

Couplings



- Bellow type couplings are recommended as an inexpensive type of coupling
- they are also suitable to compensate larger angular displacements
- Spring washer type for couplings for high speed applications
- Easy to mount, two parts

Descriptions and applications

Manufacturing and installation tolerances as well as the effects of temperature cause alignment errors between shafts in drive engineering which can sometimes lead to extreme overload on the bearings. This may result in increased wear of the bearings and may lead to premature failure of the encoder. By using couplings these alignment errors can be compensated,

Areas of application:

Metal bellows-type couplings (.1101 and 1201) are recommended as an inexpensive type of coupling. They are also suitable for compensating larger angle displacements.

Installation instructions:

1. Check shaft for displacement; See technical data for details
2. Align and adjust coupling on shafts.

thereby reducing the load on the bearings to a minimum.

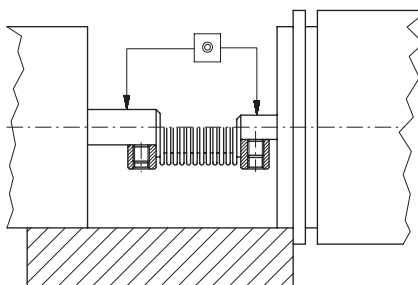
A distinction should be made between three different kinds of alignment error: radial, angular and axial displacement.

Whilst with torsion-free but bendable shaft couplings, axial shaft displacements produce only static forces in the coupling,

Spring washer-type couplings (.1300 and .1401) are used mainly in those cases where high speeds and smaller angle displacements are involved. For applications where

radial and angular displacements produce alternating stresses, restoring forces and moments which may have an impact on adjoining components (shaft bearings). Depending on the type of coupling, particular attention should be paid to radial shaft displacement which should be kept to a minimum.

electrical insulation between rotary encoder and drive is required, the electrically insulating spring washer-type coupling should be used.



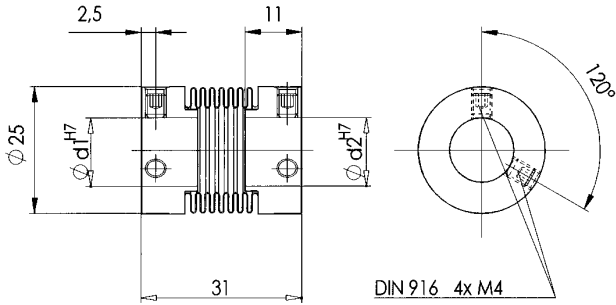
3. Tighten locking screws carefully. Avoid overtightening.
4. During installation protect the coupling from damage and from overbending.

Technical data

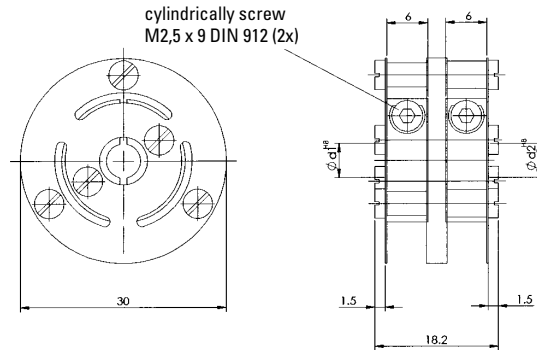
Type		1101.XXXX	1201.XXXX	1300.XXXX	1401.XXXX	1501.XXXX
max. speed	min ⁻¹	12000	12000	12000	12000	12000
max. torque	Ncm	150	50	20	80	200
max. radial displacement	mm	± 0,2	± 0,2	± 0,4	± 0,4	± 0,2
max. angle displacement	Grad	± 1,5	± 1,5	± 2	± 3	± 1,5
max. axial displacement	mm	± 0,7	± 0,5	± 0,4	0,4	± 0,6
Torsion spring parameter	Ncm/Grad	700	210	265	55	1300
Moment of inertia	gcm ²	5,5	1,2	25	19	18
Weight appr.	g	14	6	23	14,5	24
Material: Flange		Al	Al	Al cu Mg Pb	Zinkdruckguß	Al
Bellow or spring washer/casing		stainless steel	stainless steel	Cu Sn 6 Vern.	PA 6,6 20% gf	stainless steel
Diameter d/d1 from ... to	mm	3...12	3...9	3...8	4...10	3...16
max. tightening torque of locking screws	Ncm	150	70	80	80	180
Standard bore diameter	mm	12/12	8/6	6/6	10/10	15/12
		12/10	6/6	6/4	12/10	14/12
		10/10	6/4		10/10	14/10
		6/6	4/4		10/6	
					6/6	
					3/8"/10	
					3/8"/6	
					1/4"/10	
					1/4"/6	

Couplings

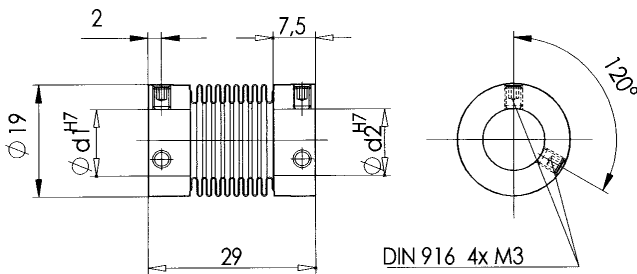
Bellows-type coupling
Ord.-No. 8.0000.1501.XXXX



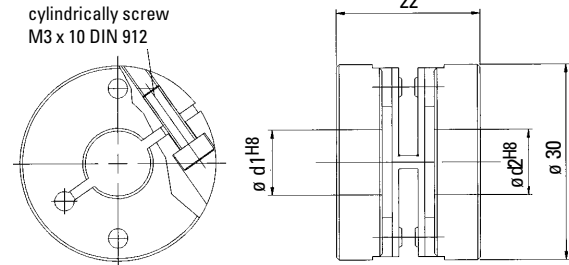
Spring washer coupling
Ord.-No. 8.0000.1300.XXXX



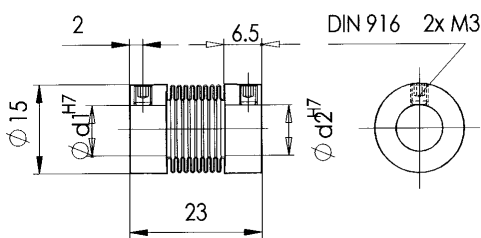
Bellows-type coupling
Ord.-No. 8.0000.1101.XXXX



Spring washer coupling
Ord.-No. 8.0000.1401.XXXX



Bellows-type coupling
Ord.-No. 8.0000.1201.XXXX



Order code:

8.0000.1X0X.XXXX

- Type of coupling
- 1 Bellows-type \varnothing 19 mm
 - 2 Bellows-type \varnothing 15 mm
 - 3 Spring washer type
 - 4 Spring washer type*
 - 5 Bellows-type \varnothing 25 mm
- * electronically insulated

Bore diameter d_2 see table at page 239

Bore diameter d_1
e.g.: $d_1 = 10$ mm and $d = 12$ mm
=> XXXX.XXXX.101²⁾
for the bore diameter
 $d_1 = 3/8"$ Code = A1
 $d_1 = 1/4"$ Code = A2

Example: Coupling type 1401:
 $d_1 = 3/8"$ and $d = 10$ mm:
Order-Code = 1401.A110