking | Ambient Temperature |
|---|---|---|---|
| Natural-synthetic rubber mixture | 50 ° … 55 ° | WN | -40 °C … +80 °C |
| | 60 ° … 65 ° | NN | -40 °C … +80 °C |
| | 70 ° … 75 ° | SN | -40 °C … +80 °C |
| Silicone rubber | 55 ° … 65 ° | NX | -40 °C … +120 °C |

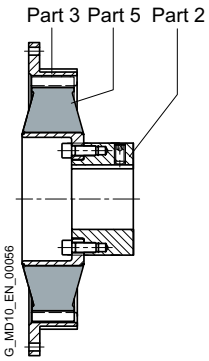
## ELPEX-S Coupling Types

| Type | Description |
|---|---|
| ESD | Coupling with hub, with two rubber disk elements |
| ESNR | Coupling with hub, rubber disk element radially dismountable |
| ESDR | Coupling with hub with two rubber disk elements; rubber disk elements radially dismountable |
| ESNW | Coupling designed as a shaft-shaft connection with a rubber disk element; rubber disk element radially dismountable |
| ESDW | Coupling designed as a shaft-shaft connection with two rubber disk elements; rubber disk element radially dismountable |
| EST | Coupling suitable for mounting a Taper clamping bush |

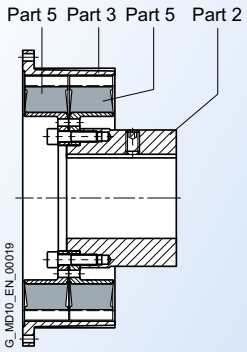
The following versions have already been implemented a number of times:

- ELPEX-S coupling with brake drum, brake disk or flywheel mass
- ELPEX-S coupling with axial backlash limiter
- ELPEX-S coupling with adapter
- ELPEX-S coupling with bearing for mounting a cardan shaft
- ELPEX-S coupling for engaging/disengaging during standstill
- ELPEX-S coupling as part of a coupling combination
- ELPEX-S coupling with fail-safe device

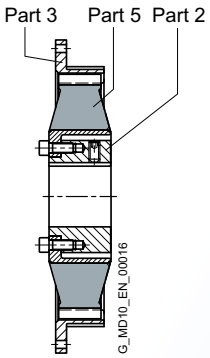
Further application-related coupling types are available. Dimension sheets for and information on these are available on request.



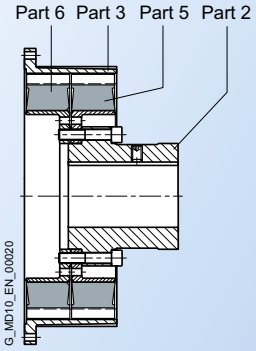

**Type ESN - Long Version**



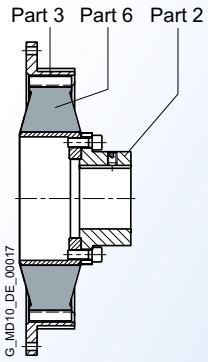

**Type ESD**



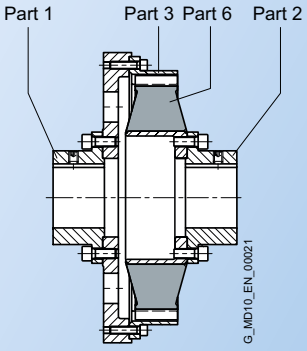

**Type ESN - Short Version**



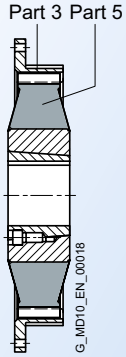

**Type ESDR**



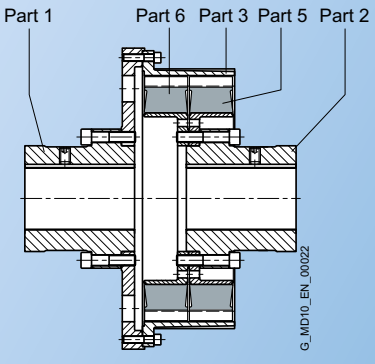

**Type ESNR**




**Type ESNW**

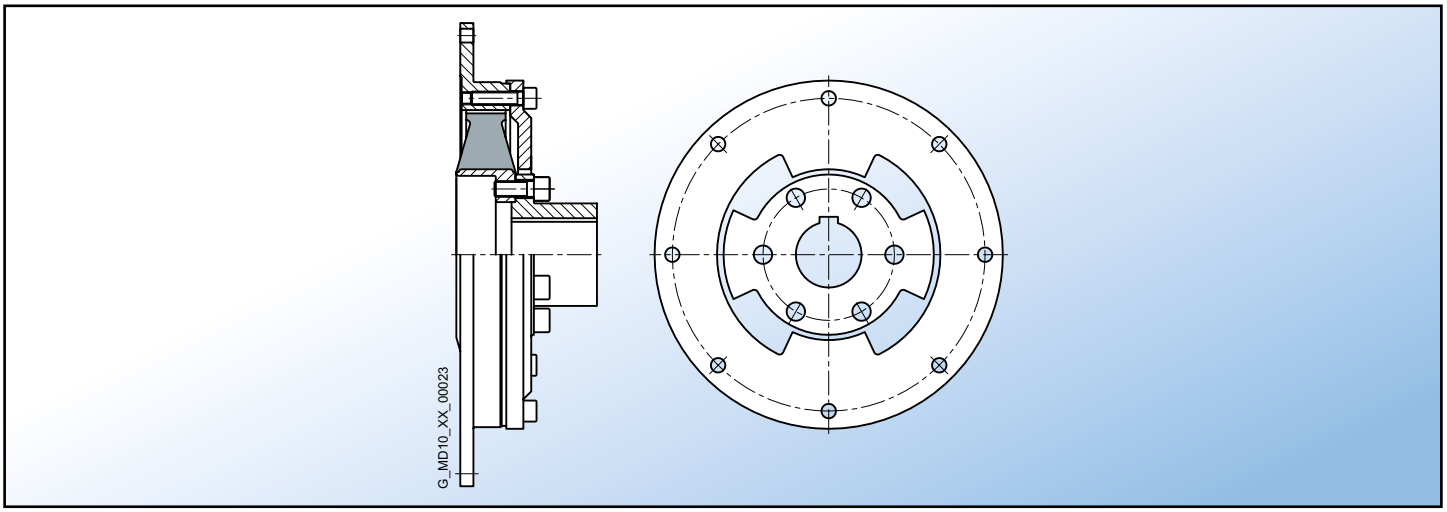



**Type EST**




**Type ESDW**

## Fail-safe device of ELPEX-S coupling




The ELPEX-S coupling can also be designed with a fail-safe device. If the rubber disk element fails, the coupling can continue operating in emergency mode for a short time. This option is frequently required e.g. in the case of marine drives. If the rubber disk element fails, cams transmit the torque from the inner and outer parts of the fail-safe device. In normal operation the torsion angle of the rubber disk element is smaller than the gap between the cams, so there is no metal to metal contact.

## Function

The ELPEX-S coupling's transmission characteristic is determined essentially by the rubber disk element. The torque is transmitted positively between the rubber disk element and the outer flange. The outer flange can be bolted to e.g. a diesel motor or compressor flywheel.

## Configuration

### Coupling selection

The ELPEX-S coupling is especially suitable for rough operating environments. An application factor lower than that in the chapter introduction is therefore sufficient for all applications.

In the case of machines which excite torsional vibration, it is **highly recommended** carrying out a torsional vibration calculation or measuring the coupling load occurring in the drive.

### Coupling Load in Continuous Operation

| Application Factor FB | | | |
|---|---|---|---|
| | Torque Characteristic of Driven Machine | | |
| | Uniform with Moderate ShockLoads | Non Uniform | Very Rough |
| Electric motors, hydraulic motors, gas and water turbines | 1.0 | 1.3 | 1.4 |
| Internal combustion engines | 1.3 | 1.4 | 1.6 |

Examples of torque characteristic in driven machines:

- **Uniform with moderate shock loads:** generators, fans, blowers.
- **Non uniform:** reciprocating compressors, mixers, conveyor systems.
- **Very harsh:** crushers, excavators, presses, mills.

| Temperature Factor FT | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Coupling | Rubber version | Elastomer material | Temperature $T_a$ on the coupling | | | | | | | | |
| | | | -40°C up to -30°C | -30°C up to +50°C | up to 60°C | up to 70°C | up to 80°C | up to 90°C | up to 100°C | up to 110°C | up to 120°C |
| ELPEX-S | SN, NN, WN | NR | 1.1 | 1.0 | 1.25 | 1.40 | 1.60 | – | – | – | – |
| | NX | VMQ | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 | 1.25 | 1.4 | 1.6 |

NR = Natural-synthetic rubber mixture.
VMQ = Silicone rubber.

Coupling size $T_{KN} \geq T_N \cdot FB \cdot FT$

**Coupling load under maximum and overload conditions**

The maximum torque is the highest load acting on the coupling in normal operation.

Maximum torques at a frequency of up to 25 times an hour are permitted and must be lower than the maximum coupling torque. Examples of maximum torque conditions are: Starting operations, stopping operations or usual operating conditions with maximum load.

$T_{Kmax} \geq T_{Max} \cdot FT$

Overload torques are maximum loads which occur only in combination with special, infrequent operating conditions. Examples of overload torque conditions are: Motor short circuit, emergency stop or blocking because of component breakage. Overload torques at a frequency of once a month are permitted and must be lower than the maximum overload torque of the coupling. The overload condition may last only a short while, i.e. fractions of a second.

$T_{KOL} \geq T_{OL} \cdot FT$

**Coupling load due to dynamic torque load**

Applying the frequency factor FF, the dynamic torque load must be lower than the coupling fatigue torque.

Dynamic torque load: $T_{KW} \geq T_W \cdot FF \cdot FF$

Frequency of the dynamic torque load: $f_{err} \leq 10$ Hz frequency factor FF = 1.0

Frequency of the dynamic torque load: $f_{err} > 10$ Hz frequency factor FF = $\sqrt{(f_{err}/10\ Hz)}$

Operation in potentially explosive environments is subject to the following restriction: Operation with low fatigue load.

The fatigue torque TKW must be reduced by 70 %. In these particular operating conditions the coupling satisfies the requirements of temperature class T4 D120 °C. Operation with medium fatigue load.

The fatigue torque TKW must be reduced by 50 %. In these particular operating conditions the coupling satisfies the requirements of temperature class T3 D160 °C.

Type EST is not permitted for application in potentially explosive environments.

**Checking the maximum speed**

The following must apply to all load situations: nKmax ≥ nmax The maximum speed of a size depends only on the size of the outer flange (part 3).

**Checking permitted shaft misalignment and restorative forces**

For all load situations, the actual shaft misalignment must be less than the permitted shaft misalignment.

**Checking bore diameter, mounting geometry and coupling design**

The check must be made as per the dimension tables. On request, couplings with adapted geometry can be provided.

**Checking shaft-hub connection**

For any information on this, please refer to **page 10 of https://www.jbj.co.uk/e-publications/Flender-mechanical-power-transmission-couplings-available-from-jbj-Techniques-Limited/10/index.html**

**Checking temperature and chemically aggressive environment**

The permitted coupling temperature is specified in the Temperature Factor FT table (page 14). In the case of chemically aggressive environments, please consult the manufacturer.

| Performance Data for Rubber Disk Elements made of a Mix of Natural and Synthetic Rubber | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Type | Size | Rubber Version | Rated Torque $T_{KN}$ (Nm) | Maximum Torque $T_{Kmax}$ (Nm) | Overload Torque $T_{KOL}$ (Nm) | Fatigue Torque $T_{KW}$ (Nm) | Dynamic Torsional Stiffness $C_{Tdyn}$ (Nm/rad) | Motor Flange SAE J620d Size | Maximum Speed nmax (rpm) |
| ESN EST | 220 | WN | 330 | 660 | 750 | 165 | 1600 | 6.5 | 4200 |
| | | NN | 360 | 720 | 900 | 180 | 2500 | 7.5 | 4200 |
| | | SN | 400 | 800 | 1000 | 200 | 4200 | 8 | 4200 |
| | | | | | | | | 10 | 3600 |
| ESN EST | 265 | WN | 500 | 1000 | 1250 | 250 | 2400 | 8 | 4200 |
| | | NN | 600 | 1200 | 1800 | 300 | 3600 | 10 | 3600 |
| | | SN | 700 | 1400 | 2100 | 350 | 6100 | 11.5 | 3500 |
| ESN EST | 290 | WN | 800 | 1600 | 2000 | 400 | 3600 | 10 | 3600 |
| | | NN | 900 | 1800 | 2700 | 450 | 5000 | 11.5 | 3500 |
| | | SN | 1000 | 2000 | 3000 | 500 | 7500 | | |
| ESN EST | 320 | WN | 1200 | 2400 | 3000 | 600 | 8000 | 11.5 | 3500 |
| | | NN | 1350 | 2700 | 3600 | 650 | 10000 | 14 | 3000 |
| | | SN | 1550 | 3100 | 4200 | 750 | 13500 | | |
| ESN EST | 360 | WN | 1800 | 3600 | 4500 | 900 | 8500 | 11.5 | 3200 |
| | | NN | 2000 | 4000 | 5400 | 1000 | 13000 | 14 | 3000 |
| | | SN | 2500 | 5000 | 7500 | 1250 | 22000 | | |
| ESN EST | 420 | WN | 3100 | 6200 | 7700 | 1500 | 16000 | 14 | 3000 |
| | | NN | 3450 | 6900 | 10000 | 1700 | 30000 | 16 | 2600 |
| | | SN | 4200 | 8400 | 12600 | 2100 | 45000 | 18 | 2300 |
| ESN EST | 465 | WN | 4600 | 9200 | 10000 | 2300 | 35000 | 14 | 3000 |
| | | NN | 5200 | 10400 | 15600 | 2600 | 56000 | 16 | 2600 |
| | | SN | 6300 | 12600 | 18900 | 3100 | 100000 | 18 | 2300 |
| ESN | 520 | WN | 6200 | 12400 | 14000 | 3100 | 38000 | 18 | 2300 |
| | | NN | 7000 | 14000 | 21000 | 3500 | 75000 | 21 | 2000 |
| | | SN | 7800 | 15600 | 23400 | 3900 | 110000 | | |
| ESD | 520 | WN | 12400 | 24800 | 28000 | 6200 | 76000 | 18 | 2300 |
| | | NN | 14000 | 28000 | 42000 | 7000 | 150000 | 21 | 2000 |
| | | SN | 15600 | 31200 | 46800 | 7800 | 220000 | | |
| ESN | 560 | WN | 8000 | 16000 | 18000 | 4200 | 55000 | 18 | 2300 |
| | | NN | 9000 | 18000 | 27000 | 4800 | 100000 | 21 | 2000 |
| | | SN | 10000 | 20000 | 30000 | 5500 | 190000 | | |
| ESD | 560 | WN | 16000 | 32000 | 36000 | 8400 | 110000 | 18 | 2300 |
| | | NN | 18000 | 36000 | 54000 | 9600 | 200000 | 21 | 2000 |
| | | SN | 20000 | 40000 | 60000 | 11000 | 380000 | | |
| ESN | 580 | WN | 11000 | 22000 | 28000 | 5500 | 75000 | 18 | 2300 |
| | | NN | 12500 | 25000 | 37000 | 6250 | 120000 | 21 | 2000 |
| | | SN | 14000 | 28000 | 42000 | 7000 | 210000 | | |
| ESD | 580 | WN | 22000 | 44000 | 56000 | 11000 | 150000 | 21 | 2000 |
| | | NN | 25000 | 50000 | 74000 | 12500 | 240000 | 24 | 1800 |
| | | SN | 28000 | 56000 | 84000 | 14000 | 420000 | | |
| ESN | 680 | WN | 16000 | 32000 | 40000 | 8000 | 150000 | 21 | 2000 |
| | | NN | 18000 | 36000 | 54000 | 9000 | 250000 | 24 | 1800 |
| | | SN | 20000 | 40000 | 60000 | 10000 | 450000 | | |
| ESD | 680 | WN | 32000 | 64000 | 80000 | 16000 | 300000 | 21 | 2000 |
| | | NN | 36000 | 72000 | 108000 | 18000 | 500000 | 24 | 1800 |
| | | SN | 40000 | 80000 | 120000 | 20000 | 900000 | | |
| ESN | 770 | WN | 25000 | 50000 | 75000 | 12500 | 250000 | similar to DIN 6288 | 1500 |
| | | NN | 28000 | 56000 | 84000 | 14000 | 400000 | | |
| | | SN | 31500 | 63000 | 94000 | 15000 | 700000 | | |
| ESD | 770 | WN | 50000 | 100000 | 150000 | 25000 | 500000 | similar to DIN 6288 | 1300 |
| | | NN | 56000 | 112000 | 168000 | 28000 | 800000 | | |
| | | SN | 63000 | 126000 | 189000 | 30000 | 1400000 | | |

## Torsional Stiffness and Damping

Torsional stiffness depends on the ambient temperature and the frequency and amplitude of the torsional vibration excitation. More precise torsional stiffness and damping parameters on request.

With flexible couplings the manufacturing process of the rubber elements and their aging primarily influence the stiffness value $C_{Tdyn}$.

For this reason a calculation must be made with a tolerance for the dynamic stiffness of ± 20%. The specified damping coefficient Ψ is a minimum value with the result that the damping performance of the coupling corresponds at least to the specified value.

## Technical Specifications

| Performance Ratings for Rubber Disk Elements made of a Silicone Rubber | | | | | | | |
|---|---|---|---|---|---|---|---|
| Type | Size | Rubber Version | Rated Torque $T_{KN}$ (Nm) | Maximum Torque $T_{Kmax}$ (Nm) | Overload Torque $T_{KOL}$ (Nm) | Fatigue Torque $T_{KW}$(10 Hz) (Nm) | Dynamic Torsional Stiffness for 100% Load $C_{Tdyn}$ (Nm/rad) |
| ESN | 220 | NX | 200 | 300 | 400 | 87 | 1.3 |
| ESN | 265 | NX | 300 | 450 | 600 | 133 | 2.4 |
| ESN | 290 | NX | 500 | 750 | 1000 | 213 | 4.2 |
| ESN | 320 | NX | 770 | 1150 | 1530 | 320 | 9.2 |
| ESN | 360 | NX | 1200 | 1800 | 2400 | 480 | 10 |
| ESN | 420 | NX | 2000 | 3000 | 4000 | 800 | 23 |
| ESN | 465 | NX | 3000 | 4500 | 6000 | 1200 | 60 |
| ESN | 520 | NX | 4100 | 6100 | 8200 | 1600 | 65 |
| ESD | 520 | NX | 8200 | 12300 | 16400 | 3200 | 130 |
| ESN | 560 | NX | 5000 | 7500 | 10000 | 2200 | 100 |
| ESD | 560 | NX | 10000 | 15000 | 20000 | 4400 | 200 |
| ESN | 580 | NX | 6500 | 9750 | 13000 | 2667 | 160 |
| ESD | 580 | NX | 13000 | 19500 | 26000 | 5867 | 310 |
| ESN | 680 | NX | 10000 | 15000 | 20000 | 4000 | 280 |
| ESD | 680 | NX | 20000 | 30000 | 40000 | 8000 | 550 |
| ESN | 770 | NX | 15000 | 22500 | 30000 | 6000 | 620 |
| ESD | 770 | NX | 30000 | 45000 | 60000 | 12000 | 1230 |

## Torsional Stiffness

The dynamic torsional stiffness of the silicone rubber elements is load-dependent and increases in proportion to the load. The values specified in the selection table represent 100% loading. The following table shows the correction factors for different rated loads.

$C_{Tdyn} = C_{Tdyn}\ 100\% \cdot FKC$

| Load TN / TKN | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 20% | 50% | 60% | 70% | 80% | 100% | 150% |
| Correction factor FKC | 0.59 | 0.75 | 0.79 | 0.83 | 0.88 | 1 | 1.5 |

Torsional stiffness also depends on the ambient temperature and the frequency and amplitude of the torsional vibration excitation. More precise torsional stiffness and damping parameters on request.

## Damping Coefficient

| Damping coefficient of the rubber versions | | |
|---|---|---|
| Rubber version | Hardness ShoreA | Damping coefficient Ψ |
| WN | 55 ° ± 5 ° | 0.80 |
| NN | 65 ° ± 5 ° | 1.15 |
| SN | 75 ° ± 5 ° | 1.25 |
| NX | 60 ° ± 5 ° | 1.15 |

With flexible couplings the manufacturing process of the rubber elements and their aging primarily influence the stiffness value $C_{Tdyn}$. For this reason calculation must be made with a tolerance for the dynamic stiffness of ± 20%. The specified damping coefficient Ψ is a minimum value with the result that the damping performance of the coupling corresponds at least to the specified value.

## Permitted Shaft Misalignment

The permitted shaft misalignment depends on the operating speed. As the speed increases, lower shaft misalignment values are permitted.
For fitting, the maximum gap dimension of:
S max. = S + ΔS and the minimum gap dimension of
S min. = S – ΔS are permitted.

| Size | Assembly Shaft Distance ΔS (mm) | Permitted shaft misalignment at n = 1500 rpm | | |
|---|---|---|---|---|
| | | Axial $\Delta K_a$ (mm) | Radial $\Delta K_r$ (mm) | Angle $\Delta K_w$ (degree) |
| 220 | 1.3 | 0.2 | 1.2 | 0.5 |
| 265 | 1.3 | 0.2 | 1.2 | 0.5 |
| 290 | 1.5 | 0.2 | 1.2 | 0.5 |
| 320 | 1.5 | 0.2 | 1.2 | 0.5 |
| 360 | 1.5 | 0.2 | 1.2 | 0.5 |
| 420 | 1.5 | 0.3 | 1.3 | 0.4 |
| 465 | 1.7 | 0.3 | 1.3 | 0.4 |
| 520 | 1.7 | 0.3 | 1.4 | 0.4 |
| 560 | 1.7 | 0.3 | 1.4 | 0.4 |
| 580 | 1.8 | 0.4 | 1.5 | 0.3 |
| 680 | 1.8 | 0.4 | 1.5 | 0.3 |
| 770 | 2.0 | 0.5 | 1.5 | 0.3 |

The correction factors for different speeds are specified in the following table.
The maximum speed for the respective coupling size and type must be noted!

$\Delta K_{perm} = \Delta K_{1500} \cdot FKV$

| | Speed in rpm | | | |
|---|---|---|---|---|
| | 500 | 1000 | 1500 | 3000 |
| Correction factor FKV | 1.2 | 1.1 | 1.0 | 0.7 |

## Variants of the Outer Flange

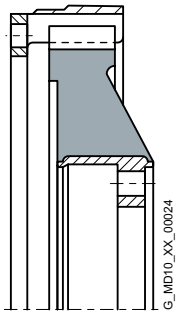



Figure 1

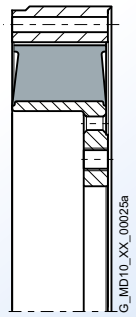



Figure 2

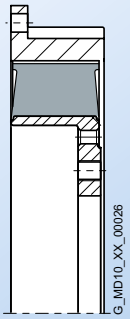



Figure 3

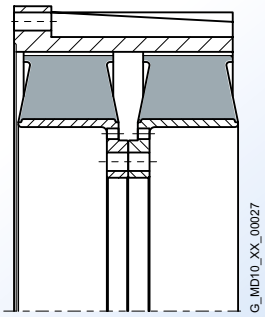



Figure 4

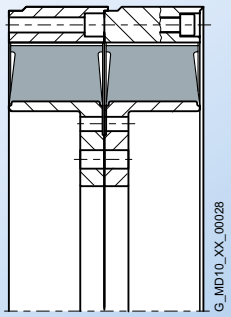



Figure 5

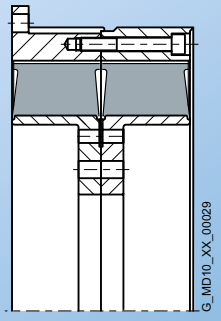
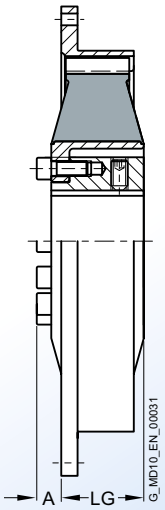


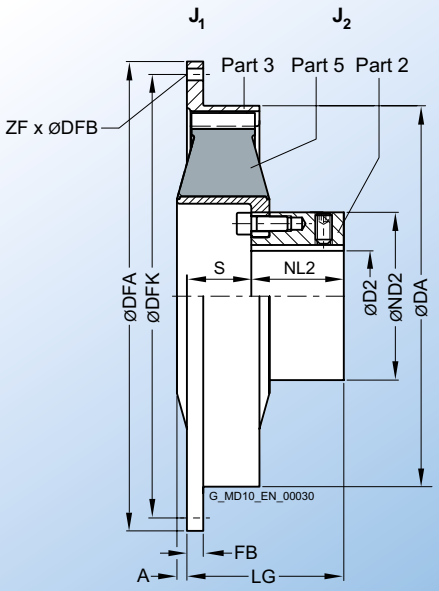

Figure 6

The outer flange of sizes 220 to 680 is designed to fit the connection dimensions of the SAE J620d standard. The centring depth on the connection flange of the machine should be between 4 mm and 6.4 mm maximum.

| Type | Size | Flange connection size | Figure |
|---|---|---|---|
| ESN | 220 | 6.5 | 1 |
| ESN | 220 | 7.5 | 2 |
| ESN, ESNR | 265 | 8 | 2 |
| | 360 | 11.5 | |
| | 465 | 14 | |
| | 580 | 18 | |
| | 680 | 21 | |
| ESN | 220 | 8, 10 | 3 |
| ESN, ESNR | 265 | 10, 11.5 | 3 |
| | 290 | all | |
| | 320 | all | |
| | 360 | 14 | |
| | 420 | all | |
| | 465 | 16, 18 | |
| | 520 | all | |
| | 560 | all | |
| | 580 | 21 | |
| | 680 | 24 | |
| ESNR | 770 | all | |
| ESD, ESDR | 520 | all | 4 |
| | 560 | all | |
| | 580 | all | |
| ESD, ESDR | 680 | 21 | 5 |
| ESD, ESDR | 680 | 24 | 6 |
| ESDR | 770 | all | |




Short version




Long version

| Size | Dimensions (mm) | | | | | | | | | | | | | | | | Mass Moment of Inertia | | Part Number[1] | | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | D2 keyway DIN 6885 max | DA | ND2 | NL2 | Short Version A | Short Version LG | Long Version A | Long Version S | Long Version LG | SAE | DFA (g7) | DFK | FB | ZF | DFB | | $J_1$ (kgm²) | $J_2$ (kgm²) | Short Version | Long Version | m (kg) |
| 220 | 60 | 222 | 98 | 54 | - | - | 0 | 49 | 103 | 6.5 | 215.9 | 200.0 | 6 | 6 | 8.5 | | 0.008 | 0.01 | – | 2LC0220-0AB0 | 5.8 |
| | | 237 | | | | | | 40 | 94 | 7.5 | 241.3 | 222.3 | 33 | 8 | 8.5 | | 0.011 | | – | 2LC0220-0AB0 | 6.1 |
| | | 222 | | | | | | 40 | 94 | 8 | 263.5 | 244.5 | 8 | 6 | 10.5 | | 0.011 | | – | 2LC0220-0AB0 | 6.4 |
| | | 222 | | | | | | 40 | 94 | 10 | 314.3 | 295.3 | 8 | 8 | 10.5 | | 0.017 | | – | 2LC0220-0AB0 | 6.9 |
| 265 | 65 | 263 | 118 | 65 | 15 | 74 | 3 | 39 | 104 | 8 | 263.5 | 244.5 | 33 | 6 | 10.5 | | 0.011 | 0.022 | 2LC0220-1AA0 | 2LC0220-1AB0 | 6.6 |
| | | | | | | | | | | 10 | 314.3 | 295.3 | 10 | 8 | | | 0.017 | | 2LC0220-1AA0 | 2LC0220-1AB0 | 6.9 |
| | | | | | | | | | | 11.5 | 352.4 | 333.4 | 10 | 8 | | | 0.024 | | 2LC0220-1AA0 | 2LC0220-1AB0 | 7.2 |
| 290 | 65 | 290 | 118 | 70 | 18 | 58 | 6 | 36 | 106 | 10 | 314.3 | 295.3 | 16 | 8 | 10.5 | | 0.026 | 0.026 | 2LC0220-2AA0 | 2LC0220-2AB0 | 9.2 |
| | | | | | | | | | | 11.5 | 352.4 | 333.4 | 16 | 8 | | | 0.036 | | 2LC0220-2AA0 | 2LC0220-2AB0 | 10.5 |
| 320 | 80 | 318 | 140 | 87 | 15 | 96 | 2 | 70 | 157 | 11.5 | 352.4 | 333.4 | 16 | 8 | 10.5 | | 0.062 | 0.061 | 2LC0220-3AA0 | 2LC0220-3AB0 | 19 |
| | | | | | | | | | | 14 | 466.7 | 438.2 | 16 | 8 | 13 | | 0.18 | | 2LC0220-3AA0 | 2LC0220-3AB0 | 20.5 |
| 360 | 90 | 353.5 | 160 | 105 | 29 | 92 | 13 | 56 | 161 | 11.5 | 352.4 | 333.4 | 54 | 8 | 10.5 | | 0.065 | 0.13 | 2LC0220-4AA0 | 2LC0220-4AB0 | 24.5 |
| | | | | | | | | | | 14 | 466.7 | 438.2 | 15 | 8 | 13 | | | 0.18 | 2LC0220-4AA0 | 2LC0220-4AB0 | 27.5 |
| 420 | 100 | 420 | 185 | 102 | 26 | 92 | 10 | 72 | 174 | 14 | 466.7 | 438.2 | 18 | 8 | 13 | | 0.22 | 0.32 | 2LC0220-5AA0 | 2LC0220-5AB0 | 36 |
| | | | | | | | | | | 16 | 517.5 | 489.0 | 18 | 8 | 13 | | 0.32 | | 2LC0220-5AA0 | 2LC0220-5AB0 | 38 |
| | | | | | | | | | | 18 | 571.5 | 542.9 | 18 | 6 | 17 | | 0.47 | | 2LC0220-5AA0 | 2LC0220-5AB0 | 40 |
| 465 | 120 | 465 | 222 | 125 | 33 | 92 | 2 | 39 | 164 | 14 | 466.7 | 438.2 | 85 | 8 | 13 | | 0.31 | 0.58 | 2LC0220-6AA0 | 2LC0220-6AB0 | 56 |
| | | | | | | | | | | 16 | 517.5 | 489.0 | 27 | 8 | 13 | | 0.41 | | 2LC0220-6AA0 | 2LC0220-6AB0 | 57 |
| | | | | | | | | | | 18 | 571.5 | 542.9 | 18 | 6 | 17 | | 0.52 | | 2LC0220-6AA0 | 2LC0220-6AB0 | 61 |
| 520 | 165 | 514 | 250 | 142 | 16 | 159 | 0 | 83 | 225 | 18 | 571.5 | 542.9 | 18 | 12 | 17 | | 0.48 | 0.93 | 2LC0220-7AA0 | 2LC0220-7AB0 | 55 |
| | | | | | | | | | | 21 | 673.1 | 641.4 | 18 | 12 | | | 0.95 | | 2LC0220-7AA0 | 2LC0220-7AB0 | 60 |
| 560 | 200 | 560 | 320 | 140 | 30 | 130 | 2.5 | 83 | 223 | 18 | 571.5 | 542.9 | 35 | 12 | 17 | | 0.85 | 1.2 | 2LC0220-8AA0 | 2LC0220-8AB0 | 69 |
| | | | | | | | | | | 21 | 673.1 | 641.4 | 20 | 12 | | | 1.8 | | 2LC0220-8AA0 | 2LC0220-8AB0 | 78 |
| 580 | 200 | 580 | 316 | 200 | 23 | 215 | 0 | 100 | 300 | 18 | 571.5 | 542.9 | 104 | 12 | 17 | | 0.77 | 1.8 | 2LC0221-0AA0 | 2LC0221-0AB0 | 100 |
| | | | | | | | | | | 21 | 673.1 | 641.4 | 26 | 12 | | | 1.2 | | 2LC0221-0AA0 | 2LC0221-0AB0 | 105 |
| 680 | 220 | 682 | 380 | 210 | 24 | 232 | 0 | 102 | 312 | 21 | 673.1 | 641.4 | 85 | 12 | 17 | | 4.1 | 5.3 | 2LC0221-1AA0 | 2LC0221-1AB0 | 205 |
| | | | | | | | | | | 24 | 733.4 | 692.2 | 20 | 12 | 21 | | 5.3 | | 2LC0221-1AA0 | 2LC0221-1AB0 | 215 |

## Configurable variants[1)]

» OD2 Without finished bore.
With finished bore.

» Rubber version WN
NN
SN
NX

## Notes

» The rubber disk element cannot be dismounted until the machines have been moved.
» Weight and mass moments of inertia apply to maximum bore diameters.

## Ordering example

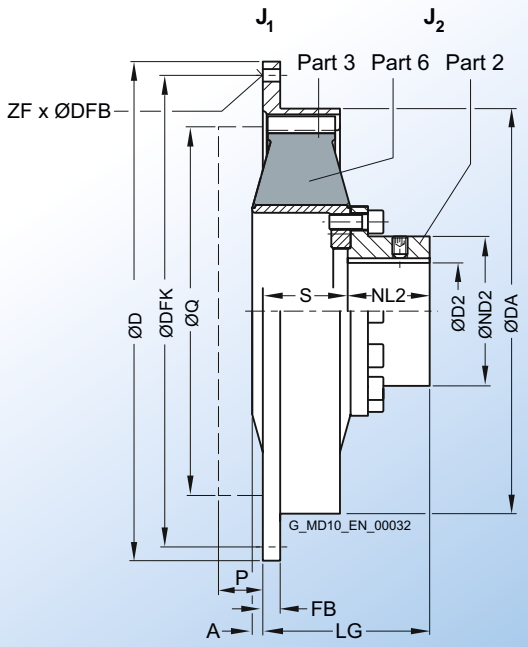
» ELPEX-S ESN coupling, size 520, WN rubber element version.
» Bore OD2 = 150H7 mm, with keyway to DIN 6885 and set screw, outer flange to SAE J620d size 21.

## Ordering code

(Short version) **2LC0220-7AA09-1JA0-Z M1W**
(Long version) **2LC0220-7AB09-1JA0-Z M1W**

[1)]To identify complete item numbers specifying the available finish boring options and further order options, please contact jbj Techniques Ltd. technical office, telephone: +44 (0)1737 767493 or email: info@jbj.co.uk

# FLENDER




| Size | Dimensions (mm) | | | | | | | | | | | | | | | Mass Moment of Inertia | | Part Number[1)] | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | D2 keyway DIN 6885 max | DA | ND2 | NL2 | S | A | P | Q | LG | SAE | DFA (g7) | DFK | FB | ZF | DFB | $J_1$ ($kgm^2$) | $J_2$ ($kgm^2$) | | m (kg) |
| 265 | 50 | 263 | 78 | 65 | 42 | - | 10 | 225 | 107 | 8 | 263.5 | 244.5 | 33 | 6 | 10.5 | 0.011 | 0.022 | 2LC0220-1AC0 | 5.0 |
| | | | | | | | | | | 10 | 314.3 | 295.3 | 10 | 8 | | 0.017 | | 2LC0220-1AC0 | 5.3 |
| | | | | | | | | | | 11.5 | 352.4 | 333.4 | 10 | 8 | | 0.024 | | 2LC0220-1AC0 | 5.6 |
| 290 | 50 | 290 | 78 | 65 | 59 | 2 | 15 | 276 | 124 | 10 | 314.3 | 295.3 | 16 | 8 | 10.5 | 0.026 | 0.026 | 2LC0220-2AC0 | 8.1 |
| | | | | | | | | | | 11.5 | 352.4 | 333.4 | 16 | 8 | | 0.036 | | 2LC0220-2AC0 | 8.4 |
| 320 | 65 | 318 | 98 | 87 | 74 | 0 | 20 | 310 | 161 | 11.5 | 352.4 | 333.4 | 16 | 8 | 10.5 | 0.062 | 0.061 | 2LC0220-3AC0 | 13.5 |
| | | | | | | | | | | 14 | 466.7 | 438.2 | 16 | 8 | 13 | 0.18 | | 2LC0220-3AC0 | 16 |
| 360 | 85 | 353.5 | 123 | 88 | 77 | 9 | 28 | 314 | 165 | 11.5 | 352.4 | 333.4 | 54 | 8 | 10.5 | 0.065 | 0.13 | 2LC0220-4AC0 | 20 |
| | | | | | | | | | | 14 | 466.7 | 438.2 | 15 | 8 | 13 | 0.18 | | 2LC0220-4AC0 | 23 |
| 420 | 100 | 420 | 155 | 85 | 93 | 6 | 28 | 409 | 178 | 14 | 466.7 | 438.2 | 18 | 8 | 13 | 0.22 | 0.32 | 2LC0220-5AC0 | 31 |
| | | | | | | | | | | 16 | 517.5 | 489.0 | 18 | 8 | 13 | 0.32 | | 2LC0220-5AC0 | 32 |
| | | | | | | | | | | 18 | 571.5 | 542.9 | 18 | 6 | 17 | 0.47 | | 2LC0220-5AC0 | 35 |
| 465 | 130 | 465 | 190 | 119 | 88 | - | 15 | 409 | 207 | 14 | 466.7 | 438.2 | 85 | 8 | 13 | 0.31 | 0.58 | 2LC0220-6AC0 | 41 |
| | | | | | | | | | | 16 | 517.5 | 489.0 | 27 | 8 | 13 | 0.41 | | 2LC0220-6AC0 | 42 |
| | | | | | | | | | | 18 | 571.5 | 542.9 | 18 | 6 | 17 | 0.52 | | 2LC0220-6AC0 | 45 |
| 520 | 150 | 514 | 227 | 162 | 85 | - | 10 | 498 | 247 | 18 | 571.5 | 542.9 | 18 | 12 | 17 | 0.48 | 0.93 | 2LC0220-7AC0 | 59 |
| | | | | | | | | | | 21 | 673.1 | 641.4 | 18 | 12 | | 0.95 | | 2LC0220-7AC0 | 64 |
| 560 | 150 | 560 | 240 | 180 | 99 | - | 10 | 498 | 279 | 18 | 571.5 | 542.9 | 35 | 12 | 17 | 0.85 | 1.2 | 2LC0220-8AC0 | 75 |
| | | | | | | | | | | 21 | 673.1 | 641.4 | 20 | 12 | | 1.8 | | 2LC0220-8AC0 | 85 |
| 580 | 160 | 580 | 240 | 200 | 102 | - | 10 | 498 | 302 | 18 | 571.5 | 542.9 | 104 | 12 | 17 | 0.77 | 1.8 | 2LC0221-0AC0 | 80 |
| | | | | | | | | | | 21 | 673.1 | 641.4 | 26 | 12 | | 1.2 | | 2LC0221-0AC0 | 84 |
| 680 | 200 | 682 | 300 | 210 | 102 | - | 10 | 584 | 312 | 21 | 673.1 | 641.4 | 85 | 12 | 17 | 4.1 | 5.3 | 2LC0221-1AC0 | 155 |
| | | | | | | | | | | 24 | 733.4 | 692.2 | 20 | 12 | 21 | 5.3 | | 2LC0221-1AC0 | 165 |
| 770 | 260 | 780 | 390 | 255 | 134 | - | 10 | 750 | 389 | - | 860.0 | 820.0 | 26 | 32 | 21 | 10.7 | 12 | 2LC0221-2AC0 | 330 |
| | | | | | | | | | | | 920.0 | 880.0 | 27 | 32 | 21 | 15.4 | | 2LC0221-2AC0 | 350 |
| | | | | | | | | | | | 995.0 | 950.0 | 27 | 32 | 21 | 20.5 | | 2LC0221-2AC0 | 375 |

## Configurable variants[1)]

» OD2 Without finished bore.
With finished bore.
» Rubber version WN
NN
SN
NX

## Notes

» Weight and mass moments of inertia apply to maximum bore diameters.
» P, Q = required space for radial dismounting of the rubber disk element.

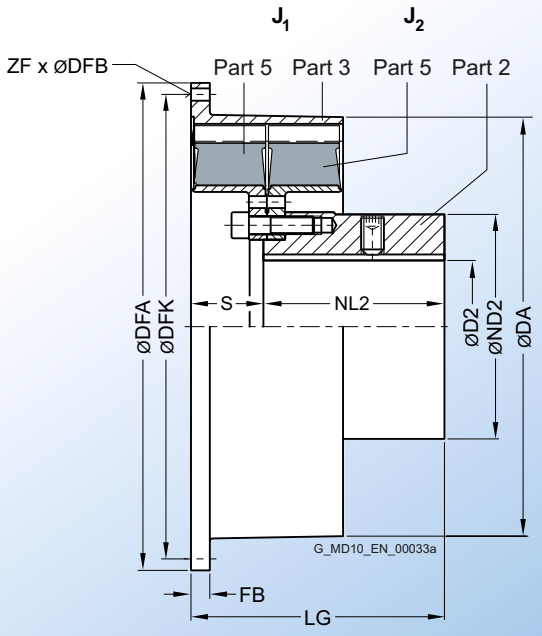
## Ordering example

» ELPEX-S ESNR coupling, size 320, WN rubber element version.
» Bore OD2 = 50H7 mm, with keyway to DIN 6885 and set screw, outer flange to SAE J620d size 14.

## Ordering code: 2LC0220-3AC09-1FA0-Z M1C

[1)]To identify complete item numbers specifying the available finish boring options and further order options, please contact jbj Techniques Ltd. technical office, telephone: +44 (0)1737 767493 or email: info@jbj.co.uk

FLENDER




| Size | Dimensions (mm) | | | | | | | | | | | | Mass Moment of Inertia | | Part Number[1] | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | D2 keyway DIN 6885 max | DA | ND2 | NL2 | S | LG | SAE (g7) | DFA | DFK | FB | ZF | DFB | $J_1$ ($kgm^2$) | $J_2$ ($kgm^2$) | | m (kg) |
| 520 | 165 | 525 | 250 | 174 | 81 | 255 | 18 | 571.5 | 542.9 | 25 | 12 | 17 | 1 | 1.6 | 2LC0220-7AD0 | 85 |
| | | | | | | | 21 | 673.1 | 641.4 | 18 | 12 | 17 | 1.5 | | 2LC0220-7AD0 | 90 |
| 560 | 170 | 560 | 316 | 210 | 60 | 270 | 18 | 571.5 | 542.9 | 35 | 12 | 17 | 1.7 | 2.8 | 2LC0220-8AD0 | 140 |
| | | | | | | | 21 | 673.1 | 641.4 | 25 | 12 | 17 | 2.6 | | 2LC0220-8AD0 | 150 |
| 580 | 200 | 585 | 310 | 250 | 100 | 350 | 21 | 673.1 | 641.4 | 26 | 12 | 17 | 2 | 3.8 | 2LC0221-0AD0 | 170 |
| | | | | | | | 24 | 733.4 | 692.2 | 26 | 12 | 21 | 2.6 | | 2LC0221-0AD0 | 175 |
| 680 | 220 | 682 | 380 | 250 | 17 | 267 | 21 | 673.1 | 641.4 | 85 | 12 | 17 | 8.2 | 7 | 2LC0221-1AD0 | 265 |
| | | | | | | | 24 | 733.4 | 692.2 | 20 | 12 | 21 | 9.4 | | 2LC0221-1AD0 | 275 |

## Configurable variants[1]

» OD2 Without finished bore.
With finished bore.
» Rubber version WN
NN
SN
NX

## Notes

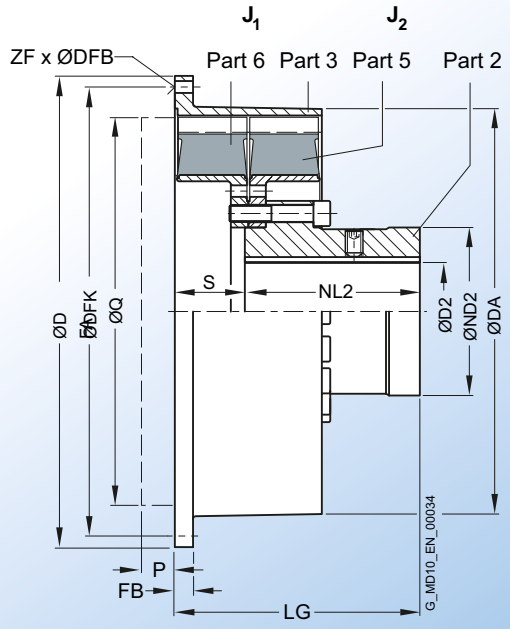
» The rubber disk element cannot be dismounted until the machines have been moved.
» Weight and mass moments of inertia apply to maximum bore diameters.

## Ordering example

» ELPEX-S ESD coupling, size 680, WN rubber element version.
» Bore OD2 = 180H7 mm, with keyway to DIN 6885 and set screw, outer flange to SAE J620d size 24.

## Ordering code: 2LC0221-1AD09-1KA0-Z M2B

[1]To identify complete item numbers specifying the available finish boring options and further order options, please contact jbj Techniques Ltd. technical office, telephone: +44 (0)1737 767493 or email: info@jbj.co.uk




| Size | Dimensions (mm) | | | | | | | | | | | | | | Mass Moment of Inertia | | Part Number[1] | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | D2 keyway DIN 6885 max | DA | ND2 | NL2 | S | P | Q | LG | SAE (g7) | DFA | DFK | FB | ZF | DFB | $J_1$ (kgm²) | $J_2$ (kgm²) | | m (kg) |
| 520 | 150 | 525 | 227 | 226 | 83 | 10 | 498 | 309 | 18 | 571.5 | 542.9 | 25 | 12 | 17 | 1 | 1.8 | 2LC0220-7AE0 | 105 |
| | | | | | | | | | 21 | 673.1 | 641.4 | 18 | 12 | 17 | 1.5 | | 2LC0220-7AE0 | 110 |
| 560 | 160 | 560 | 240 | 240 | 100 | 10 | 498 | 340 | 18 | 571.5 | 542.9 | 35 | 12 | 17 | 1.7 | 2.5 | 2LC0220-8AE0 | 135 |
| | | | | | | | | | 21 | 673.1 | 641.4 | 25 | 12 | 17 | 2.6 | | 2LC0220-8AE0 | 140 |
| 580 | 160 | 585 | 240 | 250 | 100 | 10 | 560 | 350 | 21 | 673.1 | 641.4 | 26 | 12 | 17 | 2 | 3.2 | 2LC0221-0AE0 | 145 |
| | | | | | | | | | 24 | 733.4 | 692.2 | 26 | 12 | 21 | 2.6 | | 2LC0221-0AE0 | 150 |
| 680 | 200 | 682 | 300 | 250 | 102 | 10 | 584 | 352 | 21 | 673.1 | 641.4 | 85 | 12 | 17 | 8.2 | 6.5 | 2LC0221-1AE0 | 260 |
| | | | | | | | | | 24 | 733.4 | 692.2 | 20 | 12 | 21 | 9.4 | | 2LC0221-1AE0 | 270 |
| 770 | 260 | 780 | 390 | 300 | 200 | 10 | 750 | 500 | - | 860.0 | 820.0 | 19 | 32 | 21 | 22.3 | 20 | 2LC0221-2AE0 | 540 |
| | | | | | | | | | | 920.0 | 880.0 | 27 | 32 | | 26 | | 2LC0221-2AE0 | 555 |
| | | | | | | | | | | 995.0 | 950.0 | 27 | 32 | | 31 | | 2LC0221-2AE0 | 600 |

## Configurable variants[1]

» OD2 Without finished bore.
With finished bore.
» Rubber version WN
NN
SN
NX

## Notes

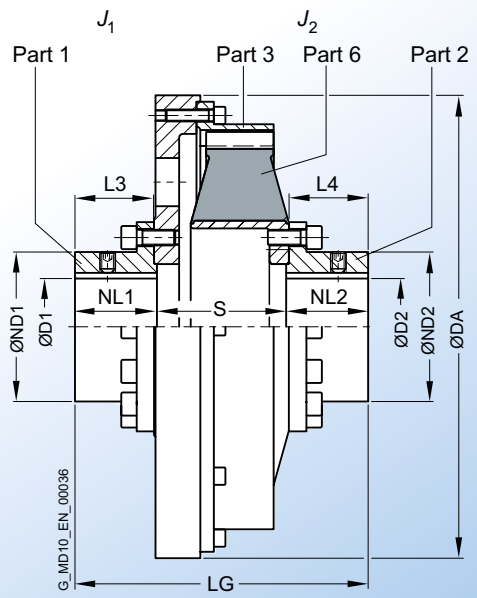
» Weight and mass moments of inertia apply to maximum bore diameters.
» P, Q = required space for radial dismounting of the rubber disk element.

## Ordering example

» ELPEX-S ESDR coupling, size 560, WN rubber element version.
» Bore OD2 = 120H7 mm, with keyway to DIN 6885 and set screw, outer flange to SAE J620d size 21.

## Ordering code: 2LC0220-8AE09-1JA0-Z M1S

[1]To identify complete item numbers specifying the available finish boring options and further order options, please contact jbj Techniques Ltd. technical office, telephone: +44 (0)1737 767493 or email: info@jbj.co.uk




| Size | Dimensions (mm) | | | | | | | | Mass Moment of Inertia | | Part Number[1] | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | D1/D2 keyway DIN 6885 max | DA | ND1/ND2 | NL1/NL | S | LG | SAE | DFA | $J_1$ (kgm²) | $J_2$ (kgm²) | | m (kg) |
| 265 | 50 | 275 | 78 | 65 | 62 | 66 | 68 | 198 | 0.11 | 0.017 | 2LC0220-1AG | 15 |
| 290 | 50 | 325 | 78 | 65 | 62 | 68 | 89 | 219 | 0.21 | 0.028 | 2LC0220-2AG | 22 |
| 320 | 65 | 365 | 98 | 87 | 84 | 92 | 105 | 279 | 0.37 | 0.042 | 2LC0220-3AG | 32 |
| 360 | 85 | 365 | 123 | 88 | 85 | 96 | 123 | 299 | 0.45 | 0.11 | 2LC0220-4AG | 43 |
| 420 | 100 | 480 | 155 | 85 | 82 | 94 | 134 | 304 | 1.5 | 0.3 | 2LC0220-5AG | 75 |
| 465 | 130 | 480 | 190 | 119 | 116 | 119 | 125 | 363 | 1.6 | 0.54 | 2LC0220-6AG | 89 |
| 520 | 150 | 585 | 227 | 162 | 159 | 161 | 123 | 447 | 4 | 0.94 | 2LC0220-7AG | 155 |
| 560 | 150 | 585 | 240 | 180 | 174 | 174 | 132 | 492 | 4.1 | 1.2 | 2LC0220-8AG | 160 |
| 580 | 160 | 685 | 240 | 200 | 195 | 198 | 145 | 545 | 5.5 | 1.6 | 2LC0221-0AG | 185 |
| 680 | 200 | 685 | 300 | 210 | 205 | 201 | 150 | 570 | 12 | 3.6 | 2LC0221-1AG | 315 |
| 770 | 260 | 870 | 390 | 255 | 250 | 253 | 180 | 690 | 27.2 | 12 | 2LC0221-2AG | 500 |

## Configurable variants[1]

» OD2 Without finished bore.
With finished bore.
» Rubber version WN
NN
SN
NX

## Notes

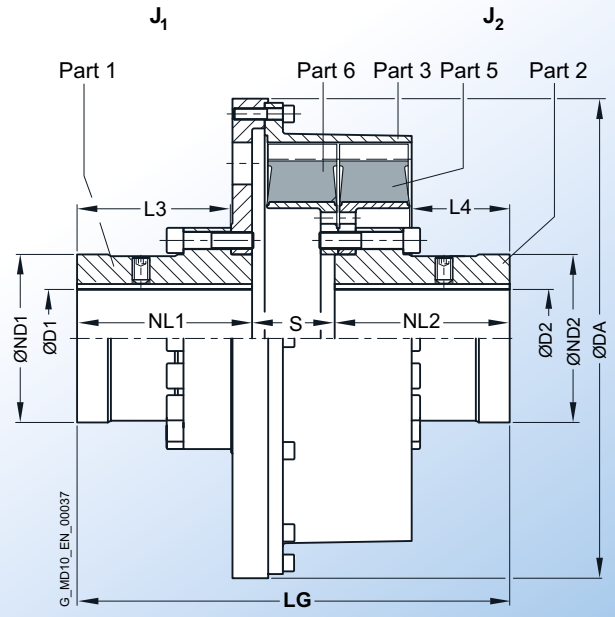
» Weight and mass moments of inertia apply to maximum bore diameters.

## Ordering example

» ELPEX-S ESNW coupling, size 520, WN rubber element version.
» Bore OD1 140H7 mm, keyway to DIN 6885 and set screw.
» Bore OD2 120H7 mm, keyway to DIN 6885 and set screw.

## Ordering code: 2LC0220-7AG99-1AA0-Z L1V+M1S

[1]To identify complete item numbers specifying the available finish boring options and further order options, please contact jbj Techniques Ltd. technical office, telephone: +44 (0)1737 767493 or email: info@jbj.co.uk




| Size | Dimensions (mm) | | | | | | | | Mass Moment of Inertia | | Part Number[1] | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | D1/D2 keyway DIN 6885 max | DA | ND1/ND2 | NL1/NL2 | L3 | L4 | S | LG | $J_1$ ($kgm^2$) | $J_2$ ($kgm^2$) | | m (kg) |
| 520 | 150 | 585 | 227 | 226 | 201 | 135 | 100 | 552 | 4.7 | 1.8 | 2LC0220-7AH | 215 |
| 560 | 160 | 585 | 240 | 240 | 215 | 133 | 114 | 594 | 5.4 | 2.5 | 2LC0220-8AH | 250 |
| 580 | 160 | 685 | 240 | 250 | 220 | 140 | 120 | 620 | 10.1 | 3.2 | 2LC0221-0AH | 300 |
| 680 | 200 | 685 | 300 | 250 | 218 | 134 | 125 | 625 | 14.5 | 6.5 | 2LC0221-1AH | 440 |
| 770 | 260 | 870 | 390 | 300 | 265 | 238 | 220 | 820 | 40 | 20 | 2LC0221-2AH | 720 |

## Configurable variants[1]

» OD2 Without finished bore.
With finished bore.
» Rubber version WN
NN
SN
NX

## Notes

» Weight and mass moments of inertia apply to maximum bore diameters.

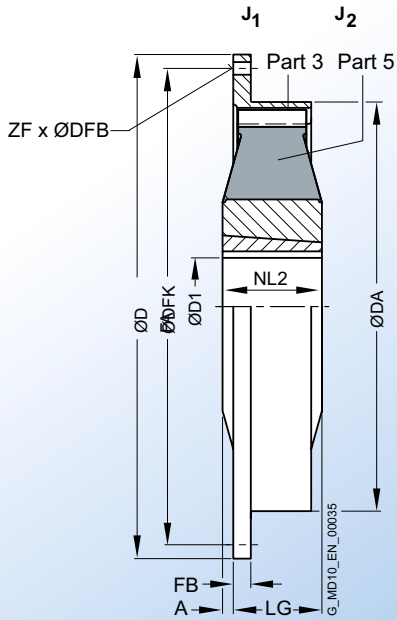
## Ordering example

» ELPEX-S ESDW coupling, size 520, WN rubber element version.
» Bore OD1 140H7 mm, keyway to DIN 6885 and set screw.
» Bore OD2 120H7 mm, keyway to DIN 6885 and set screw.

## Ordering code: 2LC0220-7AH99-1AA0-Z L1V+M1S

[1]To identify complete item numbers specifying the available finish boring options and further order options, please contact jbj Techniques Ltd. technical office, telephone: +44 (0)1737 767493 or email: info@jbj.co.uk

FLENDER




| Size | Taper Clamping Bush Size | Dimensions (mm) | | | | | | | | | | | | Mass Moment of Inertia | | Part Number[1] | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | D1 keyway DIN 6885 | | DA | NL2 | A | LG | Flange Connection | | | | | | | | | |
| | | min | max | | | | | SAE | DFA | DFK | FB | ZF | DFB | $J_1$ (kgm²) | $J_2$ (kgm²) | | m (kg) |
| 220 | 2012 | 14 | 50 | 222 | 32 | 0 | 52 | 6.5 | 215.9 | 200.0 | 6 | 6 | 8.5 | 0.008 | 0.008 | 2LC0220-0AF0 | 3.6 |
| | | | | | | | 43 | 7.5 | 241.3 | 222.3 | 33 | 8 | 8.5 | 0.008 | | 2LC0220-0AF0 | 3.5 |
| | | | | | | | | 8 | 263.5 | 244.5 | 8 | 6 | 10.5 | 0.011 | | 2LC0220-0AF0 | 3.7 |
| | | | | | | | | 10 | 314.3 | 295.3 | 8 | 8 | 10.5 | 0.020 | | 2LC0220-0AF0 | 4.2 |
| 265 | 2517 | 16 | 60 | 263 | 45 | 3 | 42 | 8 | 263.5 | 244.5 | 33 | 6 | 10.5 | 0.011 | 0.019 | 2LC0220-1AF0 | 5.9 |
| | | | | | | | | 10 | 314.3 | 295.3 | 10 | 8 | | 0.017 | | 2LC0220-1AF0 | 6.2 |
| | | | | | | | | 11.5 | 352.4 | 333.4 | 10 | 8 | | 0.024 | | 2LC0220-1AF0 | 6.5 |
| 290 | 2517 | 16 | 60 | 290 | 64 | 6 | 58 | 10 | 314.3 | 295.3 | 16 | 8 | 10.5 | 0.026 | 0.026 | 2LC0220-2AF0 | 8.5 |
| | | | | | | | | 11.5 | 352.4 | 333.4 | 16 | 8 | | 0.036 | | 2LC0220-2AF0 | 8.8 |
| 320 | 3030 | 35 | 75 | 318 | 76 | 2 | 73 | 11.5 | 352.4 | 333.4 | 16 | 8 | 10.5 | 0.062 | 0.06 | 2LC0220-3AF0 | 14 |
| | | | | | | | | 14 | 466.7 | 438.2 | 16 | 8 | 13 | 0.18 | | 2LC0220-3AF0 | 17 |
| 360 | 3535 | 35 | 90 | 353.5 | 89 | 13 | 76 | 11.5 | 352.4 | 333.4 | 54 | 8 | 10.5 | 0.065 | 0.13 | 2LC0220-4AF0 | 21 |
| | | | | | | | | 14 | 466.7 | 438.2 | 15 | 8 | 13 | 0.18 | | 2LC0220-4AF0 | 24 |
| 420 | 4040 | 40 | 100 | 420 | 102 | 10 | 92 | 14 | 466.7 | 438.2 | 18 | 8 | 13 | 0.22 | 0.33 | 2LC0220-5AF0 | 37 |
| | | | | | | | | 16 | 517.5 | 489.0 | 18 | 8 | 13 | 0.32 | | 2LC0220-5AF0 | 38 |
| | | | | | | | | 18 | 571.5 | 542.9 | 18 | 6 | 17 | 0.47 | | 2LC0220-5AF0 | 41 |
| 465 | 4545 | 55 | 110 | 465 | 115 | 28 | 87 | 14 | 466.7 | 438.2 | 85 | 8 | 13 | 0.31 | 0.76 | 2LC0220-6AF0 | 63 |
| | | | | | | | | 16 | 517.5 | 489.0 | 27 | 8 | 13 | 0.41 | | 2LC0220-6AF0 | 64 |
| | | | | | | | | 18 | 571.5 | 542.9 | 18 | 6 | 17 | 0.52 | | 2LC0220-6AF0 | 68 |

## Configurable variants[1]

» OD2 Without finished bore.
With finished bore.
» Rubber version WN, NN, SN, NX.

## Notes

» The rubber disk element cannot be dismounted until the machines have been moved.
» Weight and mass moments of inertia apply to maximum bore diameters.

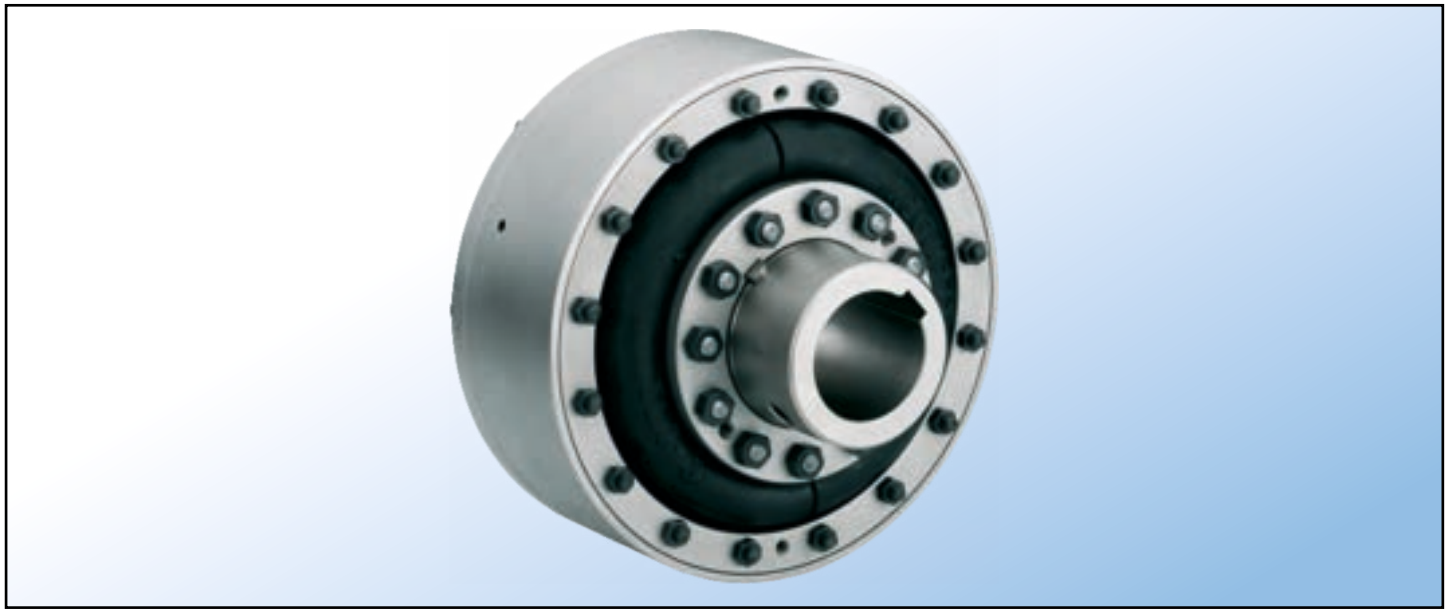
## Ordering example

» ELPEX-S EST coupling, size 265, WN rubber element version, with taper clamping bush size 2517.
» Bore OD2 = 30 mm, outer flange to SAE J620d size 10.

## Ordering code: 2LC0220-1AF99-1DA0-Z M0S

1) To identify complete item numbers specifying the available finish boring options and further order options, please contact jbj Techniques Ltd. technical office, telephone: +44 (0)1737 767493 or email: info@jbj.co.uk

| Size | Product Number Set of Rubber Disk Elements for a Coupling<br>Coupling Type<br>EST<br>without taper clamping bush | with taper clamping bush | ESN | ESNR, ESNW | ESD | ESDR, ESDW |
|---|---|---|---|---|---|---|
| **WN rubber version** | | | | | | |
| 220 | 2LC0220-0XL10-1AA0 | 2LC0220-0XL90-1AA0 | 2LC0220-0XJ00-1AA0 | | | |
| 265 | 2LC0220-1XL10-1AA0 | 2LC0220-1XL90-1AA0 | 2LC0220-1XJ00-1AA0 | 2LC0220-1XM00-1AA0 | | |
| 290 | 2LC0220-2XL10-1AA0 | 2LC0220-2XL90-1AA0 | 2LC0220-2XJ00-1AA0 | 2LC0220-2XM00-1AA0 | | |
| 320 | 2LC0220-3XL10-1AA0 | 2LC0220-3XL90-1AA0 | 2LC0220-3XJ00-1AA0 | 2LC0220-3XM00-1AA0 | | |
| 360 | 2LC0220-4XL10-1AA0 | 2LC0220-4XL90-1AA0 | 2LC0220-4XJ00-1AA0 | 2LC0220-4XM00-1AA0 | | |
| 420 | 2LC0220-5XL10-1AA0 | 2LC0220-5XL90-1AA0 | 2LC0220-5XJ00-1AA0 | 2LC0220-5XM00-1AA0 | | |
| 465 | 2LC0220-6XL10-1AA0 | 2LC0220-6XL90-1AA0 | 2LC0220-6XJ00-1AA0 | 2LC0220-6XM00-1AA0 | | |
| 520 | | | 2LC0220-7XJ00-1AA0 | 2LC0220-7XM00-1AA0 | 2LC0220-7XK00-1AA0 | 2LC0220-7XN00-1AA0 |
| 560 | | | 2LC0220-8XJ00-1AA0 | 2LC0220-8XM00-1AA0 | 2LC0220-8XK00-1AA0 | 2LC0220-8XN00-1AA0 |
| 580 | | | 2LC0221-0XJ00-1AA0 | 2LC0221-0XM00-1AA0 | 2LC0221-0XK00-1AA0 | 2LC0221-0XN00-1AA0 |
| 680 | | | 2LC0221-1XJ00-1AA0 | 2LC0221-1XM00-1AA0 | 2LC0221-1XK00-1AA0 | 2LC0221-1XN00-1AA0 |
| 770 | | | | 2LC0221-2XM00-1AA0 | | 2LC0221-2XN00-1AA0 |
| **NN rubber version** | | | | | | |
| 220 | 2LC0220-0XL10-2AA0 | 2LC0220-0XL90-2AA0 | 2LC0220-0XJ00-2AA0 | | | |
| 265 | 2LC0220-1XL10-2AA0 | 2LC0220-1XL90-2AA0 | 2LC0220-1XJ00-2AA0 | 2LC0220-1XM00-2AA0 | | |
| 290 | 2LC0220-2XL10-2AA0 | 2LC0220-2XL90-2AA0 | 2LC0220-2XJ00-2AA0 | 2LC0220-2XM00-2AA0 | | |
| 320 | 2LC0220-3XL10-2AA0 | 2LC0220-3XL90-2AA0 | 2LC0220-3XJ00-2AA0 | 2LC0220-3XM00-2AA0 | | |
| 360 | 2LC0220-4XL10-2AA0 | 2LC0220-4XL90-2AA0 | 2LC0220-4XJ00-2AA0 | 2LC0220-4XM00-2AA0 | | |
| 420 | 2LC0220-5XL10-2AA0 | 2LC0220-5XL90-2AA0 | 2LC0220-5XJ00-2AA0 | 2LC0220-5XM00-2AA0 | | |
| 465 | 2LC0220-6XL10-2AA0 | 2LC0220-6XL90-2AA0 | 2LC0220-6XJ00-2AA0 | 2LC0220-6XM00-2AA0 | | |
| 520 | 2LC0220-7XJ00-2AA0 | 2LC0220-7XM00-2AA0 | 2LC0220-7XK00-2AA0 | 2LC0220-7XN00-2AA0 | | |
| 560 | | | 2LC0220-8XJ00-2AA0 | 2LC0220-8XM00-2AA0 | 2LC0220-8XK00-2AA0 | 2LC0220-8XN00-2AA0 |
| 580 | | | 2LC0221-0XJ00-2AA0 | 2LC0221-0XM00-2AA0 | 2LC0221-0XK00-2AA0 | 2LC0221-0XN00-2AA0 |
| 680 | | | 2LC0221-1XJ00-2AA0 | 2LC0221-1XM00-2AA0 | 2LC0221-1XK00-2AA0 | 2LC0221-1XN00-2AA0 |
| 770 | | | | 2LC0221-2XM00-2AA0 | | 2LC0221-2XN00-2AA0 |
| **SN rubber version** | | | | | | |
| 220 | 2LC0220-0XL10-3AA0 | 2LC0220-0XL90-3AA0 | 2LC0220-0XJ00-3AA0 | | | |
| 265 | 2LC0220-1XL10-3AA0 | 2LC0220-1XL90-3AA0 | 2LC0220-1XJ00-3AA0 | 2LC0220-1XM00-3AA0 | | |
| 290 | 2LC0220-2XL10-3AA0 | 2LC0220-2XL90-3AA0 | 2LC0220-2XJ00-3AA0 | 2LC0220-2XM00-3AA0 | | |
| 320 | 2LC0220-3XL10-3AA0 | 2LC0220-3XL90-3AA0 | 2LC0220-3XJ00-3AA0 | 2LC0220-3XM00-3AA0 | | |
| 360 | 2LC0220-4XL10-3AA0 | 2LC0220-4XL90-3AA0 | 2LC0220-4XJ00-3AA0 | 2LC0220-4XM00-3AA0 | | |
| 420 | 2LC0220-5XL10-3AA0 | 2LC0220-5XL90-3AA0 | 2LC0220-5XJ00-3AA0 | 2LC0220-5XM00-3AA0 | | |
| 465 | 2LC0220-6XL10-3AA0 | 2LC0220-6XL90-3AA0 | 2LC0220-6XJ00-3AA0 | 2LC0220-6XM00-3AA0 | | |
| 520 | | | 2LC0220-7XJ00-3AA0 | 2LC0220-7XM00-3AA0 | 2LC0220-7XK00-3AA0 | 2LC0220-7XN00-3AA0 |
| 560 | | | 2LC0220-8XJ00-3AA0 | 2LC0220-8XM00-3AA0 | 2LC0220-8XK00-3AA0 | 2LC0220-8XN00-3AA0 |
| 580 | | | 2LC0221-0XJ00-3AA0 | 2LC0221-0XM00-3AA0 | 2LC0221-0XK00-3AA0 | 2LC0221-0XN00-3AA0 |
| 680 | | | 2LC0221-1XJ00-3AA0 | 2LC0221-1XM00-3AA0 | 2LC0221-1XK00-3AA0 | 2LC0221-1XN00-3AA0 |
| 770 | | | | 2LC0221-2XM00-3AA0 | | 2LC0221-2XN00-3AA0 |
| **NX rubber version** | | | | | | |
| 220 | 2LC0220-0XL10-4AA0 | 2LC0220-0XL90-4AA0 | 2LC0220-0XJ00-4AA0 | | | |
| 265 | 2LC0220-1XL10-4AA0 | 2LC0220-1XL90-4AA0 | 2LC0220-1XJ00-4AA0 | 2LC0220-1XM00-4AA0 | | |
| 290 | 2LC0220-2XL10-4AA0 | 2LC0220-2XL90-4AA0 | 2LC0220-2XJ00-4AA0 | 2LC0220-2XM00-4AA0 | | |
| 320 | 2LC0220-3XL10-4AA0 | 2LC0220-3XL90-4AA0 | 2LC0220-3XJ00-4AA0 | 2LC0220-3XM00-4AA0 | | |
| 360 | 2LC0220-4XL10-4AA0 | 2LC0220-4XL90-4AA0 | 2LC0220-4XJ00-4AA0 | 2LC0220-4XM00-4AA0 | | |
| 420 | 2LC0220-5XL10-4AA0 | 2LC0220-5XL90-4AA0 | 2LC0220-5XJ00-4AA0 | 2LC0220-5XM00-4AA0 | | |
| 465 | 2LC0220-6XL10-4AA0 | 2LC0220-6XL90-4AA0 | 2LC0220-6XJ00-4AA0 | 2LC0220-6XM00-4AA0 | | |
| 520 | | | 2LC0220-7XJ00-4AA0 | 2LC0220-7XM00-4AA0 | 2LC0220-7XK00-4AA0 | 2LC0220-7XN00-4AA0 |
| 560 | | | 2LC0220-8XJ00-4AA0 | 2LC0220-8XM00-4AA0 | 2LC0220-8XK00-4AA0 | 2LC0220-8XN00-4AA0 |
| 580 | | | 2LC0221-0XJ00-4AA0 | 2LC0221-0XM00-4AA0 | 2LC0221-0XK00-4AA0 | 2LC0221-0XN00-4AA0 |
| 680 | | | 2LC0221-1XJ00-4AA0 | 2LC0221-1XM00-4AA0 | 2LC0221-1XK00-4AA0 | 2LC0221-1XN00-4AA0 |
| 770 | | | | 2LC0221-2XM00-4AA0 | | 2LC0221-2XN00-4AA0 |



ELPEX couplings are highly torsionally flexible and free of torsional backlash. Because of their low torsional stiffness and damping capacity, ELPEX couplings are especially suitable for coupling machines with a very non uniform torque pattern. ELPEX couplings are also suitable for connecting machines with high shaft misalignment.
Standard ELPEX coupling types are designed as shaft-shaft connections or flange-shaft connections.
Application-related types can be implemented on request.

## Benefits

The ELPEX coupling is suitable for horizontal and vertical mounting positions or mounting at any required angle. The coupling parts can be arranged as required on the shafts to be connected.
The split flexible rings can be changed without having to move the coupled machines.
The flexible rings are mounted without backlash and give the coupling progressive torsional stiffness, i.e. torsional stiffness increases in proportion to coupling load.
The ELPEX coupling is especially suitable for reversing operation or operation with changing directions of load.
The coupling is delivered preassembled. The flexible rings are completely assembled. On the type ENG, the coupling halves have to be bolted together after the hub has been mounted. On the type EFG, after mounting the coupling hub, only the outer flange has to be connected to the machine.
Outer flanges with different connection dimensions are available for the type EFG.
If the flexible rings are irreparably damaged or worn, the metal parts can rotate freely against one another, they are not in contact with one another.

## Application

The ELPEX coupling is available in 9 sizes with a nominal torque of between 1600 Nm and 90000 Nm. The coupling is suitable for ambient temperatures of between -40 °C and +80 °C.
The ELPEX coupling is frequently used for high-quality drives which have to guarantee very long service life in harsh operating conditions.
Examples of applications are mill drives in the cement industry, marine main and secondary drives or drives on large excavators powered by an electric motor or diesel engine.

## Design & Configurations

The ELPEX coupling's transmission characteristic is determined essentially by the flexible rings. The flexible rings are manufactured from a natural rubber mixture with a multiply fabric lining. The flexible rings are split so that they can be changed without having to move the coupled machines.
The flexible rings are fastened to the hub with a clamping ring and to the outer flange with a clamping ring, using pins and bolts.
On the EFG type, the outer flange is designed with connection dimensions for connection to e.g. a diesel engine flywheel. On ENG types, the outer flange is fitted to a second hub part, which then enables the shaft-shaft connection.

## Metal part materials

| | Cast iron | Steel |
|---|---|---|
| Hub part 1 | Grey cast iron EN-GJL-250 | Steel |
| Hub part 2 | Steel | Steel |
| Retaining ring, outer ENG, ENGS | Grey cast iron EN-GJL-250 | Steel |
| Outer flange EFG, EFGS | Grey cast iron EN-GJL-250 | Steel |

## Flexible Ring Materials

| Description | Hardness | Marking | Ambient temperature |
|---|---|---|---|
| Natural rubber | 70 ShoreA | Size - 2 | -40 ... +80 °C |

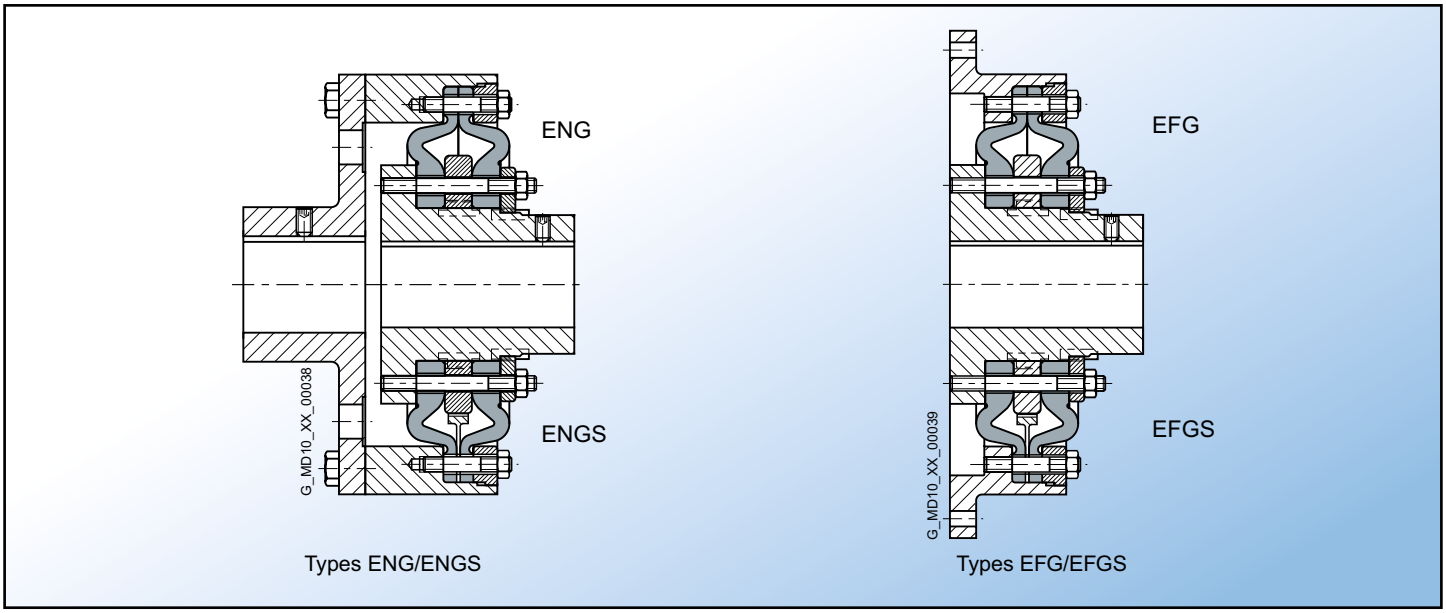
## Elpex Coupling Types

| Type | Description |
|---|---|
| ENG | Coupling as shaft-shaft connection |
| EFG | Coupling as flange-shaft connection |
| ENGS | as ENG with fail-safe device |
| EFGS | as EFG with fail-safe device |

Further application-specific coupling types are available. Dimension sheets for and information on these are available on request.

The following versions have already been implemented a number of times:

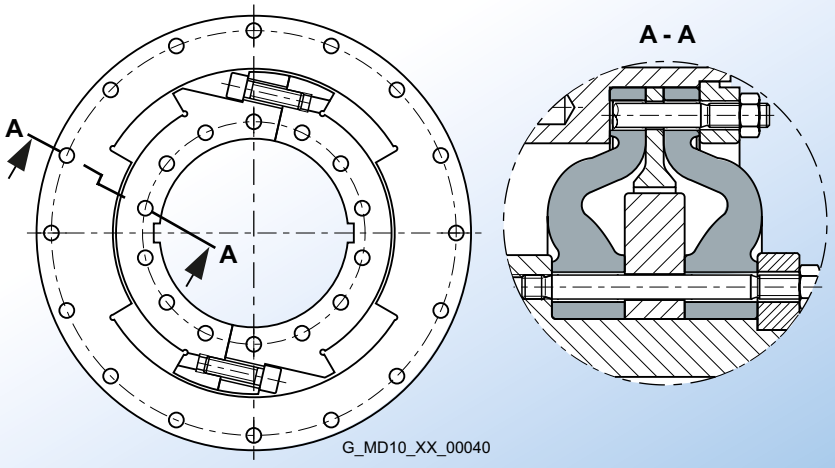
» ELPEX coupling with brake drum, brake disk or flywheel mass.
» ELPEX coupling with axial backlash limiter.
» ELPEX coupling with adapter.
» ELPEX coupling in combination with a safety slip clutch.
» ELPEX coupling for engaging/disengaging during standstill ELPEX coupling as part of a coupling combination.



## Fail-safe device of ELPEX coupling

Types ENGS and EFGS are provided with a fail-safe device. In normal operation the torsion angle of the flexible rings is smaller than the gap between the cams. In normal operation there is no metal-metal contact.

If the flexible rings fail, cams transmit the torque from the inner part and outer part. These enable the coupling to be used in emergency mode for a short time. This option is frequently required e.g. in the case of marine drives.




Fail-safe device

## Configuration

### Coupling Selection

The ELPEX-S coupling is especially suitable for rough operating environments. An application factor lower than that in Chapter E is therefore sufficient for all applications.

In the case of machines which excite torsional vibration, It is highly recommended to carry out a torsional vibration calculation or measure the coupling load occurring in the drive.

### Coupling load in continuous operation

The operating principles of the driving and driven machines are divided into categories and the application factor FB derived from these in accordance with DIN 3990-1.

| Application Factor FB | | | |
|---|---|---|---|
| | Torque characteristic of the driven machine | | |
| | Uniform with moderate shock loads | Non uniform | Very rough |
| Electric motors, hydraulic motors, gas and water turbines | 1.0 | 1.3 | 1.4 |
| Internal-combustion engines | 1.3 | 1.4 | 1.6 |

| Temperature factor FT | | | | | | |
|---|---|---|---|---|---|---|
| | | Temperature Ta on the coupling | | | | |
| Coupling | Elastomer | -40 up to -30 °C | -30 up to +50 °C | up to 60 °C | up to 70 °C | up to 80 °C |
| ELPEX | NR | 1.1 | 1.0 | 1.25 | 1.40 | 1.60 |

NR = Natural rubber mixture

Coupling size $T_{KN} \geq T_N \cdot FB \cdot FT$

**Examples of torque characteristic in driven machines:**

» **Uniform with moderate shock loads:** Generators, fans, blowers.

» **Non uniform:** Reciprocating compressors, mixers, conveyor systems.

» **Very rough:** crushers, excavators, presses, mills.

## Coupling load under maximum and overload conditions

The maximum torque is the highest load acting on the coupling in normal operation.
Maximum torques at a frequency of up to 25 times an hour are permitted and must be lower than the maximum coupling torque. Examples of maximum torque conditions are:

Starting operations, stopping operations or usual operating conditions with maximum load.
$T_{Kmax} \geq T_{Max} \cdot FT$

Overload torques are maximum loads which occur only in combination with special, infrequent operating conditions.
Examples of overload torque conditions are: Motor short circuit, emergency stop or blocking because of component breakage. Overload torques at a frequency of once a month are permitted and must be lower than the maximum overload torque of the coupling. The overload condition may last only a short while, i.e. fractions of a second.
$T_{KOL} \geq T_{OL} \cdot FT$

## Coupling load due to dynamic torque load

Applying the frequency factor FF, the dynamic torque load must be lower than the coupling fatigue torque.
Dynamic torque load
$T_{KW} \geq T_W \cdot FT \cdot FF$

Frequency of the dynamic torque load ferr ≤ 10 Hz frequency factor FF = 1.0
Frequency of the dynamic torque load ferr > 10 Hz frequency factor FF = $\sqrt{(ferr/10\ Hz)}$

## Checking the maximum speed

For all load situations $n_{Kmax} \geq n_{max}$

## Checking permitted shaft misalignment and restorative forces

For all load situations, the actual shaft misalignment must be less than the permitted shaft misalignment.

## Checking bore diameter, mounting geometry and coupling design

The check must be made on the basis of the dimension tables. On request, couplings with adapted geometry can be provided.

## Checking shaft-hub connection

For any information on this, please refer to Page E/18.

## Checking low temperature and chemically aggressive environment

The permitted coupling temperature is specified in the Temperature Factor FT table. In the case of chemically aggressive environments, please consult the manufacturer.

## Technical Specifications

**Power Ratings of the ELPEX Series**

| Size | Rated Torque $T_{KN}$ (Nm) | Maximum Torque $T_{Kmax}$ (Nm) | Overload Torque $T_{KOL}$ (Nm) | Fatigue Torque $T_{KW}$ (Nm) | Dynamic Torsional Stiffness for 100% Load $C_{Tdyn}$ (kNm/rad) | Stiffness | | Permitted Shaft Misalignment at Speed $n$ = 1500rpm | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Axial $C_a$ (N/mm) | Radial $C_r$ (mm) | Axial $\Delta K_a$ (mm) | Radial $\Delta K_r$ (mm) | Angle $\Delta K_w$ (°) |
| 270 | 1600 | 4800 | 6400 | 640 | 22 | 660 | 770 | 2.2 | 2.2 | 0.2 |
| 320 | 2800 | 8400 | 11200 | 1120 | 38 | 780 | 910 | 2.6 | 2.6 | 0.2 |
| 375 | 4500 | 13500 | 18000 | 1800 | 63 | 970 | 1130 | 3 | 3 | 0.2 |
| 430 | 7100 | 21300 | 28400 | 2840 | 97 | 1160 | 1350 | 3.4 | 3.4 | 0.2 |
| 500 | 11200 | 33600 | 44800 | 4480 | 155 | 1410 | 1630 | 3.8 | 3.8 | 0.2 |
| 590 | 18000 | 54000 | 72000 | 7200 | 240 | 1710 | 1990 | 4.2 | 4.2 | 0.2 |
| 690 | 28000 | 84000 | 112000 | 11200 | 365 | 2060 | 2390 | 4.6 | 4.6 | 0.2 |
| 840 | 45000 | 135000 | 180000 | 18000 | 685 | 2570 | 2990 | 5 | 5 | 0.2 |
| 970 | 90000 | 270000 | 360000 | 36000 | 1100 | 3020 | 3510 | 5.5 | 5.5 | 0.2 |

## Torsional stiffness and damping

The dynamic torsional stiffness is load-dependent and increases in proportion to capacity utilization. The values specified in the selection table apply to a capacity utilization of 100 %. The following table shows the correction factors for different rated loads.

$C_{Tdyn} = C_{Tdyn\ 1000\%} \cdot FKC$

| | Load TN / TKN | | | | | | |
|---|---|---|---|---|---|---|---|
| | 20% | 50% | 60% | 70% | 80% | 100% | 200% |
| Correction factor FKC | 0.3 | 0.56 | 0.65 | 0.74 | 0.82 | 1 | 1.9 |

## The damping coefficient is Ψ = 1.1

Torsional stiffness also depends on the ambient temperature and the frequency and amplitude of the torsional vibration excitation. More precise torsional stiffness and damping parameters on request.

With flexible couplings the manufacturing process of the rubber elements and their aging primarily influence the stiffness value CTdyn. For this reason calculation must be made with a tolerance for the dynamic stiffness of ±20 %.

The specified damping coefficient Ψ is a minimum value with the result that the damping performance of the coupling corresponds at least to the specified value.

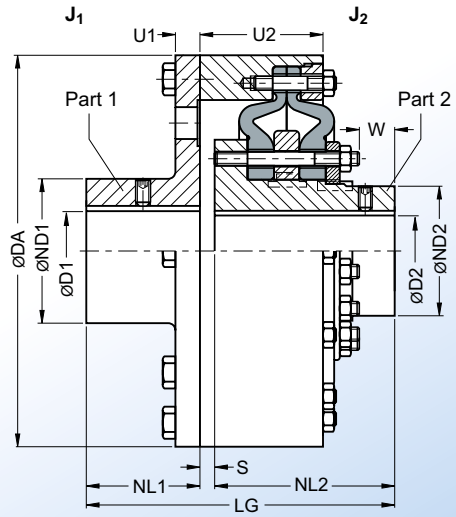
## Permitted shaft misalignment

The permitted shaft misalignment depends on the operating speed. As the speed increases, lower shaft misalignment values are permitted. The correction factors for different speeds are specified in the following table.

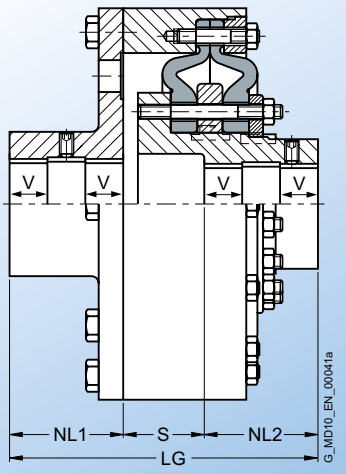
The maximum speed for the respective coupling size must be noted!

$\Delta K_{perm} = \Delta K_{1500} \cdot FKV$

| | Speed in rpm | | | |
|---|---|---|---|---|
| | 500 | 1000 | 1500 | 3000 |
| Correction factor FKV | 1.6 | 1.25 | 1.0 | 0.7 |




Sizes 270 ... 430




Sizes 500 ... 970

| Size | Rated Torque | Maximum Speed | | Dimensions (mm) | | | | | | | | | | | | | | Mass Moment of Inertia | | Part Number[1] | | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Cast Iron | Steel | Keyway DIN 6885 | | | | DA | ND1 | ND2 | NL1 | NL2 | S | U1 | U2 | W | LG | | | | | |
| | | | | D1 | | D2 | | | | | | | | | | | | | | | | |
| | $T_{KN}$ (Nm) | $n_{Kmax}$ (rpm) | $n_{Kmax}$ (rpm) | min | max | min | max | | | | | | | | | | | $J_1$ (kgm²) | $J_2$ (kgm²) | Cast Iron | Steel | m (kg) |
| 270 | 1600 | 3000 | 4250 | 45 | 80 | 45 | 70 | 270 | 128 | 94 | 80 | 155 | 10 | 14 | 86 | 42 | 245 | 0.21 | 0.037 | 2LC0200-3AF | 2LC0200-3AL | 29 |
| 320 | 2800 | 2500 | 3600 | 55 | 100 | 55 | 85 | 320 | 160 | 115 | 100 | 180 | 6 | 16 | 97.5 | 48 | 286 | 0.49 | 0.082 | 2LC0200-4AF | 2LC0200-4AL | 50 |
| 375 | 4500 | 2100 | 3100 | 65 | 115 | 65 | 105 | 375 | 184 | 143 | 120 | 205 | 10 | 18 | 111.8 | 62 | 335 | 1.0 | 0.21 | 2LC0200-5AF | 2LC0200-5AL | 80 |
| 430 | 7100 | 1900 | 2650 | 75 | 130 | 75 | 120 | 430 | 208 | 165 | 140 | 235 | 8 | 22 | 126 | 68 | 383 | 2.0 | 0.37 | 2LC0200-6AF | 2LC0200-6AL | 113 |
| 500 | 11200 | 1600 | 2300 | 90 | 150 | 90 | 150 | 500 | 240 | 202 | 160 | 160 | 112 | 25 | 139.7 | 80 | 432 | 3.9 | 0.85 | 2LC0200-7AF | 2LC0200-7AL | 174 |
| 590 | 18000 | 1360 | 2000 | 100 | 140 | 100 | 170 | 590 | 224 | 230 | 190 | 190 | 130 | 28 | 162.7 | 95 | 510 | 8.2 | 1.7 | 2LC0200-8AF | 2LC0200-8AL | 254 |
| | | | | 140 | 180 | | | | 288 | | | | | | | | | 8.4 | | | | 284 |
| 690 | 28000 | 1200 | 1650 | 110 | 140 | 110 | 200 | 690 | 224 | 278 | 220 | 220 | 140 | 32 | 175.6 | 102 | 580 | 16.3 | 3.7 | 2LC0201-0AF | 2LC0201-0AL | 350 |
| | | | | 140 | 180 | | | | 288 | | | | | | | | | 16.8 | | | | 370 |
| | | | | 180 | 210 | | | | 336 | | | | | | | | | 16.9 | | | | 385 |
| 840 | 45000 | 1000 | 1350 | 140 | 180 | 140 | 240 | 840 | 288 | 340 | 280 | 280 | 125 | 42 | 231 | 105 | 685 | 49 | 11 | 2LC0201-1AF | 2LC0201-1AL | 700 |
| | | | | 180 | 220 | | | | 352 | | | | | | | | | 50 | | | | 725 |
| 970 | 90000 | 850 | 1180 | 160 | 200 | 160 | 280 | 970 | 320 | 390 | 350 | 350 | 167 | 70 | 290 | 137 | 867 | 104 | 26 | 2LC0201-2AF | 2LC0201-2AL | 1265 |
| | | | | 200 | 240 | | | | 384 | | | | | | | | | 106 | | | | 1310 |
| | | | | 240 | 280 | | | | 448 | | | | | | | | | 110 | | | | 1350 |
| | | | | 280 | 320 | | | | 512 | | | | | | | | | 115 | | | | 1410 |

## Configurable variants[1]

» ØD1 Without finished bore.
With finished bore.

» ØD2 Without finished bore.
With finished bore.

## Notes

» The hub diameter of the component part is assigned according to the diameter of the finished bore. Where bore diameters overlap, the component with the smaller hub diameter is always selected.

» Weights and mass moments of inertia apply to cast iron version with maximum bore.

» From size 500, the bores D1 and D2 are each provided with a recess of D = +1 mm halfway along the hub. V ≈ 1/3 NL.

## Ordering example

» ELPEX ENG coupling, size 690, cast iron version.

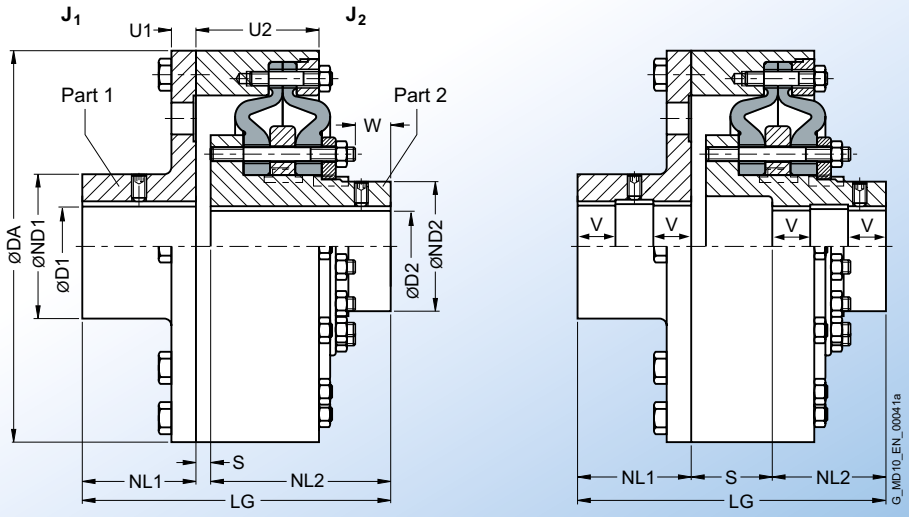
» Bore OD1 = 180H7 mm with keyway to DIN 6885 and set screw, the hub diameter ND1 = 288 mm is thus assigned

» Bore OD2 = 200H7 mm with keyway to DIN 6885 and set screw, the hub diameter ND2 = 278 mm is thus assigned.

## Ordering code: 2LC0201-0AF99-0AA0-Z L2B+M2D

[1] To identify complete item numbers specifying the available finish boring options and further order options, please contact jbj Techniques Ltd. technical office, telephone: +44 (0)1737 767493 or email: info@jbj.co.uk

# FLENDER




Sizes 270 ... 430

Sizes 500 ... 970

| Size | Rated Torque | Maximum Speed | | Dimensions (mm) | | | | | | | | | | | | | | Mass Moment of Inertia | | Part Number[1] | | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Cast Iron | Steel | Keyway DIN 6885 | | | | | | | | | | | | | | | | | | |
| | | | | D1 | | D2 | | DA | ND1 | ND2 | NL1 | NL2 | S | U1 | U2 | W | LG | | | | | |
| | $T_{KN}$ (Nm) | $n_{Kmax}$ (rpm) | $n_{Kmax}$ (rpm) | min | max | min | max | | | | | | | | | | | $J_1$ (kgm²) | $J_2$ (kgm²) | Cast Iron | Steel | m (kg) |
| 270 | 1600 | 3000 | 4250 | 45 | 80 | 45 | 70 | 270 | 128 | 94 | 80 | 155 | 10 | 14 | 86 | 42 | 245 | 0.21 | 0.037 | 2LC0200-3AG | 2LC0200-3AM | 29 |
| 320 | 2800 | 2500 | 3600 | 55 | 100 | 55 | 85 | 320 | 160 | 115 | 100 | 180 | 6 | 16 | 97.5 | 48 | 286 | 0.49 | 0.082 | 2LC0200-4AG | 2LC0200-4AM | 50 |
| 375 | 4500 | 2100 | 3100 | 65 | 115 | 65 | 105 | 375 | 184 | 143 | 120 | 205 | 10 | 18 | 111.8 | 62 | 335 | 1.0 | 0.21 | 2LC0200-5AG | 2LC0200-5AM | 80 |
| 430 | 7100 | 1900 | 2650 | 75 | 130 | 75 | 120 | 430 | 208 | 165 | 140 | 235 | 8 | 22 | 126 | 68 | 383 | 2.0 | 0.37 | 2LC0200-6AG | 2LC0200-6AM | 113 |
| 500 | 11200 | 1600 | 2300 | 90 | 150 | 90 | 150 | 500 | 240 | 202 | 160 | 160 | 112 | 25 | 139.7 | 80 | 432 | 3.9 | 0.85 | 2LC0200-7AG | 2LC0200-7AM | 174 |
| 590 | 18000 | 1360 | 2000 | 100 | 140 | 100 | 170 | 590 | 224 | 230 | 190 | 190 | 130 | 28 | 162.7 | 95 | 510 | 8.2 | 1.7 | 2LC0200-8AG | 2LC0200-8AM | 254 |
| | | | | 140 | 180 | | | | 288 | | | | | | | | | 8.4 | | | | 284 |
| 690 | 28000 | 1200 | 1650 | 110 | 140 | 110 | 200 | 690 | 224 | 278 | 220 | 220 | 140 | 32 | 175.6 | 102 | 580 | 16.3 | 3.7 | 2LC0201-0AG | 2LC0201-0AM | 350 |
| | | | | 140 | 180 | | | | 288 | | | | | | | | | 16.8 | | | | 370 |
| | | | | 180 | 210 | | | | 336 | | | | | | | | | 16.9 | | | | 385 |
| 840 | 45000 | 1000 | 1350 | 140 | 180 | 140 | 240 | 840 | 288 | 340 | 280 | 280 | 125 | 42 | 231 | 105 | 685 | 49 | 11 | 2LC0201-1AG | 2LC0201-1AM | 700 |
| | | | | 180 | 220 | | | | 352 | | | | | | | | | 50 | | | | 725 |
| 970 | 90000 | 850 | 1180 | 160 | 200 | 160 | 280 | 970 | 320 | 390 | 350 | 350 | 167 | 70 | 290 | 137 | 867 | 104 | 26 | 2LC0201-2AG | 2LC0201-2AM | 1265 |
| | | | | 200 | 240 | | | | 384 | | | | | | | | | 106 | | | | 1310 |
| | | | | 240 | 280 | | | | 448 | | | | | | | | | 110 | | | | 1350 |
| | | | | 280 | 320 | | | | 512 | | | | | | | | | 115 | | | | 1410 |

## Configurable variants[1]

» ØD1 Without finished bore.
With finished bore.

» ØD2 Without finished bore.
With finished bore.

## Notes

» The hub diameter of the component part is assigned according to the diameter of the finished bore. Where bore diameters overlap, the component with the smaller hub diameter is always selected.

» Weights and mass moments of inertia apply to cast iron version with maximum bore.

» From size 500, the bores D1 and D2 are each provided with a recess of D = +1 mm halfway along the hub. V ≈ 1/3 NL.

## Ordering example

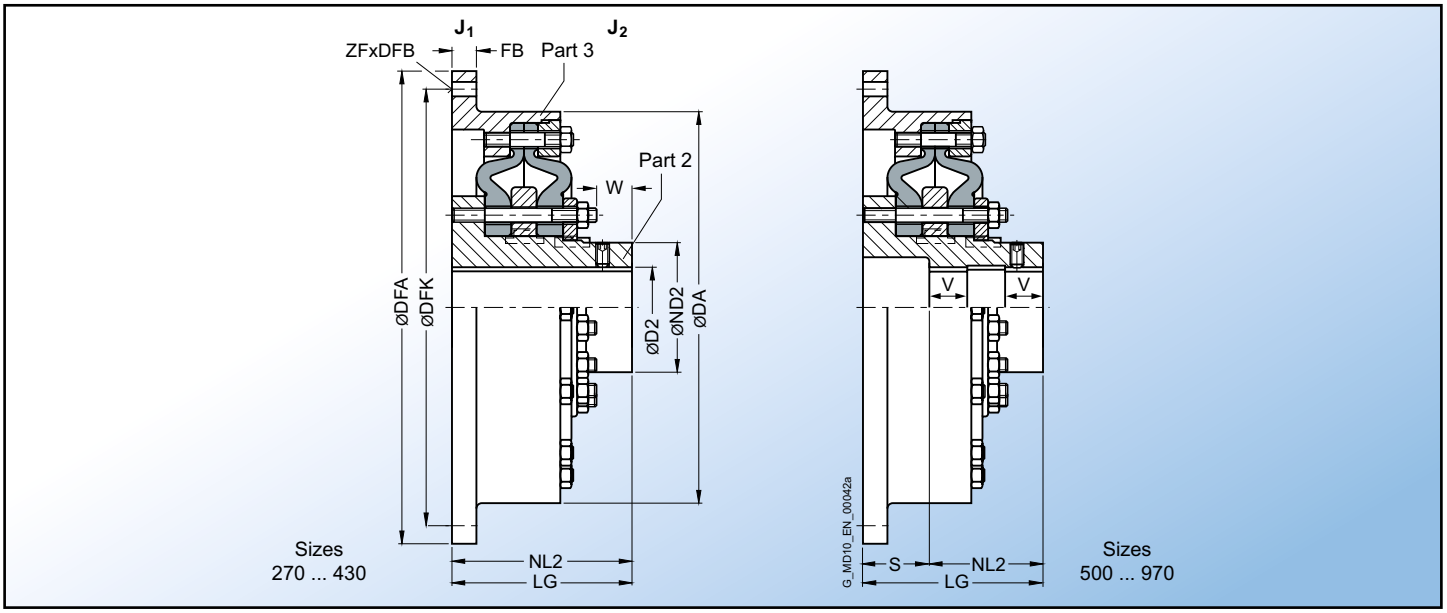
» ELPEX ENG coupling, size 690, cast iron version.

» Bore OD1 = 180H7 mm with keyway to DIN 6885 and set screw, the hub diameter ND1 = 288 mm is thus assigned.

» Bore OD2 = 200H7 mm with keyway to DIN 6885 and set screw, the hub diameter ND2 = 278 mm is thus assigned.

## Ordering code: 2LC0201-0AG99-0AA0-Z L2B+M2D

[1]To identify complete item numbers specifying the available finish boring options and further order options, please contact jbj Techniques Ltd. technical office, telephone: +44 (0)1737 767493 or email: info@jbj.co.uk




| Size | Rated Torque | Maximum Speed | | Dimensions (mm) | | | | | | | | | Flange Connection Dimensions[2] | | | | | Mass Moment of Inertia | | Part Number[1] | | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Cast Iron | Steel | Keyway DIN 6885 D2 | | DA | ND2 | NL2 | S | W | LG | DFA | DFK | FB | ZF | DFB | $J_1$ | $J_2$ | Cast Iron | Steel | m |
| | $T_{KN}$ (Nm) | $n_{Kmax}$ (rpm) | $n_{Kmax}$ (rpm) | min | max | | | | | | | | | | | | (kgm²) | (kgm²) | | | (kg) |
| 270 | 1600 | 3000 | 4250 | 45 | 70 | 270 | 94 | 155 | - | 42 | 155 | $466.7_{g7}$ [2] | 438.2[2] | 12 | 8 | 13 | 0.47 | 0.037 | 2LC0200-3AB2 | 2LC0200-3AJ2 | 27 |
| | | | | | | | | | | | | $325_{j6}$ | 300 | | 8 | 14 | 0.16 | | 2LC0200-3AB1 | 2LC0200-3AJ1 | 19 |
| 320 | 2800 | 2500 | 3600 | 55 | 85 | 320 | 115 | 180 | - | 48 | 180 | $517.5_{g7}$ [2] | 489[2] | 14 | 8 | 13 | 0.87 | 0.082 | 2LC0200-4AB2 | 2LC0200-4AJ2 | 42 |
| | | | | | | | | | | | | $392_{j6}$ | 360 | | 8 | 18 | 0.39 | | 2LC0200-4AB1 | 2LC0200-4AJ1 | 33.5 |
| 375 | 4500 | 2100 | 3100 | 65 | 105 | 375 | 143 | 205 | - | 62 | 205 | $571.5_{g7}$ [2] | 542.9[2] | 16 | 6 | 17 | 1.5 | 0.21 | 2LC0200-5AB2 | 2LC0200-5AJ2 | 65 |
| | | | | | | | | | | | | $448_{j6}$ | 415 | | 8 | 18 | 0.78 | | 2LC0200-5AB1 | 2LC0200-5AJ1 | 53 |
| 430 | 7100 | 1900 | 2650 | 75 | 120 | 430 | 165 | 235 | - | 68 | 235 | $673.1_{g7}$ [2] | 641.4[2] | 20 | 12 | 17 | 3.4 | 0.37 | 2LC0200-6AB2 | 2LC0200-6AJ2 | 100 |
| | | | | | | | | | | | | $515_{j6}$ | 475 | | 8 | 22 | 1.5 | | 2LC0200-6AB1 | 2LC0200-6AJ1 | 78 |
| 500 | 11200 | 1600 | 2300 | 90 | 150 | 500 | 202 | 160 | 100 | 80 | 260 | $673.1_{g7}$ [2] | 641.4[2] | 20 | 12 | 17 | 4.0 | 0.85 | 2LC0200-7AB2 | 2LC0200-7AJ2 | 150 |
| | | | | | | | | | | | | $585_{j6}$ | 545 | | 10 | 22 | 2.7 | | 2LC0200-7AB1 | 2LC0200-7AJ1 | 140 |
| 590 | 18000 | 1350 | 2000 | 100 | 170 | 590 | 230 | 190 | 120 | 95 | 310 | $733.4_{g7}$ [2] | 692.2[2] | 24 | 12 | 21 | 7.0 | 1.7 | 2LC0200-8AB2 | 2LC0200-8AJ2 | 200 |
| | | | | | | | | | | | | $692_{j6}$ | 645 | | 10 | 26 | 6.0 | | 2LC0200-8AB1 | 2LC0200-8AJ1 | 190 |
| 690 | 28000 | 1200 | 1650 | 110 | 200 | 690 | 278 | 220 | 130 | 102 | 350 | $890_{g7}$ [2] | 850[2] | 24 | 32 | 17 | 15 | 3.7 | 2LC0201-0AB2 | 2LC0201-0AJ2 | 270 |
| | | | | | | | | | | | | $800_{j6}$ | 750 | | 12 | 26 | 11 | | 2LC0201-0AB1 | 2LC0201-0AJ1 | 250 |
| 840 | 45000 | 1000 | 1350 | 140 | 240 | 840 | 340 | 280 | 115 | 105 | 395 | $1105_{g7}$ [2] | 1060[2] | 30 | 32 | 21 | 46 | 11 | 2LC0201-1AB2 | 2LC0201-1AJ2 | 530 |
| | | | | | | | | | | | | $960_{j6}$ | 908 | | 16 | 30 | 32 | | 2LC0201-1AB1 | 2LC0201-1AJ1 | 470 |
| 970 | 90000 | 850 | 1180 | 160 | 280 | 970 | 390 | 350 | 155 | 137 | 505 | $1385_{g7}$ [2] | 1320[2] | 35 | 24 | 31 | 130 | 26 | 2LC0201-2AB2 | 2LC0201-2AJ2 | 1050 |
| | | | | | | | | | | | | $1112_{j6}$ | 1051 | | 16 | 35 | 76 | | 2LC0201-2AB1 | 2LC0201-2AJ1 | 920 |

## Configurable variants[1]

» ØD2 Without finished bore. With finished bore.

## Notes

» The hub diameter of the component part is assigned according to the diameter of the finished bore. Where bore diameters overlap, the component with the smaller hub diameter is always selected.

» Weights and mass moments of inertia apply to cast iron version with maximum bore.

» From size 500, the bores D1 and D2 are each provided with a recess of D = +1 mm halfway along the hub. V ≈ 1/3 NL.

» Notice: The application factor FB in the coupling selection page 33 section must be noted.

## Ordering example

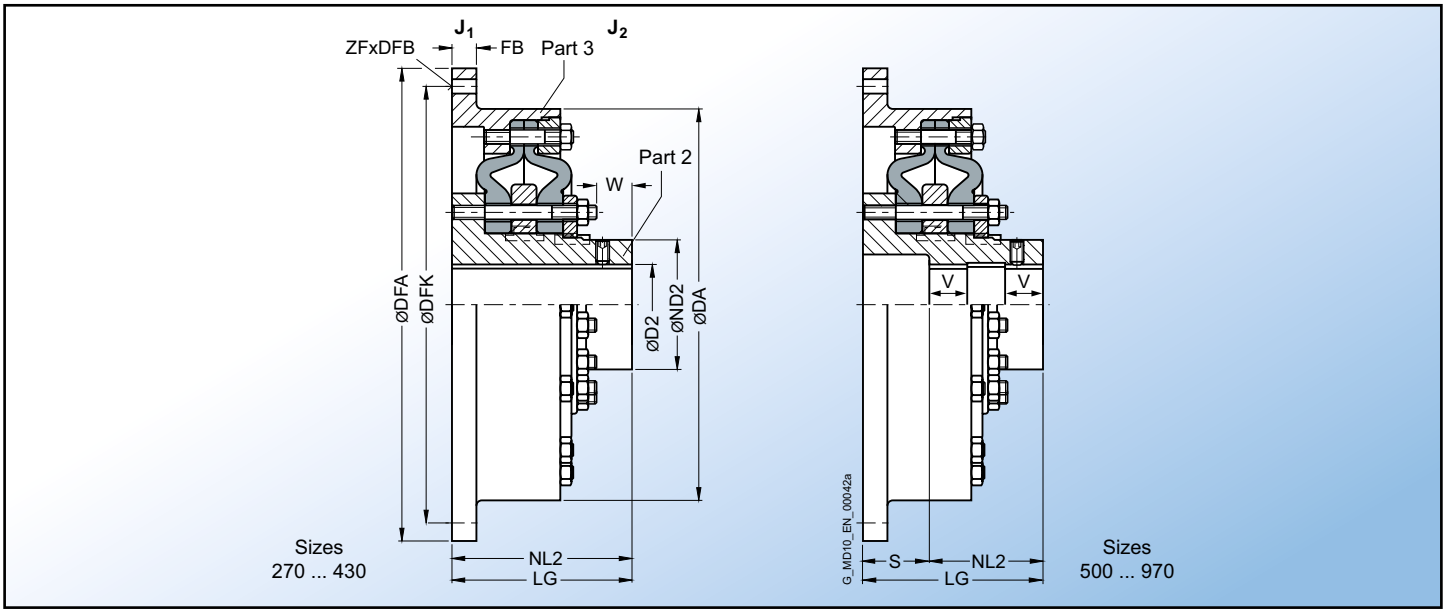
» ELPEX EFG coupling, size 430, steel version

» Bore OD1 = 100H7 mm with keyway to DIN 6885 and set screw, flange to SAE J620d size 21 with DFA = 673.5g7 mm

» Coupling balanced G6.3 in accordance with the half parallel key standard.

**Ordering code:** 2LC0200-6AJ29-0AA0-ZM1N+W02

[1] To identify complete item numbers specifying the available finish boring options and further order options, please contact jbj Techniques Ltd. technical office, telephone: +44 (0)1737 767493 or email: info@jbj.co.uk




| Size | Rated Torque | Maximum Speed | | Dimensions (mm) | | | | | | | | | Flange Connection Dimensions[2] | | | | | Mass Moment of Inertia | | Part Number[1] | | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Cast Iron | Steel | Keyway DIN 6885 D2 | | DA | ND2 | NL2 | S | W | LG | DFA | DFK | FB | ZF | DFB | $J_1$ | $J_2$ | Cast Iron | Steel | m |
| | $T_{KN}$ (Nm) | $n_{Kmax}$ (rpm) | $n_{Kmax}$ (rpm) | min | max | | | | | | | | | | | | ($kgm^2$) | ($kgm^3$) | | | (kg) |
| 270 | 1600 | 3000 | 4250 | 45 | 70 | 270 | 94 | 155 | - | 42 | 155 | $466.7_{g7}$ [2] | $438.2$ [2] | 12 | 8 | 13 | 0.47 | 0.037 | 2LC0200-3AC2 | 2LC0200-3AK2 | 27 |
| | | | | | | | | | | | | $325_{j6}$ | 300 | | 8 | 14 | 0.16 | | 2LC0200-3AC1 | 2LC0200-3AK1 | 19 |
| 320 | 2800 | 2500 | 3600 | 55 | 85 | 320 | 115 | 180 | - | 48 | 180 | $517.5_{g7}$ [2] | $489$ [2] | 14 | 8 | 13 | 0.87 | 0.082 | 2LC0200-4AC2 | 2LC0200-4AK2 | 42 |
| | | | | | | | | | | | | $392_{j6}$ | 360 | | 8 | 18 | 0.39 | | 2LC0200-4AC1 | 2LC0200-4AK1 | 33.5 |
| 375 | 4500 | 2100 | 3100 | 65 | 105 | 375 | 143 | 205 | - | 62 | 205 | $571.5_{g7}$ [2] | $542.9$ [2] | 16 | 6 | 17 | 1.5 | 0.21 | 2LC0200-5AC2 | 2LC0200-5AK2 | 65 |
| | | | | | | | | | | | | $448_{j6}$ | 415 | | 8 | 18 | 0.78 | | 2LC0200-5AC1 | 2LC0200-5AK1 | 53 |
| 430 | 7100 | 1900 | 2650 | 75 | 120 | 430 | 165 | 235 | - | 68 | 235 | $673.1_{g7}$ [2] | $641.4$ [2] | 20 | 12 | 17 | 3.4 | 0.37 | 2LC0200-6AC2 | 2LC0200-6AK2 | 100 |
| | | | | | | | | | | | | $515_{j6}$ | 475 | | 8 | 22 | 1.5 | | 2LC0200-6AC1 | 2LC0200-6AK1 | 78 |
| 500 | 11200 | 1600 | 2300 | 90 | 150 | 500 | 202 | 160 | 100 | 80 | 260 | $673.1_{g7}$ [2] | $641.4$ [2] | 20 | 12 | 17 | 4.0 | 0.85 | 2LC0200-7AC2 | 2LC0200-7AK2 | 150 |
| | | | | | | | | | | | | $585_{j6}$ | 545 | | 10 | 22 | 2.7 | | 2LC0200-7AC1 | 2LC0200-7AK1 | 140 |
| 590 | 18000 | 1350 | 2000 | 100 | 170 | 590 | 230 | 190 | 120 | 95 | 310 | $733.4_{g7}$ [2] | $692.2$ [2] | 24 | 12 | 21 | 7.0 | 1.7 | 2LC0200-8AC2 | 2LC0200-8AK2 | 200 |
| | | | | | | | | | | | | $692_{j6}$ | 645 | | 10 | 26 | 6.0 | | 2LC0200-8AC1 | 2LC0200-8AK1 | 190 |
| 690 | 28000 | 1200 | 1650 | 110 | 200 | 690 | 278 | 220 | 130 | 102 | 350 | $890_{g7}$ [2] | $850$ [2] | 24 | 32 | 17 | 15 | 3.7 | 2LC0201-0AC2 | 2LC0201-0AK2 | 270 |
| | | | | | | | | | | | | $800_{j6}$ | 750 | | 12 | 26 | 11 | | 2LC0201-0AC1 | 2LC0201-0AK1 | 250 |
| 840 | 45000 | 1000 | 1350 | 140 | 240 | 840 | 340 | 280 | 115 | 105 | 395 | $1105_{g7}$ [2] | $1060$ [2] | 30 | 32 | 21 | 46 | 11 | 2LC0201-1AC2 | 2LC0201-1AK2 | 530 |
| | | | | | | | | | | | | $960_{j6}$ | 908 | | 16 | 30 | 32 | | 2LC0201-1AC1 | 2LC0201-1AK1 | 470 |
| 970 | 90000 | 850 | 1180 | 160 | 280 | 970 | 390 | 350 | 155 | 137 | 505 | $1385_{g7}$ [2] | $1320$ [2] | 35 | 24 | 31 | 130 | 26 | 2LC0201-2AC2 | 2LC0201-2AK2 | 1050 |
| | | | | | | | | | | | | $1112_{j6}$ | 1051 | | 16 | 35 | 76 | | 2LC0201-2AC1 | 2LC0201-2AK1 | 920 |

## Configurable variants[1]

» ØD2 Without finished bore. With finished bore.

## Notes

» The hub diameter of the component part is assigned according to the diameter of the finished bore. Where bore diameters overlap, the component with the smaller hub diameter is always selected.

» Weights and mass moments of inertia apply to cast iron version with maximum bore.

» From size 500, the bores D1 and D2 are each provided with a recess of D = +1 mm halfway along the hub. V ≈ 1/3 NL.

» Notice: The application factor FB in the coupling selection page 33 section must be noted.

## Ordering example

» ELPEX EFGS coupling, size 430, steel version.

» Bore OD1 = 100H7 mm with keyway to DIN 6885 and set screw, flange to SAE J620d size 21 with DFA = 673.5g7 mm.

» Coupling balanced G6.3 in accordance with the half parallel key standard.

**Ordering code:** 2LC0200-6AK29-0AA0-ZM1N+W02

[1] To identify complete item numbers specifying the available finish boring options and further order options, please contact jbj Techniques Ltd. technical office, telephone: +44 (0)1737 767493 or email: info@jbj.co.uk

## Flexible Rings

| Size | Product Number Set of Flexible Rings for a Coupling | Weight (kg) |
|---|---|---|
| 270 | 2LC0200-3XV00-0AA0 | 1.6 |
| 320 | 2LC0200-4XV00-0AA0 | 2.6 |
| 375 | 2LC0200-5XV00-0AA0 | 4.4 |
| 430 | 2LC0200-6XV00-0AA0 | 6.8 |
| 500 | 2LC0200-7XV00-0AA0 | 9.4 |
| 590 | 2LC0200-8XV00-0AA0 | 18 |
| 690 | 2LC0201-0XV00-0AA0 | 36 |
| 840 | 2LC0201-1XV00-0AA0 | 68 |
| 970 | 2LC0201-2XV00-0AA0 | 120 |

### Notes

» The flexible rings are wear parts. The service life depends on the operating conditions.

## Flexible Ring Screw Connection

| Size | Product Number Set of Pins & Bolts | |
|---|---|---|
| | EFG, ENG | EFGS, ENGS |
| 270 | 2LC0200-3XU00-0AA0 | 2LC0200-3XW00-0AA0 |
| 320 | 2LC0200-4XU00-0AA0 | 2LC0200-4XW00-0AA0 |
| 375 | 2LC0200-5XU00-0AA0 | 2LC0200-5XW00-0AA0 |
| 430 | 2LC0200-6XU00-0AA0 | 2LC0200-6XW00-0AA0 |
| 500 | 2LC0200-7XU00-0AA0 | 2LC0200-7XW00-0AA0 |
| 590 | 2LC0200-8XU00-0AA0 | 2LC0200-8XW00-0AA0 |
| 690 | 2LC0201-0XU00-0AA0 | 2LC0201-0XW00-0AA0 |
| 840 | 2LC0201-1XU00-0AA0 | 2LC0201-1XW00-0AA0 |
| 970 | 2LC0201-2XU00-0AA0 | 2LC0201-2XW00-0AA0 |

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