

Couplings

Universal / Lateral Offset Series



Materials & Finishes

Hub sizes 18 & 27:	Brass BS 2874 CZ121
Hub sizes 34, 41 & 70:	Al. Alloy 2014 T6, Irridite NCP
Fasteners:	Alloy steel, black oiled
Clamp rings (sizes 18 & 27):	Al. Alloy 2014 T6, Irridite NCP
Clamp rings, all sizes:	Acetal (black)

General description

Unique, general purpose light duty couplings with generous angular and radial misalignment compensation.
Resist axial motion, can anchor unrestricted shafts and perform light push/pull duties.

Where to use

Encoder, resolver, tacho, potentiometer drives. Small positioning slides, dosing pumps & light drives generally.

Speeds

Up to 3000 rpm.

Peak torque largest size

12 Nm

Standard bores

3mm to 22mm

Temperature range

-20 °C to +60 °C

Electrically isolating

Yes

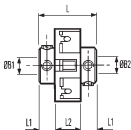
Connection

Clamp or Set Screw

Couplings

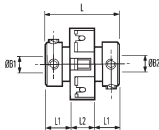
Universal / Lateral Offset Series

Set screw hubs



Ref. HPC201

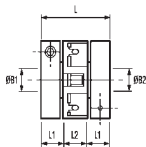
Small bores



Ref. HPC203

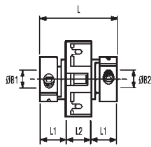
Large bores

Clamp hubs



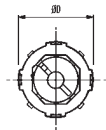
Ref. HPC207

Collet hub & ring clamp



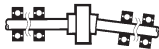
Ref. HPC205, HPC206

Integral leaf clamp



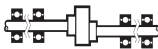
Typical

Installation



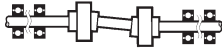
right

Up to 10° angular offset, depending on type



right

Up to 1mm radial offset for extreme misalignments



wrong

Standard Uni-Lats cannot be used in pairs. Special versions are available for use in this mode. Please enquire.

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Performance at 20° C

Coupling Size	① Peak Torque (Nm)	② Max compensation @ 3000 r.p.m.		③ Torsional	
		Angular deg	Radial mm	Rate deg / Nm	Stiffness Nm / rad
18	0.3	2	0.2	2.3	25
27	1.7		0.2	0.6	92
34	2.5		0.25	0.4	146
41	3.5		0.25	0.19	299
70	12.0		0.25	0.19	1300

Standard Bores

* Note that adaptor HPC254 is dedicated to coupling ref. HPC201.27. Use adaptor HPC255 for all other 8mm diameters.

Diameters for which a bore adaptor is shown can be adapted to smaller shaft sizes.

Coupling Size	Bore Size ref.	ØB1, ØB2 + 0.03 / - 0 mm									
		3	3.175	4	4.763	5	6	6.350	7.938	8	9.525
18	HPC201.18	●	●	●	●	●					
	HPC203.18						●	●			
	HPC207.18	●	●	●	●	●	●	●			
27	HPC201.27	●	●	●	●	●	●	●	●	*	●
	HPC203.27										●
	HPC207.27					●	●	●		●	●
34	HPC201.34						●	●		●	●
	HPC203.34										
	HPC206.34						●	●	●	●	●
41	HPC201.41						●	●		●	●
	HPC203.41										
	HPC205.41						●	●		●	●
70	HPC203.70										
	HPC205.70										
Bore ref.		14	16	18	19	20	22	24	27	28	31
Corresponding bore adaptor						251		253		254* 255	

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Coupling Size	Axial		Static break torque Nm
	⁴ Max loading $\pm N$	Stiffness N / mm	
18	19	155	0.9
27	31	350	5.0
34	34	300	7.5
41	39	250	10.5
70	75	540	68

- 1 Peak torque.** Select a size where Peak Torque exceeds the application torque x service factor.
- 2** Couplings can provide up to 1mm radial and 10° angular compensation (5° for ref. HPC207) when required. Observe given values for maximum backlash-free life. Electrical isolation between shafts > 3kv for all models when offset ≤ 5°.
- 3** Values apply at 50% peak torque with no misalignment, measured shaft-to-shaft with largest standard bores.
- 4** Momentary values.

Coupling Size	Bore Size ref.	ØB1, ØB2 + 0.03 / - 0 mm									
		10	12	12.7	14	15.875	16	18	19	19.05	20
18	HPC201.18										
	HPC203.18										
	HPC207.18										
27	HPC201.27										
	HPC203.27	●									
	HPC207.27	●									
34	HPC201.34	●									
	HPC203.34		●	●							
	HPC206.34	●									
41	HPC201.41	●	●	●							
	HPC203.41				●	●	●				
	HPC205.41	●	●	●							
70	HPC203.70		●	●	●	●	●	●	●	●	●
	HPC205.70		●	●	●	●	●	●	●	●	●
Bore ref.		32	35	36	38	41	42	45	46	47	48
Corresponding bore adaptor		257		259			260				261



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Dimensions & Order Codes

PART NUMBER		Coupling Size	ØD	L	⑤	⑥	ØB1, ØB2 max
Set Screw Hubs	Clamp Hubs				L1	L2	
HPC201.18.----	-	18	18.0	14.2	4.6	5.1	5
HPC203.18.----	-			19.1	7.0		6.35
-	HPC207.18.----.219			19.1			
HPC201.27.----	-	27	28.0	19.1	6.1	6.9	8
HPC203.27.----	-			25.4	9.3		10
-	HPC207.27.----.218						
HPC201.34.----	-	34	33.7	25.2	8.1	8.9	10
HPC203.34.----	-			30.7	10.9		12.7
-	HPC206.34.----					10.0	
HPC201.41.----	-	41	41.4	28.4	8.6	11.2	12.7
HPC203.41.----	-			38.1	13.5		16.0
-	HPC205.41.----					12.7	
HPC203.70.----	-	70	69.0	74.0	28.5	17.0	22
-	HPC205.70.----						22

Order codes: Please combine the coupling part number in the above table with the bore reference in the standard bores table (see pages 3.26 & 3.27).

Please identify both bores to complete the part number eg. HPC201.18. 14 20

Part Number ØB1 ØB2

DISCOUNTS

1 - 5	6-25	26-65	66-99	100 +
List Price	-8%	-16%	-28%	-38%

PART NUMBER		Fasteners			⑧	⑧	PRICE EACH 1-5
Set Screw Hubs	Clamp Hubs	Screw	⑦ Torque Nm	Wrench mm	Mi	M	
HPC201.18.----	-	M3	0.94	1.5	20	7	£22.41
HPC203.18.----	-						£22.41
-	HPC207.18.----.219	4-40	2.33	2.0	55	11	£33.17
HPC201.27.----	-	M3	0.94	1.5	91	16	£24.38
HPC203.27.----	-						£24.38
-	HPC207.27.----.218	M3	2.43	2.5	220	26	£36.35
HPC201.34.----	-	M4	2.27	2.0	165	17	£34.73
HPC203.34.----	-						£34.73
-	HPC206.34.----	4-40	2.33		183	20	£39.30
HPC201.41.----	-	M4	2.27	2.0	476	30	£42.29
HPC203.41.----	-	M5	4.62	2.5			£42.29
-	HPC205.41.----	M4	5.66	3.0	550	40	£46.42
HPC203.70.----	-	M6	7.60	3.0	7315	189	£99.45
-	HPC205.70.----	M6	19.3	5.0	7315	189	£107.50

- ⑤ Length of support thro' bore. Shaft must not penetrate beyond L1 when in operation.
- ⑥ Nominal distance between shafts inserted to L1.
- ⑦ Maximum recommended tightening torque.
- ⑧ Values apply with max bores.

Mi: Moment of inertia $\text{kgm}^2 \times 10^{-8}$

M: Mass $\text{kg} \times 10^{-3}$

