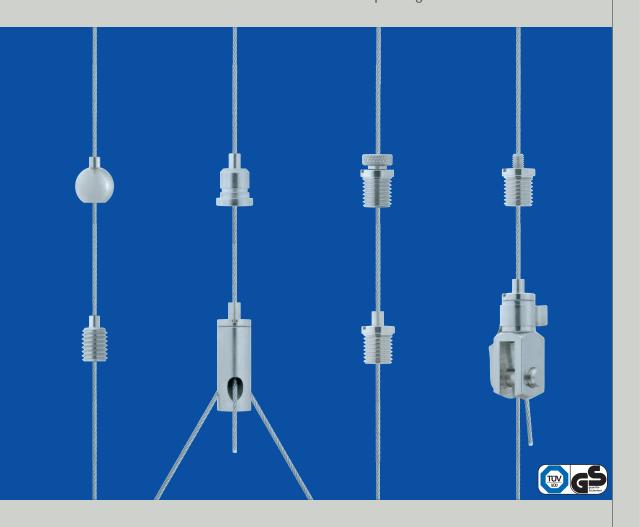
## Mini Type 10|12

- Lighting Fixtures
- Museums
- Interior Construction
- Shop Fittings





## **REUTLINGER - The only TÜV-certified holders**



The TÜV-certificate – a safety guarantee from REUTLINGER.



#### TÜV-certification

All REUTLINGER holders type 10 and 12 have been certified

#### Holder type 10

Certificate-Nr. Z1A 0604 14229 027

#### Holder type 12

Certificate-Nr. Z1A 0604 14229 024

## REUTLINGER – the only TÜV-certified holders

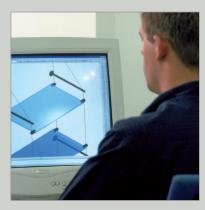
The German TÜV is internationally renowned as a rigorous testing institution and is highly trusted by producers and consumers — especially for technical products.

The highest and most comprehen-sive level of TÜV-testing is GS-certification, denoting safe equipment and recognizable by the well-known blue sticker.

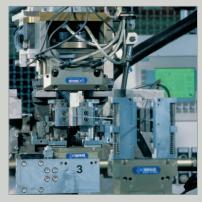
REUTLINGER is the world's only manufacturer of cable suspension systems that has succeeded in complying with the demands of GS-certification with every product line: our promise of safety confirmed by the TÜV.



### **Product review**



Product design with 3D-CAD-systems



Fully automatic cable-production with testing

### Loadable and flexible

Whether you're suspending light or small loads: REUTLINGER holders are infinitely adjustable up and down the cable without tools.

Unscrew safety-cap, suppress plunger, slide the holder, release the plunger and screw down the safety-cap – that's it.

<b>REUTLINGER</b> · Specialists for cable attachments and suspension	04
Technical Information	05
Type 10	06
Central cable exit	07
Lateral cable exit	08
Type 12	09
Central cable exit	09
Lateral cable exit	10
Special versions	11
Cables - Accessories	12
Cable ends	12
Cables	13
Cable clips	13
Ceiling attachments	14
Contact	16

### **REUTLINGER - Specialists for cable attachments and suspension**



## From a traditional workshop into a global high-tech company

"Technology should help us reach our goals. Therefore REUTLINGER constantly strives for logic and simplicity in all our products. Every detail must be functional and each function must make sense."

Wolf Reutlinger, who has lead the company since 1987, continued this tradition of craftsmanship while initiating innovative processes which opened up new applications and markets.

## More than meets the eve

The use of REUTLINGER fastening attachments always results in permanent connections.

This is the effect guaranteed by the self-locking mechanisms inside our holders. The elements devised specifically for this purpose are based on the following principle: the heavier the load – the greater the clamping force. For safe working loads (SWL) up to 400 kg.

By continually expanding the range of our products we were able to dominate the world market for suspended lighting fixtures within a few years. Today we are proud to count virtually all producers of high-quality lighting fixtures — as well as the automobile industry, sign- and shelf-manufacturers, galleries and museums — among our regular customers.

## Customer demands – a constant incentive to innovate

Highly qualified employees, the use of modern CAD systems and fully automated production facilities allow us to consistently turn out innovative products of unvarying high quality. We individually develop and manufacture our products in close cooperation with our customers. We put all our know-how at the disposal of our customers – from initial planning to detailed construction and manufacture right up to final installation.

## »Improve what is good, change what is ineffective«

Keeping an eye on quality and costs reflects this thinking – in all of our products. We pay special attention to the constant optimising of the following factors:

- increase loadability of the complete system
- reduce size to improve visual adaptability
- · increase design variations
- reduce customers' installation time



#### **Technical Information**

#### Adjusting without tools

First, the knurled cap is unscrewed a few thread-turns so the cable can be inserted (see illustration 1).

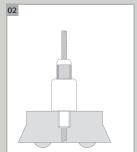
Once the holder is put in place the cap is screwed down until firm resistance is felt. This pulls the cable into the cone (see illustration 2).

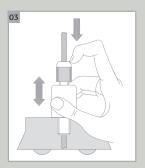
Vertical readjustment of the holder follows the same procedure (see illustration 3).

Inadvertent un-clamping through skewed loading or inattentiveness can no longer result in fallen loads.

We recommend occasional readjustment of the safety-cap.







#### Safety-caps

Safety-caps prevent inadvertent release of the clamping mechanism inside the holders. That's why the plunger is threaded. Safety-caps are available in various versions.

- Cylindrical safety-caps available with cross knurling or vertical knurling (see p. 9)
- Domed safety-caps are available with cross- oder vertical knurling, or without

#### Working loads & cables

A system's SWL equals 20% of its breaking load.

Cables			Recommended cables & Safe Working Loads			
Cable diameter	Cable material	cable construction	Serial number	Type 10	Type 12	
0,8	stainless steel	6x7+1SC, 1.570 N/mm <sup>2</sup>	031.010.081	4 kg	4 kg	
1.0	stainless steel	6x7+1SC, 1.570 N/mm <sup>2</sup>	031.010.101	6 kg	7 kg	
1,0	zinc plated	6x7+1SC, 2.300 N/mm <sup>2</sup>	015.580.111	8 kg	10 kg	
1.2	stainless steel	6x7+1SC, 1.570 N/mm <sup>2</sup>	031.010.121	no	10 kg	
1,2	zinc plated	6x7+1SC, 2.300 N/mm <sup>2</sup>	015.580.121	no	15 kg	

Chart 1: Recommended cables and Safe Working Loads

# in a leading role Holders type 10 and t

Discreet – but always

Holders type 10 and type 12 are the smallest members of the REUTLINGER product range. They are especially called for when the suspension of lighting fixtures or other objects should be nearly invisible.

Holders type 10 are usable in connection with cable-ø from 0.8 mm to 1.0 mm. Holders type 12 are usable for cable-ø from 0.8 mm to 1.2 mm.



Subtle integration into the suspended object



Numerous applications

The Holders are very small and easy to overlook. But they are distinguished by an extremely high loadability.

Numerous coupling attachments onto various holder types make holders type 10 and type 12 almost universally usable.

Holders have been certified by the German TÜV.

## Central cable exit



### Holder type 10 M6x8

Diameter 6 mm
Length 8 mm
Coupling thread M6
Thread length 8 mm
Ser. no. 193.008.000



### Holder type 10 M6x7 A7

Diameter 7 mm
Length 8 mm
Coupling thread M6
Thread length 7 mm
Ser. no. 193.008.005



## 03

### Holder type 10 Hook

 Diameter
 9 mm

 Length
 20 mm

 Ser. no.
 193.008.001



## Holder type 10 fork M4x8

With safety bolt

Diameter 8 mm

Length 23 mm

Fork width 4 mm

Ser. no. 193.008.002





Holder in use (luminaire by TAL)

## Lateral cable exit



## Holder type 10 ZW M4ix4

Diameter	7 mm
Length	19 mm
Coupling thread	M4
Usable thread depth	4 mm
Ser. no.	193.008.007



Holder type 10
ZW M4ix4 slit 1,2 mm
with set-screw M4x4

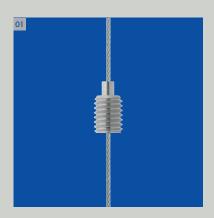
 Diameter
 7 mm

 Length
 19 mm

 Ser. no.
 193.008.006



## Central cable exit



### Holder type 12 M8x10

Diameter 8 mm
Length 10 mm
Coupling thread M8
Thread length 10 mm
Ser. no. 193.000.098

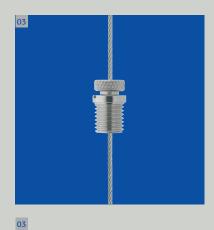
#### Holder type 12V M8x10

With safety-nut
Diameter 8 mm
Length 10 mm
Coupling thread M8
Thread length 8 mm
Ser. no. 193.000.766



### Holder type 12 M8x1 A9

Diameter 9 mm
Length 10 mm
Coupling thread M8x1
Thread length 8 mm
Ser. no. 193.000.139



## Holder type 12 M8x1 A9

With knurled safety-nut M3

Diameter 9 mm

Length 10 mm

Coupling thread M8x1

Thread length 8 mm

Ser. no. 193.000.137



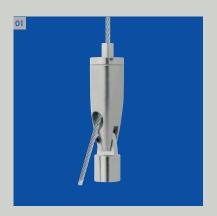
### Holder type 12 M4x7 o.R.

Diameter 8 mm
Length 21 mm
Coupling thread M4
Thread length 7 mm
Ser. no. 193.000.134

#### Holder type 12 M4x7 m. LR

Diameter	8 mm
Length	21 mm
Coupling thread	M4
Thread length	7 mm
Ser. no.	193.000.133

## Lateral cable exit



## Holder type 12 ZW hinged M4ix4

Diameter 9 mm
Length 32 mm
Coupling thread M4
Usable thread depth 4 mm
Ser. no. 193.000.798

### Holder type 12 ZW hinged M5ix4

Diameter	9 mm
Length	32 mm
Coupling thread	M5
Usable thread depth	4 mm
Ser. no.	193.000.887



### Holder type 12 ZW M3ix4

Diameter/Length 9/24 mm
Coupling thread M3
Usable thread depth 4 mm
Ser. no. 193.000.281

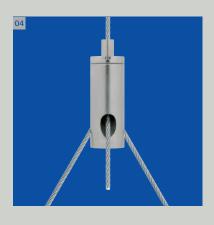
#### Holder type 12 ZW M4ix4

Diameter/Length 9/24 mm
Coupling thread M4
Usable thread depth 4 mm
Ser. no. 193.000.142



# Holder type 12 M8x1 A9 with coupling part ZW-NK

Diameter/Length 8/26 mm
Flange width/depth from 3,5/8 mm
Flange height 2,5 mm
Ser. no. 193.000.143



### Y-holder type 12 ZW M4ix4 slit 1,6 mm with set-screw Mx6

 Diameter
 9 mm

 Length
 24 mm

 Slit
 1,6 mm

 Ser. no.
 193.000.136

Y-holder type 12 ZW M4ix4 slit 1,6 mm with set-screw M4

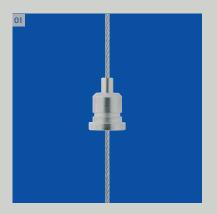
Ser. no. 193.000.777

Y-holder type 12ZW M4ix4 lateral bore ø 1,6 mm with set-screw M4

Ser. no. 193.000.763



#### Special versions



### Holder type 12 N7x10

To attach securing- or clamping-plates
Diameter 8 mm
Length 10 mm
Flange-ø 10 mm
Groove-height 1 mm
Groove-ø 7 mm
Ser. no. 193.000.135



## Holder type 12 fork 5x10 with safety-bolt

Diameter 10 mm
Length 28 mm
Fork width 5 mm
Fork length 16 mm
bolt-ø 5 mm
Ser. no. 193.000.141



### Holder type 12 ball ø 12

Diameter 12 mm Ser. no. 193.000.017

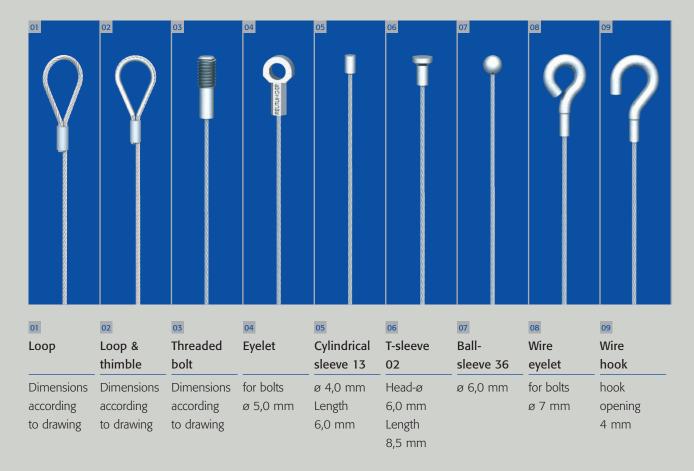


# Holder ball-joint type 12 with M6i

Diameter	16 mm
Length	21 mm
Ser. no.	193.000.207

#### **Cable ends**

On demand cables with various cable-ends custom-made to fit individual suspensions (length, materials, diameter.)



Cables		Cable ends									
Cable diameter	Cable material	Cable construction	(1) Loop	(2) Loop & thimble	(3) Threaded bolt	(04) Eyelet	(05) Cylindrical sleeve 13	(06) T-sleeve 02	(07) Ball- sleeve 36	(08) Wire eyelet	(09) Wire hook
0,8	stainless steel	6x7+1SC 1.570 N/mm <sup>2</sup>	•	•	•	•	•	•	•	•	•
	stainless steel	6x7+1SC 1.570 N/mm <sup>2</sup>	•	•	•	•	•	•	•	•	•
1,0	zinc plated	6x7+1SC 2.300 N/mm <sup>2</sup>	•	•	•	•	•	•	•	•	•
	stainless steel	6x7+1SC 1.570 N/mm <sup>2</sup>	•	•	•	•	•	•	•	•	•
1,2	zinc plated	6x7+1SC 2.300 N/mm <sup>2</sup>	•	•	•	•	•	•	•	•	•

Chart 2: Cables and cable-ends ( • available)

### **Accesssories | Cables**

## Cables for Holders

#### 1. Materials and coatings

Cables are available in two degrees of durability

- 1.1. galvanized steel for normal indoor use;
- 1.2. stainless steel for exterior use and decorative requirements

#### 2. Specific cable strength

Along with the standard strength cables with 1570 N/mm<sup>2</sup> we also offer high-tensile- strength cables with up to 2400 N/mm<sup>2</sup>. With these you get a higher system strength with the same cable diameter.

#### 3. Cable construction

The new cables for Holders are all very flexible, no matter what construction. Therefore we normally offer only 6x7+WSC (aka 7x7). Should cables have to run on wheels, a special solution must be found.

#### 4. Cable diameter

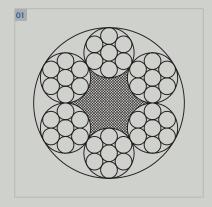
REUTLINGER offers cables from 0.8 mm to 1.2 mm suitable for Holders.

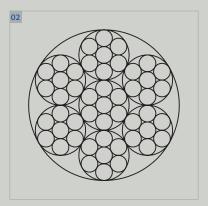
#### 5. Use of other cables

REUTLINGER cables are free of tension, stress-free, not twisted and cut-proofed. When using other cables take care that cutting does not untwist the cable, because it's possible that they will not fit into the holder after they have been tinned.

#### 6. Individual solutions

Let us help you choose the best solution among our variety of cable ends.





- o1 cables similar EN 12385 6x7+1FSC
- oz cables similar EN 12385 6x7+1WSC

## Attaching power-feeds to cables



#### 03

#### Cable clip >Flex Plus small

Power-feed-ø	5,0 - 8,0 mm
Cable-ø	1,0 - 2,0 mm
Colour	Ser. no.
black	029.006.598
white	029.006.595
grey	029.006.596
transparent	029.006.597

#### Cable clip >Flex Plus large(

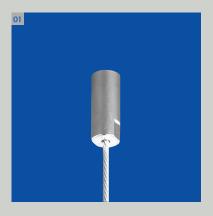
Power-feed-ø	7,0 - 10,5 mm
cable-ø	1,0 - 2,0 mm
Colour	Ser. no.
black	029.006.592
white	029.006.590
grey	029.006.593
transparent	029.006.594

#### Cable clip >Flex Standard

Power-feed-ø	6,0 - 8,0 mm
Cable-ø	1,0 - 1,6 mm
Colour	Ser. no.
black	029.005.124
white	029.005.123
transparent	029.005.249

### Accessories

#### Single piece ceiling attachments



#### 01

#### Ceiling attachment M6i o.R. SW7

Diameter 8 mm
Length 20 mm
Coupling thread M6i
Wrench opening 7 mm
Ser. no. 029.004.078



#### 02

#### Ceiling attachment M6i m.R.

Diameter 10 mm
Length 20 mm
Coupling thread M6i
Ser. no. 029.006.200

#### Two-piece ceiling attachments



#### 0.7

#### Ceiling attachment M8x1 short

Flange diameter 11 mm
Diameter 9 mm
Length 14 mm
Coupling thread M8x1
wiht M6i Ser. no. 029.006.203
without M6i Ser. no. 029.006.201

#### Ceiling attachment M10x1 short

Flange diameter 16 mm
Diameter 12 mm
Length 115 mm
Coupling thread M10x1
with M6i Ser. no. 029.006.007



#### 04

## Ceiling attachment M10x1 with bore

Flange diameter 16 mm
Diameter 12 mm
Length 26 mm
Coupling thread M10x1
with M6i, ser. no. 029.006.010
without M6i, ser. no. 029.006.009



#### 05

## Ceiling attachment M8x1 with slit

Flange diameter 11 mm
Diameter 9 mm
Length 20 mm
Coupling thread M8x1
with M6i Ser. no. 029.006.044
without M6i Ser. no. 029.006.031

## Ceiling attachment M10x1 with slit

Flange diameter 16 mm
Diameter 12 mm
Length 26 mm
Coupling thread M10x1
with M6i Ser. no. 029.006.012

#### Two-piece ceiling attachments



#### 01

#### Screw cap M8x1

Diameter 9 mm
Length 10 mm
Coupling thread M8x1
Thread length 8 mm
Ser. no. 029.006.030

#### Screw cap M8x1 >Quick(

Same as screw cap M8x1, with slit

Ser. no. 029.006.732

#### Screw cap M10x1

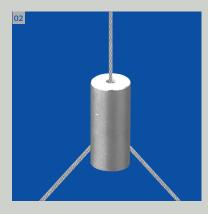
Diameter 12 mm
Length 10 mm
Coupling thread M10x1
Thread length 8 mm
Ser. no. 029.006.011

#### Screw cap M10x1 >Quick

Same as screw cap M10x1, with slit

Ser. no. 029.006.705

#### Y-coupling parts



#### 02

#### Combination Y-coupling part M5ix5 with slit and set screw M5x6

For cable-ø 1.0 -1.5 mm

Diameter 6 mm

Length 17 mm

Thread depth 5 mm

Ser. no. 193.000.028

#### Combination

## Y-coupling part M5ix5 with lateral bore and set screw M5x6

For cable-ø 1.0 -1.5 mm

Diameter 6 mm

Length 17 mm

Thread depth 5 mm

Ser. no. 193.000.898

#### Ceiling holder



### 03

#### Ceiling attachment M8x1 with slit and holder type 12 M8x1 A9

Diameter 11 mm
Length 22 mm
Coupling thread M8x1
Thread depth 8 mm
Ser. no. 193.000.819

# Ceiling attachment M10x1 with slit and holder type 15 M10x6A

Diameter 16 mm
Length 24 mm
Coupling thread M10x1
Thread depth 12 mm
Ser. no. 193.000.427

Further solutions by request!



Have we gotten you interested? Do you have questions concerning technical details?

Give us a call.

Please ask for further available brochures:

#### Standard

holders & accessories type 15, 18, 20

#### Heavy duty

holders & accessories Type 25, 30, 50, 80

#### Shop | Display

Shelving- and display-systems for shops

#### Gallery

Suspension systems for galleries and exhinits

#### **Event Technology**

Rigging, Stage Production, Fair Booths

#### Sales & Consultations Germany

Olaf Habel +49 (0) 69 965228-13 habel@reutlinger.de

Hans-J. Arendt +49 (0) 69 965228-16 hj.arendt@reutlinger.de

Andreas Mixa + 49 (0) 69 965228-37 a.mixa@reutlinger.de

#### Sales & Consultations Foreign

Silvia Kopka +49 (0) 69 965228-12 s.kopka@reutlinger.de

#### Reutlinger GmbH

Offenbacher Landstr. 190 60599 Frankfurt Germany

Phone +49 (0) 69 965228-0 Telefax +49 (0) 69 96522830

E-Mail info@reutlinger.de Internet www.reutlinger.de

Managing Director: Dipl. Ing. Wolf Reutlinger HRB Frankfurt 33321

USt-ID DE 114 209 718