

5.2 VRS-F with key / VRS without key - metric

Type VRS-F / VRS	WLL [t]	weight VRS-F [kg/pc.]	weight VRS [kg/pc.]	T [mm]	B [mm]	C [mm]	D [mm]	E [mm]	G [mm]	I [mm]	K [mm]	L [mm]	M	N [mm]	torque [Nm]	Ref.-No.	
																VRS-F with key	VRS without key
M6 *	0.1	0.07	0.07	28	9	7	20	23	28	13.0	37	9	M6	6	5	7900906	7900909
M8	0.3	0.12	0.1	35	11	9	25	25	30	16.3	47	12	M8	6	10	8500911	7100554
M10	0.4	0.13	0.11	35	11	9	25	25	30	16.3	47	15	M10	6	10	7104029	7100555
M12	0.75	0.21	0.19	42	13	10	30	30	34	19.8	56	18	M12	8	25	7101313	7100556
M14	0.75	0.22	0.2	42	13	10	30	30	34	19.8	56	18	M14	8	30	7999330	7100557
M16	1.5	0.36	0.32	49	15	13	35	36	40	23.5	65	24	M16	10	60	7101314	7100558
M18	1.5	0.37	0.33	49	15	13	35	36	40	23.5	65	24	M18	10	60	7903387	7992219
M20	2.3	0.60	0.54	58	17	16	40	41	50	29.3	76	30	M20	12	115	7101315	7100559
M22	2.3	0.62	0.56	58	17	16	40	41	50	29.3	76	30	M22	12	125	7992197	7904625
M24	3.2	1.06	0.97	70	20	19	49	51	60	35.0	92	36	M24	14	190	7101316	7100560
M27	3.2	1.08	1	70	20	19	49	51	60	35.0	92	36	M27	14	250	7994138	7904626
M30	4.5	2.08	1.92	87	26	24	60	66	75	44.0	114	45	M30	17	330	7101317	7100561
M33	4.5	2.13	1.97	87	26	24	60	66	75	44.0	114	45	M33	17	350	7993439	7904627
M36	7	3.5	3.3	104	32	29	73	76	98	53.0	135	54	M36	22	590	7984201	7984198
M42	9	5.4	5	122	36	34	85	86	109	62.0	157	63	M42	24	925	7984202	7984199
M48	12	8.1	76	138	42	38	96	101	128	70.0	179	72	M48	27	1400	7984203	7984200
M56	16	13	11.9	161	50	44	110	112	145	82.0	209	84	M56	32	1400	7910836	7907508
M64	20	17.8	16.2	176	55	48	120	122	157	90.0	228	96	M64	36	1400	7910837	7907509

Table 3: metric

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*Attention: When tightening the VRS / VRS-F M6, do not exceed the torque value of 12 Nm.

5.3 VRS-F with key / VRS without key - metric with Vario bolt incl. locking nut and washer

Type VRS-F / VRS	WLL [t]	weight VRS-F [kg/pc.]	T [mm]	B [mm]	C [mm]	D [mm]	E [mm]	G [mm]	I [mm]	K [mm]	L [mm]	M	N [mm]	torque [Nm]	Ref.-No.	
															VRS-F with key	VRS without key
M8	0.3	**	35	11	9	25	25	30	16.3	47	13-70	M8	6	10	8600269	
M10	0.4	**	35	11	9	25	25	30	16.3	47	16-70	M10	6	10	8600270	
M12	0.75	**	42	13	10	30	30	34	19.8	56	19-150	M12	8	25	8600271	
M16	1.5	**	49	15	13	35	36	40	23.5	65	25-120	M16	10	60	8600272	
M20	2.3	**	58	17	16	40	41	50	29.3	76	31-160	M20	12	115	8600273	
M24	3.2	**	70	20	19	49	51	60	35.0	92	37-140	M24	14	190	8600274	
M30	4.5	**	87	26	24	60	66	75	44.0	114	46-190	M30	17	330	8600275	

Table 4: metric with Vario bolt ** = weight depends on version

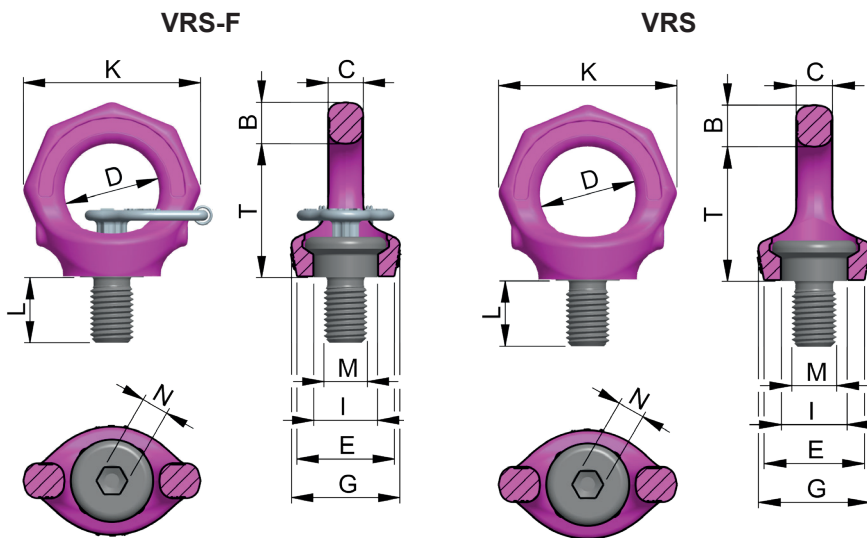
Subject to technical modifications

5.4 VRS-F with key / VRS without key - metric fine thread

Type VRS-F / VRS	WLL [t]	weight VRS-F [kg/pc.]	weight VRS [kg/pc.]	T [mm]	B [mm]	C [mm]	D [mm]	E [mm]	G [mm]	I [mm]	K [mm]	L [mm]	M	N [mm]	torque [Nm]	Ref.-No.	
																VRS-F with key	VRS without key
M8x1	0.3	0.12	-	35	11	9	25	25	30	16.3	47	12	M8x1	6	10	7904332	-
M12x1.5	0.75	0.21	-	42	13	10	30	30	34	19.8	56	18	M12x1.5	8	25	7992929	-
M16x1.5	1.5	0.36	-	49	15	13	35	36	40	23.5	65	24	M16x1.5	10	60	7902676	-
M20x2	2.3	0.6	-	58	17	16	40	41	50	29.3	76	30	M20x2	12	115	7992634	-
M24x2	3.2	1.06	-	70	20	19	49	51	60	35.0	92	36	M24x2	14	190	7992566	-
M30x2	4.5	2.08	-	87	26	24	60	66	75	44.0	114	45	M30x2	17	330	7991856	-
M36x3	7	-	3.3	104	32	29	73	76	98	53.0	135	54	M36x3	22	590	-	7992728

Table 5: metric fine thread

Subject to technical modifications

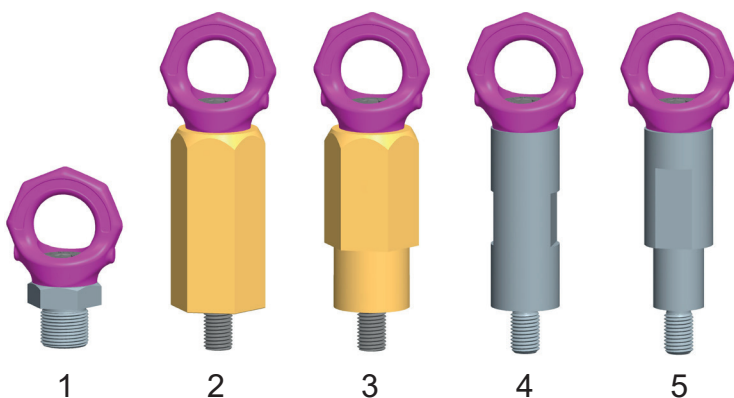


5.5 VRS-F with key / VRS without key - UNC / UN

Type VRS-F / VRS	WLL [t]	weight VRS-F [kg/pc.]	weight VRS [kg/pc.]	T [mm]	B [mm]	C [mm]	D [mm]	E [mm]	G [mm]	I [mm]	K [mm]	L [mm]	M	N [mm]	torque [Nm]	Ref.-No.	
																VRS-F with key	VRS without key
1/4"-20UNC	0.1	-	0.24	28	9	7	20	23	28	13.0	37	9	1/4"-20UNC	7/32"	5	7906917	7999105
5/16"-18UNC	0.3	0.13	-	35	11	9	25	25	30	16.3	47	12	5/16"-18UNC	1/4"	10	7999106	-
3/8"-16UNC	0.4	0.12	0.11	35	11	9	25	25	30	16.3	47	15	3/8"-16UNC	1/4"	10	7104480	7103959
7/16"-14UNC	0.4	0.13	0.12	35	11	9	25	25	30	16.3	47	15	7/16"-14UNC	1/4"	10	7904195	7903118
1/2"-13UNC	0.75	0.21	0.19	42	13	10	30	30	34	19.8	56	18	1/2"-13UNC	5/16"	25	7104481	7103960
5/8"-11UNC	1.5	0.35	0.32	49	15	13	35	36	40	23.5	65	24	5/8"-11UNC	3/8"	60	7104482	7103961
3/4"-10UNC	2.3	0.58	0.54	58	17	16	40	41	50	29.3	76	30	3/4"-10UNC	1/2"	115	7104483	7103962
7/8"-9UNC	2.3	0.61	0.57	58	17	16	40	41	50	29.3	76	32	7/8"-9UNC	1/2"	115	7104484	7103963
1"-8UNC	3.2	1.04	0.97	70	20	19	49	51	60	35.0	92	36	1"-8UNC	9/16"	190	7104485	7103964
1 1/8"-8UN	3.2	1.08	1.01	70	20	19	49	51	60	35.0	92	36	1 1/8"-8UN	9/16"	250	7903386	7999385
1 1/8"-7UNC	3.2	1.08	1.01	70	20	19	49	51	60	35.0	92	36	1 1/8"-7UNC	9/16"	250	7903383	7999384
1 1/4"-8UN	4.5	-	1.95	87	26	24	60	66	75	44.0	114	45	1 1/4"-8UN	5/8"	330	-	7998707
1 1/4"-7UNC	4.5	2.08	1.95	87	26	24	60	66	75	44.0	114	45	1 1/4"-7UNC	5/8"	330	7104486	7103965
1 1/2"-8UN	7	3.6	2.9	104	32	29	73	76	98	53.0	135	54	1 1/2"-8UN	7/8"	590	-	7991917
1 1/2"-6UNC	7	3.6	2.9	104	32	29	73	76	98	53.0	135	54	1 1/2"-6UNC	7/8"	590	7104487	7103966
1 3/4"-5UNC	9	5	4.6	122	36	34	85	86	109	62.0	157	63	1 3/4"-5UNC	1"	925	7104488	7103967
2"-4.5UNC	12	7.6	7	138	42	38	96	101	128	70.0	179	72	2"-4.5UNC	1 1/8"	1400	7104489	7103968

Table 6: Inch thread (UNC / UN)

Subject to technical modifications



For special versions see separate safety instructions.

Other special lengths and special surfaces are available on request!

- 1 VRS with pipe inch thread
- 2 VRS with hexagonal extension adaptor
Type 1+2
(without recess)
KMAT-No.: 8600620
- 3 VRS with hexagonal extension adaptor
Type 3
(with recess)
KMAT-No.: 8600621

- 4 VRS with round extension
Type 1
(without recess)
KMAT-No.: 8600622
- 5 VRS with round extension
Type 2
(with recess)
KMAT-No.: 8600623

5.6 Overview of keys for VRS

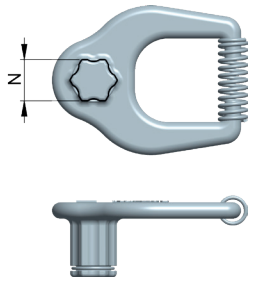
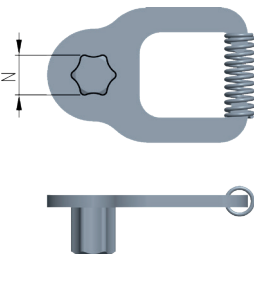
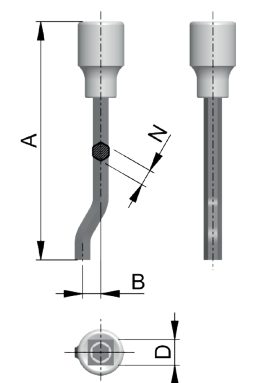
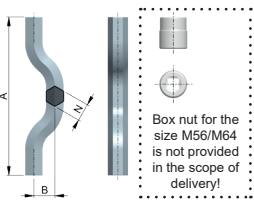
Type	weight [kg/pc.]	A [mm]	B [mm]	D [mm]	N [mm]	suitable for VRS		Ref.-No.		
						WLL [t]	thread (Maß M mm)			
Star key metric (suitable for retrofitting)										
	Star key SW 6	0.02	--	--	--	6	0.1 0.3 0.4	M6 M8 M10	7983986	
	Star key SW 8	0.03	--	--	--	8	0.75	M12 M14	7905453	
	Star key SW 10	0.03	--	--	--	10	1.5	M16 M18	7903254	
	Star key SW 12	0.04	--	--	--	12	2.3	M20 M22	7904282	
	Star key SW 14	0.08	--	--	--	14	3.2	M24 M27	7904283	
	Star key SW 17	0.12	--	--	--	17	4.5	M30 M33	7904284	
	Star key SW 22	0.15	--	--	--	22	7	M36	7904285	
	Star key SW 24	0.3	--	--	--	24	9	M42	7904286	
	Star key SW 27	0.4	--	--	--	27	12	M48	7904287	
	Star key SW 32	1.1	--	--	--	32	16	M56	7911045	
	Star key SW 36	1.3	--	--	--	36	20	M64	7911046	
	Star key UNC / UN (suitable for retrofitting)									
		Star key SW 7/32"	0.02	--	--	--	7/32"	0.1 0.3	1/4"-20UNC 5/16"-18UNC	7913717
Star key SW 1/4"		0.02	--	--	--	1/4"	0.4 0.4	3/8"-16UNC 7/16"-14UNC	7983995	
Star key SW 5/16"		0.02	--	--	--	5/16"	0.75	1/2"-13UNC	7983996	
Star key SW 3/8"		0.03	--	--	--	3/8"	1.5	5/8"-11UNC	7983997	
Star key SW 1/2"		0.04	--	--	--	1/2"	2.3	3/4"-10UNC 7/8"-9UNC	7983998	
Star key SW 9/16"		0.08	--	--	--	9/16"	3.2	1"-8UNC 1 1/8"-8UNC 1 1/8"-7UNC	7983999	
Star key SW 5/8"		0.12	--	--	--	5/8"	4.5	1 1/4"-8UNC 1 1/4"-7UNC	7984000	
Star key SW 7/8"		0.15	--	--	--	7/8"	7	1 1/2"-8UNC 1 1/2"-6UNC	7984001	
Star key SW 1"		0.3	--	--	--	1"	9	1 3/4"-5UNC	7984002	
Star key SW 1 1/8"		0.4	--	--	--	1 1/8"	12	2"-4.5UNC	7984003	
Socket wrench metric										
		Socket wrench SW 6	0.09	118	7.5	1/2"	6	0.1 0.3 0.4	M6 M8 M10	7997749
		Socket wrench SW 8	0.11	118	9	1/2"	8	0.75	M12 M14	7997750
	Socket wrench SW 10	0.15	138	12	1/2"	10	1.5	M16 M18	7997751	
	Socket wrench SW 12	0.2	137	14	1/2"	12	2.3	M20 M22	7997752	
	Socket wrench SW 14	0.24	140	16.5	1/2"	14	3.2	M24 M27	7997753	
	Socket wrench SW 17	0.47	152	22	3/4"	17	4.5	M30 M33	7902078	
	Socket wrench SW 22	1	192	26	1"	22	7	M36	7902079	
Socket wrench SW 24	1.2	276	29	1"	24	9	M42	7902080		
Socket wrench SW 27	2	304	33	1"	27	12	M48	7902081		
	Socket wrench SW 32	2.4	324	38	--	32	16	M56	7908744	
	Socket wrench SW 36	3.1	324	43	--	36	20	M64	7908745	

Table 7: Key overview

Subject to technical modifications