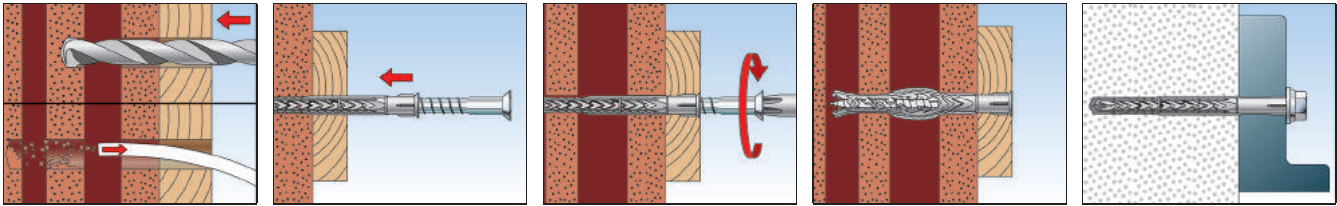


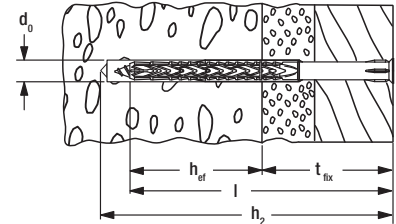
INSTALLATION



TECHNICAL DATA



SXRL-T - with fischer countersunk head safety screw



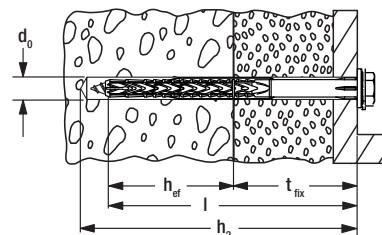
Item	zinc-plated steel	stainless steel	Approval		Drill diameter	Min. drill hole depth for through fixings	Usable length at anchorage depth 50mm	Usable length at anchorage depth 70mm	Usable length at anchorage depth 90mm	Anchor length	Drive	Sales unit
	Art.-No.	Art.-No.	ETA	DIBt	d_0 [mm]	h_2 [mm]	t_{fix} [mm]	t_{fix} [mm]	t_{fix} [mm]	l [mm]		[pcs]
	gvz	A4										
SXRL 8 x 60 T	540113	540119	■	—	8	70	10	—	—	60	T30	50
SXRL 8 x 80 T	540114	540121	■	—	8	90	30	10	—	80	T30	50
SXRL 8 x 100 T	540115	540123	■	—	8	110	50	30	10	100	T30	50
SXRL 8 x 120 T	540116	540124	■	—	8	130	70	50	30	120	T30	50
SXRL 8 x 140 T	540117	540125	■	—	8	150	90	70	50	140	T30	50
SXRL 8 x 160 T	540118	540126	■	—	8	170	110	90	70	160	T30	50
SXRL 10 x 80 T	522698	522709	■	—	10	90	30	10	—	80	T40	50
SXRL 10 x 100 T	522699	522710	■	—	10	110	50	30	10	100	T40	50
SXRL 10 x 120 T	522700	522711	■	—	10	130	70	50	30	120	T40	50
SXRL 10 x 140 T	522701	522712	■	—	10	150	90	70	50	140	T40	50
SXRL 10 x 160 T	522703	522713	■	—	10	170	110	90	70	160	T40	50
SXRL 10 x 180 T	522704	522714	■	—	10	190	130	110	90	180	T40	50
SXRL 10 x 200 T	522705	522715	■	—	10	210	150	130	110	200	T40	50
SXRL 10 x 230 T	522706	522716	■	—	10	240	180	160	140	230	T40	50
SXRL 10 x 260 T	522707 ¹⁾	522717 ¹⁾	■	—	10	270	210	190	170	260	T40	50
SXRL 10 x 290 T	522708 ¹⁾	522718 ¹⁾	■	—	10	300	240	220	200	290	T40	50
SXRL 14 x 80 T	530920	530932	■	●	14	95	—	10	—	80	T50	50
SXRL 14 x 100 T	530921	530933	■	●	14	115	—	30	10	100	T50	50
SXRL 14 x 120 T	530922	530934	■	●	14	135	—	50	30	120	T50	50
SXRL 14 x 140 T	530923	530935	■	●	14	155	—	70	50	140	T50	50
SXRL 14 x 160 T	530924	530936	■	●	14	175	—	90	70	160	T50	50
SXRL 14 x 180 T	530925	530937	■	●	14	195	—	110	90	180	T50	50
SXRL 14 x 200 T	530926	530938	■	●	14	215	—	130	110	200	T50	50
SXRL 14 x 230 T	530927	530939	■	●	14	245	—	160	140	230	T50	50
SXRL 14 x 260 T	530928	530940	■	●	14	275	—	190	170	260	T50	50
SXRL 14 x 300 T	530929 ¹⁾	530941 ¹⁾	■	●	14	315	—	230	210	300	T50	20
SXRL 14 x 330 T	530930 ¹⁾	530942 ¹⁾	■	●	14	345	—	260	240	330	T50	20
SXRL 14 x 360 T	530931 ¹⁾	530943 ¹⁾	■	●	14	375	—	290	270	360	T50	20

1) not pre-assembled

TECHNICAL DATA



SXRL-FUS - with fischer hexagon head safety screw, moulded washer and integrated bit recess



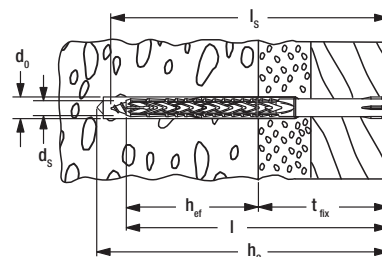
Item	zinc-plated steel	stainless steel	Approval		Drill diameter	Min. drill hole depth for through fixings	Usable length at anchorage depth 50mm	Usable length at anchorage depth 70mm	Usable length at anchorage depth 90mm	Anchor length	Drive	Sales unit
	Art.-No.	Art.-No.	ETA	DIBt	d_0 [mm]	h_2 [mm]	t_{fix} [mm]	t_{fix} [mm]	t_{fix} [mm]	l [mm]		[pcs]
	g vz	A4										
SXRL 8 x 60 FUS	540127	540135	■	—	8	70	10	—	—	60	T30/SW10	50
SXRL 8 x 80 FUS	540129	540136	■	—	8	90	30	10	—	80	T30/SW10	50
SXRL 8 x 100 FUS	540130	540137	■	—	8	110	50	30	10	100	T30/SW10	50
SXRL 8 x 120 FUS	540131	—	■	—	8	130	70	50	30	120	T30/SW10	50
SXRL 8 x 140 FUS	540133	—	■	—	8	150	90	70	50	140	T30/SW10	50
SXRL 8 x 160 FUS	540134	—	■	—	8	170	110	90	70	160	T30/SW10	50
SXRL 10 x 80 FUS	522719	522730	■	—	10	90	30	10	—	80	T40/SW13	50
SXRL 10 x 100 FUS	522720	522731	■	—	10	110	50	30	10	100	T40/SW13	50
SXRL 10 x 120 FUS	522721	522732	■	—	10	130	70	50	30	120	T40/SW13	50
SXRL 10 x 140 FUS	522723	522733	■	—	10	150	90	70	50	140	T40/SW13	50
SXRL 10 x 160 FUS	522724	522734	■	—	10	170	110	90	70	160	T40/SW13	50
SXRL 10 x 180 FUS	522725	522735	■	—	10	190	130	110	90	180	T40/SW13	50
SXRL 10 x 200 FUS	522726	522736	■	—	10	210	150	130	110	200	T40/SW13	50
SXRL 10 x 230 FUS	522727	522737	■	—	10	240	180	160	140	230	T40/SW13	50
SXRL 10 x 260 FUS	522728 1)	522738 1)	■	—	10	270	210	190	170	260	T40/SW13	50
SXRL 10 x 290 FUS	522729 1)	522739 1)	■	—	10	300	240	220	200	290	T40/SW13	50
SXRL 14 x 80 FUS	530946	530955	■	●	14	95	—	10	—	80	T50/SW17	50
SXRL 14 x 100 FUS	530947	530956	■	●	14	115	—	30	10	100	T50/SW17	50
SXRL 14 x 120 FUS	530948	530957	■	●	14	135	—	50	30	120	T50/SW17	50
SXRL 14 x 140 FUS	530949	530958	■	●	14	155	—	70	50	140	T50/SW17	50
SXRL 14 x 160 FUS	530950	530959	■	●	14	175	—	90	70	160	T50/SW17	50
SXRL 14 x 180 FUS	530951	530960	■	●	14	195	—	110	90	180	T50/SW17	50
SXRL 14 x 200 FUS	530952	530961	■	●	14	215	—	130	110	200	T50/SW17	50
SXRL 14 x 230 FUS	530953	530962	■	●	14	245	—	160	140	230	T50/SW17	50
SXRL 14 x 260 FUS	530954	530963	■	●	14	275	—	190	170	260	T50/SW17	50

1) not pre-assembled

ACCESSORIES



SXRL - without screw



Item	Art.-No.	Drill diameter	Min. drill hole depth for through fixings	Usable length at anchorage depth 50mm	Usable length at anchorage depth 70mm	Usable length at anchorage depth 90mm	Anchor length	Screw diameter	Min. screw length	Sales unit
		d_0 [mm]	h_2 [mm]	t_{fix} [mm]	t_{fix} [mm]	t_{fix} [mm]	l [mm]	d_s [mm]	l_s [mm]	[pcs]
SXRL 8 x 60	540879	8	70	10	—	—	60	5,5 - 6,0	65	100
SXRL 8 x 80	540880	8	90	30	10	—	80	5,5 - 6,0	85	100
SXRL 8 x 100	540881	8	110	50	30	10	100	5,5 - 6,0	105	100
SXRL 8 x 120	540882	8	130	70	50	30	120	5,5 - 6,0	125	100

ACCESSORIES



Cover cap **ADT**

Item	Art.-No.	Colour	Cap [Ø mm]	Match	Sales unit [pcs]
ADT 15 W	060326	white	15	Safety screw with integrated bit recess T40	100
ADT 15 DB	060329	dark brown	15	Safety screw with integrated bit recess T40	100
ADT 18 W	060334	white	18	Safety screw with integrated bit recess T40	100
ADT 18 DB	060337	dark brown	18	Safety screw with integrated bit recess T40	100

ACCESSORIES



Washer **U**

Item	Art.-No.	External-Ø d [mm]	Hole-Ø D [mm]	Thickness S [mm]	Matching anchor type	Sales unit [pcs]
U 11,5 x 21 x 1,5 DIN 522 A2	010026	21	11.5	1.5	SXR 10, SXRL 10, FUR 10, SXS 10	500

LOADS

Frame fixing SXRL³⁾

Highest recommended loads¹⁾ for a single anchor as part of a multiple fixing of non-structural systems.
The given loads are valid for wood screws with the specified diameter.

Type			SXRL 8		
Anchorage depth	h_{nom}	[mm]	50	70	90
Screw diameter	Ø	[mm]	6,0	6,0	6,0
Min. edge distance concrete	a_r	[mm]	60	80	100
Recommended loads in the respective base material F_{rec}²⁾					
Concrete	≥ C20/25	[kN]	0,60	1,00	1,00
Solid brick	≥ Mz 12	[kN]	0,45	0,60	0,60
Solid sand-lime brick	≥ KS 12	[kN]	0,40	0,50	0,50
Vertically perforated brick	≥ Hlz 12 ($\rho \geq 1,0 \text{ kg/dm}^3$)	[kN]	0,15	0,15	0,15
Perforated sand-lime brick	≥ KSL 12	[kN]	0,10	0,40	0,40
Aerated concrete	AAC 2	[kN]	-	0,10	0,10
Aerated concrete	AAC 4	[kN]	-	0,15	0,20

¹⁾ Required safety factors are considered.

²⁾ Valid for tensile load, shear load and oblique load under any angle.

³⁾ Valid for zinc coated screws and for screws made of stainless steel. For exterior use of the zinc coated screws measures against incoming humidity have to be taken.

LOADS

Frame fixing SXRL⁴⁾

Highest permissible loads¹⁾²⁾ of a single anchor as part of a multiple fixing of non-structural systems. For the design the complete assessment ETA-07/0121 has to be considered.

Product		SXRL								
Anchor diameter	[mm]	Ø 8			Ø 10			Ø 14		
Anchorage depth	h_{nom} [mm]	50	70	90	50	70	90	70	90	
Anchorage in concrete \geq C12/15										
Permissible tensile load	[kN]	1,59	1,98		1,98	2,58		3,37		
Permissible shear load	Zinc-plated steel	4,23			5,98			12,40		
	Stainless steel A4	3,93			5,98			11,63		
Minimum member thickness	h_{min} [mm]	80	100	120	100		120	110	130	
Characteristic edge distance	$c_{cr,N}$ [mm]	85			140			140		
Characteristic spacing	a resp. $s_{cr,N}$ [mm]	90	105		120			135		
Minimum spacing	s_{min} [mm]	85			70			85		
with an edge distance	$c \geq$ [mm]	85			140			140		
Minimum edge distance	c_{min} [mm]	85			70			85		
with a spacing	$s \geq$ [mm]	85			175			175		
Anchorage in narrow concrete members ($h \geq 40$ mm) made of concrete \geq C12/15, e.g. weather shells of triple-skin outer wall panels										
Permissible tensile load	[kN]	-			0,99	-		-		
Permissible shear load	[kN]	-			5,98	-		-		
Anchorage in pre-stressed hollow-core concrete slabs (mirror thickness $d_b \geq 30$ mm) made of concrete \geq C45/55										
Permissible tensile load	[kN]	-			1,39	-		-		
Permissible shear load	[kN]	-			5,98	-		-		
Anchorage in masonry										
Permissible load ³⁾ in solid brick	\geq Mz 12 a. \geq NF	[kN]	0,57	0,71	0,57	1,14	-	0,86		
	\geq Mz 20 a. \geq NF	[kN]	0,86	1,14	1,00	1,14	-	1,14		
Permissible load ³⁾ in solid sand-lime brick	\geq KS 10 a. \geq NF	[kN]	0,57		0,57	0,71	-	0,86		
	\geq KS 20 a. \geq NF	[kN]	0,71	0,86	1,00		-	1,29		
Permissible load ³⁾ in lightweight concrete block	\geq V 2; $\rho \geq 1,2$ kg/dm ³	[kN]	0,11	0,26	0,11		-	0,26		
	\geq V 6; $\rho \geq 1,6$ kg/dm ³	[kN]	0,34	0,57	0,57	1,29	-	0,57		
Permissible load ³⁾⁵⁾ in vertically perforated brick (e.g. Poroton)	\geq HLz 10; $\rho \geq 1,0$ kg/dm ³	[kN]	0,17		-	0,21	-	0,57	0,71	
Permissible load ³⁾ in perforated sand-lime brick	\geq KSL 6	[kN]	-			-	0,21	-	0,26	0,34
	\geq KSL 12	[kN]	0,34	0,43	-	0,71	-	0,43	0,71	
Permissible load in ³⁾⁵⁾ hollow lightweight concrete blocks	\geq HBL 2	[kN]	0,43	0,57	0,43	0,57	0,71	-	0,34	0,21
	\geq HBL 6	[kN]	0,43	0,71	0,43	0,71	0,43	-	0,57	-
Permissible load ³⁾⁵⁾ in ceilings made of vertically perforated bricks	$f_b \geq 10$ N/mm ² ; $\rho \geq 0,7$ kg/dm ³	[kN]	-			-	0,57	-	-	
Minimum member thickness	h_{min} [mm]	115			110			115		
Minimum spacing (single anchor)	a_{min} [mm]	250			250			250		
Minimum spacing (anchor group)	s_{min} [mm]	100			100			100		
Minimum edge distance (anchor group)	c_{min} [mm]	100			100			100		
Anchorage in aerated concrete										
Permissible load ³⁾ in aerated concrete	2 N/mm ²	[kN]	-	0,14	0,21	-	0,18	0,21	0,32	0,43
	4 N/mm ²	[kN]	-	0,32	0,43	-	0,43	0,54	0,89	1,07
	6 N/mm ²	[kN]	-	0,54	0,71	-	0,71	0,89	1,43	1,79
Minimum member thickness	h_{min} [mm]	-	175			-	100	120	175 ⁶⁾ /300 ⁷⁾	
Minimum spacing (single anchor)	a_{min} [mm]	-	250			-	250			
Minimum spacing (anchor group)	s_{min} [mm]	-	80 ⁶⁾ /110 ⁸⁾			-	100 ⁶⁾ /120 ⁸⁾			
Minimum edge distance (anchor group)	c_{min} [mm]	-	90 ⁶⁾ /110 ⁸⁾			-	120	120	120 ⁶⁾ /150 ⁷⁾	

¹⁾ The required partial safety factors for material resistance as well as a partial safety factor for load actions $\gamma_L = 1,4$ are considered.

As a single anchor counts e.g. an anchor with a minimum spacing a according to table B4.1 resp. table B4.2 of the assessment.

²⁾ Valid for temperatures in the substrate up to +50 °C (resp. short term up to +80 °C). For long term temperatures up to +30 °C higher permissible loads may be possible.

³⁾ Valid for tensile load, shear load and oblique load under any angle. For combinations of tensile loads, shear loads and bending moments see assessment.

⁴⁾ Valid for zinc coated screws and for screws made of stainless steel. For exterior use of the zinc coated screws measures against incoming humidity according to assessment have to be taken.

⁵⁾ Rotary drilling.

⁶⁾ Only valid for AAC with compression strength ≥ 2 to < 4 N/mm².

⁷⁾ Only valid for AAC with compression strength ≥ 4 N/mm².

⁸⁾ Only valid for AAC with compression strength ≥ 6 N/mm².