

# Accessories for measurements CAT IV

Test & Measureline | Test & Measurement



## STÄUBLI ELECTRICAL CONNECTORS

## Long-term solutions – Expert connections



**Stäubli Electrical Connectors is a leading international manufacturer of high-quality electrical contacts and connector systems and solutions for industrial applications. We are part of the Stäubli mechatronics group, the technology leader in connection solutions, robotics and textile machinery.**

**Pioneering contact technology for increased efficiency**

The entire Stäubli Electrical Connectors product range meets market expectations for high performance, the highest number of mating cycles, and long-lasting reliability for safe, durable operation. Our proven **MULTILAM technology** is ideal for all types of connections in industrial applications.

Customers in the **power transmission and**

Stäubli develops, produces, sells and services products for markets with the highest productivity and safety standards. As recognized specialists, our focus is always on solutions and customers. Many new developments got their start here and are now becoming established as worldwide standards.

**distribution** sector rely on our consistent, loss-free transmission performance in all voltage ranges. The **automotive industry** depends on our high-efficiency connections for spot-welding applications in production lines. Harsh conditions in the **transportation sector** require high vibration resistance, maximum reliability, and compact design.

These attributes are vitally important for railway and e-mobility applications. The safety

Our customers depend on our expertise and our active support, even when dealing with unusual challenges. With Stäubli, you're entering into a long-term partnership built on reliability, dedication, and exceptional quality in both products and services.

and reliability of our products are essential for **test and measurement technology**.

In the growing field of **alternative energy**, our products have been setting standards since the 1990s. About half of the solar energy generated worldwide is transmitted through safe, long-lasting, high-performance Stäubli connectors.

# Applications and advantages



**This catalog presents our wide range of touch-protected testing accessories in accordance with IEC/EN 61010-031. You can find suitable CATIV accessories for electricians and power company**

**employees that perform measurements directly at the source of the low voltage installation (e.g. meters, main terminal, primary overcurrent protectors).**

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UNLIMITED POSSIBILITIES FOR CONTACT SOLUTIONS

MULTILAM Technology



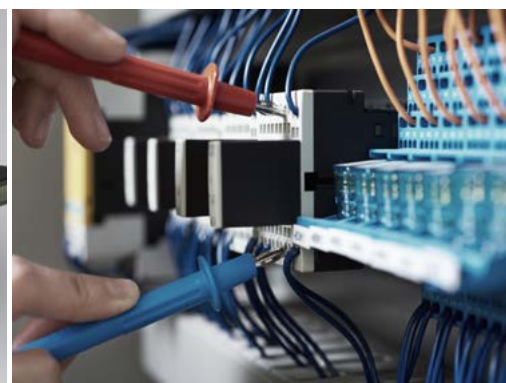
**MULTILAM** are specially formed and resilient contact elements. All Stäubli Electrical Connectors products benefit from the unique and outstanding performance of the **MULTILAM Technology**.

Thanks to their constant spring pressure, MULTILAM louvers ensure continuous contact with the contact surface, resulting in a constantly low contact resistance.

MULTILAM Technology allows to find solutions for connectors within the severest constraints and in certain products for up to 1 million mating cycles.

This makes the MULTILAM Technology the best choice for applications with demanding requirements:

- Reliable and longlife operation due to constantly high performance
- Safe operation under highest environmental demands on temperature, vibration and shock
- Suitable for data and signal contacts as well as high-current connectors
- Automated solutions with a high number of mating cycles



# General information

## Length and color code

For items that are available in more than one color or lead length, write the desired lengths and color codes after the order number instead of the spaces  and \* used in the catalog.

20	green-yellow	26	violet
21	black	27	brown
22	red	28	grey
23	blue	29	white
24	yellow	33	transparent
25	green		

## Lead length

The lead length of all standard leads in this catalog refers to the visible length of the cable.

## Standard items

The colors specified in the catalog or color/length combinations are available as standard items without minimum order quantity.

## Variants

### Optional colors

The catalog also indicates optional colors in addition to standard colors for the various items.

These color variants can be order starting from 100 pieces.

### Optional lengths

You can order 10 to 100 pieces depending on the product if your application requires a non-standard measurement lead.

Feel free to contact us regarding the prerequisites and availability.

## Special items

As a provider of customized solutions, Stäubli Electrical Connectors also offers color combinations not listed in the catalog. Upon request, we are happy to inform you of prices, delivery times and minimum order quantities for special items.

## Changes/provisos

All data, illustrations, and drawings in the catalog have been carefully checked. They are in accordance with our experience to date, but no responsibility can be accepted for errors. We also reserve the right to make modifications for design and safety reasons. When designing equipment incorporating our components, it is therefore advisable not to rely solely on the data in the catalog but to consult us to make sure this information is up to date. We shall be pleased to advise you.

## Copyright

The use of this catalog for any other purpose, in whatever form, without our prior written consent is not permitted.

## RoHS ready

Directive 2011/65/EC on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

## Symbols



**Accessories or special tools exist for this product.**



**Before use, please read the enclosed user information i000.**



**The assembly instruction MA000 is available for this product.**



**Optional colors**

**Optional lengths**

## Surfaces

<b>Au</b>	Gold-plated
<b>Ni</b>	Nickel-plated
<b>Opt</b>	Optalloy®
<b>Ag</b>	Silver-plated
<b>Sn</b>	Tin-plated
<b>SST</b>	Stainless steel
<b>PVC</b>	PVC
<b>SIL</b>	Silicone
<b>TPE</b>	TPE

The programme we offer now has the biggest amount of safety and is also suitable for use in the most hazardous environment, namely CAT IV.

## We will offer:

- Testleads with PVC and Silicone insulation
- Testleads with integrated fuses
- Testleads with attached probes, switchable for CAT II to CAT IV
- Test probes switchable and rigid
- Test clips for contacting busbars
- Test clips to contact electrical motors
- Special adapters, magnetic and for hexagon threads
- Sockets to accept the testleads

# Safety at Work

## Dangers in case of inadequate fuse protection

Measurements on circuits with a high level of energy, eg. on the input side of an electrical installation, require an extremely high standard of safety. The employed test instruments and the accessories should therefore incorporate effective measures against high short-circuit currents.

## The use of high breaking capacity fuses

In high-energy low-voltage systems it is advisable to use high breaking capacity (HBC) fuses in order to avoid unforeseeable consequences in the event of short circuits.

High breaking capacity fuses are able to disconnect even extremely high short-circuit currents of up to many thousands of amperes.

High breaking capacity fuses can be integrated into test probes or connecting clips,

fitted in the measuring circuit by means of fuse adapters, or, as in the case of our new fused test leads, incorporated into the test lead. Besides ease of handling, fused leads have the advantage of allowing standard connecting clips, probes and adapters to be used for protected measurements.

## Safety Regulations

The danger of measurement is well known, there have been a lot of accidents in the past. For that reason we have been working on international standards and regulations to create safe products.

## The most important Safety Standard for electrotechnical Test Accessories is the IEC 61010-031

This standard describes the requirements for protection of the user against electric shock, fire and explosions. Stäubli has been

working in this group since the beginning and also has developed its products to meet the requirements of this standard.

In the meantime it has been adopted by all European countries as well as by many relevant countries in America and Asia.

## Solutions for preventing hazards and meeting the safety regulations by Stäubli

Stäubli is very concerned about the safety of its customers, we develop all our products according to the international standard. We have all our safety products evaluated and tested by an independent test house for safety (we have used UL).



Depending on the energy level in the circuit undergoing measurement, the consequences of a short circuit can be catastrophic.

# Measurement categories according to IEC/EN 61010-031

To facilitate the assignment of test accessories to the appropriate applications, standard IEC/EN 61010-031 has established a number of categories which define where they can be used in the power supply network and to lay down appropriate requirements for each category.

Formerly (until 2002), the measurement categories now defined in standard IEC/EN 61010-031 were designated as overvoltage categories. This term origi-

nated from the fact that the classification was based primarily upon the overvoltages (surges) that were likely to occur in the power grid.

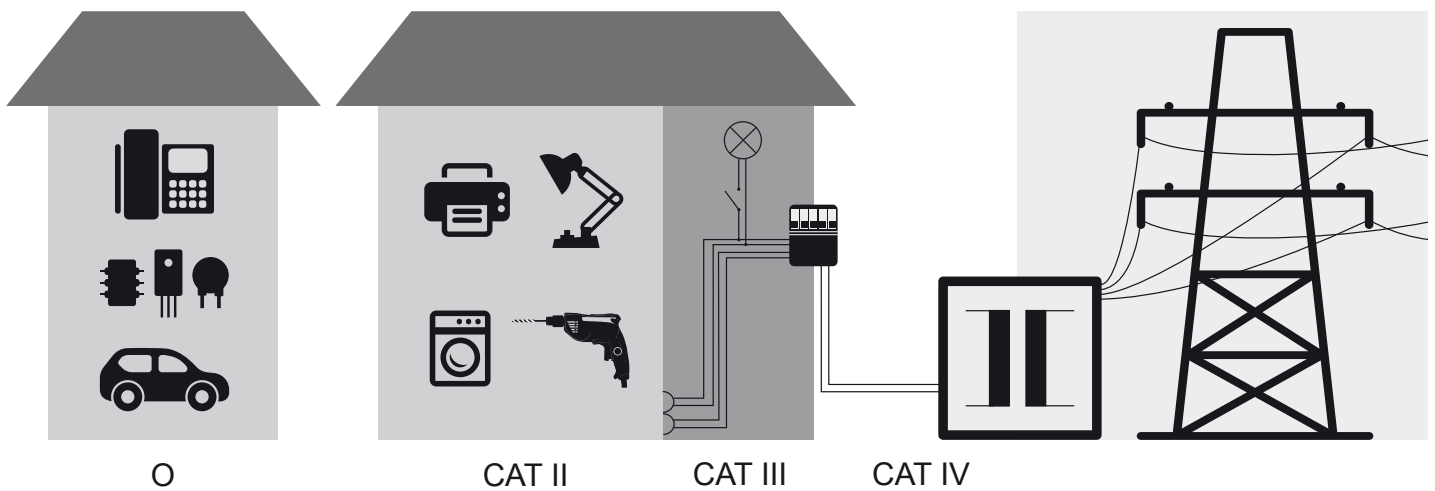
Actually the measurement categories differ not so much in the level of the expected transient values as with regard to the available energy in each test category in the event of a short circuit.

In a higher measurement category more energy can be released than in a lower one,

with results that may even have an explosive-like character with very serious consequences for the user.

Standard IEC/EN 61010-031 has various measurement categories, abbreviated to "CAT". The declared CAT category followed by a number is given in our catalogs with the rated voltage, and on the products.

As a general rule, the higher the CAT rating, the higher the safety requirement that applies to the product.



**O** Other circuits that are not directly connected to mains.

**CAT II** applies to measurements on equipment that is connected to the grid or supplied from the grid without constituting a part of the grid installation.

**CAT III** applies to measurements inside the house or building installation.

**CAT IV** applies to measurements at the supply source of the installation (input side).



# Ø 4 mm Test Leads

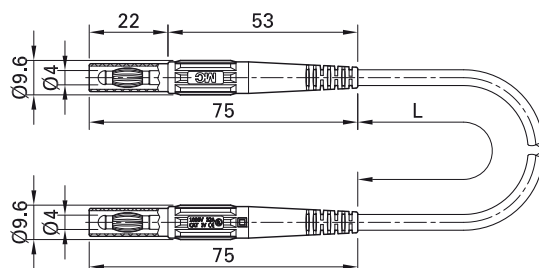
## Test lead XM...-419

Highly flexible, with insulation in PVC, TPE, or silicone with in-line Ø 4 mm MULTILAM plug with rigid insulating sleeve on both

ends. Due to the very high insulation resistance of the TPE insulation, the test lead

XMT-419 is excellently suited for measuring high resistances.

### XM...-419



Order No.	Type	Rated voltage/current	Lead		Lead lengths L [cm]	*Standard colors
66.9391-□*	XMF-419	1000 V, CAT IV / 32 A	PVC 2.5 mm <sup>2</sup>	Ni CE c UL US	100 150 200	21 22 23 27 28
66.9393-□*	XMT-419	1000 V, CAT IV / 32 A	TPE 2.5 mm <sup>2</sup>	Ni CE	100	21
66.9392-□*	XMS-419	1000 V, CAT IV / 32 A	SIL 2.5 mm <sup>2</sup>	Ni CE c UL US	100 150 200	21 22 23



Optional colors 22 23 24 25 27 28

Optional lengths on demand

Further information, page 6

## Fused test lead XSM...-419

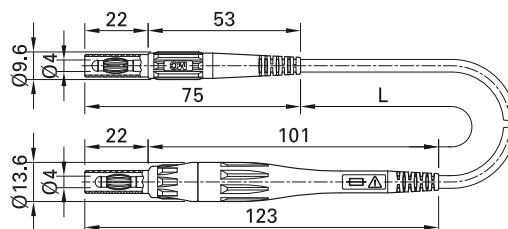
The test leads with integrated high breaking capacity fuses are designed for 1000 V, CAT IV in accordance with IEC/EN 61010-031 and allow for the use of Ø 4 mm standard safety probes and test clips for fuse-protected measurements.

To change the fuse, the two-part fused connector can be easily unscrewed.

Highly flexible, with insulation in PVC or silicone. With in-line Ø 4 mm MULTILAM plug with rigid insulating sleeve on both ends. The two-part screw connector accepts a high breaking capacity fuse measuring 6.3 x 32 mm.

The fuse is not supplied.

### XSM...-419



Order No.	Type	Rated voltage/current	Lead		Lead lengths L [cm]	*Standard colors
66.9394-□*	XSMF-419	1000 V, CAT IV / max. 8 A <sup>1)</sup>	PVC 1.0 mm <sup>2</sup>	Ni CE c UL US	100 150 200	21 22 23
66.9395-□*	XSMS-419	1000 V, CAT IV / max. 8 A <sup>1)</sup>	SIL 1.0 mm <sup>2</sup>	Ni CE c UL US	100 200	21 22 23

<sup>1)</sup> Depends on the fuse used.



Optional colors 20 24 25 26 27 28 29

Optional lengths on demand

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High breaking capacity fuse 6.3 x 32 mm:  
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User information i091

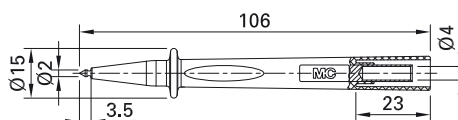
[www.staubli.com/electrical](http://www.staubli.com/electrical)

# Ø 4 mm Test Probes Stainless Steel Tips

## Test probe BT400

Ø 2 mm, made of Monel®. Ø 4 mm rigid socket in insulator accepting spring-loaded

Ø 4 mm plugs with rigid insulating sleeve.  
Monel® is a registered trademark of Special Metals Corporation.



Order No.	Type	Rated voltage/current		*Standard colors
66.9390-*	BT400	1000 V, CAT IV / 1 A	CE c UL US	21 22 23



Optional colors 27 28

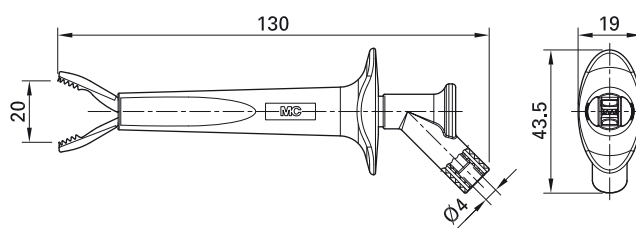
Further information, page 6

# Ø 4 mm Test Clips Test Clips with Steel Jaws

## Test clip AB200

With steel jaws especially for connections to ground rails and thick cables. For increased safety when making contacts, the jaws

are insulated on the outside. Ø 4 mm rigid socket in handle accepting spring-loaded Ø 4 mm plugs with rigid insulating sleeve.



Order No.	Type	Rated voltage/current		*Standard colors
66.9474-*	AB200	1000 V, CAT IV / 16 A	Ni CE c UL US	21 22 23



Optional colors 27 28

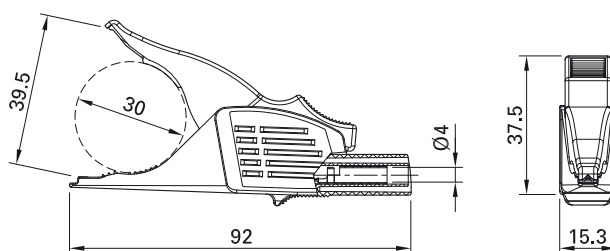
Further information, page 6

# Dolphin Clip

## Dolphin clip XDK-1033/I-2

With all-round insulation. The upper jaw is non-conductive to prevent accidental short-circuits on contact with the mouth open. This development of our established dolphin clip features a soft TPE inlay in the top jaw, facilitating an especially strong

adhesion grip. The insulation in this version also allows it to be used in the measurement category CAT IV.



Order No.	Type	Rated voltage/current		*Standard colors										
66.9561-*	XDK-1033/I-2	1000 V, CAT III / 19 A 600 V, CAT IV / 19 A	Ni CE c UL US	<table border="1"> <tr> <td>20</td> <td>21</td> <td>22</td> <td>23</td> <td>24</td> </tr> <tr> <td>25</td> <td>26</td> <td>27</td> <td>29</td> <td></td> </tr> </table>	20	21	22	23	24	25	26	27	29	
20	21	22	23	24										
25	26	27	29											



Optional colors [28](#)

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The varied grip options for our dolphin clips.

# Single-Collet Plier

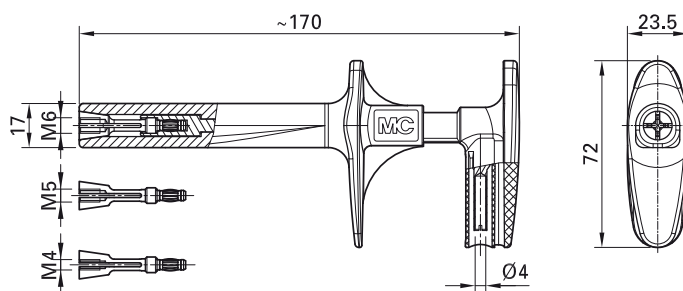
## Single-collet plier GRIP-ESZ...

For fast and safe contacting to M4, M5, or M6 threaded bolts, for example on motor connections (contact depth 3 to 6 mm). Fixed Ø 4 mm socket in the pressure section,

to fit spring-loaded Ø 4 mm plugs with rigid insulating sleeve or as a lead outlet with in-line Ø 4 mm MULTILAM plug and rigid insulating sleeve. Thread inserts are replaceable

and available separately. The current depends on the thread insert.

### GRIP-ESZ...



Order No.	Type	Rated voltage/current	Plier insert	Thread	Lead lengths L [cm]		Standard colors
66.9446-21	GRIP-ESZ4	1000 V, CAT IV / 20 A	Z4	M4	–	CE	21
66.9447-21	GRIP-ESZ5	1000 V, CAT IV / 30 A	Z5	M5	–	CE	21
66.9448-21	GRIP-ESZ6	1000 V, CAT IV / 32 A	Z6	M6	–	CE	21
66.9445-21	GRIP-ESZ	1000 V, CAT IV / max. 32 A	without	–	–	CE	21

### Individual parts



10.0804	Z4	20 A	Plier insert	M4
10.0805	Z5	30 A	Plier insert	M5
10.0806	Z6	32 A	Plier insert	M6
10.0807	ESZ-WZ	–	Cross-slotted screwdriver	



### User information **i**112

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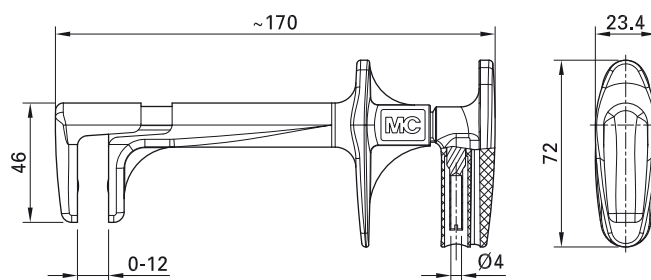
# Flat Test Clip

## Flat test clip GRIP-FMA

For fast and safe contacting on busbars, for example for the synchronization for stand-by power units. Powerful contacting on the

front and rear of the busbars by means of our established MULTILAM. Fixed Ø 4 mm socket in the pressure grip handle section,

to fit spring-loaded Ø 4 mm plugs with rigid insulating sleeve.



Order No.	Type	Rated voltage/current		Standard colors
66.9435-21	GRIP-FMA	1000 V, CAT IV / 32 A	CE	21

# 5 mm and 6 mm Plug Adapters

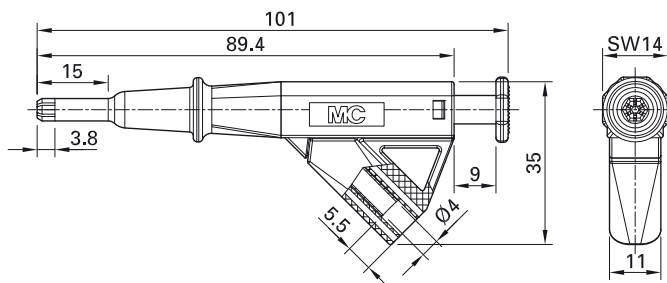
## Screw-clamping adapter VARIOGRIP-...

For fast, safe connection to screws/bolts with internal hexagon. Twisting the button on the back of the handle spreads the hexagonal tip so that the adapter fits firmly into internal hexagons with 5 mm or 6 mm wrench size. This results in multiple contact

points that enable low contact resistance. The adapter can also be operated by hand when under load. The fixed Ø 4 mm socket in insulator is suitable for fitting spring-loaded Ø 4 mm plugs with rigid insulating sleeve.

### Two different designs:

- 5 mm design with gray button
- 6 mm design with black button

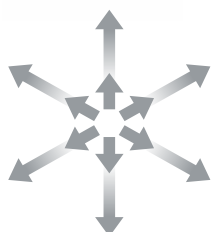
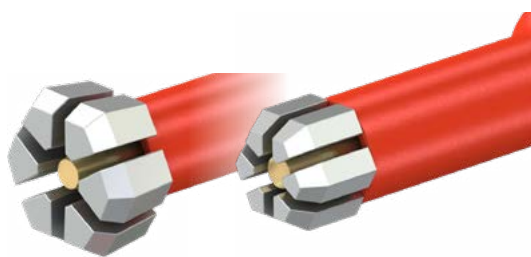


Order No.	Type	Rated voltage/current	Internal hexagon		*Standard colors
66.9055-*	VARIOGRIP-5	600 V, CAT IV / 24 A	5 mm	Ni CE	21 22 23
66.9056-*	VARIOGRIP-6	600 V, CAT IV / 24 A	6 mm	Ni CE	21 22



Optional colors [23](#)

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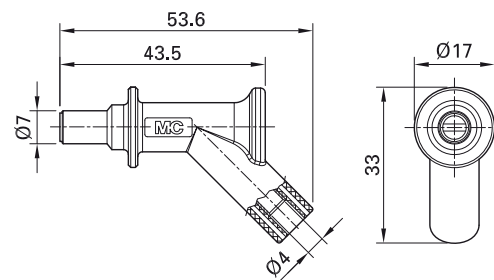


# Magnetic Adapters for Connection of Screw Heads

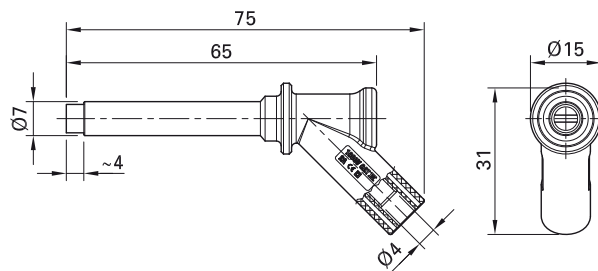
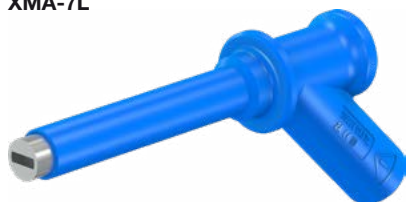
## Magnetic adapter XMA-...

For connection of screw heads with rigid Ø 4 mm socket in insulator, suitable for mating with spring-loaded Ø 4 mm plugs with rigid insulating sleeve.

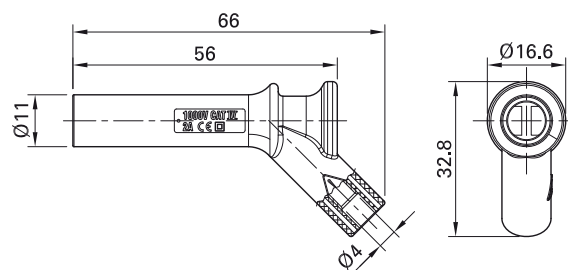
### XMA-7



### XMA-7L



### XMA-11



Order No.	Type	Rated voltage/current	Diameter of magnet		*Standard colors
66.9516-*	XMA-7	1000 V, CAT III / 2 A 600 V, CAT IV / 2 A	Ø 7 mm	Ni CE	21 22 23
66.9509-*	XMA-7L	1000 V, CAT IV / 2 A	Ø 7 mm	Ni CE	21 22 23
66.9515-*	XMA-11	1000 V, CAT IV / 2 A	Ø 11 mm	Ni CE	21 22 23



### User information i500

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# Adapter for Hex. Screw Heads

## Self-gripping adapter GKSA/M12

With spring-loaded tip for M12 hex. screw heads. Ø 4 mm rigid socket in insulator,

made of brass, accepting spring-loaded Ø 4 mm plugs with rigid insulating sleeve.



Order No.	Type	Rated voltage/current		*Standard colors (only color ring)
20.2030-*	GKSA/M12	1000 V, CAT IV / 1 A	Au CE	21



### User information i502

[www.staubli.com/electrical](http://www.staubli.com/electrical)



Optional colors 22 23 24 25 26 27 28 29

Further information, page 6

# Magnetic Contact Adapters

## Magnetic adapter MSA

Magnetic contact with spring-loaded tip to be used with magnetic steel bolts. Ø 4 mm rigid socket in insulator, made of brass, ac-

cepting spring-loaded Ø 4 mm plugs with rigid insulating sleeve. Connecting socket and contact tip are gold-plated.



Order No.	Type	Rated voltage/current		*Standard colors (only color ring)
20.2020-*	MSA	1000 V, CAT IV / 1 A	Au CE	21



### User information i501

[www.staubli.com/electrical](http://www.staubli.com/electrical)



Optional colors 20 22 23 24 25 26 27 28 29

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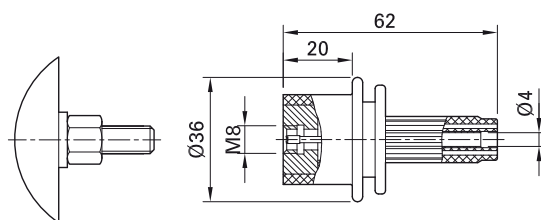
# Screw-on Adapters

## Screw-on adapters GBSA/M...

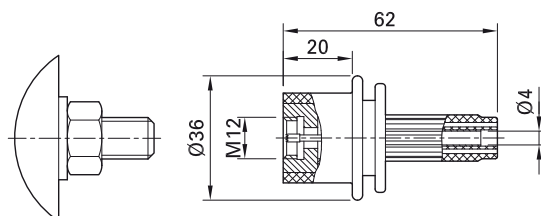
Insulated, with internal thread for rapid and safe contact to threaded bolts. Contact is made by a spring-loaded tip. Ø 4 mm rigid socket in insulator accepting spring-loaded

Ø 4 mm plugs with rigid insulating sleeve. Machined brass. Body nickel-plated, connecting socket and contact tip gold-plated.

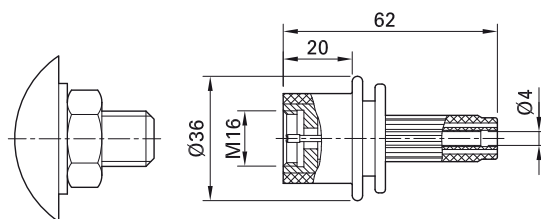
### GBSA/M8



### GBSA/M12



### GBSA/M16



Order No.	Type	Rated voltage/current	Thread		*Standard colors (only color ring)
20.2040-*	GBSA/M8	1000 V, CAT IV / 1 A	M8	Au Ni CE	21
20.2000-*	GBSA/M12	1000 V, CAT IV / 1 A	M12	Au Ni CE	21
20.2010-*	GBSA/M16	1000 V, CAT IV / 1 A	M16	Au Ni CE	21



Optional colors 20 22 23 24 25 26 27 28 29

Further information, page 6



User information **i502**

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# Ø 4 mm Panel-mount Sockets

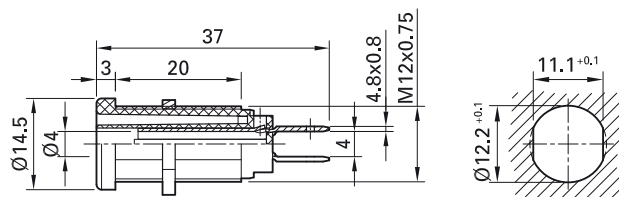
## Panel-mount socket XEB-1...

Insulated, rigid, Ø 4 mm, accepting spring-loaded Ø 4 mm plugs with rigid insulating sleeve. Brass sheet. The socket consists of two insulated, semi-circular

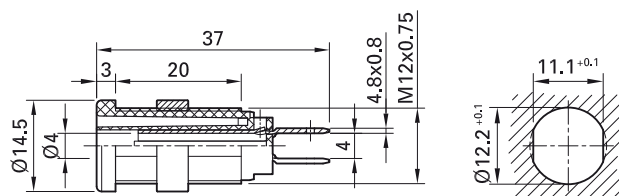
contacts, which are connected to each other when a plug is inserted (switch function). The socket is screwed into pre-drilled panels of plastic, metal, etc.

**Connection: 2 × Flat connecting tab 4.8 mm × 0.8 mm.**

### XEB-1R



### XEB-1RR



Order No.	Type	Rated voltage/current	Connection		*Standard colors
66.9131-*	XEB-1R	1000 V, CAT IV / 20 A	2 × Flat connecting tab 4.8 mm × 0.8 mm	Ni c  us	
66.9850-*	XEB-1RR	1000 V, CAT IV / 20 A	2 × Flat connecting tab 4.8 mm × 0.8 mm	Ni c  us	

### Supplied assembly material

Page 25	GEW.12-MUTTER	Hexagon nut for XEB-1R
Page 25	MUR/M12x0,75	Round nut for XEB-1RR



Optional colors

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Flat connecting receptacles, page 25

Tube spanners SS2, SS425, page 26



Assembly instructions MAH506, MAH509

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## Panel-mount socket XE...-1...

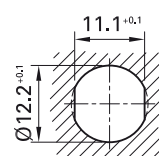
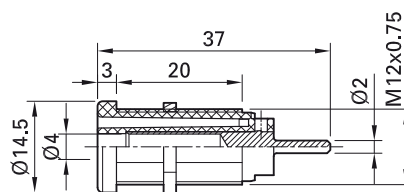
Insulated, rigid, Ø 4 mm, accepting spring-loaded Ø 4 mm plugs with rig-

id insulating sleeve. Machined brass. The sockets are screwed into pre-

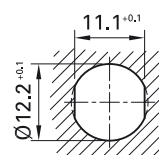
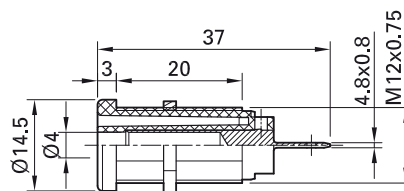
drilled panels of plastic, metal, etc.

**Various metal parts/connections.**

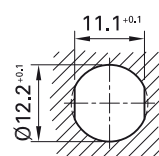
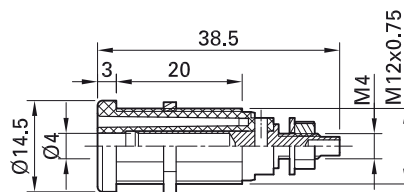
XES-1R



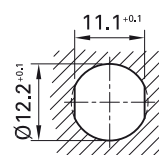
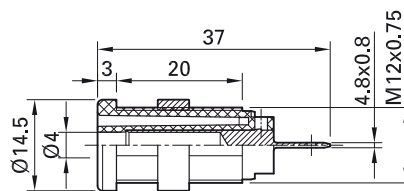
XEF-1R



XEG-1R



XEF-1RR



Order No.	Type	Rated voltage/current	Connection		*Standard colors
66.9661-*	XES-1R	1000 V, CAT IV / 24 A	Solder pin Ø 2.0 mm		21 22
66.9665-*	XEF-1R	1000 V, CAT IV / 24 A	Flat connecting tab 4.8 mm x 0.8 mm		21 22 23
66.9136-*	XEG-1R	1000 V, CAT IV / 20 A	Threaded bolt M4		21 22
66.9854-*	XEF-1RR	1000 V, CAT IV / 24 A	Flat connecting tab 4.8 mm x 0.8 mm		21 22 23

### Supplied assembly material

Page 25	GEW.12-MUTTER	Hexagon nut for	XES-1R, XEF-1R, XEG-1R
Page 25	MUR/M12x0,75	Round nut for	XEF-1RR



Assembly instructions MAH506, MAH509  
www.staubli.com/electrical



Flat connecting receptacles, page 25  
Tube spanners SS2, SS425, page 26

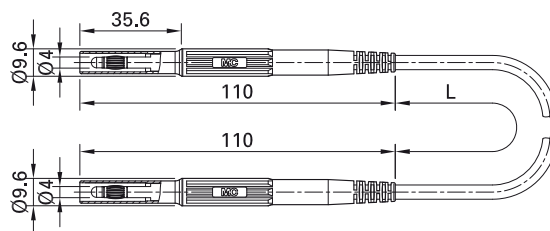


Optional colors 20 23 24 25 26 29  
Further information, page 6

# Special Test Accessories for Use with Insulation Testing Instruments up to 5 kV

## Test lead XHM-5000

Highly flexible, with in-line Ø 4 mm MULTILAM plug with rigid insulating sleeve on both ends.



Order No.	Type	Rated voltage/current	Lead		Lead length [cm]	*Standard colors
66.9425-150*	XHM-5000	1000 V, CAT IV 5 kV <sup>1)</sup> / 10 A	TPE 0,5 mm <sup>2</sup>	Ni CE	150	21 22



### User information i079

[www.staubli.com/electrical](http://www.staubli.com/electrical)



Optional colors 23

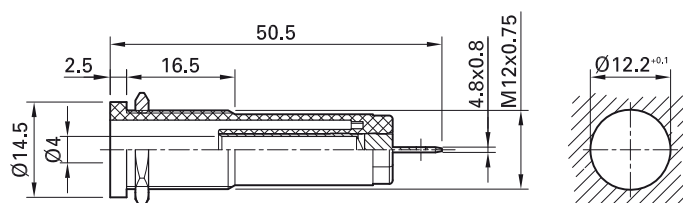
Optional lengths on demand

Further information, page 6

## Socket XHB-5000

Insulated, rigid, Ø 4 mm for high voltages, to accept test leads XHM-5000 and XHL-5000. For safety reasons, the socket is not compat-

ible with any other Ø 4 mm plugs in our range.  
**Flat connecting tab 4.8 mm x 0.8 mm.**



Order No.	Type	Rated voltage/current		*Standard colors
66.9427-*	XHB-5000	1000 V, CAT IV 5 kV <sup>1)</sup> / 10 A	Au	21 22

<sup>1)</sup> Output voltage of test instruments, e.g. insulation testers



Optional colors [23](#)

Further information, page 6



User information **i079**

[www.staubli.com/electrical](http://www.staubli.com/electrical)

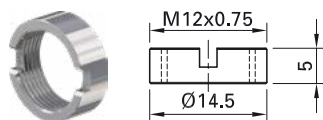


# Socket Accessories

## MU.../M... GEW.12-MUTTER

Hexagon and round nuts for fixing our panel mounting sockets.

**MUR / M12x0,75**



**GEW.12-MUTTER**

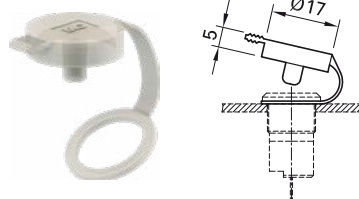


Order No.	Type	Wrench size	Thread	
23.5120	MUR/M12x0,75	SS425	M12x0,75	Ni
66.9679	GEW.12-MUTTER	SW14	Gew. 12	Ni

## SCHUDE-SLB SD-XUB

Protective cap to cover-up unplugged, unused sockets.

**SCHUDE-SLB**



**SD-XUB**



Order No.	Type	Suitable for socket types	Protection degree	Colors
23.5140-33	SCHUDE-SLB	SEB4..., SLB4..., XE...-1R(R)	IP65	33
66.1020-21	SD-XUB	XUB-G, XEP...	IP67	21

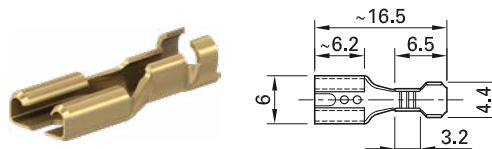


Assembly instructions MAH560 (SD-XUB)

[www.staubli.com/electrical](http://www.staubli.com/electrical)

## FSH...

Gold-plated flat connecting receptacles for sockets with flat connecting tabs.



Order No.	Type	Suitable for flat connecting tab	Connectable conductor cross-section	
23.5201	FSH4,8x0,8	4,8 mm x 0,8 mm	0,5 mm <sup>2</sup> ... 1,0 mm <sup>2</sup>	Au

# Tools – Tube Spanners

## SS...

Special wrench for tightening and unscrewing round nuts or for use as anti-twist

wrench for our touch-protected sockets.

### SS2



### SS425



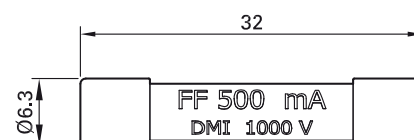
Order No.	Type	To fit round nuts / socket
25.0022	SS2	XEB-..., SLB4-..., SAB4-...
25.0020	SS425	MUR/M12x0,75, MUR-S/M12x0,75

# High Breaking Capacity Fuses

## DMI-...A

HRC type fuses can safely break extremely high short-circuit currents. The very low in-

ternal resistance permits the measurement of resistance and current.



Order No.	Type	Fuse rating	Fuse dimensions	Breaking capacity	
69.0012	DMI-0,5A	0,5 A	6,3 x 32 mm	30 kA (1000 VAC/DC)	
69.0013	DMI-1,6A	1,6 A	6,3 x 32 mm	30 kA (1000 VAC/DC)	

# Oscilloscope Probes

## Isoprobe III

The oscilloscope probe generation Isoprobe III opens up new fields of application in CAT III and CAT IV environments according to IEC/EN 61010-031 – subject to the use of appropriate oscilloscopes.

Example: the analysis of house and building installations with mains analysis/mains monitoring devices.

We supply the new probes either separately or in a set with accessories optimally suited for the appropriate test probe and its special applications.

**Please order main catalog “Test accessories HF”.**



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# Notes

# Notes

# Notes



■ Stäubli Units    ○ Agents

# Global presence of the Stäubli Group

[www.staubli.com](http://www.staubli.com)