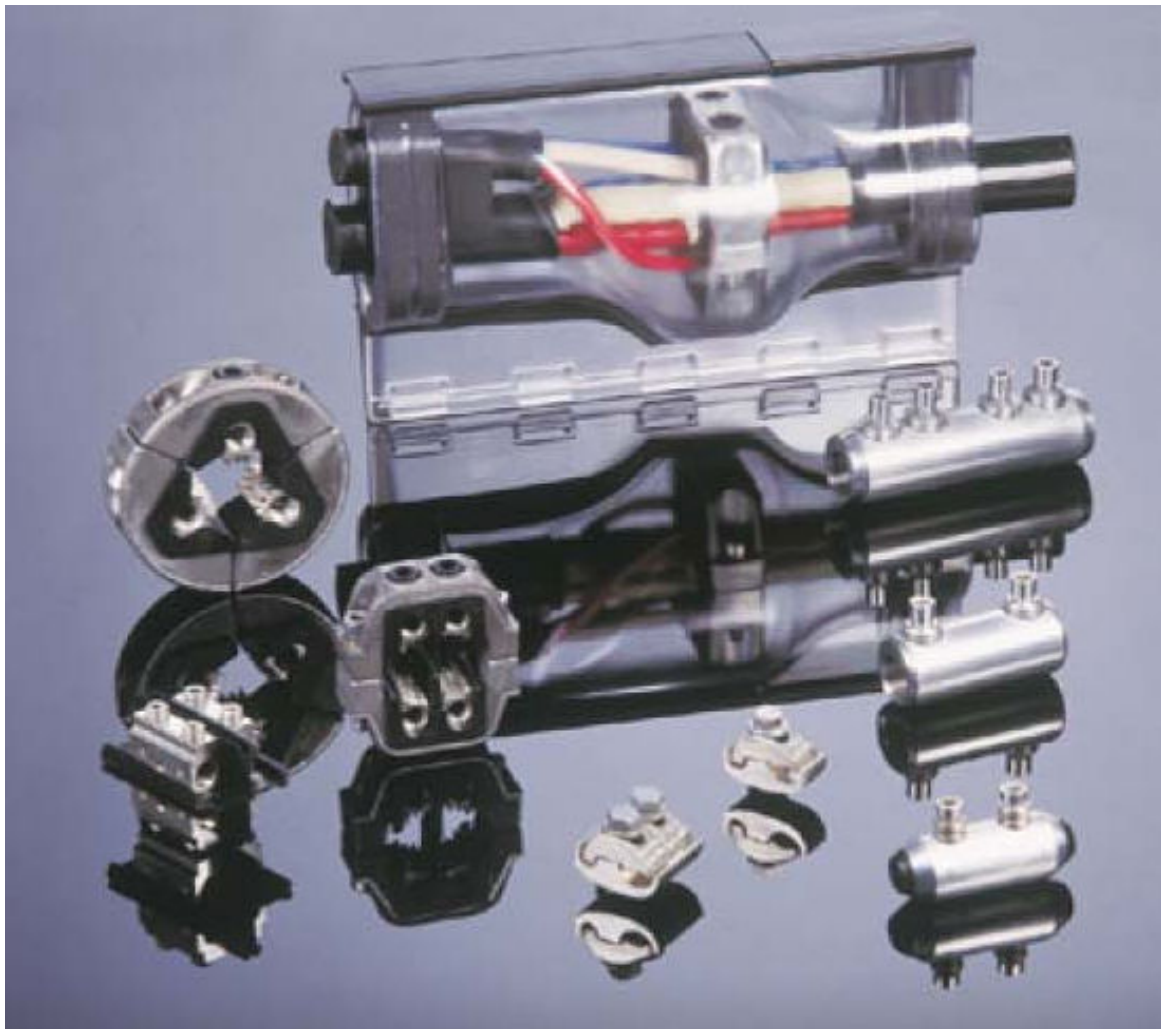


# PFISTERER

February 2011

## Underground Network Fittings



Intelligent Connection Systems For the Power Supply Industry



# PFISTERER

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# Underground Clamps

## 3 CORE COPPER STRANDED (sector) or ALUMINIUM SOLID SECTOR

Hamer Code	Part Number	Conductor Range (mm <sup>2</sup> )		Kit No .	Box Qty
		Main	Tap-Off		
KP1340	330-391-001	95	16-50		5
KP1470	331-013-013	185	6-70	4	5



## 3½ CORE COPPER STRANDED (sector or round) or ALUMINIUM SOLID

Hamer Code	Part Number	Conductor Range (mm <sup>2</sup> )			Kit No.	Box Qty
		Main	Al Solid Sector	Tap-Off		
KP1522	331-862-862	185	95	6-70	3	5

## 4 CORE COPPER or ALUMINIUM PAPER INSULATED

Hamer Code	Part Number	Conductor Range (mm <sup>2</sup> )			Kit No.	Box Qty
		Main	Al Solid Sector	Tap-Off		
KP1615	332-241-005 <sup>¶</sup>	95 (120) <sup>E</sup>	120 (150) <sup>E</sup>	6-95	3	5

<sup>¶</sup> "Knife-blade" teeth: all other clamps have "Spike" teeth

<sup>E</sup> Larger cables accepted if special wedges are used

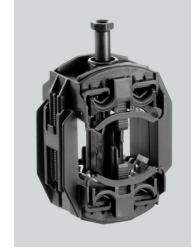
## 4 CORE COPPER or ALUMINIUM STRANDED (sector or round)

Hamer Code	Part Number	Conductor Range (mm <sup>2</sup> )			Kit No .	Box Qty
		Main	Al Solid Sector	Tap-Off		
KP1380	330-499-499	150	185	6-70		5
KP1410	330-92-012	95	120	6-50	1	5
KP1430	330-926-926	120	150	6-50	1	5
KP1450	330-935-935	185	240	6-70	3	5
KP1510	331-415-415	70	95	6-50	1	5
KP1511	331-415-416	95	120	6-70	3	5
KP1655	330-935-002	240		6-70	3	5



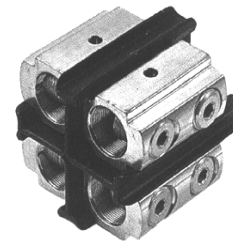
## ISO COMPACT

Hamer Code	Part Number	Conductor Range Main (mm <sup>2</sup> )				Tap off	Box
		Stranded		Solid			
		Round	Sector	Round	Sector		
KP1530	331-896-001	70-150	70-150	70-150	70-185	60-70	5



## 4 CORE CONNECTOR BLOCK

Hamer Code	Part Number	Conductor Range (mm <sup>2</sup> )				Kit No.	Box
		Stranded		Solid			
		Round	Sector	Round	Sector		
KP1110	331-850-850	10-50	10-50	25-35	10-50	1	12
KP1130	332-147-147	50-185	50-150	50-150	50-150	1	8



# Underground Clamps & Kits

## RESIN & CASE

Hamer Code	Part Number	Kit Size	Description
KP1710	332-407-532	Kit Size No. 1	Hard Resin Bag *
KP1710TS	332-409-533	Kit Size No. 1	Soft Resin Tin
KP1710TH	332-407-533	Kit Size No. 1	Hard Resin Tin
KP1717TH	332-407-543	Kit Size No. 3	Hard Resin Tin
KP1717TS	332-409-543	Kit Size No. 3	Soft Resin Tin
KP1860	332-407-914		Hard Resin Bag



## COMPACT TAP-OFF KIT - including clamp, resin & case

Hamer Code	Tap-Off	Main	Description	Contains
KP7995	6-70	95mm	4 Core CU/AL Stranded sector or round	Hard Resin Bag No.1 Kit KP1410 clamp *
KP79951TH	6-70	95mm	4 Core CU/AL Stranded sector or round	Hard Resin Tin No. 1 Kit KP1410 Clamp
KP79951TS	6-70	95mm	4 Core CU/AL Stranded sector or round	Soft Resin Tin No.1 Kit KP1410 Clamp
KP7993TS	6-50	120mm	4 Core CU/AL Stranded sector or round	Soft Resin Tin No. 3 Kit KP1430 clamp
KP7993TH	6-50	120mm	4 Core CU/AL Stranded sector or round	Hard Resin Tin No.3 Kit KP1430 Clamp
KP7999	6-50	120mm	4 Core CU/AL Stranded sector or round	Hard Resin Bag No.1 Kit KP1430 Clamp *
KP79931TH	6-50	120mm	4 Core CU/AL Stranded sector or round	Hard Resin Tin No.1 Kit KP1430 Clamp
KP79931TS	6-50	120mm	4 Core CU/AL Stranded sector or round	Soft Resin Tin No.1 Kit KP1430 Clamp
KP7997	6-70	185mm	4 Core CU/AL Stranded sector or round	Hard Resin Bag No.1 casing KP1450 Clamp *
KP8001	6-70	185mm	4 Core CU/AL Stranded sector or round	Hard Resin Bag No.3 casing KP1450 Clamp *
KP79971TH	6-70	185mm	4 Core CU/AL Stranded sector or round	Hard Resin Tin No.1 Casing KP1450 Clamp
KP79971TS	6-70	185mm	4 Core CU/AL Stranded sector or round	Soft Resin Tin No.1 casing KP1450 Clamp
KP79973TS	6-70	185mm	4 Core CU/AL Stranded sector or round	Soft Resin Tin No.3 casing KP1450 Clamp
KP79973TH	6-70	185mm	4 Core CU/AL Stranded sector or round	Hard Resin Tin No. 3 casing KP1450 Clamp
KP79923TH	6-50	240mm	4 Core CU/AL Stranded sector or round	Hard Resin Tin No. 3 Kit KP1655 Kit
KP79923TS	6-50	240mm	4 Core CU/AL Stranded sector or round	Soft Resin Tin No.3 Kit KP1655 Clamp

\* While stocks Last



## REPLACEMENT RESIN

Hamer Code	Part Number	Description
KPRTH	332-407-913	Hard Resin Tin - 2.1Litre
KPRTS	332-409-9133	Soft Resin Tin - 2.1Litre

## CABLE JOINTING ASSEMBLY TOOLS

Hamer Code	Part Number	Description	Box Qty
KP1811	619-970-970	SW6mm 1000v Ins 200mm "T-Handle" Pin Key	6
KP1812	619-970-001	SW4mm 1000v Ins 140mm "T-Handle" Pin Key	
KP1813	619-972-972	SW5mm 1000v Ins 200mm "T-Handle" Pin Key	
KP1318	619-978-978	3/8" x 200mm Pin Key Ratchet Wrench Tool 1000v Insulated	6
KP1840	622-770-001	6mm x 85mm Pin Key 1000v Insulated	20
KP1850	622-770-002	8mm x 85mm Pin Key 1000v Insulated	20
PET1317	RH1317	Ratchet Wrench 13 x 17mm Sockets 280mm length	
PET1824	RH1824	Ratchet Wrench 18 x 24mm Sockets 315mm length	
PET1921	RH1921	Ratchet Wrench 19 x 21mm Sockets 315mm length	
PET1924	RH1924	Ratchet Wrench 19 x 24mm Sockets 360mm length	
PET2124	RH2124	Ratchet Wrench 21 x 24mm Sockets 315mm length	
PET2430	RH2430	Ratchet Wrench 24 x 30mm Sockets 450mm length	



PET1317 Ratchet Wrench



PET1318



PET1850



# Connectors and Lugs

## BI-METAL LUGS

Hamer Code	Part Number	Aluminum Main mm <sup>2</sup>	Cu. Plate Hole Diameter	Box Qty
KP1137	330-379-379	35-70mm	10.5mm	20
KP1138	330-380-380	70-120mm	13.0mm	20

## SICON CONNECTOR AND CABLE LUGS

Hamer Code	Part Number	Aluminum Main mm <sup>2</sup>	Hole Diameter	Box Qty
KP1155	332-605-001	95-300mm	12.0mm	12
KP1165	* 332-447-001 # 332-447-010	50-240mm	Tap	12

\* While Stocks Last

# New replacement part number

## CABLE CONNECTORS COPPER or ALUMINIUM

Hamer Code	Part Number	Conductor Range (mm <sup>2</sup> )				Box Qty
		Stranded		Solid		
		Round	Sector	Round	Sector	
KP1150	332-212-001K ♣	50-185	50-150	50-150	50-150	20
KP1160	332-607-001	25-120	35-95	35-120	25-150	20
KP1170 If cable	332-409-003 ♣ "Round Formed"	120-240	120-240 (120-150) ♦	120-240	120-185 (120-240) ♦	10
KP1215	332-602-010	50-240	95-240	95-240	95-300	
KP1180	332-599-010	25-120	25-150	35-120	25-150	
KP1155	332-605-010	50-240	95-240	95-240	95-300	
KP1185	332-601-001	10-70	35-70	50-95	10-95	
KP1190	332-595-010	50-185	50-150	50-185	50-240	
KP1195	332-606-010	50-240	95-240	95-240	95-300	
KP1205	332-592-010	50-240	50-240	50-240	50-240	

♣ With centre barrier and shear heads

♦ Cables must be compressed to circular shape



KP1160



## COMPRESSION CONNECTORS - COPPER

Hamer Code	Part Number	Conductor Size mm <sup>2</sup>	Dimensions	Box Qty
KP3943	300-943-943	10mm <sup>2</sup>	4.5mm ID x 80mm Long	50
KP4944	300-944-944	16mm <sup>2</sup>	5.5mm ID x 95mm Long	50
KP5945	300-945-945	25mm <sup>2</sup>	7.0mm ID x 95mm Long	50



**SICON – Das erste Kabelverbinder-System  
mit stufenlosen Abreißschrauben.**  
*SICON – The First Cable Connectors System  
with Stepless Shear Bolts.*

Nieder- und Mittelspannungsnetze  
*Low and medium voltage networks*



## Das Bessere ist des Guten Feind. The Better is the Enemy of the Good.

Seit Jahren sind Klemmen, Verbinder und Kabelschuhe mit Schraubtechnik auf dem Vormarsch. Aus guten Gründen. Schraubverbinder bieten technische und praktische Vorteile mit denen Pressverbinder nicht dienen können. Zum Beispiel einen großen Querschnittsbereich und einfache Handhabung. Diese Klemntechnik passt perfekt zu den neuen Mehrbereichskabelgarituren. Die Montage geht mit einfachem Werkzeug – buchstäblich im Handumdrehen.



Der bisherige Stand der Schraubtechnik hieß „Mehrstufigen-Abreißschraube“.

Die konstruktive Stärke der Mehrstufigen-Abreißschrauben – die eingebauten Sollbruchstellen – ist zugleich deren entscheidende Schwachstelle. Jede Abreißstelle unterbricht das tragende Gewinde, die maximale Klemmkraft kann nicht mobilisiert werden. Ein weiterer Nachteil: Die Stufen müssen sehr genau auf die verlegten Kabelliter abgestimmt sein – sonst reißt die Schraube entweder zu tief oder zu hoch.

**Neu von PFISTERER: Stufenlose Abreißschrauben.**

Konstruktive Besonderheit: Keine Sollbruchstellen im Gewinde. Damit wird für jeden Querschnittsbereich die optimale Gewindetragfähigkeit sichergestellt. Die Abreißstelle der Schraube liegt immer an der Oberfläche des Klemmkörpers – nichts steht mehr über, nichts muss mehr abgeflacht werden, damit die Muffe passt.

Terminals, connectors and cable lugs using screw technology have been on the advance for years. And with good reason. Bolted connections offer technical and practical advantages that compression connection cannot provide. For instance, a large cross-section range and easy handling. This clamping technology perfectly complements the new multi-range cable accessories. Fitting requires a simple tool – literally with a flick of the wrist.

Until now, the “multi-stage shear bolt” has been the state of the art in screw technology.

The design strength of the multi-stage shear bolt – the integral predetermined breaking points – is at the same time its decisive weakness. Each breaking point interrupts the load-carrying thread, and the maximum clamping force cannot be achieved. A further disadvantage is that the stages must be very accurately matched to the cable conductor used – otherwise the bolt will break either too high or too low.

**New from PFISTERER: Stepless shear bolts.**

The special design feature of the new bolts is that there are no predetermined breaking points in the thread. This ensures optimum thread loading for any range of cross-sections. The bolt always breaks at the surface of the clamp body – nothing protrudes, and nothing has to be filed down to make the sleeve fit.





## Beste Verbindungen für Spannungen bis 36 kV. The Best Connections for Voltages up to 36 kV.

**Verbinder aus Aluminiumlegierung**  
*Connectors made of aluminium alloy*

**Gewindestift aus Stahl**  
*Threaded stud made of steel*

**Abreißschrauben aus Messing**  
*Breakaway bolts made of brass*

**Zentrierhülsen**  
*Centering sleeves*



### Technische Merkmale *Technical features*

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>■ Große Klemmbereiche: 10 – 95 mm<sup>2</sup>; 25 – 150 mm<sup>2</sup>; 50 – 240 mm<sup>2</sup>; 95 – 300 mm<sup>2</sup>; 300 – 630 mm<sup>2</sup> (weitere auf Anfrage)</li> <li>■ Zentrische Leiterführung mit verschiedenen Zentrierhülsen möglich</li> <li>■ Klemmkanäle mit Querrillung und Leiteroxidationsschutz</li> <li>■ Trennsteg als druckfeste Ölsperre für Masskabel ausgelegt</li> <li>■ Kompakte Form: Kanten abgerundet und Übergänge abgeflacht, passend für Aufschiebe- und Schrumpfrüffentechnik</li> <li>■ Nach IEC 61238-1 typgeprüfte Kontakttechnik</li> <li>■ In Muffenprüfungen nach HD 629 und im 18-Monats-Langzeittest bewährt</li> </ul> | <ul style="list-style-type: none"> <li>■ Large clamping range: 10 – 95 mm<sup>2</sup>; 25 – 150 mm<sup>2</sup>; 50 – 240 mm<sup>2</sup>; 95 – 300 mm<sup>2</sup>; 300 – 630 mm<sup>2</sup> (others on request)</li> <li>■ Centric cable guide with different centering sleeves</li> <li>■ Conductor channels with transverse groove and protection against conductor oxidation</li> <li>■ Blind hole designed as pressure-resistant oil barrier for impregnated cables</li> <li>■ Compact design: Rounded edge and flat transitions suitable for slide-on and shrink sleeves</li> <li>■ Contact technology type-tested to IEC 61238-1</li> <li>■ Proven in joint tests to HD 629 and in 18-month endurance test</li> </ul> |
|---|--|

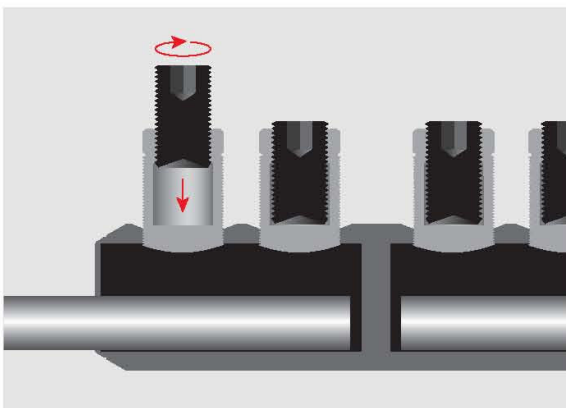
### Vorteile *Advantages*

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>■ Nichts steht mehr über, nichts muss mehr abgeflacht werden</li> <li>■ Volle Ausnutzung der Gewindetragefähigkeit bei jedem Leiterquerschnitt</li> <li>■ Kein Spezialwerkzeug notwendig</li> <li>■ Sanftes Abscheren der Abreißschrauben erleichtert das Anziehen</li> <li>■ Schraubenreste bleiben am Werkzeug und können sicher entsorgt werden</li> </ul> | <ul style="list-style-type: none"> <li>■ Nothing protrudes, and nothing has to be flattened</li> <li>■ Full utilisation of the thread loading for any size of conductor</li> <li>■ No special tools needed</li> <li>■ Smooth breakage of the shear bolt simplifies tightening</li> <li>■ The remains of the bolt stay with the tool and can be disposed of safely</li> </ul> |
|--|--|

# SICON – Die erste stufenlose Abreißschraube. Keine Sollbruchstellen, keine Schwachstellen.

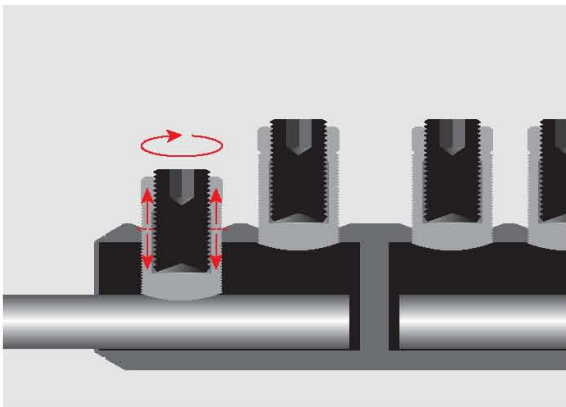
*SICON – The First Stepless Shear Bolt.*

*No Predetermined Break Points, No Weak Points.*



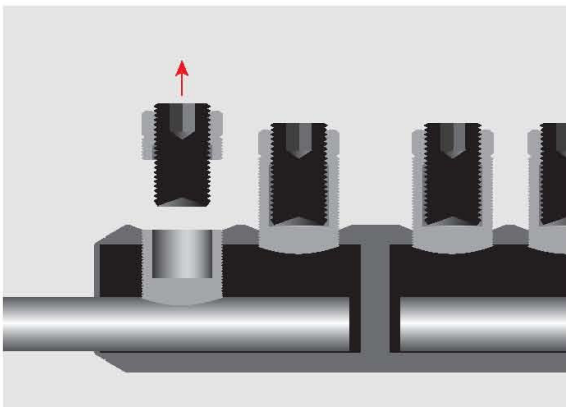
1. Ein Standard-Sechskantschlüssel wirkt auf einen Gewindestift, der in die Bohrung der stufenlosen Druckschraube eingeschraubt wird. Der Kraftschluss wird durch keinerlei Stufen oder Kerben an der Schraube unterbrochen.

1. A standard hexagonal spanner is used to screw a threaded stud into the hole in the stepless thrust bolt. The positive connection is not interrupted by any steps or notches in the screw.



2. Die Druckschraube wird beim Einschrauben auf Zug beansprucht und beim Erreichen des Abreißmoments axial gedehnt und zerrissen. Im Vergleich zu herkömmlichen Abreißschrauben reißt die Schraube sehr sanft und nahezu ruckfrei.

2. When it is screwed in, the thrust bolt is tensioned and, on reaching the shear torque, it stretches axially and breaks off. Compared with conventional shear bolts, the bolt breaks very smoothly and almost without a shock.



3. Die Druckschraube reißt immer direkt an der Oberfläche des Klemmkörpers. So wird stets der minimal mögliche Überstand erreicht – unabhängig vom zu verbindenden Leiter.

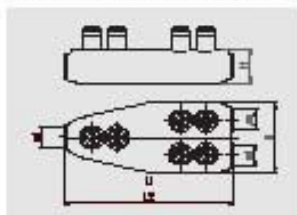
3. The thrust bolt always breaks directly at the surface of the clamp body. This ensures that the minimum possible protrusion is achieved each time – regardless of the conductor to be connected.





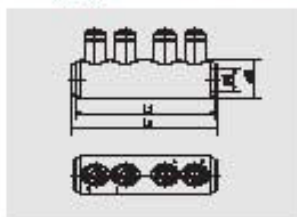
## Technische Daten. Technical Data.

### Schraubverbinder mit Abweig Tap connectors



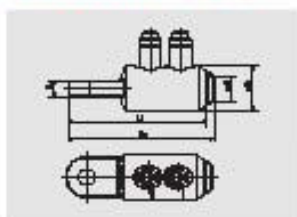
Nr.	RE mm*	RA mm*	SE mm*	SA mm*	RAW mm*	Schüssel- weite	Anzahl Schrauben	Nm	L <sub>1</sub>	ØD	dØ
No.	RE mm*	RA mm*	SE mm*	SA mm*	RAW mm*	Width Acc. Flats	Number of Screws	Nm	L <sub>1</sub>	ØD	dØ
332 447 005	25-150	25-120	35-120	35-95	25-150	SW5	6	25	115	5828	16
332 447 001	50-240	50-185	50-185	50-150	50-240	SW6	6	37	166	6893	20

### Durchgangsverbinder mit Trennwand Connectors with blind hole



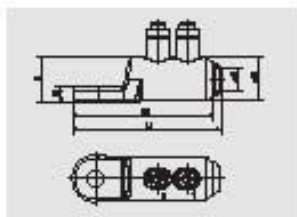
332 601 001	10-95	10-70	50-95	35-70	10-95	SW4	2	15	65	24	12,5
332 607 001	25-150	25-120	35-120	35-95	25-150	SW5	2	25	70	30	16
332 598 001	25-150	25-120	35-120	35-95	25-150	SW5	4	25	106	28	16
332 592 001	50-240	50-185	50-185	50-150	50-240	SW6	4	37	134	32	20
332 602 001	95-300	50-240	95-240	95-240	95-300	SW8	4	50	140	38	24
332 608 001	300-630	300-400	240	240-400	300-630	SW10	6	70	230	50	32

### Schraubkabelschuhe mittig Cable tags central



332 600 001	25-150	25-120	35-120	35-95	25-150	SW5	2	25	91	28	16
332 595 001	50-240	50-185	50-185	50-150	50-240	SW6	2	37	112	32	20
332 608 001	95-300	50-240	95-240	95-240	95-300	SW8	2	50	115	34	24

### Schraubkabelschuhe Cable tags




332 604 001	10-95	10-70	50-95	35-70	10-95	SW4	1	15	65	24	12,5
332 599 001	25-150	25-120	35-120	35-95	25-150	SW5	2	25	91	28	16
332 595 001	50-240	50-185	50-185	50-150	50-240	SW6	2	37	115	32	20
332 605 001	95-300	50-240	95-240	95-240	95-300	SW8	2	50	115	34	24

## What must be taken into account with respect to function implantation?


■ The conductor (lead) for the electrical transmission and contacting


■ Conductor are across letter symbol :

RE =>  Circular Solid  
Rond massif

SE =>  Sector-shaped Solid  
Secteur massif

RM =>  Circular stranded  
Rond multibrins

RMv =>  Circular stranded compressed  
Rond multibrins compressé

SM =>  Sector-shaped stranded  
90°; 120°  
Secteur multibrins



# SICON

The first cable connector system with stepless shear bolts.

**Through Connectors**  
For the range of application  
from 10 to 2,500mm<sup>2</sup>

**Tap Connectors**  
For the range of application  
from 25 to 240mm<sup>2</sup>

**Cable Lugs**  
For the range of application  
from 10 to 2300mm<sup>2</sup>



**Cable Lugs, Centre Palm**  
For the range of application from  
25 to 300mm<sup>2</sup>

**SM-** STRANDED SHAPED / AL, CU  
**SE-** SOLID ROUNDED / AL  
**RM-** STRANDED ROUNDED / AL, CU

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Drawing	Designation		RE mm <sup>2</sup>	RM mm <sup>2</sup>	SE mm <sup>2</sup>	SM mm <sup>2</sup>	RMv mm <sup>2</sup>	L1	ØD	Ød	Body- AL electro- lined	Tool	Number of screws	
	332.447,001	KP1165	SICON Tap connector (with oil stop)	50-240	50-185	50-185	50-150	50-240	166	68/33	20	AL	allen key 6	6
	332.601,001	KP1185	SICON inline connector (with oil stop)	10-95	10-70	50-95	35-70	10-95	65	24	12,5	AL	allen key 4	2
	332.607,010	KP1160	SICON inline connector (with oil stop)	25-150	25-120	35-120	35-95	25-150	68	28	16,3	AL	allen key 5	2
	332.593,010	KP1200	SICON inline connector (with oil stop)	25-150	25-120	35-120	35-95	25-150	102	28	16,3	AL	allen key 5	4
	332.592,010	KP1205	SICON inline connector (with oil stop)	50-240	50-185	50-185	50-150	50-240	126	33	20	AL	allen key 6	4
	332.614,010	KP1210	SICON inline connector (with oil stop)	50-240	50-240	50-240	50-240	50-240	126	34	22	AL	allen key 6	4
	332.602,010	KP1215	SICON inline connector (with oil stop)	95-300	50-240	95-240	95-240	95-300	140	38	24	AL	allen key 8	4
	332.603,010	KP1220	SICON inline connector (with oil stop)	300-630	300-400	240	240-400	300-630	230	50	32	AL	allen key 8	6
	332.604,001	KP1225	SICON cable lug	10-95	10-70	50-95	35-70	10-95	65	24	12,5	AL	allen key 4	1
	332.599,010	KP1180	SICON cable lug	25-150	25-120	35-120	35-95	25-150	91	28	16,3	AL	allen key 5	2
	332.595,010	KP1190	SICON cable lug	50-240	50-185	50-185	50-150	50-240	120	35	20	AL	allen key 6	2
	332.605,010	KP1155	SICON cable lug	95-300	50-240	95-240	95-240	95-300	120	35	24	AL	allen key 8	2
	332.606,010	KP1195	SICON cable lug	300-630	300-400	240	240-400	300-630				AL	allen key 8	3
	332.600,010	KP1175	SICON central cable lug	25-150	25-120	35-120	35-95	25-150				AL	allen key 5	2
	332.596,010	KP1145	SICON central cable lug	50-240	50-185	50-185	50-150	50-240				AL	allen key 6	2
	332.608,010	KP1162	SICON central cable lug	95-300	50-240	95-240	95-240	95-300				AL	allen key 8	2