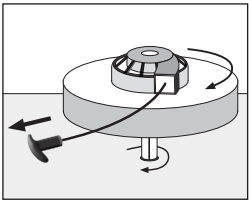
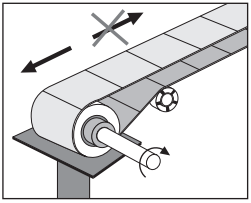
General information

Freewheels are rotating elements that only transmit power in one direction, this means that in a given direction the driving element will turn the driven element but when the direction is reversed, no power is transmitted.
This behaviour makes them suitable for the following types of applications:



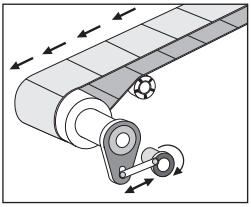
Example, starting a flywheel

Limiting speeds (overrunning clutch)
The freewheel connects the two parts of the system but will disengage automatically when the driven part is turning faster than the driving element or a flywheel is left free to turn when the driving element stops.
A common application is that of a bicycle pedal



Example: Preventing a conveyor belt from moving backwards when stopped

Backstop
The freewheel turns in one direction only and is normally free running in operation. When the system stops, the freewheel stops any rotating movement in the other direction. For example, in the case of a conveyor belt, the freewheel allows the belt to move forward but blocks any movement in the opposite direction.
If freewheels are used for backstop applications, overrun is normally only be applied to the inner ring.



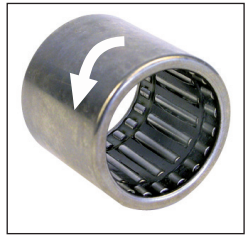
Example: Intermittent movement of a roller belt

Intermittent forward movement (Indexing)
The freewheel converts a back and forth movement into a stepped rotational movement. They can be used for example to drive a motor or mechanical speed control device from a continuous driving rotary source. In this case, the external ring provides the movement whilst it is the internal ring that is driven.

Drives in one direction, rotates freely in the other

HFL

- ***Transmits a torque in one direction, rotates freely in the other***
- *Freewheel combined with smooth bearings or rollers*
- *Supports radial forces*
- *Working temperature: -30°C to +120°C*
- *Materials:*
  Ring, needles and spring: Steel
  Cage: Plastic

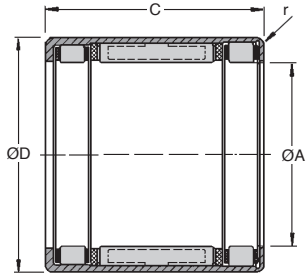


Assembly

- *N6 receiving bore*
- *h5 receptor shaft*
  treated and ground 57-63 HRc

Info

(1) *Use with grease or oil.*
(2) n_{gw} *: revolving shaft*
(3) n_{ga} *: revolving bore*
KF** *: plastic springs*
(Working temperature -10°C to +70°C, N7 bore and h8 shaft)



Drives one way

Freely rotates the other

⚠ Not to be used on a bicycle

DISCOUNTS

Qty	1+	6+	20+	40+	60+
Disc.	List	-10%	-15%	-20%	On request

Part number	ØA	ØD	C -0,3	r mini.	Admissible torque (Nm)	Max. speed (1) n_{gw} (2)	Max. speed (1) n_{ga} (3)	Basic load dynamic C (kN)	Basic load static Co (kN)	Stock*	Price each 1 to 5
HFL0822KF**	08	12	22	0,3	3,15	17 000	12 000	4,05	4,15	-	14,76 €
HFL1022	10	14	22	0,3	5,30	14 000	11 000	4,30	4,65	✔	15,01 €
HFL1226	12	18	26	0,3	12,20	11 000	8 000	6,30	6,50	✔	15,33 €
HFL1426	14	20	26	0,3	17,30	9 500	8 000	7,10	7,70	✔	16,15 €
HFL1626	16	22	26	0,3	20,50	8 500	7 500	7,70	9,00	✔	16,49 €
HFL1826	18	24	26	0,3	24,10	7 500	7 500	8,30	10,30	✔	16,85 €
HFL2026	20	26	26	0,3	28,50	7 000	6 500	8,90	11,50	✔	17,15 €
HFL2530	25	32	30	0,3	66,00	5 500	5 500	10,90	14,10	-	24,95 €
HFL3030	30	37	30	0,3	90,00	4 500	4 500	12,60	17,60	✔	25,48 €
HFL3530	35	42	30	0,3	121,00	3 900	3 900	13,00	19,30	-	25,99 €

**Depending on availability - Dimensions in mm*