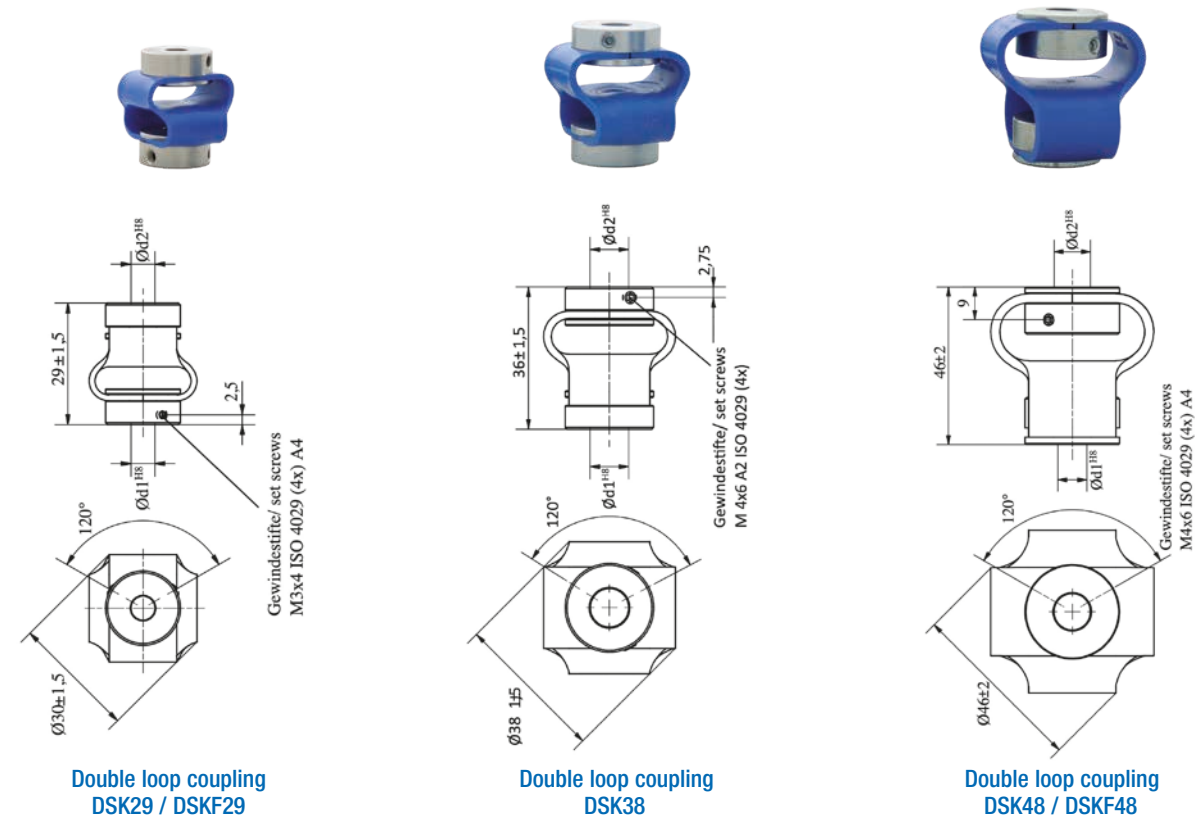


# Double loop couplings

Resistant to petrol, oil, benzene, toluenes, alcohol, solvents and other chemicals.  
Also available in FDA-compliant plastic (DSKF).



Double loop coupling  
DSK29 / DSKF29

Double loop coupling  
DSK38

Double loop coupling  
DSK48 / DSKF48

3.000 min <sup>-1</sup>	3.000 min <sup>-1</sup>	3.000 min <sup>-1</sup>
50 Ncm	150 Ncm	200 Ncm
±2,0 mm ±2,0 mm ± 10°	±2,5 mm ±3,0 mm ±10°	±3,0 mm ±4,0 mm ±12°
13 Nm/rad	25 Nm/rad	28 Nm/rad
13 N/mm	15 N/mm	7 N/mm
41 gcm <sup>2</sup>	104 gcm <sup>2</sup>	106 gcm <sup>2</sup>
DSK29: 100 Ncm / DSKF29: 80 Ncm	200 Ncm	DSK48: 100 Ncm / DSKF48: 180 Ncm
DSK29: 33 g / DSKF29: 35 g	48 g	DSK48: 85 g / DSKF48: 90 g
-30 °C up to +80 °C	-30 °C up to +80 °C	-30 °C up to +80 °C

**DSK29:** Flange: steel galvanized connecting element: polyurethane  
**DSKF29:** Flange: V4A stainless steel connecting element: FDA-compliant plastic

**DSK38:** Flange: steel galvanized connecting element: polyurethane

**DSK48:** Flange: steel galvanized connecting element: polyurethane  
**DSKF48:** Flange: V4A stainless steel connecting element: FDA-compliant plastic

dsk29 / dskf29                      dsk38                      dsk48 / dskf48

d1	d2	Order no.	d1	d2	Order no.	d1	d2	Order no.	d1	d2	Order no.			
6	6	DSK290606	6	6	DSKF290606	6	6	DSK380606	10	10	DSK481010	10	10	DSKF481010
6	10	DSK290610	6	10	DSKF290610	6	10	DSK380610	10	12	DSK481012	10	12	DSKF481012
8	8	DSK290808	8	8	DSKF290808	6	12	DSK380612	12	12	DSK481212	12	12	DSKF481212
8	10	DSK290810	8	10	DSKF290810	8	8	DSK380808	14	14	DSK481414	14	14	DSKF481414
10	10	DSK291010	10	10	DSKF291010	8	10	DSK380810						
						8	12	DSK380812						
						10	10	DSK381010						
						10	12	DSK381012						
						12	12	DSK381212						

<https://www.wachendorff-automation.com/couplings>



# automation.com

www.wachendorff-



## The Wachendorff Group

- Delighted customers
- Corporate responsibility
- Attractive to good employees
- Outstanding quality
- Technological leader
- Environmental protection
- Profitable growth

We are a medium-sized owner-managed corporate group based in the beautiful Rheingau district, situated to the west of Wiesbaden.

Competent, personal, face-to-face advice and long-term collaboration with our business partners are the cornerstones of our continual growth. We are certified according to DIN ISO 9001:2015.

## Wachendorff Automation GmbH & Co. KG

The development and manufacturing of rotary encoders, engine feedback devices and complete measuring systems for use in a wide range of serial production applications in mechanical and plant engineering. An extensive standard range featuring numerous options and efficient development of customised solutions. Wachendorff Automation has sister companies in the USA and in China: Wachendorff Automation USA, Inc. in Chicago and Wachendorff Automation (Suzhou) Co., Ltd., as well as a worldwide network of competent distributors.

## Wachendorff Prozesstechnik GmbH & Co. KG

A reliable supplier since 1978 of robust, high quality industrial devices for visualising, communicating and processing data in the areas of mechanical, plant and building automation.

## VISUALYS GmbH

VISUALYS focuses on the development, integration and consulting of software around the topics of Industry 4.0, SmartData and IIoT for machine and plant manufacturers and operators. The core competence lies in data VISUalisation and data anALYSIS.

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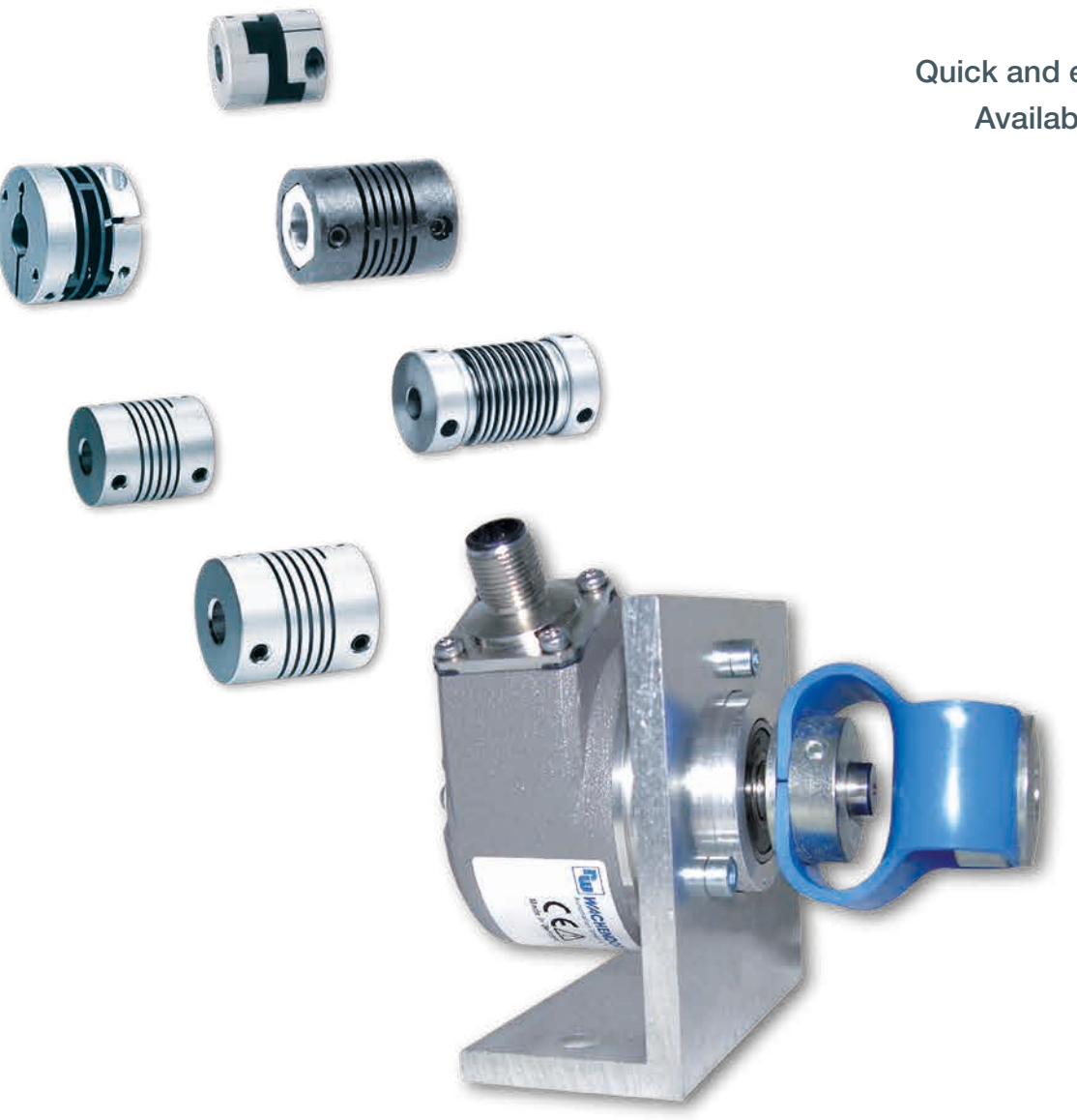


Your distributor:

**WACHENDORFF**  
The Encoder Experts



**Couplings**  
as an accessories for encoders



Wide variety  
Quick and easy to install  
Available from stock

**IndustrieROBUST**

# Couplings as an accessory for encoder WDG

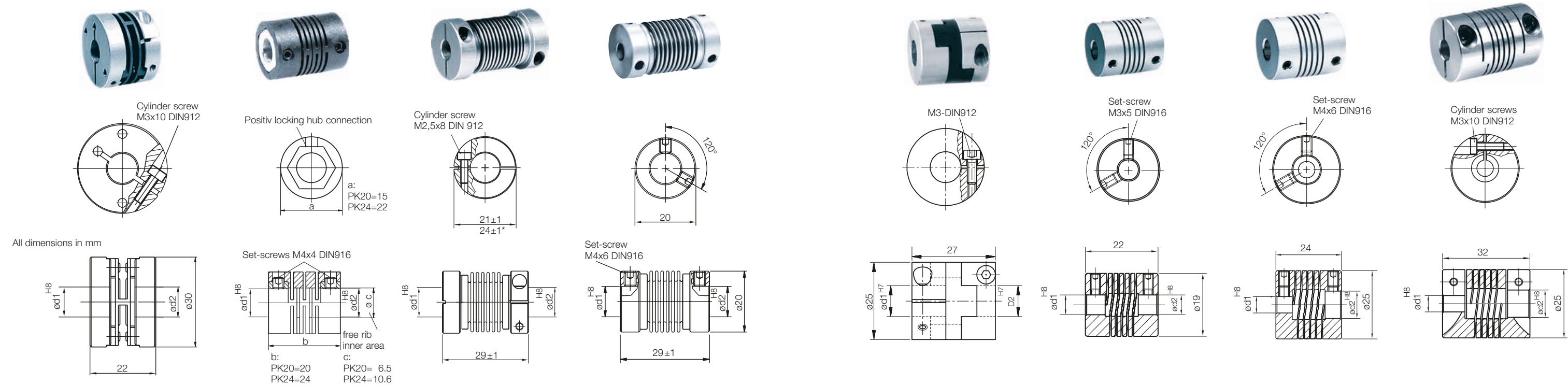
## Wachendorff couplings

can compensate for axial, radial and angular misalignment up to certain orders of magnitude, thus protecting the bearings of the encoder against excessive loads. They also prevent negative influences, such as vibrations or strong temperature fluctuations, from affecting the encoder.







### The following is a list of important questions when choosing the right coupling:

- Which shaft diameters does it have to connect to, and how much installation space is available?
  - Should the frictional connection between the encoder and the coupling hub be carried out via a screw or a clamp connection?
  - What is the max. rotational speed that the coupling must be able to transfer?
  - What is the torque on the coupling?
  - What is the max. lateral, angular and axial misalignment that must be offset?
  - Is electric insulation required?
  - Is the torsional stiffness sufficient for the application?
- The criteria are the resolution of the encoder and the required accuracy of positioning.

We will be happy to supply you with couplings that match your encoders and meet your requirements. They can be mounted without play, with an optimal fit for the encoders. There is a wide range of couplings to choose from; the respective system will be selected according to the requirements in the application.  
[www.wachendorff-automation.com/couplings](http://www.wachendorff-automation.com/couplings)



### Below you can find all coupling types, along with their advantages:

-  Double loop coupling: high axial offset; made of acid and alkali resistant, insulating plastic. DSKF made with FDA-compliant plastic.
-  Spring disc coupling: pluggable, insulating, efficient.
-  Slit coupling: when electrical isolation is required; compact and efficient; made of plastic.
-  Bellows coupling: high speed, fast movements.
-  Jointed coupling: for difficult installation situations, such as when the encoder completes the shaft and it's no longer possible to access the connection (pluggable) retrospectively; made of insulating plastic, free of play, small size.
-  Helical coupling: suitable for reverse operation / change of direction; high torsional stiffness.

## Technical Data:

Type	Spring disc coupling FSK22	Slit coupling PK20 / PK24	Bellows coupling BK29	Bellows coupling FB29B	Jointed coupling ST27	Helical coupling WK22	Helical coupling WK24	Helical coupling WK32
<b>Max. operating speed</b>	12,000 rpm	12,000 rpm / 10,000 rpm	10,000 rpm	10,000 rpm	10,000 rpm	8,000 rpm	8,000 rpm	6,000 rpm
<b>Max. torque</b>	60 Ncm	30 Ncm / 80 Ncm	120 Ncm	120 Ncm	100 Ncm	60 Ncm	100 Ncm	120 Ncm
<b>Max. offset of shafts</b>	radial: ± 0.3 mm axial: ± 0.4 mm angular: ± 2.5°	radial: ± 0.3 mm axial: ± 0.2 mm / ± 0.3 mm angular: ± 4° / ± 3°	radial: ± 0.25 mm / ± 0.30 mm* axial: ± 0.4 mm angular: ± 4°	radial: ± 0.25 mm axial: ± 0.4 mm angular: ± 4°	radial: ± 0.1 mm axial: ± 0.3 mm angular: ± 0.5°	radial: ± 0.25 mm axial: ± 0.4 mm angular: ± 3.5°	radial: ± 0.3 mm axial: ± 0.5 mm angular: ± 4°	radial: ± 0.35 mm axial: ± 0.5 mm angular: ± 4°
<b>Torsion spring stiffness</b>	30 Nm/rad	12 Nm/rad / 38 Nm/rad	150 Nm/rad	150 Nm/rad	18 Nm/rad	9 Nm/rad	20 Nm/rad	18 Nm/rad
<b>Radial spring stiffness</b>	45 N/mm	45 N/mm / 115 N/mm	25 N/mm	25 N/mm	-	40 N/mm	60 N/mm	50 N/mm
<b>Moment of inertia</b>	35 gcm <sup>2</sup>	2 gcm <sup>2</sup> / 7 gcm <sup>2</sup>	9 gcm <sup>2</sup> / 15 gcm <sup>2</sup> *	8 gcm <sup>2</sup>	79 gcm <sup>2</sup>	6.7 gcm <sup>2</sup>	22.2 gcm <sup>2</sup>	30 gcm <sup>2</sup>
<b>Max. clamping torque</b>	120 Ncm	70 Ncm / 120 Ncm	100 Ncm	150 Ncm	188 Ncm	80 Ncm	120 Ncm	120 Ncm
<b>Weight approx.</b>	30 g	6 g / 10 g	15 g / 17 g*	15 g	25 g	13 g	26 g	35 g
<b>Temperature</b>	-10 °C up to +80 °C	-10 °C up to +80 °C	-30 °C up to +120 °C	-30 °C up to +120 °C	-30 °C up to +120 °C	-30 °C up to +150 °C	-30 °C up to +150 °C	-30 °C up to +150 °C
<b>Material</b>	Flange: Aluminium, anodised Membran: Polyamid, fiberglass reinforced	Polyamid fiberglass reinforced, Hubs: brass	Flange: Aluminium, anodised, Bellows: stainless steel	Flange: Aluminium, anodised, Bellows: stainless steel	Hub: Aluminium Adapter: POM	Aluminium chromised	Aluminium chromised	Aluminium chromised
<a href="http://www.wachendorff-automation.com/">http://www.wachendorff-automation.com/</a>	<a href="#">fsk22</a>	<a href="#">pk20 / pk24</a>	<a href="#">bk29</a>	<a href="#">fb29b</a>	<a href="#">st27</a>	<a href="#">wk22</a>	<a href="#">wk24</a>	<a href="#">wk32</a>
<b>Size in mm: Ø d1, Ø d2; order number(s)</b>	<b>d1 d2 Order no.</b> 6 6 FSK220606 6 10 FSK220610 10 10 FSK221010 10 12 FSK221012 12 12 FSK221212	<b>d1 d2 Order no.</b> 6 6 PK200606 6 6 PK240606 6 8 PK240608 6 10 PK240610 8 8 PK240808 8 10 PK240810 10 10 PK241010	<b>d1 d2 Order no.</b> 6 6 BK290606 6 10 BK290610 6 12 BK290612* 8 8 BK290808 10 10 BK291010 10 12 BK291012* 12 12 BK291212*	<b>d1 d2 Order no.</b> 4 4 FB29B0404 4 6 FB29B0406 6 6 FB29B0606 6 10 FB29B0610 6 12 FB29B0612 8 8 FB29B0808 10 10 FB29B1010 10 12 FB29B1012 12 12 FB29B1212	<b>d1 d2 Order no.</b> 6 6 ST270606 6 10 ST270610 10 10 ST271010	<b>d1 d2 Order no.</b> 6 6 WK220606	<b>d1 d2 Order no.</b> 6 6 WK240606 6 8 WK240608 6 10 WK240610 8 8 WK240808 10 10 WK241010 12 12 WK241212	<b>d1 d2 Order no.</b> 06 10 WK320610 10 10 WK321010

