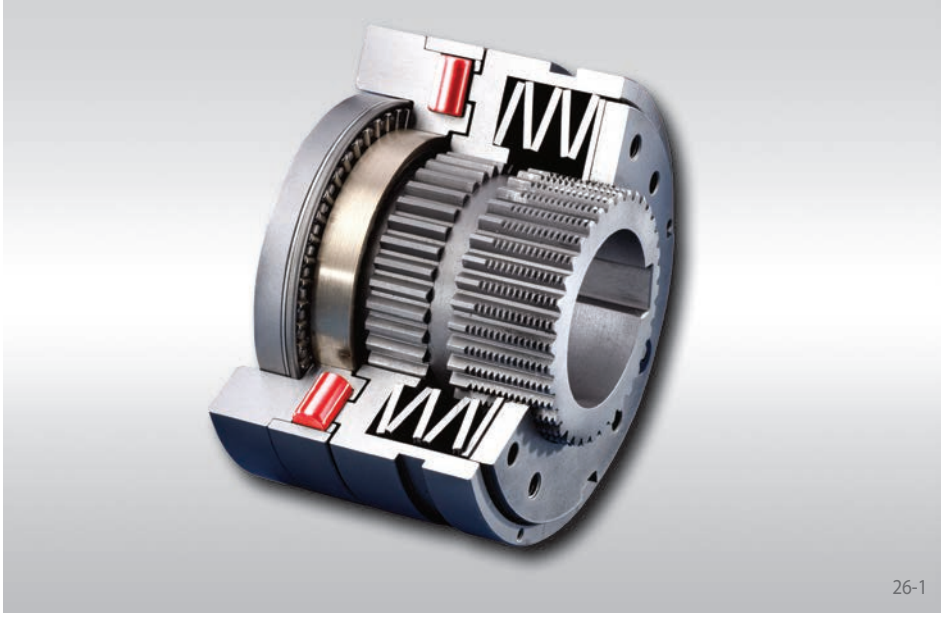
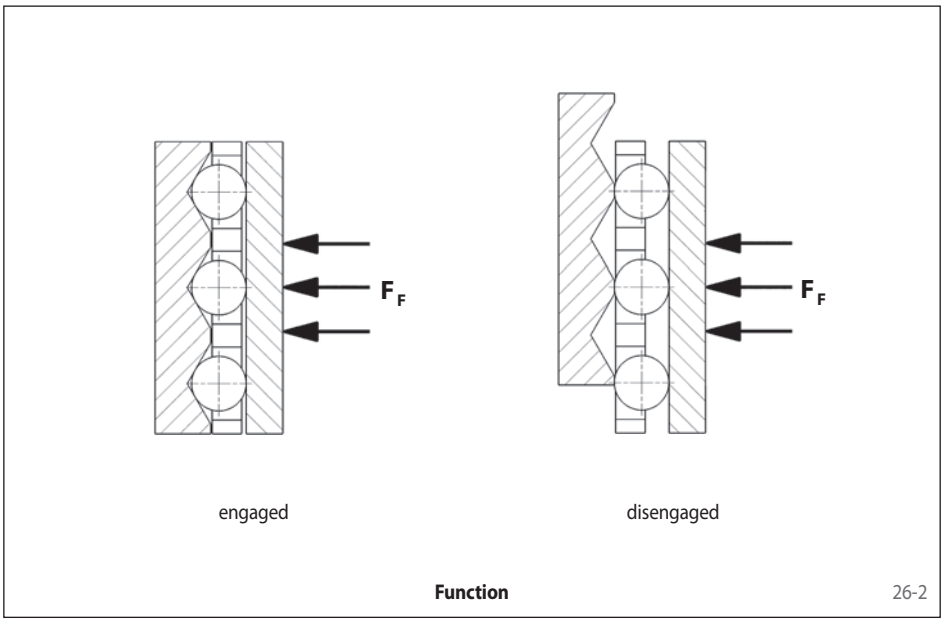


26-1

Advantages

- Synchronous re-engagement after 360°
- Integral fixed bearing
- Driving keyway in the connecting flange for maximum load capacity
- Calibrated micro adjustment of torque setting possible, even post-installation
- Cost effective



Function

26-2

The Single Roller Principle

The torque is transmitted via rollers which are pressed by Belleville springs into detents. When the preset limit torque has been reached, the detent ring is axially displaced. Re-engagement is effected synchronously after 360° due to the asymmetrical division of the detents.

Function

- When the preset limit torque has been reached the SIKUMAT® ratchets.
- Following elimination of overload automatic synchronous re-engagement of the SIKUMAT® to the starting position after 360°.
- The overload can be indicated by a proximity switch. This means that the drive can be switched off immediately or another control function can be activated.

Types

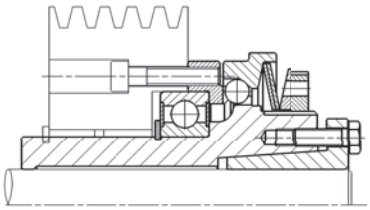
Series SN - Basic version with flange connection

27-1

For attaching chain wheels, belt pulleys, gear wheels etc. Bearing of attached component on the shaft to be provided by the customer.

Page 28

Series SNR - with short hub and integral needle bearing

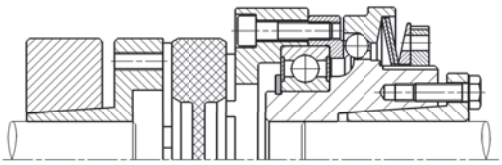


27-2

With short hub and needle bearing for narrow components to be connected.

Page 29

Series SNG - with long hub

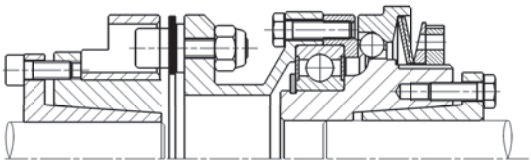


27-3

With long hub for wide components to be connected. Bearing of the attached component in the form of plain or needle bearing to be provided by the customer.

Page 30

Series SNE - with flexible shaft coupling



27-4

For flexible connection of two shafts. The flexible elements are oil-proof.

Page 31

Notes

Torque setting

The limit torque can be set at the factory on request. Setting or modification of the limit torque can also be carried out by the customer. See operating instructions for further details.

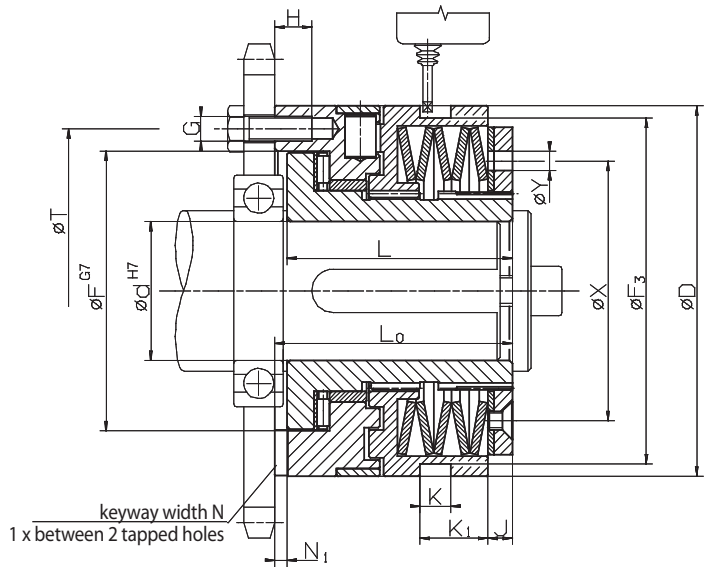
Proximity switch

The overload can be indicated by a non-contact or a mechanical proximity switch. Further details on pages 62 and 63.

Synchronous Ratcheting SIKUMAT® SN

RINGSPANN®

with single rollers
Basic version with flange connection



Z = number of tapped holes G on pitch circle T · Installation must be shut down as soon as torque limiter responds

28-1

Technical Data

Type	Art.-No.	Torque type 1			Torque type 2			Torque type 3		
		Limit torque Nm	max. speed min^{-1}	End number	Limit torque Nm	max. speed min^{-1}	End number	Limit torque Nm	max. speed min^{-1}	End number
SN 32.x	4470-020xxx	5 - 10	1 000	801	10 - 20	1 000	802	20 - 40	500	803
SN 40.x	4470-025xxx	12 - 25	950	801	25 - 50	950	802	50 - 100	450	803
SN 55.x	4470-035xxx	25 - 50	800	801	50 - 100	800	802	100 - 200	400	803
SN 65.x	4470-045xxx	50 - 100	650	801	100 - 200	650	802	200 - 450	300	803
SN 80.x	4470-055xxx	100 - 200	550	801	200 - 400	550	802	400 - 800	250	803
SN 90.x	4470-065xxx	170 - 450	400	801	350 - 900	400	802	600 - 1 800	150	803

Dimensions

Type	Art.-No.	Bore d		D	F	F_3	G	H	J	K	K_1	L	L_0	N	N_1	T	X	Y	Z	Engage-ment travel
		min. mm	max. mm	mm	mm	mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		mm
SN 32.x	4470-020xxx	7	20	55	41	50	M 5	6,5	3	9	13,5	35	38,5	6	3,1	48	38,5	5	6	1,2
SN 40.x	4470-025xxx	10	25	82	60	72,5	M 5	8	6	9	14,5	48	52	6	3,1	70	54	6	6	1,8
SN 55.x	4470-035xxx	14	35	100	78	90,5	M 6	10	6	9	15	56	61	8	3,6	89	70	6	6	2,0
SN 65.x	4470-045xxx	18	45	120	90,5	112	M 8	12	8,5	10	22,5	72	78	10	4,1	105	84	6	6	2,2
SN 80.x	4470-055xxx	24	55	146	105	140	M 10	15	11	9	25	93,5	100	12	4,1	125	108	7	6	2,5
SN 90.x	4470-065xxx	30	70[1)]	176	120,5	170	M 12	17	12	9	30	107	113,5	14	4,6	155	129	10	6	3,0

Keyway as per DIN 6885, page 1 · Tolerance of keyway width JS9
[1)] Keyway as per DIN 6885, page 3 · Tolerance of keyway width JS9

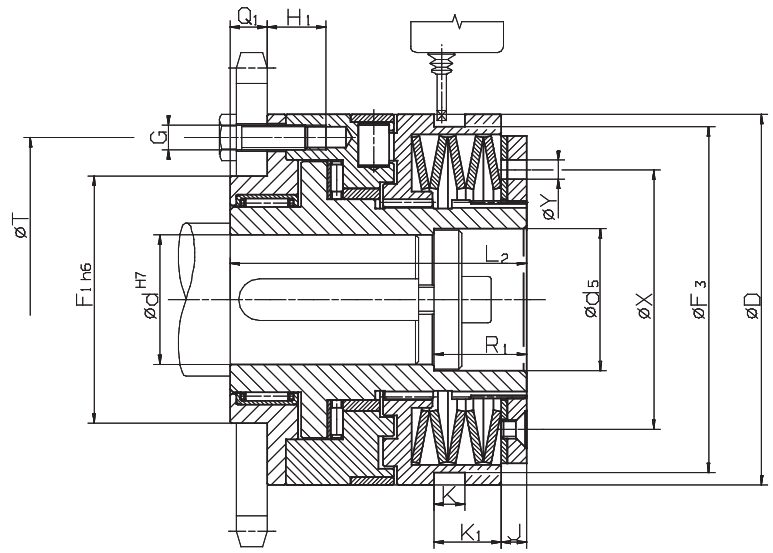
Example for Ordering

Type	Art.-No.	Preset limit torque	Bore d	with proximity switch
SN 32. 3	4470-020 803	30 Nm	9 mm	See pages 62 and 63
⊤ Torque type	⊤ End number			

Synchronous Ratcheting SIKUMAT® SNR

RINGSPANN®

with single rollers
with short hub and integral needle bearing



Z = number of tapped holes G on pitch circle T · Installation must be shut down as soon as torque limiter responds

29-1

Technical Data

Type	Art.-No.	Torque type 1			Torque type 2			Torque type 3		
		Limit torque Nm	max. speed min^{-1}	End number	Limit torque Nm	max. speed min^{-1}	End number	Limit torque Nm	max. speed min^{-1}	End number
SNR 32.x	4470-920xxx	5 - 10	1000	801	10 - 20	1000	802	20 - 40	500	803
SNR 40.x	4470-925xxx	12 - 25	950	801	25 - 50	950	802	50 - 100	450	803
SNR 55.x	4470-935xxx	25 - 50	800	801	50 - 100	800	802	100 - 200	400	803
SNR 65.x	4470-945xxx	50 - 100	650	801	100 - 200	650	802	200 - 450	300	803
SNR 80.x	4470-955xxx	100 - 200	550	801	200 - 400	550	802	400 - 800	250	803
SNR 90.x	4470-965xxx	170 - 450	400	801	350 - 900	400	802	600 - 1800	150	803

Dimensions

Type	Art.-No.	Bore d		d_5	D	F_1	F_3	G	H_1	J	K	K_1	L_2	Q_1	R_1	T	X	Y	Z	Engage-ment travel
		min. mm	max. mm	mm	mm	mm	mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		mm
SNR 32.x	4470-920xxx	7	20	21	55	38	50	M 5	11,5	3	9	13,5	51,5	8	15	48	38,5	5	6	1,2
SNR 40.x	4470-925xxx	10	25	26	82	50	72,5	M 5	16	6	9	14,5	70	10	20	70	54	6	6	1,8
SNR 55.x	4470-935xxx	14	35	36	100	60	90,5	M 6	15	6	9	15	78	12	25	89	70	6	6	2,0
SNR 65.x	4470-945xxx	18	45	46	120	80	112	M 8	18	8,5	10	22,5	96	12	30	105	84	6	6	2,2
SNR 80.x	4470-955xxx	24	55	56	146	100	140	M 10	23,5	11	9	25	124,5	16	30	125	108	7	6	2,5
SNR 90.x	4470-965xxx	30	70[1)]	66	176	120	170	M 12	25,5	12	9	30	140	18	30	155	129	10	6	3,0

Keyway as per DIN 6885, page 1 · Tolerance of keyway width JS9
[1)] Keyway as per DIN 6885, page 3 · Tolerance of keyway width JS9

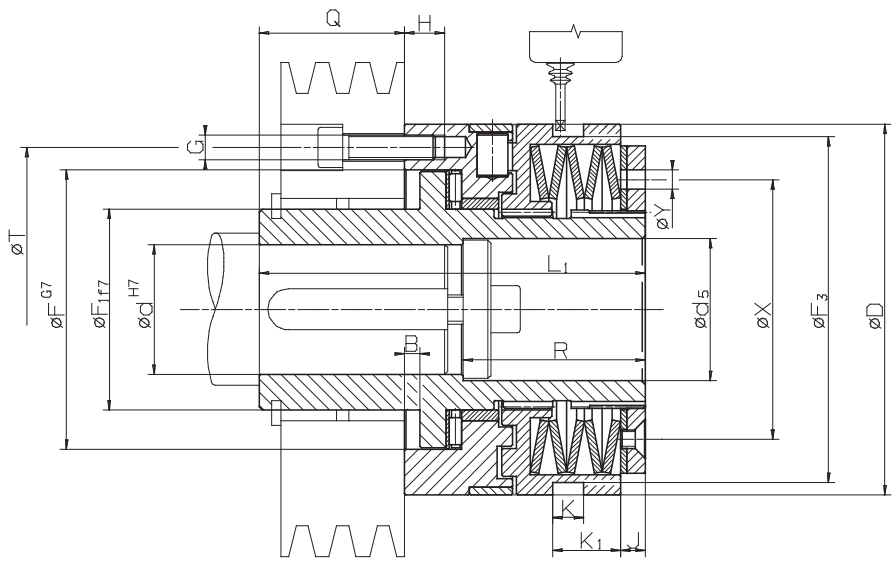
Example for Ordering

Type	Art.-No.	Preset limit torque	Bore d	with proximity switch
SNR 32. 2	4470-920 802	15 Nm	13 mm	See pages 62 and 63
⊤ Torque type	⊤ End number			

Synchronous Ratcheting SIKUMAT® SNG

RINGSPANN®

with single rollers
with long hub



Z = number of tapped holes G on pitch circle T · Installation must be shut down as soon as torque limiter responds

30-1

Technical Data

Type	Art.-No.	Torque type 1			Torque type 2			Torque type 3		
		Limit torque Nm	max. speed min^{-1}	End number	Limit torque Nm	max. speed min^{-1}	End number	Limit torque Nm	max. speed min^{-1}	End number
SNG 32.x	4470-120xxx	5 - 10	1000	801	10 - 20	1000	802	20 - 40	500	803
SNG 40.x	4470-125xxx	12 - 25	950	801	25 - 50	950	802	50 - 100	450	803
SNG 55.x	4470-135xxx	25 - 50	800	801	50 - 100	800	802	100 - 200	400	803
SNG 65.x	4470-145xxx	50 - 100	650	801	100 - 200	650	802	200 - 450	300	803
SNG 80.x	4470-155xxx	100 - 200	550	801	200 - 400	550	802	400 - 800	250	803
SNG 90.x	4470-165xxx	170 - 450	400	801	350 - 900	400	802	600 - 1800	150	803

Dimensions

Type	Art.-No.	Bore d		d_5	B	D	F	F_1	F_3	G	H	J	K	K_1	L_1	Q	R	T	X	Y	Z	Engagement travel
		min. mm	max. mm	mm	mm	mm	mm	mm	mm		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		mm
SNG 32.x	4470-120xxx	7	20	21	4	55	41	28	50	M 5	6,5	3	9	13,5	66	27,5	25,5	48	38,5	5	6	1,2
SNG 40.x	4470-125xxx	10	25	26	4	82	60	38	72,5	M 5	8	6	9	14,5	83	33	35	70	54	6	6	1,8
SNG 55.x	4470-135xxx	14	35	36	5	100	78	52	90,5	M 6	10	6	9	15	100	39	45	89	70	6	6	2,0
SNG 65.x	4470-145xxx	18	45	46	5	120	90,5	65	112	M 8	12	8,5	10	22,5	125	47	59	105	84	6	6	2,2
SNG 80.x	4470-155xxx	24	55	56	6,5	146	105	78	140	M 10	15	11	9	25	152,5	52,5	60	125	108	7	6	2,5
SNG 90.x	4470-165xxx	30	70[1)]	66	6,5	176	120,5	90	170	M 12	17	12	9	30	171	57,5	60	155	129	10	6	3,0

Keyway as per DIN 6885, page 1 · Tolerance of keyway width JS9
[1)] Keyway as per DIN 6885, page 3 · Tolerance of keyway width JS9

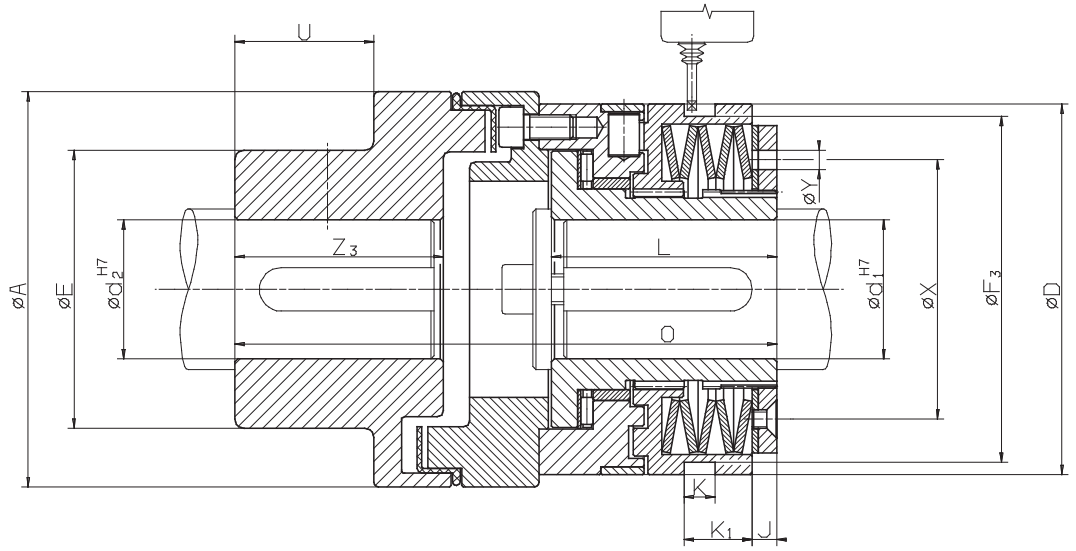
Example for Ordering

Type	Art.-No.	Preset limit torque	Bore d	with proximity switch
SNG 32. 2	4470-120 802	15 Nm	10 mm	See pages 62 and 63
⊤ Torque type	⊤ End number			

Synchronous Ratcheting SIKUMAT® SNE

RINGSPANN®

with single rollers
with flexible shaft coupling



Installation must be shut down as soon as torque limiter responds

31-1

Technical Data

Type	Art.-No.	Torque type 1			Torque type 2			Torque type 3		
		Limit torque Nm	max. speed min^{-1}	End number	Limit torque Nm	max. speed min^{-1}	End number	Limit torque Nm	max. speed min^{-1}	End number
SNE 32.x	4470-620xxx	5 - 10	1000	801	10 - 20	1000	802	20 - 40	500	803
SNE 40.x	4470-625xxx	12 - 25	950	801	25 - 50	950	802	50 - 100	450	803
SNE 55.x	4470-635xxx	25 - 50	800	801	50 - 100	800	802	100 - 200	400	803
SNE 65.x	4470-645xxx	50 - 100	650	801	100 - 200	650	802	200 - 450	300	803
SNE 80.x	4470-655xxx	100 - 200	550	801	200 - 400	550	802	400 - 800	250	803
SNE 90.x	4470-665xxx	170 - 450	400	801	350 - 900	400	802	600 - 1800	150	803

Dimensions

Type	Art.-No.	Bore d_1		d_2	A	E	D	F_3	J	K	K_1	L	O	U	X	Y	Z_3	Engage-ment travel
		min. mm	max. mm	max. mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
SNE 32.x	4470-620xxx	7	20	30	67	46	55	50	3	9	13,5	35	86	15	38,5	5	28	1,2
SNE 40.x	4470-625xxx	10	25	50	112	79	82	72,5	6	9	14,5	48	137,5	38	54	6	58	1,8
SNE 55.x	4470-635xxx	14	35	50	112	79	100	90,5	6	9	15	56	147	38	70	6	58	2,0
SNE 65.x	4470-645xxx	18	45	60	128	90	120	112	8,5	10	22,5	72	176,5	45	84	6	67	2,2
SNE 80.x	4470-655xxx	24	55	60	148	90	146	140	11	9	25	93,5	211,5	45	108	7	67	2,5
SNE 90.x	4470-665xxx	30	70[1)]	70	177	107	176	170	12	9	30	107	242,5	52	129	10	75	3,0
SNE 90.x	4470-665xxx	30	70[1)]	90	198	140	176	170	12	9	30	107	272	52	129	10	75	3,0

Keyway as per DIN 6885, page 1 · Tolerance of keyway width JS9
[1)] Keyway as per DIN 6885, page 3 · Tolerance of keyway width JS9

Example for Ordering

Type	Art.-No.	Preset limit torque	Bore d_1	Bore d_2	with proximity switch
SNE 32. 2	4470-620 802	15 Nm	10 mm	20 mm	See pages 62 and 63
⊤ Torque type	⊤ End number				