Manual grip slider types 10 / 12 / 15 / 18 / 20 / 25 / 30

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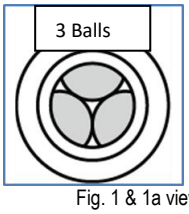
Legal notice:
This Instruction and operating manual applies to Reutlinger grip sliders for wire ropes types 10 / 12 / 15 / 18 / 20 / 25 / 30 with their original coupling parts (e.g. ring, fork), side exit designs as well as surfaces (e.g. galvanised, nickel-plated, lacquer-coated finish). Available in a variety of designs they are conceived for the suspension of different, clearly defined working loads on steel cables (wire ropes) - see table for details of maximum permissible loads (safe working loads / working load limit) and approved wire ropes.
Safe use of this suspension system requires sufficiently firm attachment/anchorage to a fastening point (ceiling, wall, floor, object) – the responsibility is / lies with the user.
Installation should always be made by qualified professionals.

Attention:
In order to prevent any risk of confusion and to help clearly identify the applicable safe working load (working load limit) in each case of use, grip sliders with coupling threads must only be connected to coupling parts that are not marked with a safe working load label of their own.
Only the safe working loads displayed on the grip slider and indicated in the table of this instruction and operating manual apply!
It is the user's sole responsibility to ensure that the safe working load of any coupling parts used is NEVER lower than that of the grip sliders and that all relevant regulations are adhered to at all times.
Important: Please keep this instruction and operating manual within easy reach for future reference.

Safety Advice / Precautionary Statements:
1. Reutlinger grip sliders are only approved for indoor use at temperatures between –20…+50°C.
2. Use of the grip sliders in swimming facilities (with a chloric atmosphere) or in any other corrosion-promoting environments (sea water areas or locations with high salt concentration in the atmosphere) is not permitted.
3. Any dynamic forces acting, or likely to act, on the grip slider during assembly and disassembly must be taken into account for determining the actual maximum load on a case-by-case basis. The indicated safe working load (working load limit/WLL) is the maximum load that should NEVER be exceeded! The cable holders are not approved for performing dynamic/scenic movements driven by stage machinery installations.
4. The casing of the grip slider must be impossible to open and must never be opened. Permanently fixed original parts should not removed.
5. Before the grip slider is used, its nozzle (i.e. the threaded nose protruding from the cable holder's top-end) must be able to be pushed inside with ease against the noticeable pressure of the spring, and it should move out again by itself and return to its original position outside the grip slider when it is released.
6. The pass-through channel of the nozzle must be free of foreign particles so that proper functioning of the grip slider is ensured.
7. When looking through the nozzle, part of the circumference of three or six balls protruding into the nozzel's pass-through channel must be visible (Fig.1 and 2). The lighter, central gap formed by the configuration of the three or six balls is to form a hexagon in the pass-through channel, similar to a star with three or six points. If the three or six balls are not visible in the grip slider as described above, the grip slider should not be used. Contact the Quality department of Reutlinger GmbH.
8. The surface of the wire rope to be threaded into the grip slider must be properly closed (i.e. sealed by tinning, welding, shrink-sleeving,…) so that an unravelling of the wire rope and thus injury to the user from projecting wires or strands is prevented. If the wire rope needs to be shortened, its ends must be once again permanently sealed after the trimming is complete.
9. For safe operation and full load capacity (i.e. up to the working load limit) of the grip slider, the wire ropes must be entirely undamaged and free of dirt or other contamination.
10. Wire ropes and wires must not be pulled over edges (e.g. in case of models with side cable exit)!
11. The deflection angle of the wire rope from the vertical symmetry axis of the grip slider must not exceed α=5° (Fig.2).
12. The nozzle of the grip slider must under no circumstances be loaded (e.g. it must not be exposed to buckling or compressive stress etc.). It must remain accessible at all times.
13. The grip slider must be used in pairs as a minimum, i.e. the object to be suspended must be held by a minimum of two wire ropes in order to prevent rotation of the grip slider upon its own axis on the wire rope.
14. After overload, above the indicated safe working load (working load limit), grip sliders should not be used again!
15. Wire ropes and grip sliders should not be damaged ! „Critical Damage" includes (but is not limited to): Cracks, deformations and material loss such as may occur through impact, shock or severe friction/abrasion. Slight abrasion or deformation of the nozzle may indicate presence of damage inside the grip slider caused by, for example, an impact on the nozzle (e.g. by falling onto a hard surface). In case of any doubts or questions as to whether a particular Reutlinger grip slider exhibits uncritical traces of use or potentially critical damage, please contact Reutlinger GmbH to be on the safe side.
16. Do NOT use any tools when mounting the grip slider onto its respective mating counterpart or when tightening the lock nut (safety nut).
17. A hinged grip slider (see pic. 3) must not be angled and then used as a lever when being fitted to its complementary part.
18. A forked grip slider (see pic. 4) must be securely locked with the spring of the safety bolt.



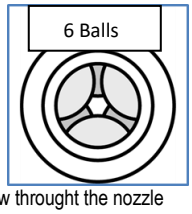


Fig. 1 & 1a view throught the nozzle

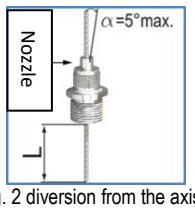


Fig. 2 diversion from the axis

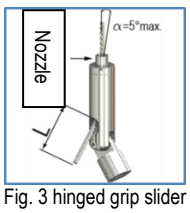


Fig. 3 hinged grip slider

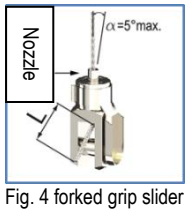


Fig. 4 forked grip slider

How to safely connect the grip slider to the wire rope:
1. First, loosen the lock nut mounted on the threaded nose protruding from the grip slider's top end (nozzle) until the end of the thread is reached. Next, insert one end of the wire rope into the grip slider against the slight resistance of the spring-loaded nozzle (Fig.5).
2. The grip slider can now be slid along the wire rope. As soon as it is pulled in the opposite direction or loaded, the gripping mechanism will be automatically activated. If the gripping mechanism is not triggered as it should, please check whether the wire rope selected for use with the grip slider is appropriate (see table with working loads), or whether the grip slider is possibly defective (in order to check the grip slider prior to use, please refer to the "Safety Advice/Precautionary Statements" section, steps 1…7).
   ! In case of a suspected malfunction or defect, the grip slider should NOT be used !
3. Care should be taken that the wire rope, prior to the gripping action being triggered, is properly channelled through the grip slider so that it protrudes under load by at least L= 25mm (1 inch) from the coupling thread, coupling part or side exit (ZW) of the grip slider (Fig.3, 6) depending on the model used.
   In addition, the angle α=5° max. between the wire rope and the vertical symmetry axis of the grip slider must not be exceeded at the point of exit of the cable from the nozzle. If the angle is larger, the lateral pressure exerted by the wire rope on the nozzle can cause damage to the nozzle or malfunction of the grip slider, thus possibly leading to an accidental release of the gripping mechanism.
4. After the grip slider has been adjusted to the required position on the wire rope by a gentle pulling action of the hand (in direction of load), the grip slider will begin to grip.

5. Once the grip slider has properly gripped the wire rope, tighten the lock nut by hand (without the use of tools!) until it comes to closely rest against the top end of the grip slider. The load can now be attached to the grip slider; the gripping force of the grip slider increases in proportion to the work load. Care should be taken to ensure that load attachment to the tensioned wire rope is performed slowly and gradually.
6. After proper attachment of the work load, re-tighten the lock nut further by hand (without the use of tools!) until it makes full-surface contact with the grip slider.
7. Pulse loading (shock loads) may cause the safe working load (working load limit) to be temporarily exceeded and may thus lead to damage of the wire rope and the grip slider. If any such pulse loading (shock load) has occurred, the load should be removed, and the wire rope, as well as the grip slider, should be checked for damage immediately.

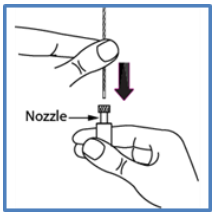


Fig .5 wire insert

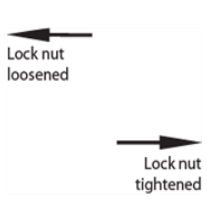


Fig .6 Y-grip slider with side exit

If the grip slider or the load is to be relocated on the wire rope (i.e. on a new position), please proceed in reverse order:

1. Loosen the lock nut, remove the suspended load or secure it expertly to the grip slider to prevent accidental dropping of the load.
2. Manually press the lock nut, thus pushing the nozzle into the grip slider, and keep it in that position. The grip slider is now unlocked - means the gripping pressure is released.
3. You can now slide the grip slider to the selected position on the wire rope.
4. Release the lock nut once again; while you do so, the nozzle should move out from the grip slider and return by itself to its original position outside the grip slider.
5. For re-applying the load, please proceed once again as described from step 4 of the "How to safely connect the grip slider to the wire rope" section.

Reutlinger grip slider types 10 / 12 / 15 / 18 / 20 / 25 / 30 are TÜV-GS approved.

According with Directive 2006/42/EC on machinery the following maximum working loads in kg apply (Safety factor = 5).

Galvanised steel wire rope 7x7 – similar DIN EN 12385-4:2008, spec. tensile strength 2300N/mm²

Galvanised steel 7x7 2300 N/mm²	Ø 0,81mm	Ø 1,0mm	Ø 1,2mm	Ø 1,5mm	Ø 1,8mm	Ø 2,0mm	Ø 2,5mm	Ø 3,0mm
Type 10	8 kg	11 kg						
Type 12	9 kg	13 kg	17 kg					
Type 15		13 kg	17 kg	25 kg				
Type 18 – 3 Balls		13 kg	18 kg	27 kg	30 kg			
Type 18 - 6 Balls		13 kg	18 kg	33 kg	39 kg			
Type 20 - 3 Balls		13 kg	18 kg	28 kg	34 kg	49 kg		
Type 20 - 6 Balls		13 kg	20 kg	31 kg	39 kg	55 kg		
Type 25				24 kg	34 kg	48 kg	68 kg	
Type 30 - 3 Balls						40 kg	65 kg	85 kg
Type 30 - 6 Balls						50 kg	75 kg	105 kg

Stainless steel wire rope 7x7 similar DIN EN 12385-4:2008, spec. tensile strength 1570 N/mm²

Stainless steel 7x7 1570 N/mm²	Ø 0,45 mm	Ø 0,54 mm	Ø 0,63 mm	Ø 0,81 mm	Ø 1,0 mm	Ø 1,2 mm	Ø 1,5 mm	Ø 1,8 mm	Ø 2,0 mm	Ø 2,5 mm	Ø 3,0 mm
Type 10	1,5 kg	2,5 kg	3 kg	7 kg	10 kg						
Type 12			4 kg	8 kg	10 kg	15 kg					
Type 15					10 kg	15 kg	20 kg				
Type 18 – 3 Balls					9 kg	15 kg	20 kg	30 kg			
Type 18 - 6 Balls					10 kg	15 kg	20 kg	30 kg			
Type 20 - 3 Balls					10 kg	15 kg	20 kg	30 kg	34 kg		
Type 20 - 6 Balls					10 kg	15 kg	20 kg	30 kg	34 kg		
Type 25							20 kg	30 kg	34 kg	45 kg	
Type 30 - 3 Balls									34 kg	50 kg	70 kg
Type 30 - 6 Balls									40 kg	60 kg	85 kg

Reutlinger GmbH declares under its sole responsibility that the products covered by this manual are in compliance with EC Machinery Directive (2006/42/EC) and Supply of Machinery (Safety) Regulations 2008 and following standards have been applied: DIN EN- 12385-4; -13411 Parts 5, 7. – BS EN 12385-4; -13411 Parts 5, 7.
More technical and safety instructions can be found on www.reutlinger.net

Sie finden die deutsche Originalfassung dieser Betriebs- und Bedienungsanleitung unter www.reutlinger.net/tech-info