

Safety nut

ZE-SIFA, Z-SIFA | translating & rotating screw





Tr SIFA-S electrical

Tr SIFA-R visual

Tr SIFA-R electrical

Technical data

Monitoring:

Electrical monitoring:

Wear:

Once the wear exceeds max. 25% of the screw pitch, the load nut (R) or the gearbox (S) must be replaced.

Wear and thread play should be checked and

documented at regular intervals (depending on the duty cycle). This allows the fitting of replacement parts to be planned ahead, reducing unscheduledsystem downtime.

Electrical monitoring gives a signal when wear reaches approx. 25%.

This signal can be displayed immediately at a central control point.

Replacement of the worn parts can then be scheduled.



max. 25% wear

A safety nut is designed for use where stripping and break up of the thread could cause a hazard to persons.

A safety nut can also provide protection for other equipment against the consequences of machine failures and downtimes.

Screw jacks TrØxP	Pitch P mm	max. permissible wear/ thread play* (25% of P) mm
Tr16x4, Tr18x4, Tr20x4	4	1
Tr30x6	6	1,5
Tr40x7	7	1,75
Tr55x9, Tr60x9	9	2,25
Tr70x12	12	3
Tr80x16, Tr100x16, Tr120x16	16	4
Tr140x20, Tr160x20	20	5

*Identical for double pitch screws (same thread flank thickness



COMPRESSIVE AND TENSILE

The SIFA-S operates equally in both compressive & tensile directions of loading









visual SIFA monitoring

electrical SIFA monitoring

Function:

The load is borne by the worm wheel via the screw. If the worm wheel screw thread wears through, the SIFA restrains the screw. The load remains supported.



Screw jacks	Stroke travel/rev.		To Thursd		D1	52	12	1 21)	1 (1)	1.5		17	1.0	1.0	110	
	SN	SL	Ir-Inread	н	DI	02	LZ	L3.7	L4**	LD	LO	LI	Lð	L9	L10	IVI
ZE-104)	1	0,25	20x4	74	81	39	74	10	22	20	58	72	108	37	1	M14
ZE-254)	1	0,25	30x6	82	92	46	76	10	26	22	59	79	114	41	1	M20
ZE-35	1	0,25	40x7	100	100	60	80	10	34	29	61	82	117	50	1	M30
ZE-504)	1	0,25	40x7	116	120	60	84	10	34	29	65	88	123	58	1	M30
ZE-100 ⁴⁾	1	0,25	55x9	160	135	85	103	20	48	48	73	95	130	80	9	M36
ZE-1504)	1	0,25	60x9	185	161	90	113	20	20	48	81	107	141	92,5	6	M42x2
Z-250	1,5	0,50	80x16	193	210	120	166 ²⁾	20	20	58	139 ²⁾	117	152	91	13	M56x2
Z-350	1,5	0,50	100x16	230	276	145	179 ³⁾	20	20	78	155	139	174	115	30	M72x3

up to Z-1000 on request

1) Detailed calculation of the fitting dimensions (bellows, screw, protective tube...) can be conveniently determined with our online configurator: www.zimm.com

2) Screw Face F: L2 = 181, L6 = 148 3) Screw Face F: L2 = 207

4) SIFA values also valid for the GSZ series



Standard



Visual

Monitoring

Wear should be checked and documented at regular intervals. This allows the fitting operation for replacement to be planned in good time so as to avoid system downtime..



Electrical







Function:

The load is borne by the duplex nut. The safety nut runs alongside the duplex nut, bearing no load. If the nut thread is worn through due to wear, the SIFA takes the load.

Direction of loading, tensile or compressive

A drawing showing the direction of loading is necessary in order to ensure the safety function. The SIFA-R operates in only one direction of loading.



SIFA without monitoring

electrical SIFA monitoring





Correct mounting side SIFA-R





"Direction of loading, tensile" (away from the gearbox)

"Direction of loading, compressive' (towards the gearbox)

Screw jacks	Tr-Thread	н	D1	D	d3j6	0	L1	L2	L3 ¹⁾	L4	L5	A ²⁾ ca.		
GSZ-2	16x4	50	26	22	10	12	3	70	10	11	20	3		
ZE-5 ³⁾	18x4	62	29	24	12	15	8	70	10	12	20	3		
ZE-10 ³⁾	20x4	74	39	28	15	20	8	84	10	16	20	3		
ZE-25 ³⁾	30x6	82	46	38	20	25	5	95	10	17	23	4		
ZE-35	40x7	100	60	50	25	30	7	133	10	19	36	4		
ZE-50 ³⁾	40x7	116	60	50	25	30	7	133	10	19	36	4		
ZE-100 ³⁾	55x9	160	85	65	40	45	8	173	20	30	54	6		
ZE-150 ³⁾	60x9	185	90	70	45	55	7	211	20	32	75	6		
ZE-200	70x12	176	110	95	50	65	5	233	20	34	75	7		
Z-250	80x16	193	120	100	60	75	5	250	20	37	85	9		
Z-350	100x16	230	150	120	80	100	6	270	20	24	100	9		
Z-500	120x16	260	170	135	95	120	6	303	40	32	110	9		
Z-750	140x20	310	200	170	100	120	10	365	40	37	140	12		
Z-1000	160x20	340	250	190	130	175	13	500	40	32	210	12		
1) Detailed calculation of the fitting dimensions (bellows, screw, protective tube)									3) SIFA values also valid for the GSZ series					

1) Detailed calculation of the fitting dimensions (bellows, screw, protective tube...) can be conveniently determined with our online configurator: www.zimm.com

2) Original setting, must be measured and documented by the customer, and referred to when checking

Monitoring with safety nut SIFA-R | rotating screw

Visual monitoring



Electrical monitoring

