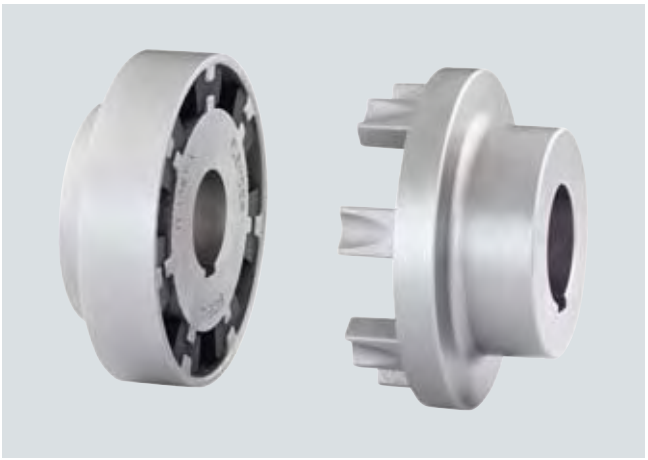
# Flexible Couplings
# N-EUPEX Series

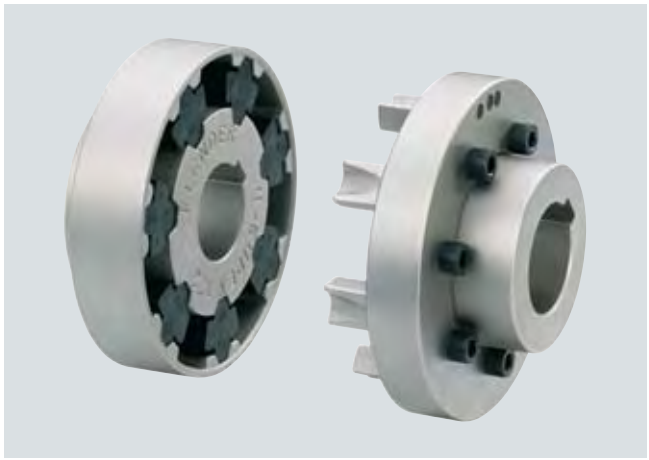
7

## General information

### Overview



N-EUPEX as overload-holding, fail-safe series



N-EUPEX DS as overload-shedding, non-fail-safe series

N-EUPEX and N-EUPEX DS claw couplings connect machines. They compensate for shaft misalignment, generating only low restorative forces.

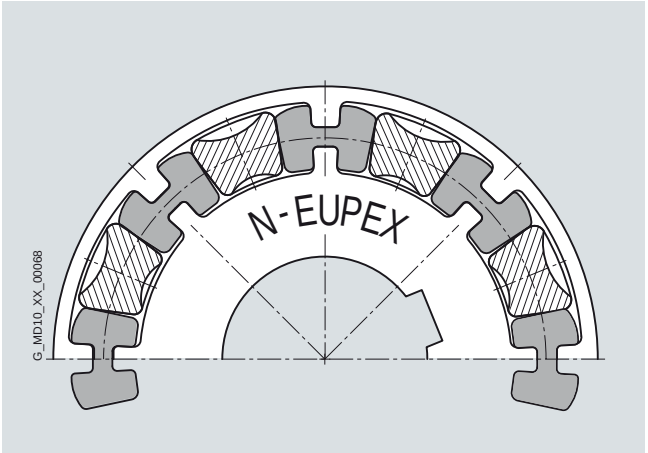
The torque is conducted through elastomer flexibles, so the coupling has typically flexible rubber properties.

N-EUPEX couplings are overload-holding. By contrast, the N-EUPEX DS series is designed so that overload or advanced wear causes irreparable damage to the elastomer flexibles. The metal parts of N-EUPEX DS couplings can then rotate freely against one another without contact.

7

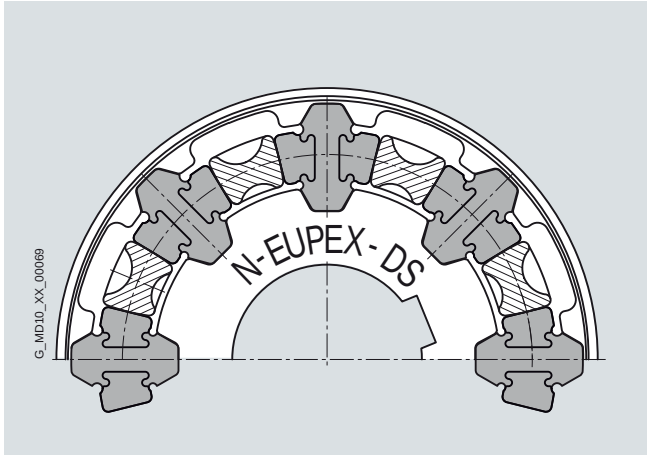
Elastomer flexible of the N-EUPEX series

The flexibles of the N-EUPEX coupling are subjected to compression. If the flexibles are irreparably damaged, the hub parts come into contact with metal. This “emergency operation capability” is required, e.g., in the case of fire pump drives.




Elastomer flexible of the N-EUPEX DS series

The flexibles of the N-EUPEX DS series are subjected to compression and bending forces. If the flexibles are irreparably damaged, the metal parts turn against one another without contact, and the power transmission is separated. Fitting new flexibles will make the coupling once more usable.
The capacity of the N-EUPEX DS series to shed overloads is especially in demand for highly sensitive machines.



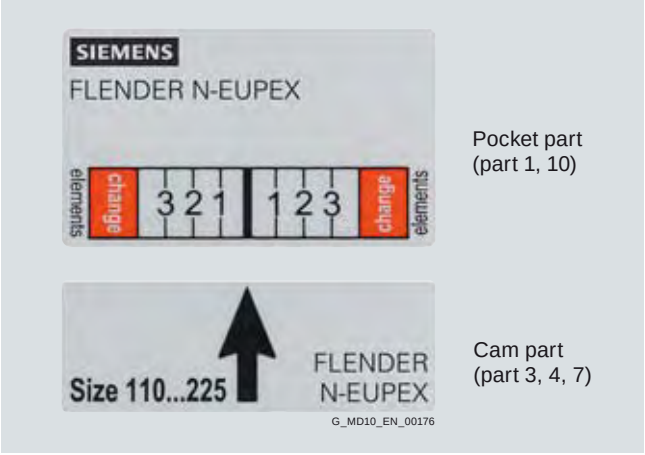
## Benefits

N-EUPEX couplings are designed on the modular principle and have a very simple construction. N-EUPEX types are made up of subassemblies to suit requirements. The couplings are assembled by simply fitting the coupling halves together. Wear is restricted to the elastomer flexibles, which must be replaced at the end of their service life.
Depending on type, the elastomer flexibles can be changed without moving the coupled machines.
The coupling parts are readily available from stock and are mostly finish-machined, i.e. with finished bore, keyway, set screw and balancing.

Optionally:

The wear indicator for N-EUPEX couplings enables the condition of the flexible to be easily assessed. The wear condition can also be ascertained with the aid of a stroboscope while the coupling is rotating. The production process can thus continue undisturbed.

If the stroboscope is to be used in a potentially explosive environment, you can enquire about the equipment for this at Siemens.




The wear indicator must be attached to the outside diameter of the coupling after the coupling has been fitted.

## Application

The N-EUPEX coupling is available as a catalog standard in 23 sizes with a rated torque of between 19 Nm and 62000 Nm. The coupling is suitable for use at ambient temperatures of between -30 °C and +80 °C. By using alternative elastomer buffers, the permissible ambient temperature range can be extended to between -50 °C and +100 °C.

Frequently, the coupling is used to connect the motor to the gear unit input shaft. The coupling is suitable especially for drives with uniform to average dynamic loads. Examples of applications are pump drives, ventilator drives or crane running gear. Furthermore, N-EUPEX couplings can be used as add-on couplings, particularly on FLUDEX fluid couplings or ARPEX AKR safety couplings. In the case of drives with a diesel engine, N-EUPEX couplings are suitable for driven machines with a low mass moment of inertia.

In the case of diesel engine drives, the actual dynamic coupling load should be checked by measurement or torsional vibration calculations.

**Coupling suitable for potentially explosive environments. Complies with Directive 94/9/EC for:**

CE Ex II 2 G T4 / T5 / T6 D120 °C
-30 °C ≤ $T_a$ ≤ +80 °C / +50 °C / +40 °C

CE Ex I M2

## Function

The motor torque is transmitted to the hub at the drive end via the shaft-hub connection, which is mostly designed as a keyway connection. The torque is transmitted to the hub on the output side with the aid of elastomer flexibles. The hub on the output side further transmits the torque to the driven machine or a gear unit placed in between. Because of the primarily compression-loaded elastomer flexibles, the coupling has a progressive torsional stiffness.

In the case of the N-EUPEX DS coupling series, the elastomer flexible is subjected to bending and compression loads. In the event of overload or advanced wear, the coupling disconnects positively and the flexibles are irreparably damaged. The metal parts then rotate without touching one another. After new elastomer flexibles are fitted, the N-EUPEX DS coupling is once more operable.

N-EUPEX DS couplings are maintenance-free, even in potentially explosive environments, so long as the possible torque interruption does not lead to an unacceptable disruption of the production process.

## General information

### Design

N-EUPEX and N-EUPEX DS couplings consist of two hub parts mounted on the machine shafts. The coupling parts are connected positively by means of elastomer flexibles. On the two-part variant, the elastomer flexibles can be changed only if one of the coupled machines is moved. On the three-part variants, the bolted cam ring can be released and moved to enable the flexible to be changed without moving the coupled machines.

#### *Materials*

Cam parts, pocket parts, adapters and hubs

Grey cast iron EN-GJL-250

Flexible materials

- N-EUPEX series

| Material/description | Hardness | Identification | Ambient temperature |
|---|---|---|---|
| **NBR standard type** | **80 ShoreA** | **Flexible black with blue stripe** | **-30 °C … +80 °C** |
| NBR soft | 65 ShoreA | Flexible black with green stripe | -30 °C … +80 °C |
| NBR hard | 90 ShoreA | Flexible black with magenta stripe | -30 °C … +80 °C |
| NBR normal low-backlash | 80 ShoreA | Flexible black with yellow stripe | -30 °C … +80 °C |
| NBR soft low-backlash | 65 ShoreA | Flexible black with white stripe | -30 °C … +80 °C |
| NR for low temperature | 80 ShoreA | Flexible black with orange stripe | -50 °C … +50 °C |
| HNBR high temperature | 80 ShoreA | Flexible black with red stripe | -10 °C … +100 °C |

- N-EUPEX DS series

| Material/description | Hardness | Identification | Ambient temperature |
|---|---|---|---|
| **NBR compound flexibles for sizes 66 … 272** | **80/90 ShoreA 2 components** | **Flexible black** | **-30 °C … +80 °C** |
| **NBR hard for sizes 305 ... 556** | **90 ShoreA** | **Flexible black** | **-30 °C … +80 °C** |
| PU electrically insulating | 95 ShoreA | Flexible blue | -30 °C … +50 °C |

PU elastomer flexibles in special design on request.

The technical data and product codes do not include the flexible variants NBR low-backlash, HNBR high temperature and NR low temperature and the DS flexibles polyurethane electrically insulating.

Technical data, prices and product codes on request.

Brake disks

EN-GJS-400 spheroidal graphite cast iron or S355J2G3 steel

Brake drums

Grey cast iron EN-GJL-250

Low-temperature application

Shock loads in the drive caused by e.g. starting of drives with large masses to be accelerated (e.g. in fan drives) result in high component loads, particularly at low temperatures.
For such applications a particularly robust coupling series must be selected. Of the flexible couplings, the RUPEX pin-and-bush coupling is especially suited for this.

#### *Types of N-EUPEX claw coupling*

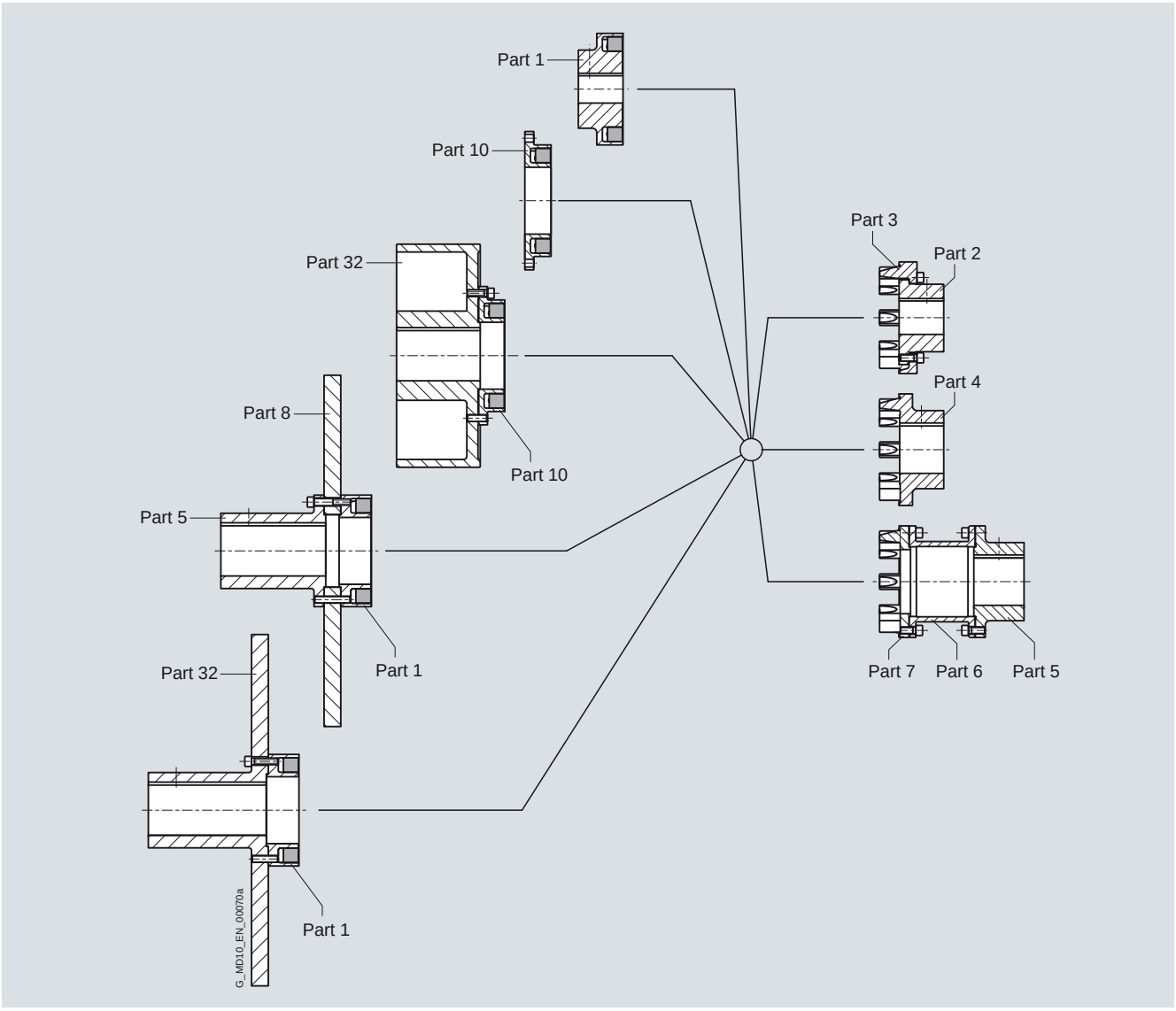
| Type | Description |
|---|---|
| A | Fail-safe, 3-part |
| B | Fail-safe, 2-part |
| D | Fail-safe, 3-part, flange variant |
| E | Fail-safe, 2-part, flange variant |
| H | Fail-safe, with adapter |
| O | Fail-safe, 2-part, with brake drum |
| P | Fail-safe, 3-part, with brake drum |
| EBD | Fail-safe, 2-part, with brake disk |
| DBD | Fail-safe, 3-part, with brake disk |
| DBDR | Fail-safe, 3-part, with brake disk, brake disk radially dismountable |
| ADS | Non-fail-safe, 3-part |
| BDS | Non-fail-safe, 2-part |
| HDS | Non-fail-safe, with adapter |

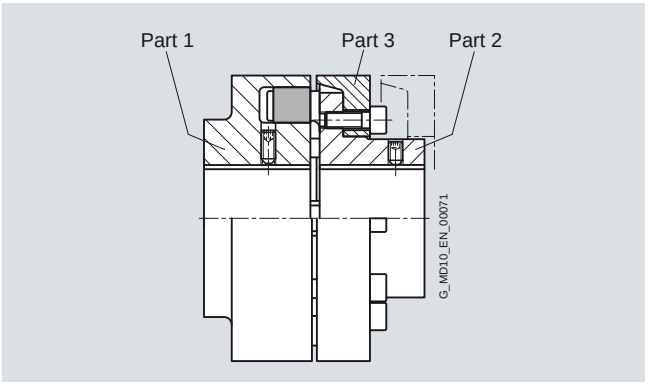
Further application-related coupling types are available. Dimension sheets for and information on these are available on request.

#### *Types of N-EUPEX claw coupling on request*

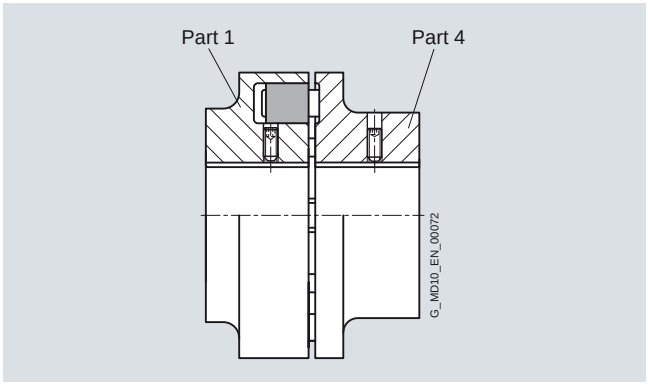
| Type | Description |
|---|---|
| AT | Fail-safe, 3-part, with Taper clamping bush |
| BT | Fail-safe, 2-part, with Taper clamping bush |
| G | Fail-safe, 2-part, with intermediate shaft |
| F | Fail-safe, 3-part, with intermediate shaft |
| K | Fail-safe, 3-part, with brake drum to customer's requirement |
| L | Fail-safe, 2-part, with brake drum to customer's requirement |
| M | Fail-safe, 2-part, with flange dimensions to SAE J620d |

*Modular principle of N-EUPEX types*



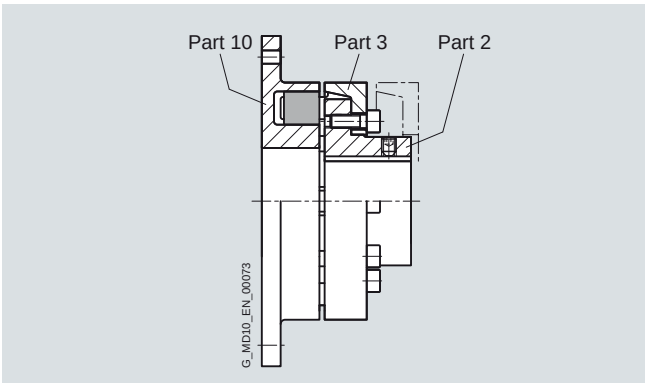




Types A and ADS

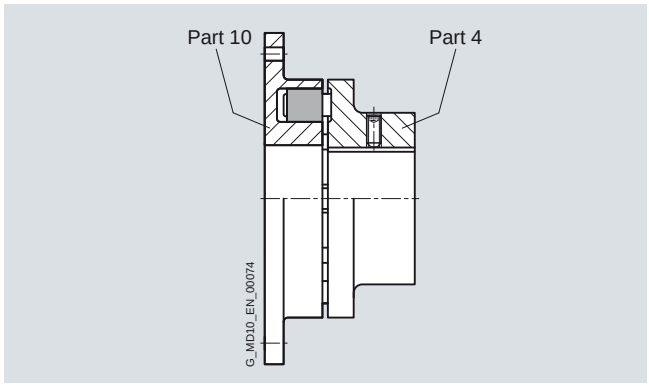



Types B and BDS

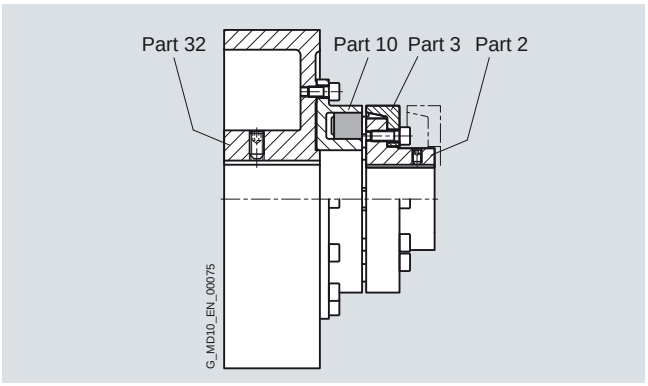
## General information



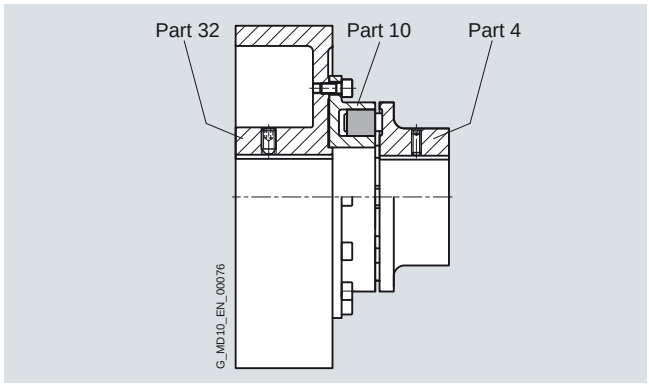

Type D



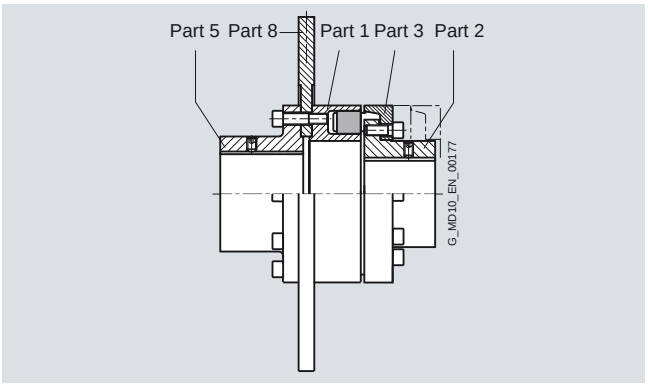

Type E



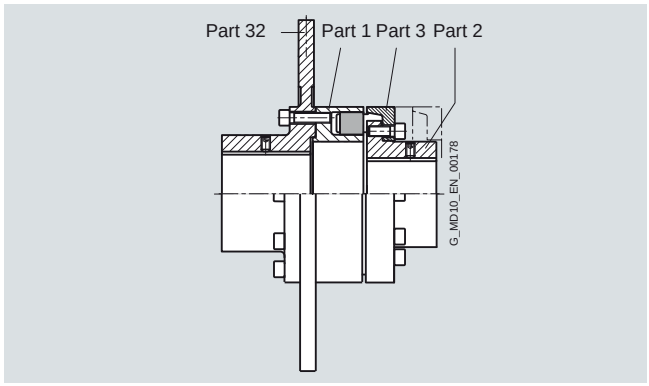

Type P



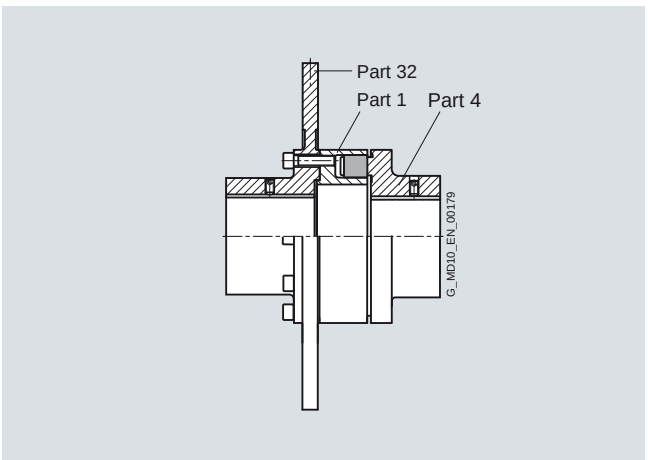

Type O



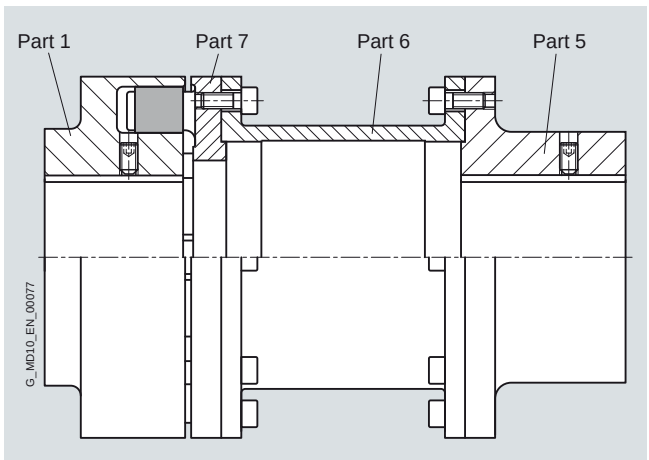

Type DBDR




Type DBD




Type EBD




Types H and HDS

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

## Technical data

### *Power ratings of the N-EUPEX series*

| Size | Rated torque for flexible type | | | Torsional stiffness at 50 % capacity utilization for flexible type | | | Assembly | Permitted shaft misalignment at $n$ = 1500 rpm [1] | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 65 ShoreA | **80 ShoreA** | 90 ShoreA | 65 ShoreA | **80 ShoreA** | 90 ShoreA | Gap dimension [2] | Axial | Radial | Angle |
| | $T_{KN}$ | $T_{KN}$ | $T_{KN}$ | $C_{Tdyn\ 50\ \%}$ | $C_{Tdyn\ 50\ \%}$ | $C_{Tdyn\ 50\ \%}$ | $\Delta S$ | $\Delta K_a$ | $\Delta K_r$ | $\Delta K_w$ |
| | Nm | Nm | Nm | kNm/rad | kNm/rad | kNm/rad | mm | mm | mm | ° |
| **58** | 11 | **19** | 19 | 0.21 | **0.50** | 0.93 | 1.0 | 0.2 | 0.2 | 0.15 |
| **68** | 21 | **34** | 34 | 0.39 | **0.90** | 1.80 | 1.0 | 0.2 | 0.2 | 0.15 |
| **80** | 37 | **60** | 60 | 1.05 | **2.40** | 4.50 | 1.0 | 0.2 | 0.2 | 0.12 |
| **95** | 63 | **100** | 100 | 1.64 | **4.00** | 7.40 | 1.0 | 0.2 | 0.2 | 0.12 |
| **110** | 100 | **160** | 160 | 2.49 | **6.00** | 11.4 | 1.0 | 0.2 | 0.2 | 0.10 |
| **125** | 150 | **240** | 240 | 3.70 | **9.00** | 17 | 1.0 | 0.25 | 0.25 | 0.10 |
| **140** | 230 | **360** | 360 | 5.60 | **13.2** | 25 | 1.0 | 0.25 | 0.25 | 0.10 |
| **160** | 350 | **560** | 560 | 11.2 | **26.7** | 51 | 2.0 | 0.3 | 0.3 | 0.10 |
| **180** | 550 | **880** | 880 | 19.2 | **46** | 88 | 2.0 | 0.3 | 0.3 | 0.10 |
| **200** | 850 | **1340** | 1340 | 31.6 | **75** | 139 | 2.0 | 0.3 | 0.3 | 0.09 |
| **225** | 1260 | **2000** | 2000 | 48 | **115** | 212 | 2.0 | 0.35 | 0.35 | 0.09 |
| **250** | 1760 | **2800** | 2800 | 68 | **162** | 302 | 2.5 | 0.35 | 0.35 | 0.08 |
| **280** | 2460 | **3900** | 3900 | 95 | **226** | 420 | 2.5 | 0.4 | 0.4 | 0.08 |
| **315** | 3500 | **5500** | 5500 | 171 | **370** | 730 | 2.5 | 0.4 | 0.4 | 0.08 |
| **350** | 4850 | **7700** | 7700 | 235 | **520** | 950 | 2.5 | 0.5 | 0.5 | 0.08 |
| **400** | 6500 | **10300** | 10300 | 316 | **750** | 1420 | 2.5 | 0.5 | 0.5 | 0.08 |
| **440** | 8500 | **13500** | 13500 | 390 | **930** | 1920 | 2.5 | 0.6 | 0.6 | 0.08 |
| **480** | 10500 | **16600** | 16600 | 510 | **1200** | 2300 | 2.5 | 0.6 | 0.6 | 0.07 |
| **520** | 13300 | **21200** | 21200 | 600 | **1410** | 2710 | 2.5 | 0.65 | 0.65 | 0.07 |
| **560** | 18300 | **29000** | 29000 | 1000 | **2340** | 4400 | 3.0 | 0.65 | 0.65 | 0.07 |
| **610** | 24000 | **38000** | 38000 | 1300 | **3030** | 5700 | 3.0 | 0.75 | 0.75 | 0.07 |
| **660** | 30900 | **49000** | 49000 | 1640 | **3800** | 7100 | 3.0 | 0.8 | 0.8 | 0.07 |
| **710** | 39000 | **62000** | 62000 | 2140 | **4900** | 9100 | 3.0 | 0.9 | 0.9 | 0.07 |

For maximum coupling torque:
$T_{Kmax} = 3.0 \cdot T_{KN}$

For coupling overload torque:
$T_{KOL} = 3.5 \cdot T_{KN}$

For coupling fatigue torque: $T_{KW} = 0.15 \cdot T_{KN}$, where $T_N > T_W$ must be adhered to.

Torsional stiffness and damping

The values stated in the above table apply to a capacity utilization of 50 %, an excitation amplitude of 10 % $T_{KN}$ with the frequency 10 Hz and an ambient temperature of 20 °C. Dynamic torsional stiffness is dependent on load and increases in proportion to capacity utilization. The following table shows the correction factors for different nominal loads.

$C_{Tdyn} = C_{Tdyn\ 50\ \%} \cdot FKC$

| | Capacity utilization $T_N / T_{KN}$ | | | | | | |
|---|---|---|---|---|---|---|---|
| | 20 % | 40 % | 50 % | 60 % | 70 % | 80 % | 100 % |
| Correction factor FKC 65/80/90 ShoreA | 0.54 | 0.84 | 1.00 | 1.18 | 1.36 | 1.55 | 1.97 |

**The damping coefficient is $\Psi = 1.4$**

Furthermore, torsional stiffness and damping depend on the ambient temperature and the frequency and amplitude of the torsional vibration excitation. More precise torsional stiffness and damping parameters on request.

Permitted shaft misalignment

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

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

| | Speed in rpm | | | |
|---|---|---|---|---|
| | 500 | 1000 | 1500 | 3000 |
| Correction factor FKV | 1.7 | 1.2 | 1.0 | 0.70 |

The axial misalignment may occur dynamically at frequencies up to 10 Hz. For fitting, a maximum gap dimension of S max. = S + $\Delta$S and a minimum gap dimension of S min. = S – $\Delta$S are permitted.

Shaft misalignments $\Delta K_a$, $\Delta K_r$ and $\Delta K_w$ may occur simultaneously.

[1] The maximum speed of the respective type must be noted. For further information on permissible shaft misalignment, please see the operating instructions.

[2] Does not apply to type H.

## General information

### *Power ratings of the N-EUPEX DS series*

| Size | Rated torque | Torsional stiffness at 50 % capacity utilization | Assembly | Permitted shaft misalignment at speed $n$ = 1500 rpm | | |
|---|---|---|---|---|---|---|
| | | | Gap dimension [1] | Axial | Radial | Angle |
| | $T_{KN}$ | $C_{Tdyn}$ | $\Delta S$ | $\Delta K_a$ | $\Delta K_r$ | $\Delta K_w$ |
| | Nm | kNm/rad | mm | mm | mm | ° |
| **66** | 19 | 0.73 | 1.0 | 0.2 | 0.2 | 0.15 |
| **76** | 34 | 1.36 | 1.0 | 0.2 | 0.2 | 0.15 |
| **88** | 60 | 2.62 | 1.0 | 0.2 | 0.2 | 0.12 |
| **103** | 100 | 4.00 | 1.0 | 0.2 | 0.2 | 0.12 |
| **118** | 160 | 6.30 | 1.0 | 0.2 | 0.2 | 0.10 |
| **135** | 240 | 10.5 | 1.0 | 0.25 | 0.25 | 0.10 |
| **152** | 360 | 13.6 | 1.0 | 0.25 | 0.25 | 0.10 |
| **172** | 560 | 27.2 | 2.0 | 0.3 | 0.3 | 0.10 |
| **194** | 880 | 47.0 | 2.0 | 0.3 | 0.3 | 0.10 |
| **218** | 1340 | 70.0 | 2.0 | 0.3 | 0.3 | 0.09 |
| **245** | 2000 | 106 | 2.0 | 0.35 | 0.35 | 0.09 |
| **272** | 2800 | 149 | 2.5 | 0.35 | 0.35 | 0.08 |
| **305** | 3900 | 214 | 2.5 | 0.4 | 0.4 | 0.08 |
| **340** | 5500 | 350 | 2.5 | 0.4 | 0.4 | 0.08 |
| **380** | 7700 | 480 | 2.5 | 0.5 | 0.5 | 0.08 |
| **430** | 10300 | 730 | 2.5 | 0.5 | 0.5 | 0.08 |
| **472** | 13500 | 990 | 2.5 | 0.6 | 0.6 | 0.08 |
| **514** | 16600 | 1270 | 2.5 | 0.6 | 0.6 | 0.07 |
| **556** | 21200 | 1540 | 2.5 | 0.65 | 0.65 | 0.07 |

Flexibles of sizes 66 to 272 are of the compound type with a hard core and soft thrust pieces.
Sizes 305 to 556 are completely made of 90 ShoreA NBR material.

For maximum coupling torque:
$T_{Kmax} = 2.0 \cdot T_{KN}$

For coupling overload torque:
$T_{KOL} = 3.0 \cdot T_{KN}$

For coupling fatigue torque:
$T_{KW} = 0.15 \cdot T_{KN}$

Torsional stiffness and damping

The values stated in the above table apply to a capacity utilization of 50 %, an excitation amplitude of 10 % $T_{KN}$ with the frequency 10 Hz and an ambient temperature of 20 °C. Dynamic torsional stiffness is dependent on load and increases in proportion to capacity utilization. The following table shows the correction factors for different rated loads.

$C_{Tdyn} = C_{Tdyn\ 50\ \%} \cdot FKC$

| | Capacity utilization $T_N / T_{KN}$ | | | | | | |
|---|---|---|---|---|---|---|---|
| | 20 % | 40 % | 50 % | 60 % | 70 % | 80 % | 100 % |
| Correction factor FKC | 0.7 | 0.9 | 1 | 1.1 | 1.2 | 1.3 | 1.5 |

**The damping coefficient is $\Psi = 1.4$**
Torsional stiffness and damping is further dependent on the ambient temperature and the frequency and amplitude of the torsional vibration excitation. More precise torsional stiffness and damping parameters on request.

Permitted shaft misalignment

The permitted shaft misalignment depends on the operating speed. As the speed increases, lower shaft misalignment values are permitted. The following table shows the correction factors for different speeds.
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 | 1.20 | 1.0 | 0.70 |

The axial misalignment may occur dynamically at frequencies up to 10 Hz. For fitting, a maximum gap dimension of S max. = S + $\Delta$S and a minimum gap dimension of S min. = S – $\Delta$S are permitted.

Shaft misalignments $\Delta K_a$, $\Delta K_r$ and $\Delta K_w$ may occur simultaneously.

[1] Does not apply to type HDS.

Assignment of N-EUPEX sizes to IEC standard motors

The assignment applies to an application factor of 1.25.

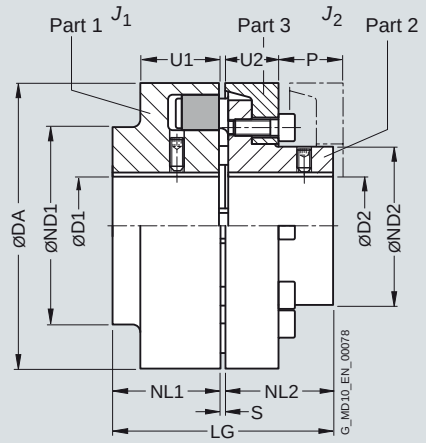
Outputs $P_M$ of IEC motors and assigned N-EUPEX couplings

| Three-phase motor | Output at ≈ 3000 rpm | N-EUPEX coupling | Output at ≈ 1500 rpm | N-EUPEX coupling | Output at ≈ 1000 rpm | N-EUPEX coupling | Output at ≈ 750 rpm | N-EUPEX coupling | DE shaft end D x E to IEC | |
|---|---|---|---|---|---|---|---|---|---|---|
| Size | $P_M$ kW | Size | $P_M$ kW | Size | $P_M$ kW | Size | $P_M$ kW | Size | D mm | E mm |
| **56** | 0.09 | **58** | 0.06 | **58** | | | | | 9 | 20 |
| | 0.12 | **58** | 0.09 | **58** | | | | | | |
| **63** | 0.18 | **58** | 0.12 | **58** | | | | | 11 | 23 |
| | 0.25 | **58** | 0.18 | **58** | | | | | | |
| **71** | 0.37 | **58** | 0.25 | **58** | | | | | 14 | 30 |
| | 0.55 | **58** | 0.37 | **58** | | | | | | |
| **80** | 0.75 | **58** | 0.55 | **58** | 0.37 | **58** | | | 19 | 40 |
| | 1.1 | **58** | 0.75 | **58** | 0.55 | **58** | | | | |
| **90 S** | 1.5 | **68** | 1.1 | **68** | 0.75 | **68** | | | 24 | 50 |
| **90 L** | 2.2 | **68** | 1.5 | **68** | 1.1 | **68** | | | 24 | 50 |
| **100 L** | 3 | **80** | 2.2 | **80** | 1.5 | **80** | 0.75 | **80** | 28 | 60 |
| | | | 3 | **80** | | | 1.1 | **80** | | |
| **112 M** | 4 | **80** | 4 | **80** | 2.2 | **80** | 1.5 | **80** | 28 | 60 |
| **132 S** | 5.5 | **95** | 5.5 | **95** | 3 | **95** | 2.2 | **95** | 38 | 80 |
| | 7.5 | **95** | | | | | | | | |
| **132 M** | | | 7.5 | **95** | 4 | **95** | 3 | **95** | 38 | 80 |
| | | | | | 5.5 | **95** | | | | |
| **160 M** | 11 | **95** | 11 | **95** | 7.5 | **95** | 4 | **95** | 42 | 110 |
| | 15 | **95** | | | | | 5.5 | **95** | | |
| **160 L** | 18.5 | **95** | 15 | **110** | 11 | **110** | 7.5 | **110** | 42 | 110 |
| **180 M** | 22 | **110** | 18.5 | **110** | | | | | 48 | 110 |
| **180 L** | | | 22 | **125** | 15 | **125** | 11 | **125** | 48 | 110 |
| **200 L** | 30 | **125** | 30 | **125** | 18.5 | **125** | 15 | **125** | 55 | 110 |
| | 37 | **125** | | | 22 | **140** | | | | |
| **225 S** | | | 37 | **140** | | | 18.5 | **140** | 55 | 110 |
| | | | | | | | | | 60 | 140 |
| **225 M** | 45 | **125** | 45 | **140** | 30 | **140** | 22 | **140** | 55 | 110 |
| | | | | | | | | | 60 | 140 |
| **250 M** | 55 | **140** | 55 | **160** | 37 | **160** | 30 | **160** | 60 | 140 |
| | | | | | | | | | 65 | 140 |
| **280 S** | 75 | **160** | 75 | **180** | 45 | **180** | 37 | **180** | 65 | 140 |
| | | | | | | | | | 75 | 140 |
| **280 M** | 90 | **160** | 90 | **180** | 55 | **180** | 45 | **180** | 65 | 140 |
| | | | | | | | | | 75 | 140 |
| **315 S** | 110 | **160** | 110 | **200** | 75 | **200** | 55 | **200** | 65 | 140 |
| | | | | | | | | | 80 | 170 |
| **315 M** | 132 | **160** | 132 | **200** | 90 | **200** | 75 | **200** | 65 | 140 |
| | | | | | | | | | 80 | 170 |

7

## Type A for easy elastomer flexible replacement

### Selection and ordering data




| Size | Rated torque flexible type 80 ShoreA | Speed | Dimensions in mm Bore with keyway to DIN 6885 | | | | | | | | | | | | | Mass moment of inertia | Product code Order codes for bore diameters and tolerances are specified in catalog section 3 | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $T_{KN}$ | $n_{Kmax}$ | D1 min. | D1 max. | D2 min. | D2 max. | DA | ND1 | ND2 | NL1/ NL2 | S | U1 | U2 | P | LG | $J_1/J_2$ | | $m$ |
| | Nm | rpm | | | | | | | | | | | | | | kgm² | | kg |
| **110** | 160 | 5300 | | 48 | | 38 | 110 | 86 | 62 | 40 | 3 | 34 | 20 | 33 | 83 | 0.003 | **2LC0100-4AB ■ ■ -0AA0** | 3 |
| **125** | 240 | 5100 | | 55 | | 45 | 125 | 100 | 75 | 50 | 3 | 36 | 23 | 38 | 103 | 0.005 | **2LC0100-5AB ■ ■ -0AA0** | 4.8 |
| **140** | 360 | 4900 | | 60 | | 50 | 140 | 100 | 82 | 55 | 3 | 34 | 28 | 43 | 113 | 0.008 | **2LC0100-6AB ■ ■ -0AA0** | 6 |
| **160** | 560 | 4250 | | 65 | | 58 | 160 | 108 | 95 | 60 | 4 | 39 | 28 | 47 | 124 | 0.014 | **2LC0100-7AB ■ ■ -0AA0** | 8.4 |
| **180** | 880 | 3800 | | 75 | | 65 | 180 | 125 | 108 | 70 | 4 | 42 | 30 | 50 | 144 | 0.025 | **2LC0100-8AB ■ ■ -0AA0** | 12 |
| **200** | 1340 | 3400 | | 85 | | 75 | 200 | 140 | 122 | 80 | 4 | 47 | 32 | 53 | 164 | 0.04 | **2LC0101-0AB ■ ■ -0AA0** | 17 |
| **225** | 2000 | 3000 | | 90 | | 85 | 225 | 150 | 138 | 90 | 4 | 52 | 38 | 61 | 184 | 0.08 | **2LC0101-1AB ■ ■ -0AA0** | 23 |
| **250** | 2800 | 2750 | 46 | 100 | | 95 | 250 | 165 | 155 | 100 | 5.5 | 60 | 42 | 69 | 205.5 | 0.13 | **2LC0101-2AB ■ ■ -0AA0** | 31 |
| **280** | 3900 | 2450 | 49 | 110 | 54 | 105 | 280 | 180 | 172 | 110 | 5.5 | 65 | 42 | 73 | 225.5 | 0.20 | **2LC0101-3AB ■ ■ -0AA0** | 41 |
| **315** | 5500 | 2150 | 49 | 100 | 46 | 100 | 315 | 165 | 165 | 125 | 5.5 | 70 | 47 | 78 | 255.5 | 0.32 | **2LC0101-4AB ■ ■ -0AA0** | 57 |
| | | | 90 | 120 | 90 | 120 | | 200 | 200 | | | | | | | 0.35 | | 61 |
| **350** | 7700 | 2000 | 61 | 110 | 61 | 110 | 350 | 180 | 180 | 140 | 5.5 | 74 | 51 | 83 | 285.5 | 0.54 | **2LC0101-5AB ■ ■ -0AA0** | 78 |
| | | | 90 | 140 | 90 | 140 | | 230 | 230 | | | | | | | 0.61 | | 82 |
| **400** | 10300 | 1700 | 66 | 120 | 66 | 120 | 400 | 200 | 200 | 160 | 5.5 | 78 | 56 | 88 | 325.5 | 1.0 | **2LC0101-6AB ■ ■ -0AA0** | 112 |
| | | | 100 | 150 | 100 | 150 | | 250 | 250 | | | | | | | 1.1 | | 117 |
| **440** | 13500 | 1550 | 80 | 130 | 80 | 130 | 440 | 215 | 215 | 180 | 7.5 | 86 | 64 | 99 | 367.5 | 1.5 | **2LC0101-7AB ■ ■ -0AA0** | 147 |
| | | | 120 | 160 | 120 | 160 | | 265 | 265 | | | | | | | 1.7 | | 155 |
| **480** | 16600 | 1400 | 90 | 145 | 90 | 145 | 480 | 240 | 240 | 190 | 7.5 | 90 | 65 | 104 | 387.5 | 2.3 | **2LC0101-8AB ■ ■ -0AA0** | 184 |
| | | | 136 | 180 | 136 | 180 | | 300 | 300 | | | | | | | 2.6 | | 200 |
| **520** | 21200 | 1300 | 100 | 150 | 100 | 150 | 520 | 250 | 250 | 210 | 7.5 | 102 | 68 | 115 | 427.5 | 3.3 | **2LC0102-0AB ■ ■ -0AA0** | 234 |
| | | | 140 | 190 | 140 | 190 | | 315 | 315 | | | | | | | 3.7 | | 254 |
| **560** | 29000 | 1200 | 120 | 200 | 120 | 200 | 560 | 320 | 320 | 220 | 9 | 115 | 80 | 125 | 449 | 6.0 | **2LC0102-1AB ■ ■ -0AA0** | 329 |
| **610** | 38000 | 1100 | 130 | 220 | 130 | 220 | 610 | 352 | 352 | 240 | 9 | 121 | 88 | 135 | 489 | 9.0 | **2LC0102-2AB ■ ■ -0AA0** | 416 |
| **660** | 49000 | 1000 | 140 | 240 | 140 | 240 | 660 | 384 | 384 | 260 | 9 | 132 | 96 | 145 | 529 | 13.5 | **2LC0102-3AB ■ ■ -0AA0** | 546 |
| **710** | 62000 | 1000 | 140 | 260 | 140 | 260 | 710 | 416 | 416 | 290 | 9 | 138 | 102 | 155 | 589 | 19 | **2LC0102-4AB ■ ■ -0AA0** | 680 |

| | | | |
|---|---|---|---|
| ØD1: | • Without finished bore – Without order codes | **1** | |
| | • Without finished bore sizes 315 to 520 for 2nd diameter range D1 – Without order codes | **2** | |
| | • With finished bore – With order codes for diameter and tolerance (product code without **-Z**) | **9** | |
| ØD2: | • Without finished bore – Without order codes | | **1** |
| | • Without finished bore sizes 315 to 520 for 2nd diameter range D2 – Without order codes | | **2** |
| | • With finished bore – With order codes for diameter and tolerance (product code without **-Z**) | | **9** |

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.

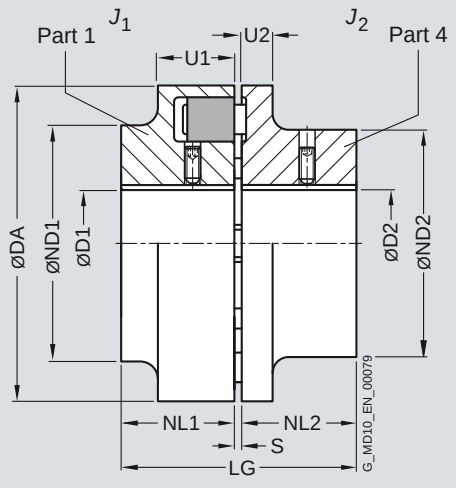
Weights and mass moments of inertia apply to maximum bore diameters.

The product code applies to standard flexibles of 80 ShoreA; the product code for alternative flexible types is available on request.

Ordering example:
N-EUPEX A coupling, size 200,
Part 1: Bore D1 65H7 mm, keyway to DIN 6885-1 and set screw,
Part 2: Bore D2 50H7 mm, keyway to DIN 6885-1 and set screw.

Product code:
**2LC0101-0AB99-0AA0**
**L1F+M1C**

## Selection and ordering data




| Size | Rated torque flexible type 80 ShoreA | Speed | Dimensions in mm Bore with keyway to DIN 6885 | | | | | | | | | | | | Mass moment of inertia | Product code Order codes for bore diameters and tolerances are specified in catalog section 3 | Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | $T_{KN}$ | $n_{Kmax}$ | D1 min. | D1 max. | D2 min. | D2 max. | DA | ND1 | ND2 | NL1/ NL2 | S | U1 | U2 | LG | $J_1/J_2$ | | $m$ |
| | Nm | rpm | | | | | | | | | | | | | kgm$^2$ | | kg |
| **58** | 19 | 7500 | | 19 | | 24 | 58 | 58 | 40 | 20 | 3 | 20 | 8 | 43 | 0.0001 | **2LC0100-0AA ■ ■ -0AA0** | 0.4 |
| **68** | 34 | 7000 | | 24 | | 28 | 68 | 68 | 50 | 20 | 3 | 20 | 8 | 43 | 0.0002 | **2LC0100-1AA ■ ■ -0AA0** | 0.54 |
| **80** | 60 | 6000 | | 30 | | 38 | 80 | 80 | 68 | 30 | 3 | 30 | 10 | 63 | 0.0006 | **2LC0100-2AA ■ ■ -0AA0** | 1.3 |
| **95** | 100 | 5500 | | 42 | | 42 | 95 | 76 | 76 | 35 | 3 | 30 | 12 | 73 | 0.0013 | **2LC0100-3AA ■ ■ -0AA0** | 2.2 |
| **110** | 160 | 5300 | | 48 | | 48 | 110 | 86 | 86 | 40 | 3 | 34 | 14 | 83 | 0.003 | **2LC0100-4AA ■ ■ -0AA0** | 3.3 |
| **125** | 240 | 5100 | | 55 | | 55 | 125 | 100 | 100 | 50 | 3 | 36 | 18 | 103 | 0.006 | **2LC0100-5AA ■ ■ -0AA0** | 5.2 |
| **140** | 360 | 4900 | | 60 | | 60 | 140 | 100 | 100 | 55 | 3 | 34 | 20 | 113 | 0.007 | **2LC0100-6AA ■ ■ -0AA0** | 5.6 |
| **160** | 560 | 4250 | | 65 | | 65 | 160 | 108 | 108 | 60 | 4 | 39 | 20 | 124 | 0.01 | **2LC0100-7AA ■ ■ -0AA0** | 7.8 |
| **180** | 880 | 3800 | | 75 | | 75 | 180 | 125 | 125 | 70 | 4 | 42 | 20 | 144 | 0.02 | **2LC0100-8AA ■ ■ -0AA0** | 11.5 |
| **200** | 1340 | 3400 | | 85 | | 85 | 200 | 140 | 140 | 80 | 4 | 47 | 24 | 164 | 0.04 | **2LC0101-0AA ■ ■ -0AA0** | 16 |
| **225** | 2000 | 3000 | | 90 | | 90 | 225 | 150 | 150 | 90 | 4 | 52 | 18 | 184 | 0.07 | **2LC0101-1AA ■ ■ -0AA0** | 20 |
| **250** | 2800 | 2750 | 46 | 100 | 46 | 100 | 250 | 165 | 165 | 100 | 5.5 | 60 | 18 | 205.5 | 0.12 | **2LC0101-2AA ■ ■ -0AA0** | 29 |
| **280** | 3900 | 2450 | 49 | 110 | 54 | 110 | 280 | 180 | 180 | 110 | 5.5 | 65 | 20 | 225.5 | 0.18 | **2LC0101-3AA ■ ■ -0AA0** | 38 |

| | | |
|---|---|---|
| ØD1: | • Without finished bore – Without order codes | **1** |
| | • With finished bore – With order codes for diameter and tolerance (product code without **-Z**) | **9** |
| ØD2: | • Without finished bore – Without order codes | **1** |
| | • With finished bore – With order codes for diameter and tolerance (product code without **-Z**) | **9** |

Weights and mass moments of inertia apply to maximum bore diameters.

Ordering example:
N-EUPEX B coupling, size 95,
Part 1: Bore D1 42H7 mm, keyway to DIN 6885-1 and set screw,
Part 2: Bore D2 32H7 mm, keyway to DIN 6885-1 and set screw.

Product code:
**2LC0100-3AA99-0AA0**
**L0X+M0T**

The product code applies to standard flexibles of 80 ShoreA; the product code for alternative flexible types is available on request.