

FAST MOVING TECHNOLOGY

STÄUBLI

WeldFix

Circular primary circuit connectors | Welding automation

EN



STÄUBLI ELECTRICAL CONNECTORS

Connections for Life



Stäubli, as the international technology leader, offers innovative mechatronics solutions in its four divisions: Electrical Connectors, Fluid Connectors, Robotics, and Textile. At Stäubli Electrical Connectors, we develop advanced connection solutions based on the reliable MULTILAM contact technology.

Together for reliable and safe connections

We know that you entrust us with the functionality of your applications and we work hard to ensure this every single day. Thanks to our high level of expertise, our extensive experience and the multiple successful co-operation with our partners, numerous new developments have originated at Stäubli Electrical Connectors and subsequently have become worldwide standards. This includes our MC4 connector portfolio for which we are today the global market

We create connections for life – and our customers are at the center of these connections. We are convinced that solid and stable partnerships directly contribute to our mutual success.

We take on the needs of our partners and deal with the most extraordinary challenges. As a result, we always create, sell and

support reliable and long-lasting products for markets with the highest productivity and safety requirements in close cooperation with our customers.

leader in photovoltaic. As the Stäubli original, the MC4 represents the result of our constant quest for innovation, quality and safety.

Further examples are the CombiTac modular connector system or the Quick Charging Connector (QCC) for automatic charging systems.

We ensure connections for life together with our long-standing customers in a wide range of industries from renewable energies, power transmission and distribution and E-mobility to industrial automation applica-

tions, railway and welding automation, test and measurement and medical devices. Thus, developing reliable, efficient and safe solutions based on our proven MULTILAM contact technology, which guarantees a high service lifetime in addition to highly efficient power transmission.

Applications and benefits – WeldFix



Stäubli connectors (previously Multi-Contact MC) have been established for decades and set an international standard especially in the body shops of well-known automotive manufacturers and their suppliers. Stäubli primary circuit connectors WeldFix are used in welding robots, manual welding guns, stationary guns (ped. welders) and tool changers. They are characterized by their small size and high performance. With these connectors, the connection lines from the weld controller along the robot arm to the welding transformer can be divided into different sections. The same interfaces on transformers, weld timers and robot axis enable users:

- Time savings and guaranteed safety when building production lines thanks to pluggable solutions
- Fast and safe replacements due to low error rates (first make last break) and reverse polarity protection)
- Solutions for all primary circuit supply segments
- Complete, consistent program in 3 power classes with different conductor cross-sections
- Low storage costs due to standardized interfaces on the cable assemblies and robot dresspacks.
- High current-carrying capacity and unparalleled contact reliability thanks to Stäubli MULTILAM contact strip technology

For end plug insulation, heat-shrinkable form shrouds or end housings with cable glands for axial or 90° cable outlets are used (see accessories).

Contacts can be crimped or screwed. It is also possible to attach pilot contacts for control lines. Specially developed Stäubli crimping dies ensure low and long-term stable contact resistance and are thus low-energy and environmentally friendly.

The 3- to 5-pole solutions comply with ISO 10656 and other regulations (Resistance welding – Transformers – Integrated transformers for welding guns).

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General information

Changes/reservations

All data, illustrations and drawings in this catalog are the result of careful testing. They correspond to our experiences. Errors and omissions excepted. We also reserve the right to make changes for design and safety reasons. It is therefore advisable not to rely exclusively on the catalog data for designs that incorporate our components, but to consult us to ensure that the most recent data is used. We are happy to assist you.

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RoHS ready

EU directive 2011/65 on the restriction of the use of certain hazardous materials for electrical and electronic devices.

Symbols



This product includes accessories or special tools



Assembly instructions MA000 are available for this product

Range of applications overview



Control cabinet
Frequency converter
Weld controller



Dresspacks
Welding robots



Robotic
welding guns



Automatic tool changer



Stationary
welding guns



Manual
welding guns

APPLICATION OVERVIEW

WeldFix – Typical Range of Applications

Welding transformer male connector 3-pole

- TAG135, TAG150, TAG250, TJD150, TID150,
TID150-S8/M8, TID150-SP8, TID-S6/M5,
AB-GEH/TID150...

Page 12

Female connector (3-pole)

- TSB, TSB150, TSB150-UR, TJSB150, TSB250

Page 21

Male connector (3-pole)

- TSS, TSS150, TSS150-UR, TSS250...

Page 30

Weld controller female connector (3-pole)

- TID-B, TIDB150, TID-B250

Page 38

Weld controller connector (4-pole)

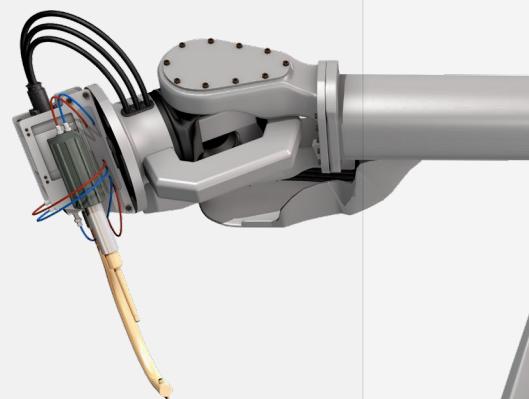
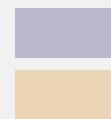
- TSB150/3, TID-B150/3, TSS150/3,
TID150/3-S8/M8

Page 42

Weld controller connector (5-pole)

- TSB150/2, TID-B150/2
TSS150/2, TID150/2-S8/M8

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TYPE OVERVIEW AND PLUG COMBINATIONS

WeldFix 6 – Ø 6 mm contacts

3-pole (2+PE), max. 139 A

BP6/...
Sockets
Page 23



TSB/...
Receptacle
Page 22



TSS/...
Receptacle
Page 31



SP6/...
Pins
Page 32



BP6/...
Sockets
Page 23



TID-B/...
Receptacle
Page 39



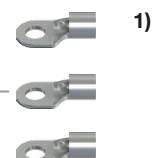
TAG135
Panel mount housing
Page 13



S6/M6...
Threaded pins
Page 13

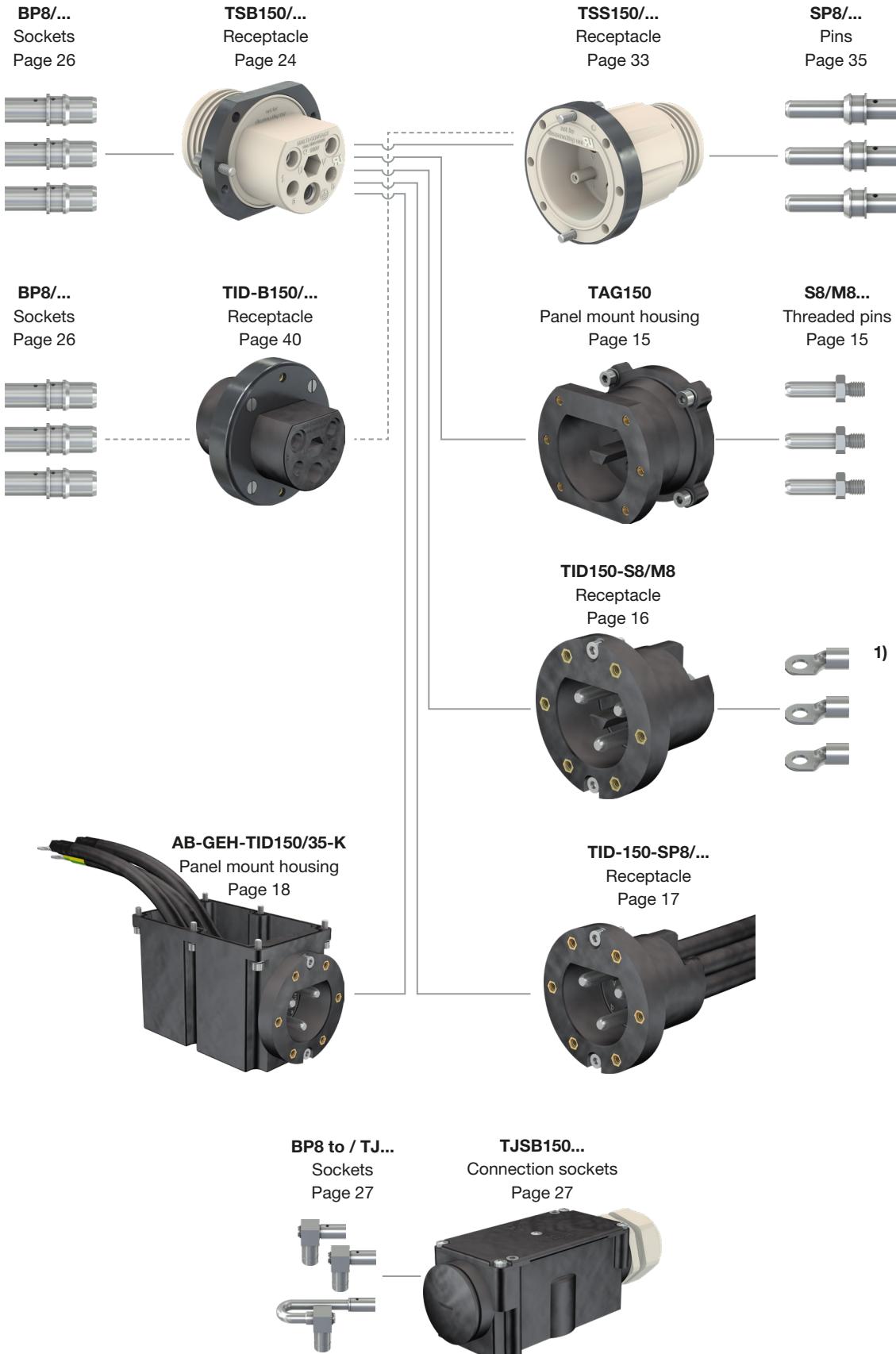


TID-S6/M5
Receptacle
Page 14

¹⁾ Not included in delivery

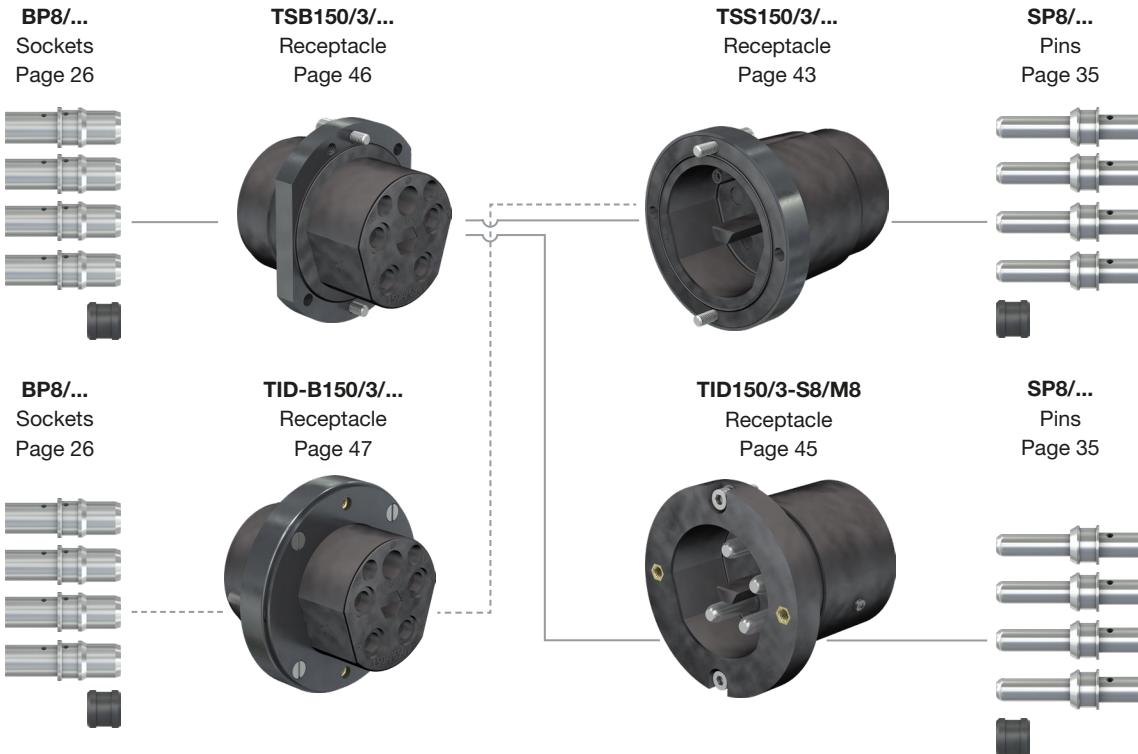
WeldFix 8 – Ø 8 mm contacts

3-pole (2+PE), max. 206 A

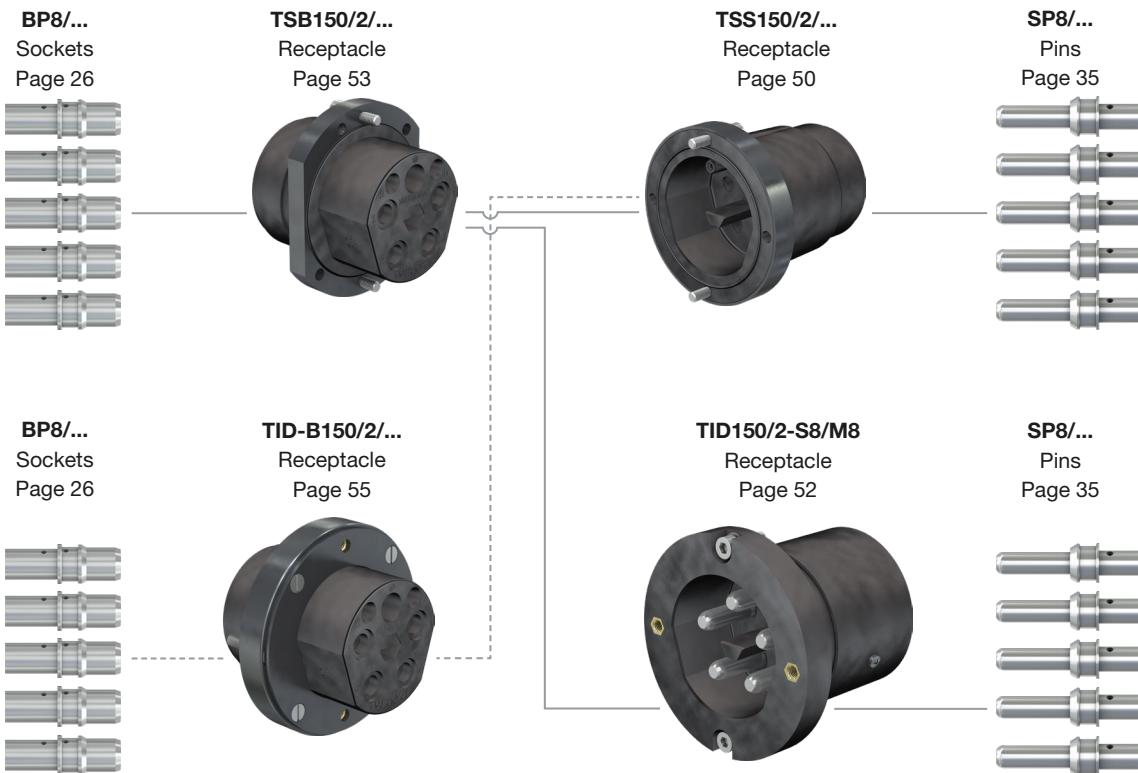


WeldFix 8 – Ø 8 mm contacts

4-pole (3+PE), max. 196 A

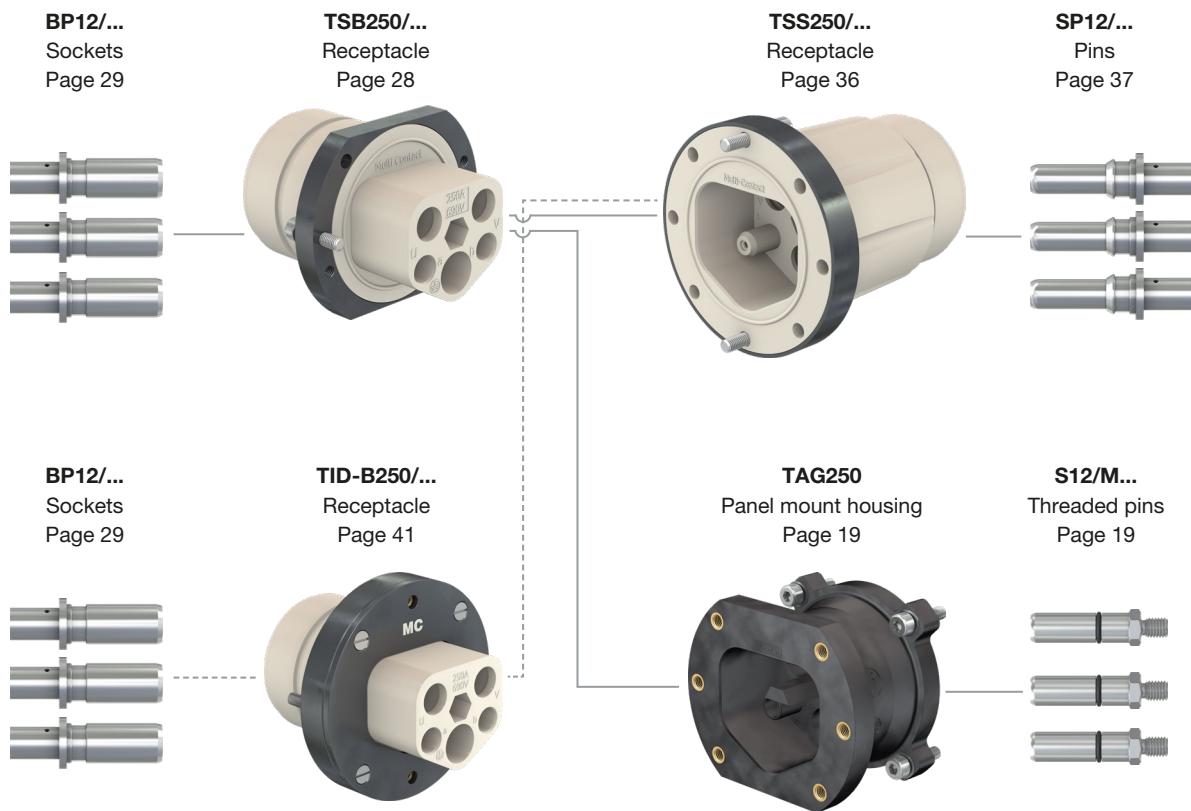


5-pole (3+N+PE), max. 196 A



WeldFix 12 – Ø 12 mm contacts

3-pole (2+PE), max. 325 A



WELDING TRANSFORMER CONNECTOR 3-POLE (2+PE)

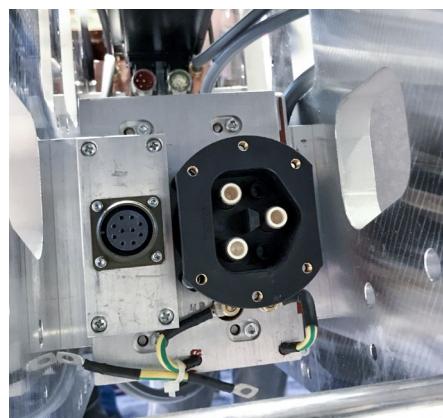
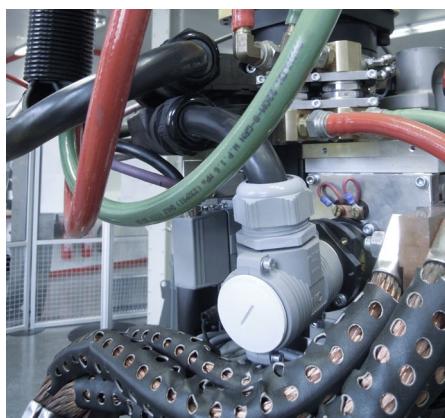
Welding Transformer Connector

This chapter describes the different options for connecting to welding transformers in spot-welding guns for automotive body shops.

Stäubli Electrical Connectors offers power supply solutions for welding all types of spot-welding guns such as end housings, prewired receptacles, junction boxes and adapter plates. These different options can be combined on the transformer side with threaded pins or cable lugs on the primary side of welding transformers. For additional safety, coding pins and pilot contacts are available.

With the WeldFix family's three sizes (\varnothing 6 mm, \varnothing 8 mm and \varnothing 12 mm) with up to 325 A continuous power for the primary side of spot-welding transformers, we can meet all your requirements.

Further solutions based on our offer for flat connectors such as RobiFix and RobiFix mini can be found in their respective catalogs.



Range of Application:



Stationary
welding guns



Robotic
welding guns



Manual
welding guns

WeldFix 6 – Ø 6 mm

Panel mount housing TAG135



Panel mount housing for Ø 6 mm threaded pins (M6) for space-saving installation directly on the transformer head.

The supplied hexagonal coding ensures proper connection.

Note:

- max. 139 A (see deratings)

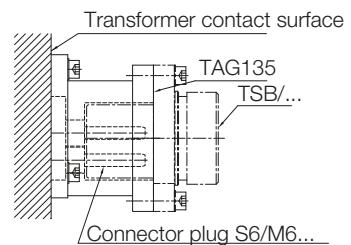
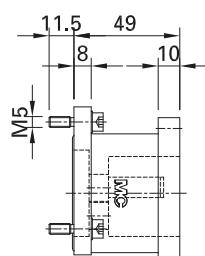
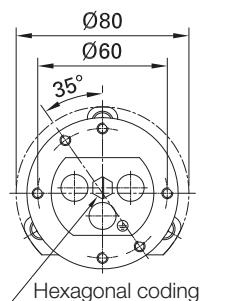
TAG135/M5X20



S6/M6-43



S6/M6-53



Order No.	Type	Description	Length	Screw-in depth	Key width
			mm	mm	mm
15.0325	TAG135/M5X20	Panel mount housing with hexagonal coding, without threaded pins			
04.0420	S6/M6-43	Threaded pins M6	43	8	SW8
04.0423	S6/M6-53		53	8	SW8

Spare parts

15.5331	6KT-KOD/TAG135	Hexagonal coding	s. page 59
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Accessories

15.0335	SHZ-KP135	Protective cap	s. page 61
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Tools, page 64 – 67



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WeldFix 6 – Ø 6 mm

Receptacle TID-S6/M5

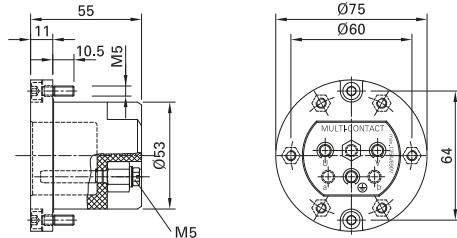


Receptacle for Ø 6 mm pins (pre-assembled) with M5 screw connection for cable lugs (not included in delivery).

Note:

- max. 139 A/25 mm² (see deratings)

TID-S6/M5



Order No.	Type	Description	Contacts		
			Number	Conductor cross-section	Connection type
15.0316	TID-S6/M5	Receptacle, equipped	3 pins	6 – 25 mm ²	Screws (cable lug)

Accessories

30.5313	6KT-KOD/TID/S135	Hexagonal coding	s. page 59
18.8008	BP2/0.5-1.5	Pilot contact socket	s. page 60
30.5312	PKK-TID/S	Pilot contact chamber	s. page 60
15.0335	SHZ-KP135	Protective cap	s. page 61



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WeldFix 8 – Ø 8 mm

Panel mount housing TAG150



Panel mount housing for Ø 8 mm threaded pins for space-saving installation directly on the transformer head.

The supplied hexagonal coding ensures proper connection.

Note:

- max. 206 A (see deratings)

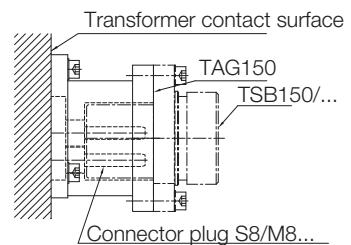
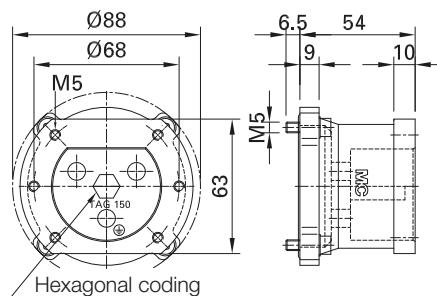
TAG150



S8/M8-41



S8/M8-57



Order No.	Type	Description	Length	Screw-in depth	Key width
			mm	mm	mm
30.0012	TAG150	Panel mount housing, with hexagonal coding, without threaded pins			
30.0401	S8/M8-41	Threaded pins M8	41	10	SW13
30.0403	S8/M8-57		57	10	SW13

Accessories

30.5322	6KT-KOD/TAG150	Hexagonal coding (spare part)	s. page 59
30.0011	SHZ-KP150	Protective cap	s. page 61



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WeldFix 8 – Ø 8 mm

Receptacle TID150-S8/M8

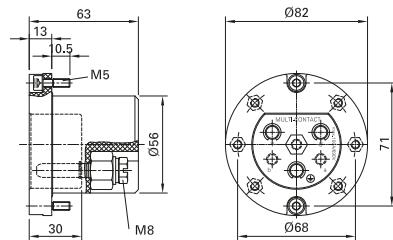
Receptacle for Ø 8 mm pins (pre-assembled) with M8 screw connection for cable lugs (not included in delivery). Pilot contact

socket and hexagonal coding optional for retrofitting.



Note:

- max. 206 A/50 mm² (see deratings)



Order No.	Type	Description	Contacts		
			Number	Conductor cross-section mm ²	Connection type
30.0019	TID150-S8/M8	Receptacle, equipped	3 pins	16 – 50	Screws (cable lug)

Accessories

30.5311	6KT-KOD/TID/S180	Hexagonal coding	s. page 59
18.8008	BP2/0.5-1.5	Pilot contact socket	s. page 60
30.5312	PKK-TID/S	Pilot contact chamber	s. page 60
30.0011	SHZ-KP150	Protective cap	s. page 61



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WeldFix 8 – Ø 8 mm

Receptacles, pre-wired TID150-S...

Pre-wired receptacle for Ø 8 mm pins with crimped, highly flexible, single-layered insulated conductor (LAPP KABEL H07V-K) for cable lugs per DIN 46234 or 46235.

Pilot contact socket and hexagonal coding

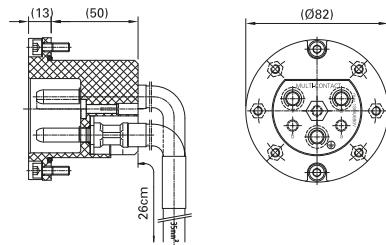
optional for retrofitting (cable lugs not included in delivery).



Note:

- max. 206 A/50 mm² (see deratings)

TID150-SP8/...



Order No.	Type	Description	Contacts		
			Number	Conductor cross-section mm ²	Connection type
30.1001-026	TID150-SP8/35/-026	Receptacle, pre-assembled with cable, 26 cm, 2 x black and 1 x green/yellow	3 pins	35	Crimping (cable lug)
30.1002-026	TID150-SP8/50/-026		3 pins	50	

Accessories

30.5311	6KT-KOD/TID/S180	Hexagonal coding	s. page 59
18.8008	BP2/0.5-1.5	Pilot contact socket	s. page 60
30.5312	PKK-TID/S	Pilot contact chamber	s. page 60
30.0011	SHZ-KP150	Protective cap	s. page 61



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Assembly instructions MA225

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WeldFix 8 – Ø 8 mm



Panel mount housing AB-GEH/TID150...

Flat panel mount housing with or without receptacle (TID150-SP8/..., s. page 17) for space-saving installation directly on the transformer head.

For Type K transformers.

Note:

- max. 184 A/35 mm² (see deratings)

AB-GEH/TID150



95

6 x M5

50

71

2 x M5

$\varnothing 56.5$

140

65

65

83

73

150

140

140

AB-GEH-TID150/35-K

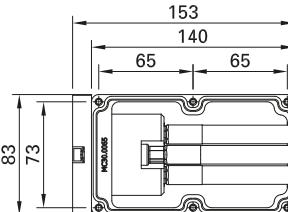
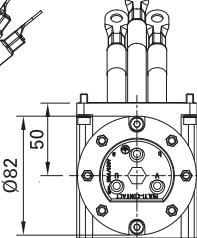


95

6 x M5

50

$\varnothing 82$



153

140

65

65

83

73

Order No.	Type	Description	Contacts		
			Number	Cross section mm ²	Connection
30.0065	AB-GEH/TID150	Panel mount housing, empty			
30.1030	AB-GEH-TID150/35-K	Panel mount housing with receptacle TID150-SP8/35/-026, pre-assembled	3 pins	35	Cable lug

Accessory (only for 30.1030)

30.5311	6KT-KOD/TID/S180	Hexagonal coding	s. page 59
18.8008	BP2/0.5-1.5	Pilot contact socket	s. page 60
30.5312	PKK-TID/S	Pilot contact chamber	s. page 60
30.0011	SHZ-KP150	Protective cap	s. page 61



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WeldFix 12 – Ø 12 mm

Panel mount housing TAG250

Panel mount housing for Ø 12 mm threaded pins (M8 or M10) for space-saving installation directly on the transformer head.

The hexagonal coding supplied prevents any risk of confusion when making connections.

Note:

- max. 325 A (see deratings)



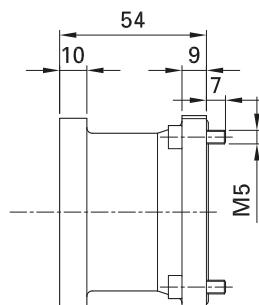
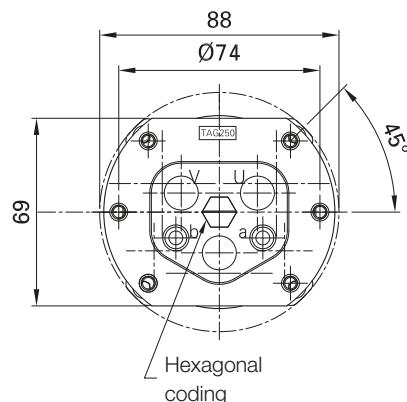
TAG250



S12/M8-56



S12/M10-56



Order No.	Type	Description	Length	Screw-in depth	Key width
			mm	mm	mm
30.2050	TAG250	Panel mount housing with hexagonal coding. without threaded pins			
30.0409	S12/M8-56	Threaded pins M8	56	11	SW13
30.0410	S12/M10-56	Threaded pins M10	56	11	SW13

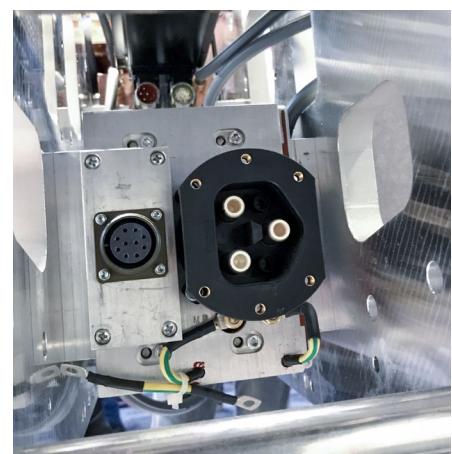


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Assembly instructions MA210

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CIRCUIT CONNECTOR (SUPPLY SIDE) 3-POLE (2+PE)

Connectors

This chapter describes different options (2 + PE) mainly for connecting cable assemblies on spot-welding robots (J6, J3, J1) and various welding guns which are used in automotive body shops.

Stäubli Electrical Connectors offers extremely reliable welding power solutions for all kinds of dresspacks and spot-welding robots. The same standardized connectors are also used for the power supply of welding guns and automatic tool changers. The Ø 8 mm series (TSB150) is available for UR applications. The entire range is supplied

with additional accessories such as various strain reliefs, coding pins and pilot contacts for additional safety.

With three standard families of primary circuit circular connectors (Ø 6 mm, Ø 8 mm and Ø 12 mm), up to 325 A continuous current, we can meet all your requirements.

Further solutions based on our offer for flat connectors such as RobiFix and RobiFix mini can be found in special product sheets.



Range of Application



Cable assembly
Welding robots



Robotic
welding guns



Stationary
welding guns



Automatic tool
changer

Manual
welding guns

WeldFix 6 – Ø 6 mm

Receptacle TSB/...

Receptacle for Ø 6 mm sockets with crimping connection and first mate/last break ground contact.

The rotatable mounting flange enables optimal positioning of the connector. Longitudinally watertight when unmated. Optional pilot contact pins and hexagonal coding.

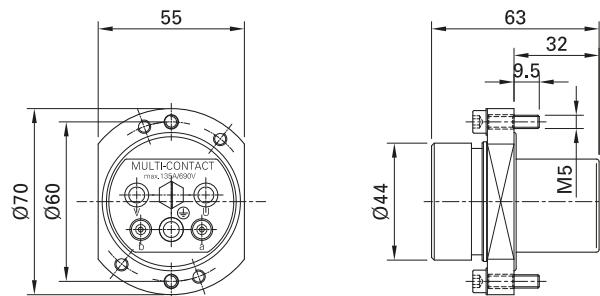
Empty receptacles enable the use of different cable cross sections using corresponding individual contacts.

Note:

- max. 139 A/25 mm² (see deratings)



TSB...



Order No.	Type	Description	Contacts		
			Number	Conductor cross-section mm ²	Connection
15.0302	TSB/16	Receptacle	3 sockets	16	Crimping
15.0303	TSB/25		3 sockets	25	Crimping
15.0305	TSB/L	Receptacle, empty	see page 23	–	–

Accessories

15.5168	EG-TS-M40-135/3	End housing	s. page 57
15.5027	WST-TS	Heat-shrink part, straight	s. page 58
15.0399	WST-WF6	Heat-shrink part, straight, without inside adhesive	
31.5300	6KT-KOD/A	Hexagonal coding	s. page 59
15.0335	SHZ-KP135	Protective cap	s. page 61
15.5043	W-TS	Installation angle	s. page 62
18.5503	MVS6	Blind plugs	s. page 62



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Assembly instructions MA200

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Contacts for receptacle TSB/...

Ø 6 mm sockets with MULTILAM contact technology. Suitable for crimp connection for connection from 6 mm² to 25 mm².

Receptacles can be equipped with pilot contacts which, in critical cases, enable the interruption of the circuit.

BP6/...



SP2/0.5-1.5



Order No.	Type	Description	Surface	Conductor cross-section	Rated current	Connection type
				mm ²	A	
01.0440	BP6/6	Socket	Ag	6	67	Crimping
01.0441	BP6/10			10	94	Crimping
01.0442	BP6/16			16	111	Crimping
01.0443	BP6/25			25	139	Crimping
18.9008	SP2/0.5-1.5	Pilot contact pin	Ag	0.5 – 1.5	16	Crimping



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Assembly instructions MA200

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WeldFix 8 – Ø 8 mm

Receptacle TSB150/...

Receptacle for Ø 8 mm sockets with screw or crimping connection (recommended) and first mate/last break ground contact. The rotatable mounting flange enables optimal positioning of the connector.

Longitudinally watertight when unmated.

Optional pilot contact pins and hexagonal coding.

Empty receptacles enable the use of different cable cross sections using corresponding individual contacts.

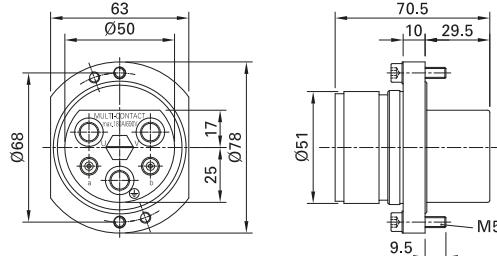
Note:

- Rated current max. 206 A/50 mm² (see deratings)
- Rated voltage max. 1000 V

TSB150/...



Mounting flange, rotatable



Available until May 2025.

You can find the replacement model in white on page 25.



Order No.	Type	Description	Contacts		
			Number	Conductor cross-section mm ²	Connection type
30.0000	TSB150/25		3 sockets	25	Crimping
30.0001	TSB150/35	Receptacle	3 sockets	35	Crimping
30.0002	TSB150/50		3 sockets	50	Crimping
30.0004	TSB150/L	Receptacle, empty	see page 26	–	Crimping/screws

Accessories

30.0018	EG-TS-M50-150-3	End housing	s. page 57
30.0021	WST-TS/150	Heat-shrink part, straight	s. page 58
31.5301	6KT-KOD/S	Hexagonal coding	s. page 59
30.0011	SHZ-KP150	Protective cap	s. page 61
15.5044	W-TS/150	Installation angle	s. page 62
18.5505	MVS-8	Blind plugs	s. page 63



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WeldFix 8 – Ø 8 mm

Receptacle TSB150/..., for UR requirements

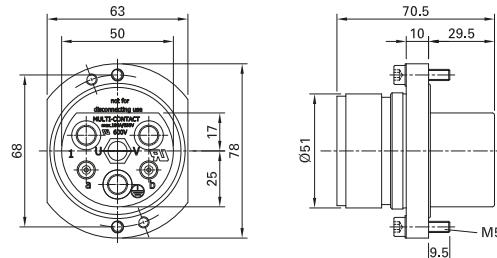
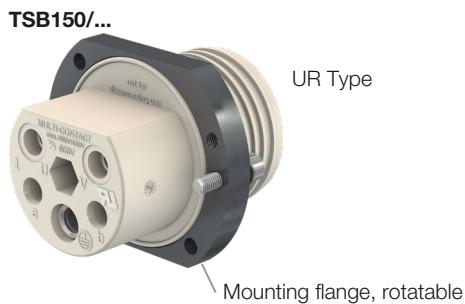


Receptacle for Ø 8 mm sockets with crimping connection and first mate/last break ground contact. The rotatable mounting flange enables optimal positioning of the connector. Longitudinally watertight when unmated. Optional hexagonal coding.

Note:

- The plugs are permitted for use only with certain crimping tools (18.3700) and inserts (18.3703, 18.3712 and 18.3713), cable glands and cables as UR plugs.
- Pilot contacts are not permissible.

- Rated current max. 206 A/50 mm² (see deratings)
- Rated voltage max. 600 V (UR), otherwise max. 1000 V



Order No.	Type	Description	Contacts			UL
			Number	Conductor cross-section mm ²	Connection type	
30.0000-UR	TSB150/25		3 sockets	25	Crimping	
30.0001-UR	TSB150/35	Receptacle	3 sockets	35	Crimping	UL file no. E251818
30.0002-UR	TSB150/50		3 sockets	50	Crimping	
30.0004-UR	TSB150/L	Receptacle, empty	see page 26	–	–	–

Accessories

30.0018	EG-TS-M50-150-3	End housing	s. page 57
30.0021	WST-TS/150	Heat-shrink part, straight	s. page 58
31.5301	6KT-KOD/S	Hexagonal coding	s. page 59
30.0011	SHZ-KP150	Protective cap	s. page 61
15.5044	W-TS/150	Installation angle	s. page 62
18.5505	MVS-8	Blind plugs	s. page 63



Assembly instructions MA200

www.staubli.com/electrical



Tools, page 64 – 67

WeldFix 8 – Ø 8 mm

Contacts for receptacle TSB150/...

Ø 8 mm sockets with MULTILAM contact technology.

Suitable for crimp connection (recommended) for connections from 16 mm² to 50 mm².

Sockets with screw connections are also available (16 mm² to 35 mm²).

Except for UR requirements, receptacles can be equipped with pilot contacts enabling the interruption of the circuit.

BP8/ ...



SP2/0.5-1.5



B8/16-35-SCH



Order No.	Type	Description	Surface	Conductor cross-section	Rated current	Connection type
				mm ²	A	
30.0103	BP8/16	Socket	Ag	16	125	Crimping
30.0100	BP8/25		Ag	25	167	Crimping
30.0101	BP8/35		Ag	35	184	Crimping
30.0102	BP8/50		Ag	50	206	Crimping
30.0200	B8/16-35-SCH		Ag	16 – 35	125/167/184	Screw connection
18.9008	SP2/0.5-1.5	Pilot contact pin	Ag	0.5 – 1.5	max. 16	Crimping



Tools, page 64 – 67



Assembly instructions MA200

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WeldFix 8 – Ø 8 mm

Connector plug TJSB150...



Ø 8 mm connector plug for conductor cross-section of 25 mm² or 35 mm² suitable for adapter plate TJID150. Space-saving design with only 80 mm installation height and left or right line output.

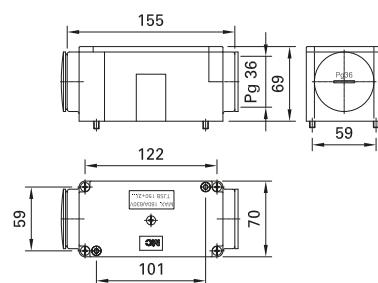
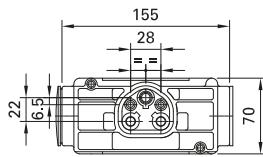
Cable connection not included in delivery.

Technical data:

- Rated current max. 150 A (35 mm²)
- Rated voltage max. 690 V
- Test voltage: 3.5 kV

- Insulation coordination KV/3: 6
- Degree of protection: IP56 in mated state
- Temperature range: -40°C to +100°C

TJSB150...



Order No.	Type	Description	Contacts		
			Number	Conductor cross-section ¹⁾ mm ²	Connection type
19.6809	TJSB150+2/25	Connector plug, complete	5 contacts	25 0.5 – 1.5 (signal leads)	Crimping
19.6812	TJSB150+2/35	with pilot contact pins	5 contacts	35 0.5 – 1.5 (signal leads)	Crimping
19.6813	TJSB150/35	Connector plug, complete,	3 sockets	35	Crimping
19.6814	TJSB150/25	without pilot contact pins	3 sockets	25	Crimping
19.7506	I-TJSB	Housing, empty	See below	–	Crimping

Socket BP8...-TJ/... for connector plug TJSB150...

BP8-TJ/...



BP8W-TJ/...



SP2-TJ/0.5-1.5



Order No.	Type	Description	Contacts		Connection type
			Conductor cross-section mm ²		
19.6707	BP8-TJ/25	Socket, straight	25		Crimping
19.6712	BP8-TJ/35		35		Crimping
19.6706	BP8W-TJ/25	Socket, bent	25		Crimping
19.6711	BP8W-TJ/35		35		Crimping
19.6708	SP2-TJ/0.5-1.5	Pilot contact pin	0.5 – 1.5		Crimping



Assembly instructions MA228

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Tools, page 64 – 67

¹⁾ 50 mm² upon request

WeldFix 12 – Ø 12 mm

Receptacle TSB250/...

Receptacle for Ø 12 mm sockets with crimping connection and first mate/last break ground contact.

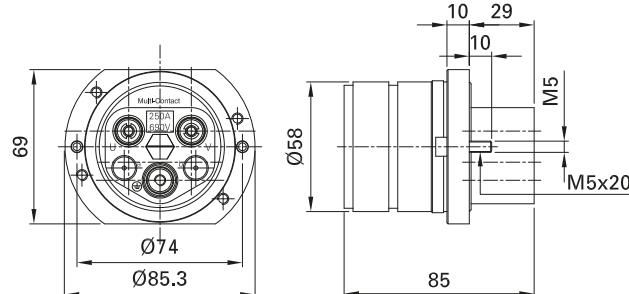
The rotatable mounting flange enables optimal positioning of the connector.



Note:

- Empty receptacles enable the use of different cable cross sections using corresponding individual contacts.
- max. 325 A/95 mm² (see deratings)

TSB250/...



Order No.	Type	Description	Contacts		
			Number	Conductor cross-section mm ²	Connection type
30.2001	TSB250/35	Receptacle	3 sockets	35	Crimping
30.2002	TSB250/50		3 sockets	50	Crimping
30.2003	TSB250/70		3 sockets	70	Crimping
30.2004	TSB250/95		3 sockets	95	Crimping
30.2005	TSB250/L	Receptacle, empty	see page 29	-	Crimping

Accessories

30.0063	EG-TS-M50-150-4/5	End housing	s. page 57
30.0066	EG-TS-M63		
30.5311	6KT-KOD/TID/S180	Hexagonal coding	s. page 59
30.2030	SHZ-KP250	Protective cap	s. page 61
30.0064	W-TS/250	Installation angle	s. page 62
Upon request	MVS12	Blind plugs	s. page 63



Tools, page 64 – 67



Assembly instructions MA200

www.staubli.com/electrical

WeldFix 12 – Ø 12 mm

Contacts for receptacle TSB250/...

Ø 12 mm sockets with MULTILAM contact technology. Suitable for crimp connection for connection from 35 mm² to 95 mm².

Note:

- Power contacts are touch protected.
- Receptacles can be equipped with pilot

contacts which, in critical cases, enable the interruption of the circuit.

BP12/...



SP2/0.5-1.5



BP12/... PE



Order No.	Type	Description	Surface	Conductor cross-section	Rated current	Connection type
				mm ²	A	
30.0104	BP12/35	Power socket	Ag	35	206	Crimping
30.0105	BP12/50			50	247	Crimping
30.0106	BP12/70			70	287	Crimping
30.0107	BP12/95			95	325	Crimping
30.0108	BP12/35 PE	first mate/last break ground contact socket	Ag	35	–	Crimping
30.0109	BP12/50 PE			50	–	Crimping
30.0110	BP12/70 PE			70	–	Crimping
30.0111	BP12/95 PE			95	–	Crimping
18.9008	SP2/0.5-1.5	Pilot contact pin	Ag	0.5 – 1.5	max. 16	Crimping



Tools, page 64 – 67



Assembly instructions MA200

www.staubli.com/electrical

MALE CONNECTOR 3-POLE (2+PE)

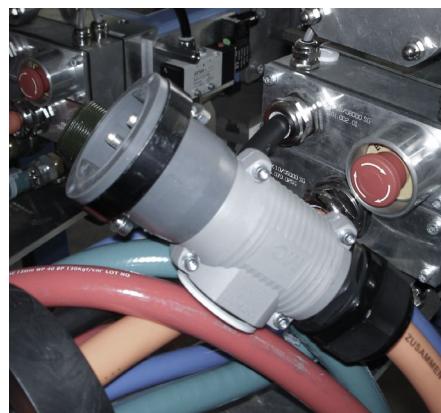
Connectors

This chapter describes different options for connecting dresspacks of spot-welding robots (J3, J1) and welding controllers used in automotive body shops.

Stäubli Electrical Connectors offers extremely reliable welding power solutions for all kinds of dresspacks. The same standardized connectors are also used for connecting welding connectors with spot-welding robots. The Ø 8 mm series (TSS150) is available for UR applications. The entire range can be supplied with additional accessories such as various strain reliefs, coding pins and pilot contacts for additional safety.

With three standard families of primary circuit circular connectors (Ø 6 mm, Ø 8 mm and Ø 12 mm), up to 325 A continuous current, we can meet all your requirements.

Further solutions based on our offer for flat connectors such as RobiFix and RobiFix mini can be found in their respective catalogs.



Range of Application:



Cable assembly
Welding robots



Frequency converter

WeldFix 6 – Ø 6 mm



Receptacle TSS/...

Receptacle for Ø 6 mm pins with crimping connection.

The rotatable mounting flange enables optimal positioning of the connector.

Longitudinally watertight when unmated.

Optional pilot contact socket and hexagonal coding.

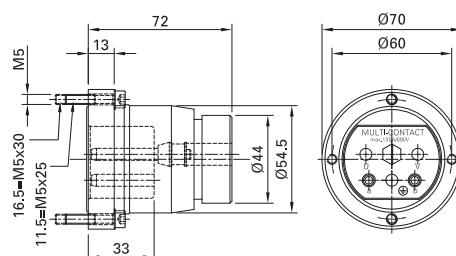
Note:

- Empty receptacles enable the use of different cable cross sections using corresponding individual contacts

TSS/...



Mounting flange, rotatable



Order No.	Type	Description	Contacts		
			Number	Conductor cross-section	Connection type
				mm ²	
15.0308	TSS/16	Receptacle	3 pins	16	Crimping
15.0309	TSS/25		3 pins	25	Crimping
15.0310	TSS/L-M5X25	Receptacle, empty	see page 32	–	Crimping
15.0318 ¹⁾	TSS/L-M5X30			–	Crimping

Accessories

15.5168	EG-TS-M40-135/3	End housing	s. page 57
15.5027	WST-TS	Heat-shrink part, straight	
15.0399	WST-WF6	Heat-shrink part, straight, without inside adhesive	s. page 58
31.5300	6KT-KOD/A	Hexagonal coding	s. page 59
15.0335	SHZ-KP135	Protective cap	s. page 61
15.5043	W-TS	Installation angle	s. page 62
18.5503	MVS6	Blind plugs	s. page 63



Tools, page 64 – 67



Assembly instructions MA200

www.staubli.com/electrical

¹⁾ Order this type if mounting screws M5x30 are required, standard M5x25 are mounted

WeldFix 6 – Ø 6 mm

Contacts for Receptacle TSS/...

Ø 6 mm pins, silver-plated, suitable for crimp connection for connection from 6 mm² to 25 mm².

Pilot contact can be added for signal leads. They provide greater safety which, by enabling the interruption of the circuit.

SP...

BP2/0.5-1.5



Order No.	Type	Description	Surface	Conductor cross-section	Rated current	Connection type
				mm ²	A	
05.0440	SP6/6	Pin	Ag	6	67	Crimping
05.0441	SP6/10		Ag	10	94	Crimping
05.0442	SP6/16		Ag	16	111	Crimping
05.0443	SP6/25		Ag	25	139	Crimping
18.8008	BP2/0.5-1.5	Pilot contact socket	Ag	0.5 – 1.5	max. 16	Crimping



Tools, page 64 – 67



Assembly instructions MA200

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WeldFix 8 – Ø 8 mm

Receptacle TSS150/...



Receptacle for Ø 8 mm sockets with screw or crimping termination (recommended).
The rotatable mounting flange enables optimal positioning of the connector.
Longitudinally watertight when unmated.

Optional pilot contact socket and hexagonal coding.

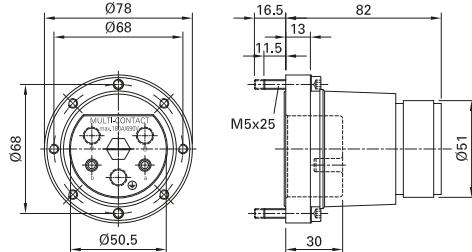
Note:

- Empty receptacles enable the use of different cable cross sections using corresponding individual contacts.

TSS150/L M5x25



Mounting flange, rotatable



Available until May 2025.

You can find the replacement model in white on page 34.

Order No.	Type	Description	Mounting screws	Contacts		
				Number	Conductor cross-section mm ²	Connection type
30.0005	TSS150/25			3 pins	25	Crimping
30.0006	TSS150/35	Receptacle, equipped	M5 x 25 mm	3 pins	35	Crimping
30.0007	TSS150/50			3 pins	50	Crimping
30.0009	TSS150/L M5X25		M5 x 25 mm	see page 35	–	Crimping/screws
30.0010	TSS150/L M5X30	Receptacle, empty	M5 x 30 mm		–	Crimping/screws

Accessories

30.0018	EG-TS-M50-150-3	End housing	s. page 57
30.0021	WST-TS/150	Heat-shrink part, straight	s. page 58
31.5301	6KT-KOD/S	Hexagonal coding	s. page 59
30.0011	SHZ-KP150	Protective cap	s. page 61
15.5044	W-TS/150	Installation angle	s. page 62
18.5505	MVS8	Blind plugs	s. page 63



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Assembly instructions MA200

www.staubli.com/electrical

WeldFix 8 – Ø 8 mm

Receptacle TSS150/... for UR applications



Receptacle for Ø 8 mm sockets with crimping connection.

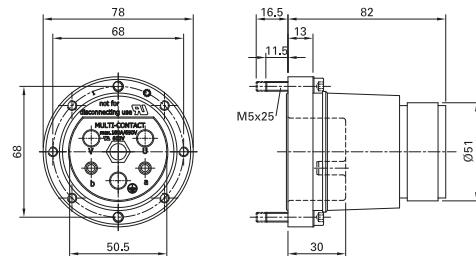
The rotatable mounting flange enables optimal positioning of the connector.

Longitudinally watertight when unmated.
Optional hexagonal coding.

Note:

The plugs are permitted for use only with certain crimping tools (18.3700) and inserts (18.3703, 18.3712 and 18.3713), cable glands and cables as UR plugs. Pilot contacts are not permissible.

TSS150/...



Order No.	Type	Description	Mounting screws	Contacts			UL
				Number	Conductor cross-section mm ²	Connection type	
30.0005-UR	TSS150/25	Receptacle, equipped	M5 x 25 mm	3 pins	25	Crimping	UL file no. E251818
30.0006-UR	TSS150/35			3 pins	35	Crimping	
30.0007-UR	TSS150/50			3 pins	50	Crimping	
30.0009-UR	TSS150/L M5X25	Receptacle, empty	M5 x 25 mm	see page 35	–	Crimping/screws	–
30.0010-UR	TSS150/L M5X30		M5 x 30 mm		–	Crimping/screws	

Accessories

30.0018	EG-TS-M50-150-3	End housing	s. page 57
30.0021	WST-TS/150	Heat-shrink part, straight	s. page 58
31.5301	6KT-KOD/S	Hexagonal coding	s. page 59
30.0011	SHZ-KP150	Protective cap	s. page 61
15.5044	W-TS/150	Installation angle	s. page 62



Tools, page 64 – 67



Assembly instructions MA200

www.staubli.com/electrical

WeldFix 8 – Ø 8 mm

Contacts for receptacle TSS150/...

Ø 8 mm pins, silver-plated. Suitable for crimp connection (recommended) for connections from 16 mm² to 50 mm². Pins with screw connections are also available.

Pilot contact can be added for control lines. They provide greater safety which, in critical cases, enables the interruption of the circuit.

SP8/...



BP2/0.5-1.5



S8/16-35-SCH



Order No.	Type	Description	Surface	Conductor cross-section	Rated current	Connection type
				mm ²		
30.0503	SP8/16	Pin	Ag	16	125	Crimping
30.0500	SP8/25		Ag	25	167	Crimping
30.0501	SP8/35		Ag	35	184	Crimping
30.0502	SP8/50		Ag	50	206	Crimping
30.0600	S8/16-35-SCH		Ag	16 – 35	125/167/184	Screws
18.8008	BP2/0.5-1.5	Signal contact socket (not for UR applications)	Ag	0.5 – 1.5	16	Crimping



Tools, page 64 – 67



Assembly instructions MA200

www.staubli.com/electrical

WeldFix 12 – Ø 12 mm

Receptacle TSS250/...

Receptacle for Ø 12 mm pins with crimping connection. The rotatable mounting flange enables optimal positioning of the connector. Longitudinally watertight when unmat-

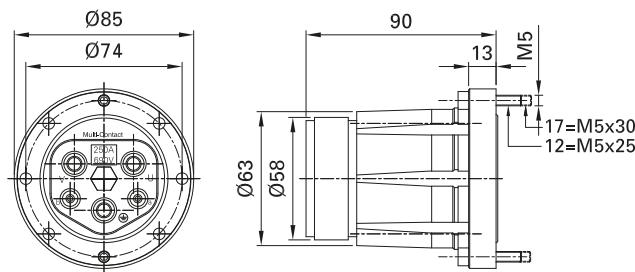
ed. Optional pilot contact pins and hexagonal coding.

Note:

Empty receptacles enable the use of different cable cross sections using corresponding individual contacts.



TSS250/...



Order No.	Type	Description	Contacts		
			Number	Conductor cross-section mm ²	Connection type
30.2006	TSS250/35	Receptacle	3 pins	35	Crimping
30.2007	TSS250/50		3 pins	50	Crimping
30.2008	TSS250/70		3 pins	70	Crimping
30.2009	TSS250/95		3 pins	95	Crimping
30.2010	TSS250/L	Receptacle, empty	see page 37	–	Crimping

Accessories

30.0063	EG-TS-M50-150-4/5	End housing	s. page 57
30.0066	EG-TS-M63		
30.0021	WST-TS/150	Heat-shrink part, straight	s. page 58
30.5311	6KT-KOD/TID/S180	Hexagonal coding	s. page 59
30.2030	SHZ-KP250	Protective cap	s. page 61
30.0064	W-TS/250	Installation angle	s. page 62
Upon request	MVS12	Blind plugs	s. page 63



Tools, page 64 – 67



Assembly instructions MA200

www.staubli.com/electrical

WeldFix 12 – Ø 12 mm

Contacts for receptacle TSS250/...

Ø 12 mm pins, silver-plated.

Suitable for crimp connection for connection from 35 mm² to 95 mm².

SP12/...



BP2/0.5-1.5



Order No.	Type	Description	Surface	Conductor cross-section	Rated current	Connection type
				mm ²	A	
30.0508	SP12/35	Pin	Ag	35	206	Crimping
30.0509	SP12/50			50	247	
30.0510	SP12/70			70	287	
30.0511	SP12/95			95	325	
18.8008	BP2/0.5-1.5	Signal contact socket	Ag	0.5 – 1.5	16	Crimping



Tools, page 64 – 67



Assembly instructions MA200

www.staubli.com/electrical

WELD CONTROLLER CONNECTOR 3-POLE (2+PE)

Weld controller connector

This chapter describes receptacles (2+PE) for connecting welding controller cabinets of spot-welding guns in automotive body shops.

Stäubli Electrical Connectors offers extremely reliable power supply solutions for welding different types of welding controllers. Similarly standardized connectors are used for connecting robotized, manual or stationary spot-welding guns. The entire range is supplied with additional accessories such as coding pins and pilot contacts for additional safety.

With three standard families of primary circuit circular connectors (\varnothing 6 mm, \varnothing 8 mm and \varnothing 12 mm), up to 325 A continuous current, we can meet all your requirements.

Further solutions based on our offer for flat connectors such as RobiFix and RobiFix mini can be found in their respective catalogs..



Range of use:



Frequency converter

WeldFix 6 – Ø 6 mm



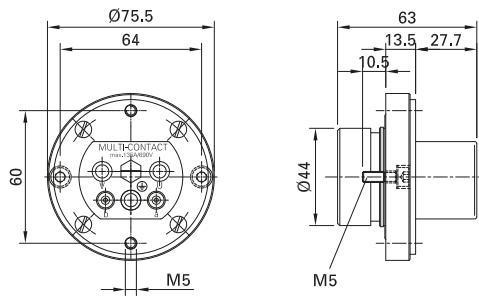
Receptacle TID-B/...

Receptacle for Ø 6 mm sockets with crimping connection.
To 25 mm².

Note:

- max. 139 A/25 mm² (see deratings)

TID-B/...



Order No.	Type	Description	Contacts		
			Number	Conductor cross-section mm ²	Connection type
15.0322	TID-B/16	Receptacle	3 sockets	16	Crimping
15.0323	TID-B/25		3 sockets	25	Crimping
15.0324	TID-B/L	Receptacle, empty	see page 22	–	Crimping

Accessories

15.5168	EG-TS-M40-135/3	End housing	s. page 57
15.5027	WST-TS	Heat-shrink part, straight	
15.0399	WST-WF6	Heat-shrink part, straight, without inside adhesive	s. page 58
31.5300	6KT-KOD/A	Hexagonal coding	s. page 59
15.0335	SHZ-KP135	Protective cap	s. page 61
18.5503	MVS6	Blind plugs	s. page 63



Tools, page 64 – 67



Assembly instructions MA201

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WeldFix 8 – Ø 8 mm



Receptacle TID-B150/...

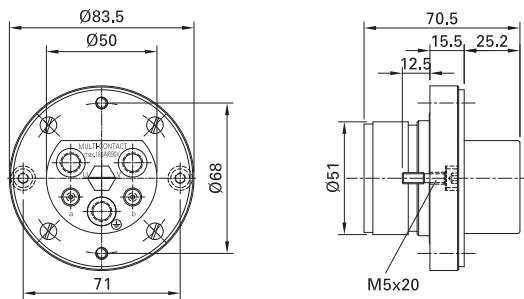
Receptacle for Ø 8 mm sockets with crimping connection to 50 mm² or socket connections for 16 mm² to 35 mm², if necessary. A hexagonal coding (31.5301) is included on

delivery and prevents any risk of confusion when making connections.

Note:

- max. 206 A/50 mm² (see deratings)

TID-B150/...



Order No.	Type	Description	Contacts		
			Number	Conductor cross-section mm ²	Connection type
30.0014	TID-B150/25		3 sockets	25	Crimping
30.0015	TID-B150/35	Receptacle	3 sockets	35	Crimping
30.0016	TID-B150/50		3 sockets	50	Crimping
30.0017	TID-B150/L	Receptacle, empty	s. page 26	–	Crimping/screws

Spare parts

31.5301	6KT-KOD/S	Hexagonal coding	s. page 59
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Accessories

30.0018	EG-TS-M50-150-3	End housing	s. page 57
30.0021	WST-TS/150	Heat-shrink part, straight	s. page 58
30.0011	SHZ-KP150	Protective cap	s. page 61
18.5505	MVS-8	Blind plugs	s. page 63



Tools, page 64 – 67



Assembly instructions MA201

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WeldFix 12 – Ø 12 mm

Receptacle TID-B250/...

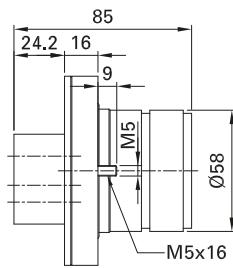
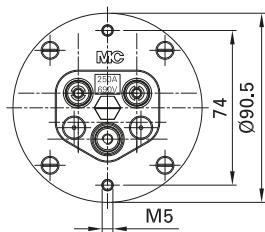


Receptacle for Ø 12 mm sockets with crimping connection to 95 mm². The supplied hexagonal coding (optional) prevents any risk of confusion when making connections.

Note:

- max. 325 A/95 mm² (see deratings)

TID-B250/...



Order No.	Type	Description	Contacts		
			Number	Conductor cross-section mm ²	Connection type
30.2011	TID-B250/35	Receptacle	3 sockets	35	Crimping
30.2012	TID-B250/50		3 sockets	50	Crimping
30.2013	TID-B250/70		3 sockets	70	Crimping
30.2014	TID-B250/95		3 sockets	95	Crimping
30.2015	TID-B250/L	Receptacle, empty	see page 29	–	Crimping

Accessories

30.0063	EG-TS-M50-150-4/5	End housing	s. page 57
30.0066	EG-TS-M63		
30.5311	6KT-KOD/TID/S180	Hexagonal coding	s. page 59
18.9008	SP2/0.5-1.5	Pilot contact pin	s. page 60
30.2030	SHZ-KP250	Protective cap	s. page 61
Upon request	MVS12	Blind plugs	s. page 63



Tools, page 64 – 67



Assembly instructions MA201

www.staubli.com/electrical

WELD CONTROLLER CONNECTOR 4-POLE (3+PE)

Weld controller connector

This chapter describes Weldfix 8 Ø 8 mm connectors (3+PE) for connecting welding controller cabinets of spot-welding guns to robot arms used in vehicle body construction.

Stäubli Electrical Connectors offers extremely reliable 4-pole power supply solutions (3 phases and 1 protective earth (PE)) for welding different types of welding controllers. The entire range is supplied with additional accessories such as various strain

reliefs, safety covers and coding pins for additional safety.



Range of use:



Frequency converter

WeldFix 8 – Ø 8 mm

Receptacle TSS150/3/...



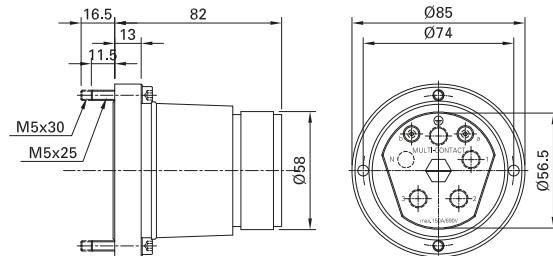
Receptacle for Ø 8 mm pins with crimping connection for 16 mm², 25 mm², 35 mm², 50 mm² or screw connections for 16 mm² to 35 mm² (for this order TSS150/3/L... and pins with screw connections). Contacts are

longitudinally watertight when unmated. Optional pilot contact socket and hexagonal coding. Empty receptacles enable the use of different cable cross sections by using corresponding individual contacts.

Note:

- max. 206 A/50 mm² (see deratings)

TSS150/3/L-M5x25



Order No.	Type	Description	Contacts			Mounting
			Number	Conductor cross-section mm ²	Connection type	
30.0078	TSS150/3/25		4 pins	25	Crimping	2 × M5x25
30.0079	TSS150/3/35	Receptacle, equipped	4 pins	35	Crimping	2 × M5x25
30.0080	TSS150/3/50		4 pins	50	Crimping	2 × M5x25
30.0075	TSS150/3/L-M5x25			–	Screws	2 × M5x25
30.0076 ¹⁾	TSS150/3/L-M5x30	Receptacle, empty	see page 44	–	Screws	2 × M5x30

Accessories

30.0063	EG-TS-M50-150-4/5	End housing	s. page 57
30.0066	EG-TS-M63		
30.0021	WST-TS/150	Heat-shrink part, straight	s. page 58
31.5301	6KT-KOD/S	Hexagonal coding	s. page 59
30.0011	SHZ-KP150	Protective cap	s. page 61
18.5505	MVS8	Blind plugs	s. page 63



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Assembly instructions MA200

www.staubli.com/electrical

Contacts for receptacle TSS150/3/...

\varnothing 8 mm pins, silver-plated. Suitable for crimp connection (recommended) for connections from 16 mm² to 50 mm². Pins with screw connections are also available.

Receptacles can be equipped with pilot contacts which, in critical cases, enable the interruption of the circuit.

SP8/...



BP2/0.5-1.5



S8/16-35-SCH



Order No.	Type	Description	Surface	Conductor cross-section	Rated current	Connection type
				mm ²	A	
30.0503	SP8/16	Pin	Ag	16	105	Crimping
30.0500	SP8/25			25	141	Crimping
30.0501	SP8/35			35	174	Crimping
30.0502	SP8/50			50	196	Crimping
30.0600	S8/16-35-SCH			16 – 35	125/167/184	Screws
18.8008	BP2/0.5-1.5	Signal contact socket	Ag	0.5 – 1.5	16	Crimping



Tools, page 64 – 67



Assembly instructions MA200

www.staubli.com/electrical

WeldFix 8 – Ø 8 mm

Receptacle TID150/3-S8/M8

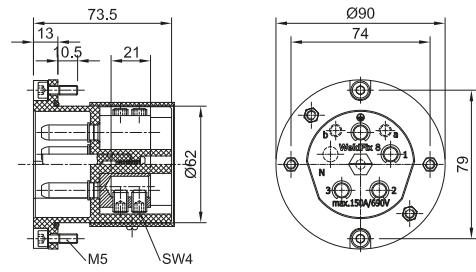
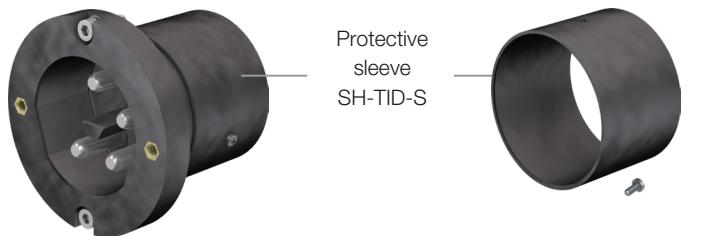


Receptacle for Ø 8 mm pins, permanently mounted, with M8 screw connections for cables with lugs. The N-pole is closed with a blind plug. Delivered with hexagonal coding (30.5309) and protective sleeve (30.5318), optional pilot contact socket for retrofitting. Max. 50 mm².

The receptacle has a protective sleeve SH-TID-S, which provides mechanical protection and protects against making contact with connecting pieces.

Note:

- max. 196 A/50 mm² (see deratings)



Order No.	Type	Description	Contacts		
			Number	Conductor cross-section mm ²	Connection type
30.0087	TID150/3-S8/M8	Receptacle, equipped	4 pins	16 – 50	Screws M8 (SW4)

Spare parts

30.5318	SH-TID-S	Protective sleeve
---------	----------	-------------------

Accessories

30.5309	6KT-KOD/TID/S2	Hexagonal coding	s. page 59
18.8008	BP2/0.5-1.5	Pilot contact socket	s. page 60
30.5312	PKK-TID/S	Pilot contact chamber	s. page 60
30.0062	SHZ-KP150/2	Protective cap	s. page 61



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Assembly instructions MA210

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WeldFix 8 – Ø 8 mm

Receptacle TSB150/3/...

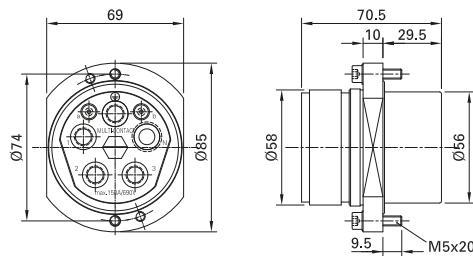
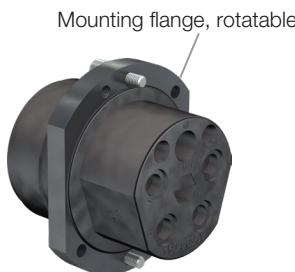


5-pole receptacle for Ø 8 mm sockets with screw or crimping connection (recommended) and first mate/last break ground contact. The rotatable mounting flange enables optimal positioning of the connector.

Longitudinally watertight when unmated. Optional pilot contact pins and hexagonal coding.

Note:

- Empty receptacles enable the use of different cable cross sections using corresponding individual contacts.
- max. 196 A/50 mm² (see deratings)



Order No.	Type	Description	Contacts		
			Number	Conductor cross-section mm ²	Connection type
30.0072	TSB150/3/25		4 sockets	25	Crimping
30.0073	TSB150/3/35	Receptacle, equipped	4 sockets	35	Crimping
30.0074	TSB150/3/50		4 sockets	50	Crimping
30.0070	TSB150/3/L	Receptacle, empty	see page 48	–	Crimping/screws

Accessories

30.0063	EG-TS-M50-150-4/5	End housing	s. page 57
30.0066	EG-TS-M63		
30.0021	WST-TS/150	Heat-shrink part, straight	s. page 58
31.5301	6KT-KOD/S	Hexagonal coding	s. page 59
30.0062	SHZ-KP150/2	Protective cap	s. page 61
18.5505	MVS8	Blind plugs	s. page 63



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Assembly instructions MA200

www.staubli.com/electrical

WeldFix 8 – Ø 8 mm

Receptacle TID-B150/3/...

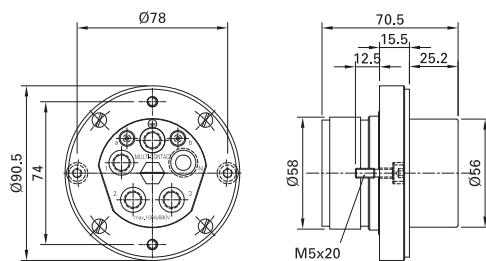


5-pole receptacle for Ø 8 mm sockets with crimping connection to 50 mm² or socket connections for 16 mm² to 35 mm², if nec-

essary. A hexagonal coding (31.5301) is included on delivery and thus prevents mistakes when combining connectors.

Note:

- max. 196 A/50 mm² (see deratings)



Order No.	Type	Description	Contacts		
			Number	Conductor cross-section mm ²	Connection type
30.0084	TID-B150/3/25	Receptacle, equipped	4 sockets	25	Crimping
30.0085	TID-B150/3/35		4 sockets	35	Crimping
30.0086	TID-B150/3/50		4 sockets	50	Crimping
30.0082	TID-B150/3/L	Receptacle, empty	see page 48	–	Crimping/screws

Accessories

30.0063	EG-TS-M50-150-4/5	End housing	s. page 57
30.0066	EG-TS-M63		
30.0021	WST-TS/150	Heat-shrink part, straight	s. page 58
31.5301	6KT-KOD/S	Hexagonal coding (spare part)	s. page 59
30.0062	SHZ-KP150/2	Protective cap	s. page 61
18.5505	MVS8	Blind plugs	s. page 63



Tools, page 64 – 67



Assembly instructions MA201

www.staubli.com/electrical

Contacts for receptacle TSB150/3/... and TID-B150/3/...

Ø 8 mm sockets with MULTILAM contact technology.

Suitable for crimp connection (recommended) for connections from 16 to 50 mm².

Sockets with screw connections are also available.

Receptacles can be equipped with pilot contacts which, in critical cases, enable the interruption of the circuit.

BP8/ ...



SP2/0.5-1.5



B8/16-35-SCH



Order No.	Type	Description	Surface	Conductor cross-section	Rated current	Connection type
				mm ²	A	
30.0103	BP8/16	Socket	Ag	16	105	Crimping
30.0100	BP8/25		Ag	25	141	Crimping
30.0101	BP8/35		Ag	35	174	Crimping
30.0102	BP8/50		Ag	50	196	Crimping
30.0200	B8/16-35-SCH		Ag	16 – 35	125/167/184	Screw connection
18.9008	SP2/0.5-1.5	Pilot contact pin	Ag	0.5 – 1.5	16	Crimping



Tools, page 64 – 67



Assembly instructions MA201

www.staubli.com/electrical

WELDING TRANSFORMER CONNECTOR 5-POLE (3+N+PE)

Frequency converter connector

This chapter describes Ø 8 mm connectors (3+N+PE) for the power supply of welding controllers.

Stäubli Electrical Connectors offers extremely reliable 5-pole power supply solutions (3 phases, 1 neutral conductor (N-pol) and protective earth (PE)) for welding different types of welding controllers. The entire range is supplied with additional accessories such as various strain reliefs, safety covers and coding pins for additional safety.



Range of use:



Frequency converter

WeldFix 8 – Ø 8 mm

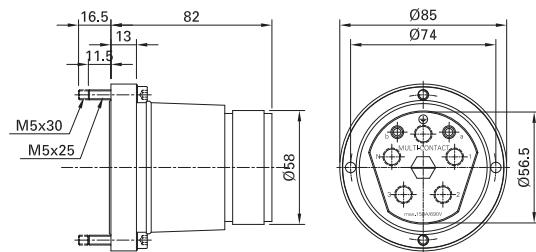
Receptacle TSS150/2/...



Receptacle for Ø 8 mm pins with screw or crimping connection (recommended). Delivered with hexagonal coding, optional pilot contact socket. Longitudinally watertight when unmated.

Note:

- Both empty receptacles enable the use of different cable cross sections using corresponding individual contacts.
- max. 206 A/50 mm² (see deratings).



Order No.	Type	Description	Contacts			Mounting
			Number	Conductor cross-section mm ²	Connection type	
30.0031	TSS150/2/25		5 pins	25	Crimping	2 × M5x25
30.0032	TSS150/2/35	Receptacle, equipped	5 pins	35	Crimping	2 × M5x25
30.0033	TSS150/2/50		5 pins	50	Crimping	2 × M5x25
30.0028	TSS150/2/L-M5x25		see page 51	–	Crimping/screws	2 × M5x25
30.0029	TSS150/2/L-M5x30	Receptacle, empty		–	Crimping/screws	2 × M5x30

Accessories

30.0063	EG-TS-M50-150-4/5	End housing	s. page 57
30.0066	EG-TS-M63		
30.0021	WST-TS/150	Heat-shrink part, straight	s. page 58
31.5301	6KT-KOD/S	Hexagonal coding (spare part)	s. page 59
30.0062	SHZ-KP150/2	Protective cap	s. page 61
18.5505	MVS8	Blind plugs	s. page 63



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Assembly instructions MA200

www.staubli.com/electrical

Contacts for receptacle TSS150/2/...

Ø 8 mm pins, silver-plated. Suitable for crimp connection (recommended) for connections from 16 to 50 mm². Pins with screw connections are also available.

Receptacles can be equipped with pilot contacts which, in critical cases, enable the interruption of the circuit.

SP8/...



BP2/0.5-1.5



S8/16-35-SCH



Order No.	Type	Description	Surface	Conductor cross-section	Rated current	Connection type
				mm ²	A	
30.0503	SP8/16	Pin	Ag	16	105	Crimping
30.0500	SP8/25		Ag	25	141	Crimping
30.0501	SP8/35		Ag	35	174	Crimping
30.0502	SP8/50		Ag	50	196	Crimping
30.0600	S8/16-35-SCH		Ag	16 – 35	125/167/184	Screws
18.8008	BP2/0.5-1.5	Signal contact socket	Ag	0.5 – 1.5	16	Crimping



Tools, page 64 – 67



Assembly instructions MA200

www.staubli.com/electrical

WeldFix 8 – Ø 8 mm



Receptacle TID150/2-S8/M8

Receptacle for Ø 8 mm pins, permanently mounted, with M8 screw connections for lines with ferrules. Delivered with hexagonal coding (30.5309) and protective sleeve (30.5318), optional pilot contact socket for retrofitting. Max. 50 mm².

The receptacle has a protective sleeve SH-TID-S, which provides mechanical protection and protects against making contact with connecting pieces.

Note:

- max. 196 A/50 mm² (see deratings).



Order No.	Type	Description	Contacts		
			Number	Conductor cross-section mm ²	Connection type
30.0039	TID150/2-S8/M8	Receptacle, equipped	5 pins	16 – 50	Screws (M8, SW4)

Spare parts

30.5318	SH-TID-S	Protective sleeve
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Accessories

30.5309	6KT-KOD/TID/S2	Hexagonal coding (spare part)	s. page 59
18.8008	BP2/0.5-1.5	Pilot contact socket	s. page 60
30.5312	PKK-TID/S	Pilot contact chamber	s. page 60
30.0062	SHZ-KP150/2	Protective cap	s. page 61



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Assembly instructions MA210

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WeldFix 8 – Ø 8 mm

Receptacle TSB150/2/...

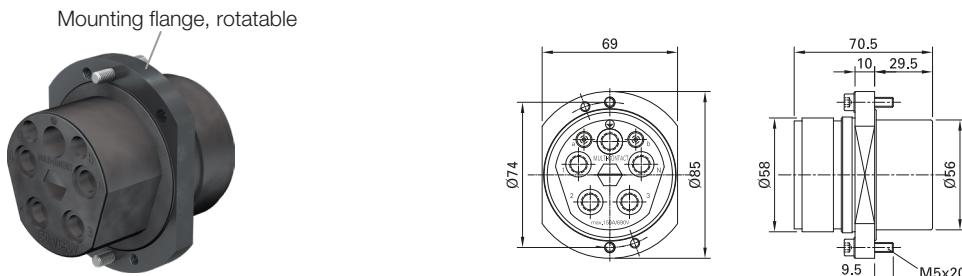


5-pole receptacle for Ø 8 mm sockets with screw or crimping connection (recommended) and first mate/last break ground contact. The rotatable mounting flange enables optimal positioning of the connector. Contacts

are longitudinally watertight when unmated. Optional pilot contact pins and hexagonal coding.

Note:

- Empty receptacles enable the use of different cable cross sections using corresponding individual contacts.
- max. 196 A/50 mm² (see deratings).



Order No.	Type	Description	Contacts		
			Number	Conductor cross-section mm ²	Connection type
30.0025	TSB150/2/25		5 sockets	25	Crimping
30.0026	TSB150/2/35	Receptacle, equipped	5 sockets	35	Crimping
30.0027	TSB150/2/50		5 sockets	50	Crimping
30.0023	TSB150/2/L	Receptacle, empty	see page 26	–	Crimping/screws

Accessories

30.0063	EG-TS-M50-150-4/5	End housing	s. page 57
30.0066	EG-TS-M63		
30.0021	WST-TS/150	Heat-shrink part, straight	s. page 58
31.5301	6KT-KOD/S	Hexagonal coding	s. page 59
30.0062	SHZ-KP150/2	Protective cap	s. page 61
18.5505	MVS8	Blind plugs	s. page 63



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Assembly instructions MA200

www.staubli.com/electrical

Contacts for TSB150/2/...

Ø 8 mm sockets with MULTILAM contact technology.

Suitable for crimp connection (recommended) for connections from 16 to 50 mm².

Sockets with screw connections are also available.

Receptacles can be equipped with pilot contacts which, in critical cases, enable the interruption of the circuit.

BP8/ ...



SP2/0.5-1.5



B8/16-35-SCH



Order No.	Type	Description	Surface	Conductor cross-section	Rated current	Connection type
				mm ²	A	
30.0103	BP8/16	Socket	Ag	16	105	Crimping
30.0100	BP8/25		Ag	25	141	Crimping
30.0101	BP8/35		Ag	35	174	Crimping
30.0102	BP8/50		Ag	50	196	Crimping
30.0200	B8/16-35-SCH		Ag	16 – 35	125/167/184	Screw connection
18.9008	SP2/0.5-1.5	Pilot contact pin	Ag	0.5 – 1.5	16	Crimping



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Assembly instructions MA201

www.staubli.com/electrical

WeldFix 8 – Ø 8 mm

Receptacle TID-B150/2/...

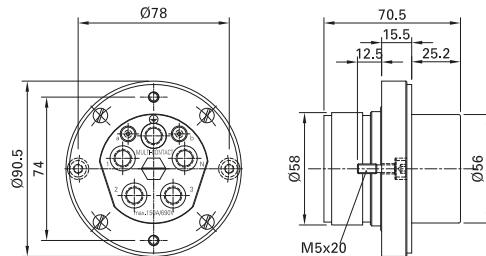


4-pole receptacle for Ø 8 mm sockets with crimping connection to 50 mm² or socket connections for 16-35 mm², if necessary. A

hexagonal coding (31.5301) is included on delivery and prevents any risk of confusion when making connections.

Note:

- max. 196 A/50 mm² (see deratings).



Order No.	Type	Description	Contacts		
			Number	Conductor cross-section mm ²	Connection type
30.0036	TID-B150/2/25		5 sockets	25	Crimping
30.0037	TID-B150/2/35	Receptacle, equipped	5 sockets	35	Crimping
30.0038	TID-B150/2/50		5 sockets	50	Crimping
30.0034	TID-B150/2/L	Receptacle, empty	see page 54	–	Crimping/screws

Accessories

30.0063	EG-TS-M50-150-4/5	End housing	s. page 57
30.0066	EG-TS-M63		
30.0021	WST-TS/150	Heat-shrink part, straight	s. page 58
31.5301	6KT-KOD/S	Hexagonal coding (spare part)	s. page 59
30.0062	SHZ-KP150/2	Protective cap	s. page 61
18.5505	MVS8	Blind plugs	s. page 63



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Assembly instructions MA201

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WeldFix Accessories

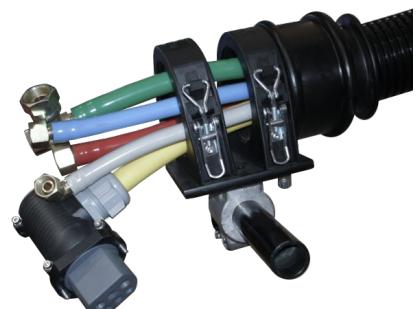
End housing EG-TS...

Reusable end housing includes two half shells, which enable mounting on the receptacle without removing the contacts.

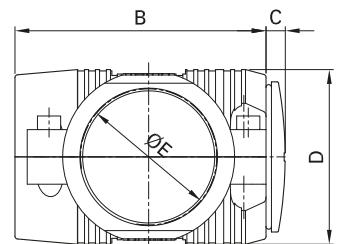
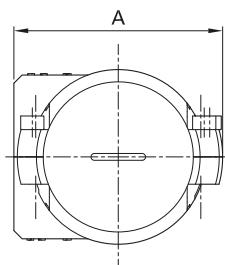
2 configurations per housing: straight or 90° angled.

The unused cable outlet is closed with the supplied blind plug. Cable gland is not supplied.

Degree of protection IP54



EG-TS-M...



Order No.	Type	Dimensions (mm)				Thread	Suitable for
		A	B	C	D		
Ø 6 mm							
15.5168	EG-TS-M40-135/3	67.5	76	~6	54	M40	TSS...; TSB...; TID-B...
Ø 8 mm							
30.0018	EG-TS-M50-150-3	80	92.6	~7	64	M50	TSS150/...; TSB150/...; TID-B150...
30.0063	EG-TS-M50-150-4/5	76.5	92	~7.1	64	M50	TSS150/3/...; TSB150/3/...; TID-B150/3/...
30.0066	EG-TS-M63	91.5	104	~8	77	M63	TSS150/2/...; TSB150/2/...; TID-B150/2/...
Ø 12 mm							
30.0063	EG-TS-M50-150-4/5	76.5	92	~7.1	64	M50	TSS250/...; TSB250/...; TID-B250/...
30.0066	EG-TS-M63	91.5	104.5	~8	77	M63	



Assembly instructions MA200

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WeldFix Form shrouds WST...

Heat-shrinkable and robust molded parts made from elastomer. Use the model with the adhesive coating (inner wall) for dynamic applications.

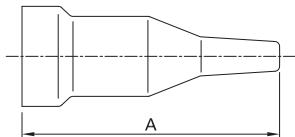
Available in different versions:

- Straight form, adhesive coating
- Straight form without adhesive (static applications)

Degree of protection: IP67.

Flammable UL 94: HB

WST-...



Order No.	Type	Description	Adhesive coating (inner wall)	Length (mm)		Suitable for
				A		
Ø 6 mm						
15.5027	WST-TS	Straight	x	96 ¹⁾		
15.0399	WST-WF6	Straight	-	96		TSS/...; TSB/...; TID-B/...
Ø 8 mm						
30.0021	WST-TS/150	Straight	x	171		TSS150/...; TSB150/...; TSS150/3/...; TID-B150/3/... TSS150/2/...; TSB150/2/...; TID-B150/2/...
Ø 12 mm						
30.0021	WST-TS/150	Straight	x	171		TSS250/...; TSB250/...



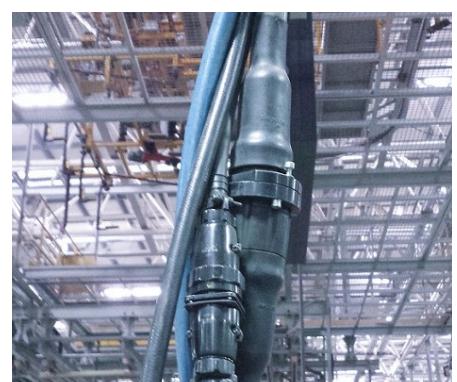
Tools, page 64 – 67



Assembly instructions MA200

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¹⁾ ±10% after unrestricted recovery



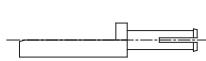
Hexagonal codings

Hexagonal codings are connected to the connectors without tools and ensure proper connection.

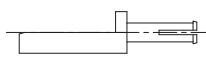
Note:

- The second coding (counterpart) must be ordered with the equivalent of the connector.

6KT-KOD/TID/S135



6KT-KOD/TID/S180



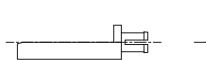
6KT-KOD/A



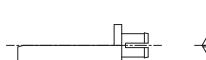
6KT-KOD/S



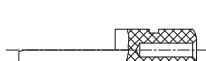
6KT-KOD/TAG135



6KT-KOD/TAG150



6KT-KOD/TID/S2



Ø 6 mm

Order No.	Type	Key width	Type of mounting	Suitable for
30.5313	6KT-KOD/TID/S135	9	Latched	TID-S6/M5; TID-S6/M5; TID-B/...
31.5300	6KT-KOD/A	9	Plugs	TSS/...; TSB/...; TID-B/...
15.5331	6KT-KOD/TAG135	9	Latched	TAG135

Ø 8 mm

30.5311	6KT-KOD/TID/S180	11	Latched	TID150-S...; TID150-S8/M8; TID-B250/...;
31.5301	6KT-KOD/S	11	Plugs	TSS150/...; TSB150/...; TID-B150/3/...; TSS150/2/...; TSB150/2/...; TID-B150/2/...; TID-B150/...; TSB150/3..., TSS150/3...
30.5309	6KT-KOD/TID/S2	11	Screws	TID150/2-S8/M8, TID150/3-S8/M8
30.5322	6KT-KOD/TAG150	11	Latched	TAG150; TAG250

Ø 12 mm

30.5311	6KT-KOD/TID/S180	11	Latched	TSS250/...; TSB250/...
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Assembly instructions MA210

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Pilot contacts

All pins and socket carriers can be equipped with pilot contacts, except for UR applications.

Pilot contact sockets for receptacles TID...-S require additional pilot contact chambers for mounting.

BP2/0.5-1.5



SP2/0.5-1.5



Order No.	Type	Description	Surface	Conductor cross-section	Rated current	Connection type
				mm ²	A	
18.8008	BP2/0.5-1.5	Pilot contact socket	Ag	0.5 – 1.5	16	Crimping
18.9008	SP2/0.5-1.5	Pilot contact pin	Ag	0.5 – 1.5	16	Crimping

Pilot contact chamber PKK-TID/S

If you are using pilot contact sockets, for Type TID...-S... pilot contact chambers must be mounted beforehand.



Order No.	Type	Description	Type of mounting	Suitable for	
30.5312	PKK-TID/S	Pilot contact chamber	Latched	TID-S6/M5 TID150-SP8/... TID150/2-S8/M8	TID150-S8/M8 TID150/3-S8/M8



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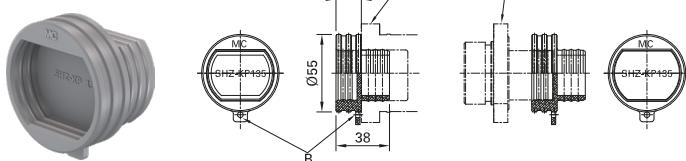
WeldFix Protective caps

Protective caps are used to protect unmated connectors from dust and water ingress (IP44). They are also suitable for TSS... or TSB...

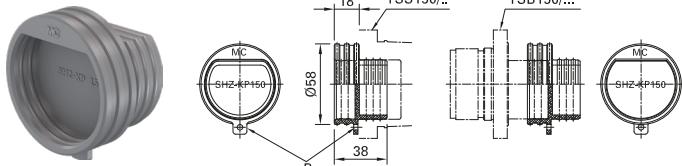
flange receptacles, receptacles and panel mount housing.

A string or chain can be attached to the lug (B) to keep the protective cap from being misplaced.

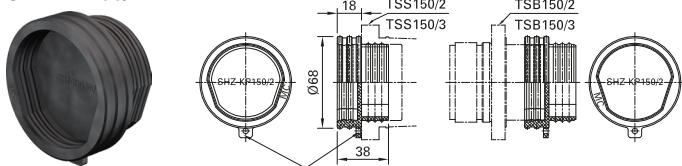
SHZ-KP135



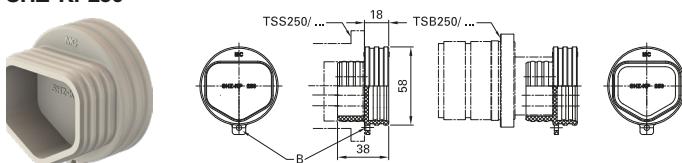
SHZ-KP150



SHZ-KP150/2



SHZ-KP250



Order No.	Type	Suitable for
Ø 6 mm		
15.0335	SHZ-KP135	TSS...; TSB...; TID-B..., TID-S..., TAG135
Ø 8 mm		
30.0011	SHZ-KP150	TSS150...; TSB150...
30.0062	SHZ-KP150/2	TSS150/3...; TSB150/3...; TID150/3-S8/M8; TID-B150/3...; TSS150/2...; TID150/2-S8/M8; TID-B150/2...; TSB150/2...
Ø 12 mm		
30.2030	SHZ-KP250	TSS250...; TSB250...; TID-B250...; TAG250



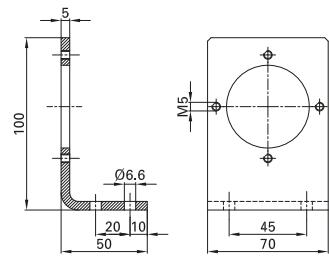
Tools, page 64 – 67

WeldFix Mounting bracket

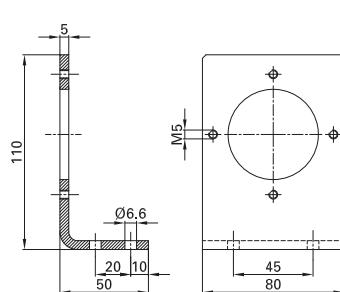
Angled and very stable steel bracket for mounting a complete TSS.../TSB... plug-in connection. These compact mounting

brackets have four holes for mounting on a carrier, e.g. a robot arm.

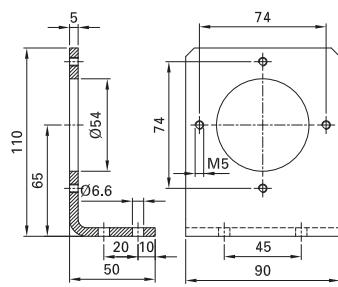
W-TS



W-TS/150



W-TS/250



Order No.	Type	Description	Material	Suitable for
Ø 6 mm				
15.5043	W-TS	Mounting bracket	Steel	TSS...; TSB...
Ø 8 mm				
15.5044	W-TS/150	Mounting bracket	Steel	TSS150/...; TSB150/...
Ø 12 mm				
30.0064	W-TS/250	Mounting bracket	Steel	TSS250/...; TSB250/...



Assembly instructions MA200

www.staubli.com/electrical

Blind plugs

Blind plugs are mounted in unoccupied contact chambers to ensure longitudinal ingress protection.

MVS6



MVS8



MVS12



Order No.	Type	Description	Suitable for
Ø 6 mm			
18.5503	MVS6	Blind plug	TSS/...; TSB/...; TID-B/...
Ø 8 mm			
18.5505	MVS8	Blind plug	TSS150/...; TSB150/..., TID-B150/...
Ø 12 mm			
Upon request	MVS12	Blind plug	TSS250/..., TSB250/...; TID-B250/...



Tools, page 64 – 67

INSTALLATION TOOLS

Insertion and extraction tools

Insertion and extraction of contacts:

We recommend using a centering cone in the power plugs, which is inserted before mounting on the socket. Before inserting the contacts, the receptacle must be lubricated

with industrial alcohol, spirit or Lusin ALRO OL151, after which the contacts are inserted from the rear into the contact chambers with a crimped conductor.

Order No.	Type	Nominal-Ø pin/socket	Name	Insertion tool	Extraction tool
		mm			

For power contacts

18.3016	ME-WZ6	6	Insertion tool (pin/socket)		x	
18.3018	MSA-WZ6	6	Pin extraction tool			x
18.3017	MBA-WZ6	6/8/12	Extraction tool Sockets: 6/8 mm Pins: 12 mm			x
18.3021	ME-WZ11/38	8	Insertion tool (pin/socket)		x	
18.3022	MSA-WZ8	8/12	Extraction tool Pins: 8 mm Sockets: 12 mm			x
18.5852	MEK-WZ-12	12	Centering cone Socket insertion tool		x	

For pilot contacts

18.3003	ME-WZ1.5/2	1,5/1,57/2	Insertion tool (pin/socket)		x	
18.3009	MSA-WZ2	2	Pin extraction tool			x
18.3008	MBA-WZ2	2	Socket extraction tool			x



Assembly instructions MA200, MA201

www.staubli.com/electrical

Crimping pliers case CZK2-...

Stäubli recommends the use of this cordless hydraulic crimping tool together with the crimping dies for crimping the contacts.

This tool guarantees a safe and high quality crimp termination.

- Lowest contact resistance
- Special Stäubli crimp dies with punch notch
- Best ergonomically for high volume applications.



Pos. No.	Order No.	Type	Name	
1a	18.3111	CZK2-230	Crimping pliers case (incl. strap and plastic case)	230 V
Contents				
2	-	CZ-B500	Electro hydraulic crimping tool B500, compatible with the Cordless Alliance System (CAS)	
3	18.3042	ALI-18	Li-Ion battery – 18 V – 4.0 Ah	
4	18.3023	MTB11-25-50	Crimp insert 25 mm ² /4 AWG	
5	18.3024	MTB13-35-50	Crimp insert 35 mm ² /~2 AWG	
6	18.3044	ALG2-230	Battery charger AC 230 V	

1b	18.3112	CZK2-110	Crimping pliers case (incl. strap and plastic case)	110/120 V
Contents				
2	-	CZ-B500	Electro hydraulic crimping tool B500, compatible with the Cordless Alliance System (CAS)	
3	18.3042	ALI-18	Li-Ion battery – 18 V – 4.0 Ah	
4	18.3023	MTB11-25-50	Crimp insert 25 mm ² /4 AWG	
5	18.3024	MTB13-35-50	Crimp insert 35 mm ² /~2 AWG	
7	18.3043 ¹⁾	ALG2-110	Battery charger 110 / AC 120 V	

Optional accessories

8	18.3029	MTB9-16-50	Crimp insert 16 mm ² /6 AWG
9	18.3025	MTB14,5-50-50	Crimp insert 50 mm ² /1/0 AWG
-	18.3026	MTB17-70-50	Crimp insert 70 mm ² /2/0 AWG
-	18.3027	MTB20-95-50	Crimp insert 95 mm ² /~3/0 AWG



Assembly instructions MA306

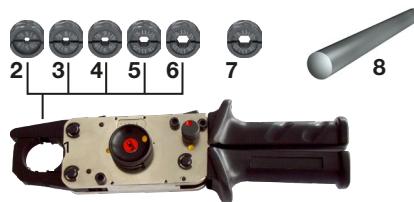
www.staubli.com/electrical

* PSE-approved charger upon request.

Manual crimping pliers and accessories

Stäubli recommends crimping plier M-PZ-13 for low quantity crimping or individual assembly and crimping plier M-PZ-T2600 for higher quantity crimping assembly.

M-PZ-13



M-PZ-T2600



MP-13



Pos.	Order No.	Type	Nominal-Ø pin/ socket	Conductor cross-section	Accessories Assembly instructions	Name
			mm	mm ²	MA	
1	18.3700	M-PZ13			MA224	Crimping pliers
2	18.3701	MES-PZ-TB5/6	6	6		Crimping die for Pos. 1
3	18.3702	MES-PZ-TB8/10	6	10		Crimping die for Pos. 1
4	18.3703	MES-PZ-TB9/16	6/8	16		Crimping die for Pos. 1
5	18.3704	MES-PZ-TB11/25	6/8	25		Crimping die for Pos. 1
6	18.3705	MES-PZ-TB13/35	8	35		Crimping die for Pos. 1
7	18.3707	MPS-PZ13				Test insert
8	18.3708	MALU-PZ13			MA224	Round test rod
9	18.3749	MP13				Storage box

10	18.3710	M-PZ-T2600			MA226	Crimping pliers with box
11	18.3711	TB8-17 ¹⁾	6/8	10 & 70 ¹⁾		Crimping die for Pos. 10
12	18.3712	TB9-13 ¹⁾	6/8	16 & 35 ¹⁾		Crimping die for Pos. 10
13	18.3713	TB11-14,5 ¹⁾	6/8	25 & 50 ¹⁾		Crimping die for Pos. 10
	18.3714	TB7-20	12	95 ¹⁾		Crimping die for Pos. 10



Assembly instructions MA224, MA226,

MA085

www.staubli.com/electrical

¹⁾ Inserts can be used on two sides.
Numbers 8 & 17, 9 & 13, 11 & 14,5, 7 & 20
= Outside crimping sleeves Ø

M-CZ

14



15



16



Pos.	Order No.	Type	Nominal-Ø pin/ socket	Conductor cross-section	Accessories Assembly instructions	Name
14	18.3800	M-CZ	mm	mm ²	MA	

For pilot contacts

14	18.3800	M-CZ			MA085	Crimping pliers
15	18.3801	MES-CZ	–	0.14 – 4	MA085	Locator for M-CZ, adjustable (except for Ø 0.6 mm contacts)
16	18.3802	MES-CZ1.5/2	2	0.5 – 1.5	MA085	Locator for M-CZ, for pilot contacts 18.8008 and 18.9008

**Assembly instructions MA224, MA226,****MA085**www.staubli.com/electrical

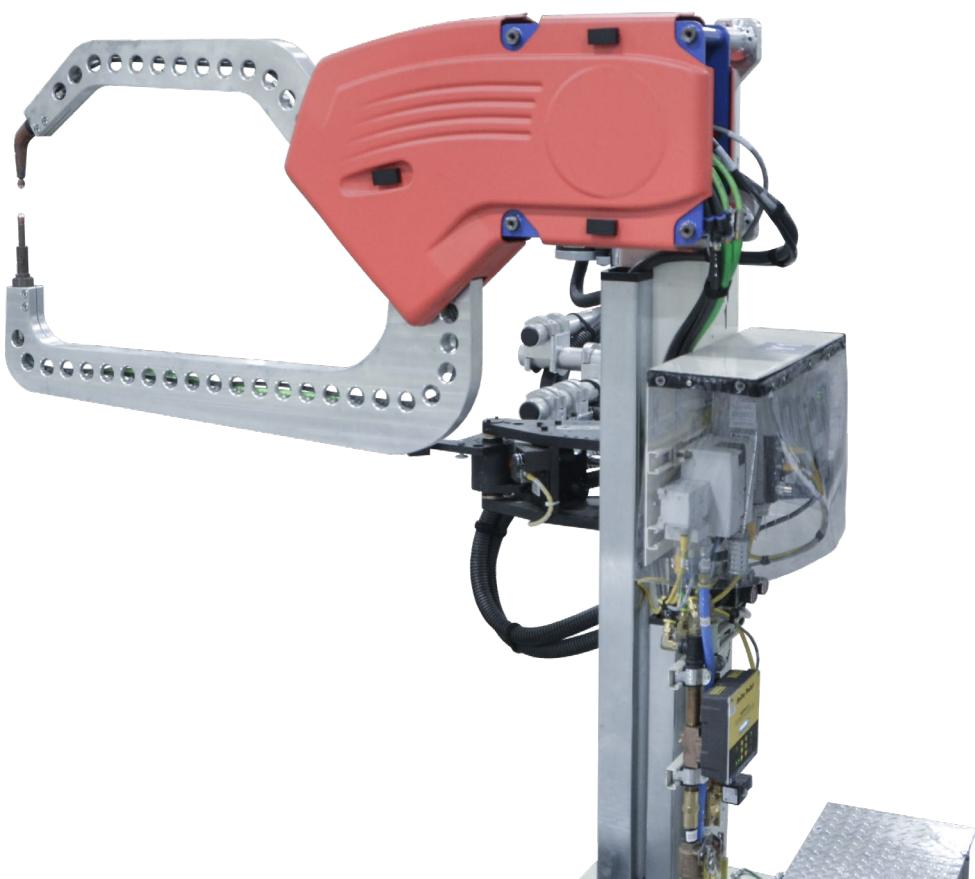
Electrical values rating factor 0.9

The current-carrying capacity of connectors is limited by the thermal load capacity of the materials of the contact elements including connections, insulating parts and lines/cables.

The derating curve applies to currents that are continuous, not intermittent (corresponds to duty cycle (ED) 100%), allowed to flow through each phase conductor, PE without current, at the same time, without the upper temperature limit being exceeded. Standard reduced duty cycles (ED) in the resistance spot-welding process are taken into consideration on the following pages 69 – 72.

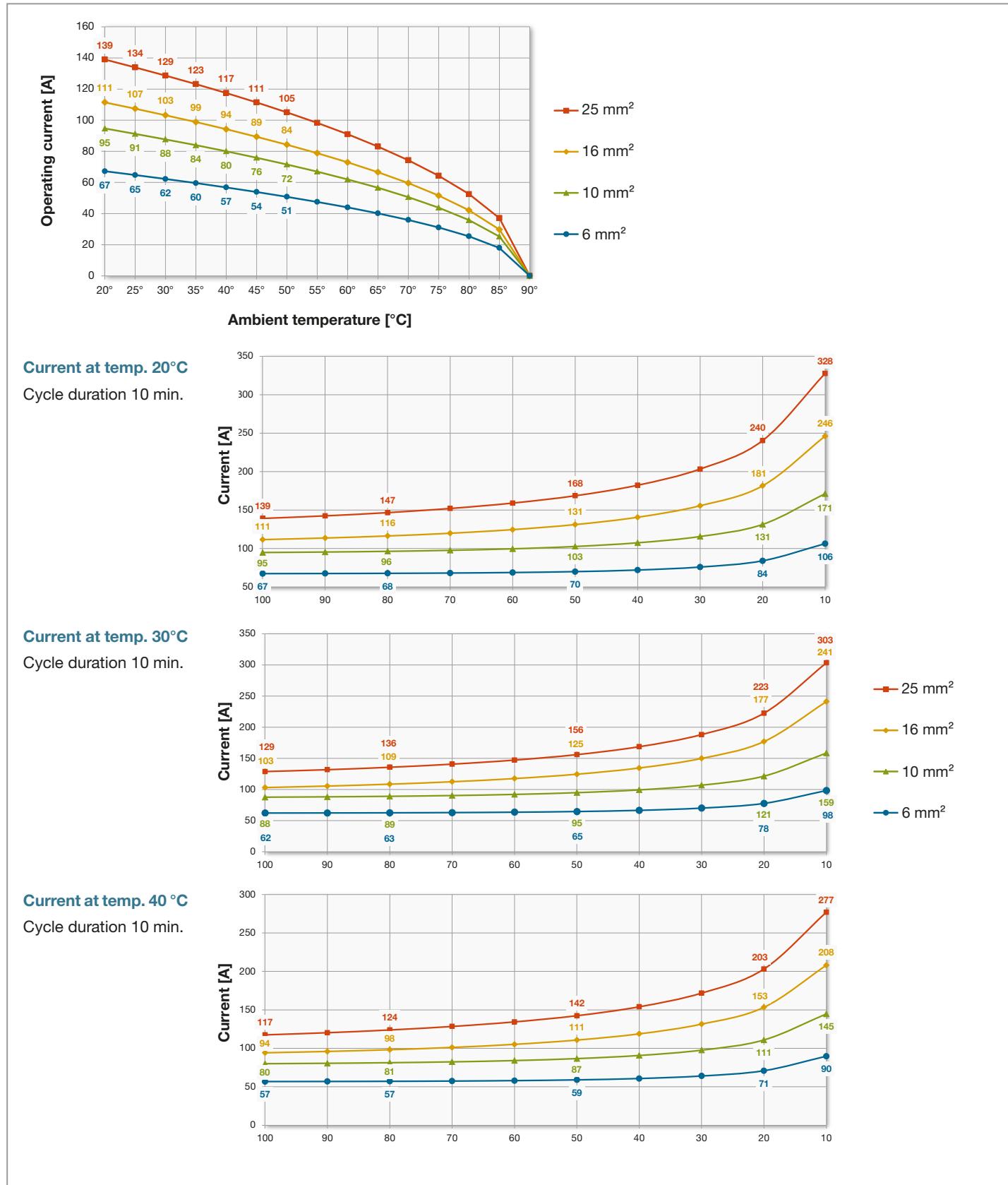
Measuring and test methods to DIN 41640/
Part 3.

The values given in the derating diagrams apply to connectors (see Standard EN 60204). For the permissible load of the lines, refer to the relevant regulations such as DIN VDE 0298-4 and DIN EN 60204-1, IEC 60204-1.



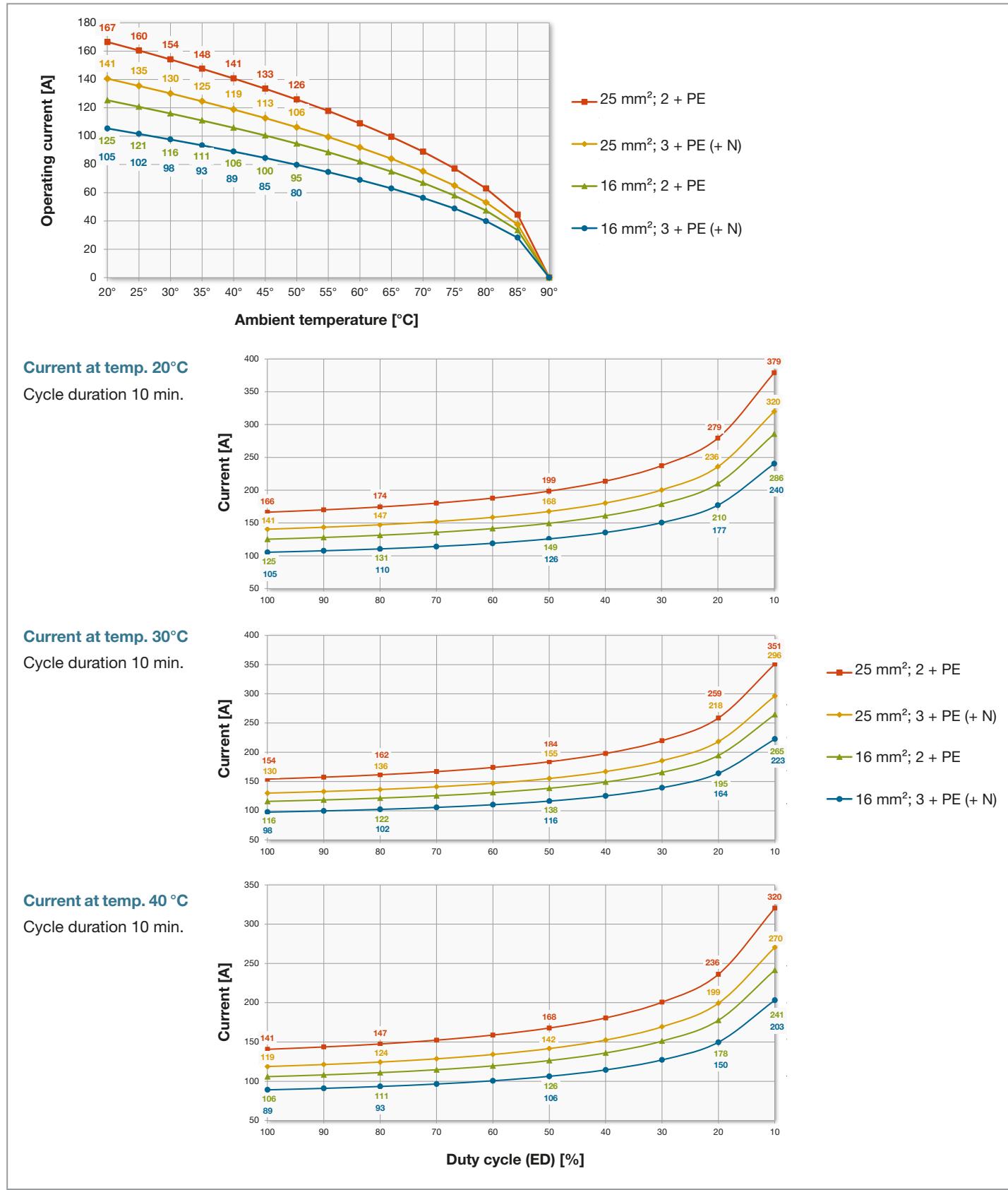
Ø 6 mm contacts

Current-carrying capacity of 6, 10, 16 and 25 mm²-conductors, 3-pole



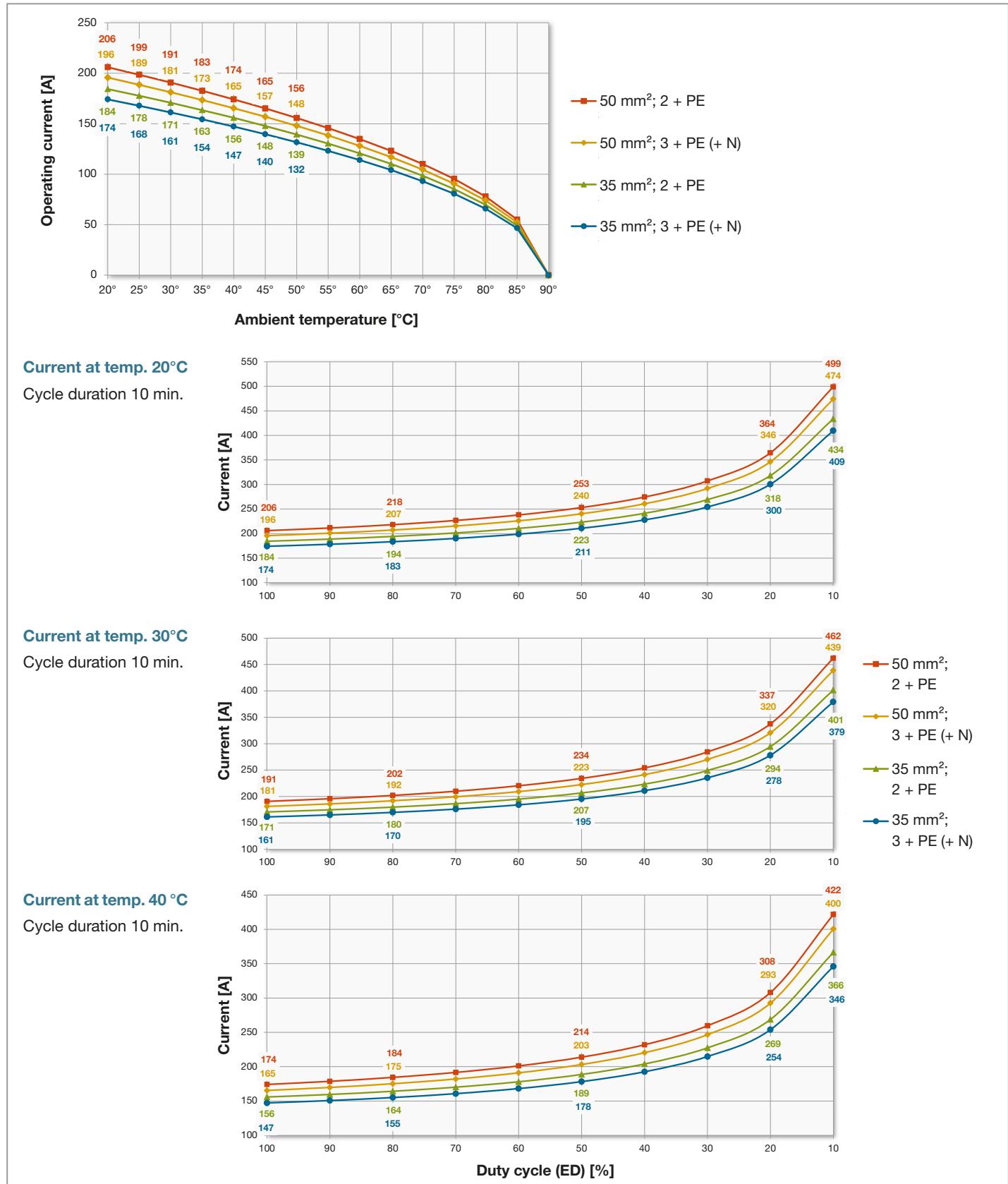
Ø 8 mm contacts

Current-carrying capacity of 16 and 25 mm²-conductors, 3- to 5-pole



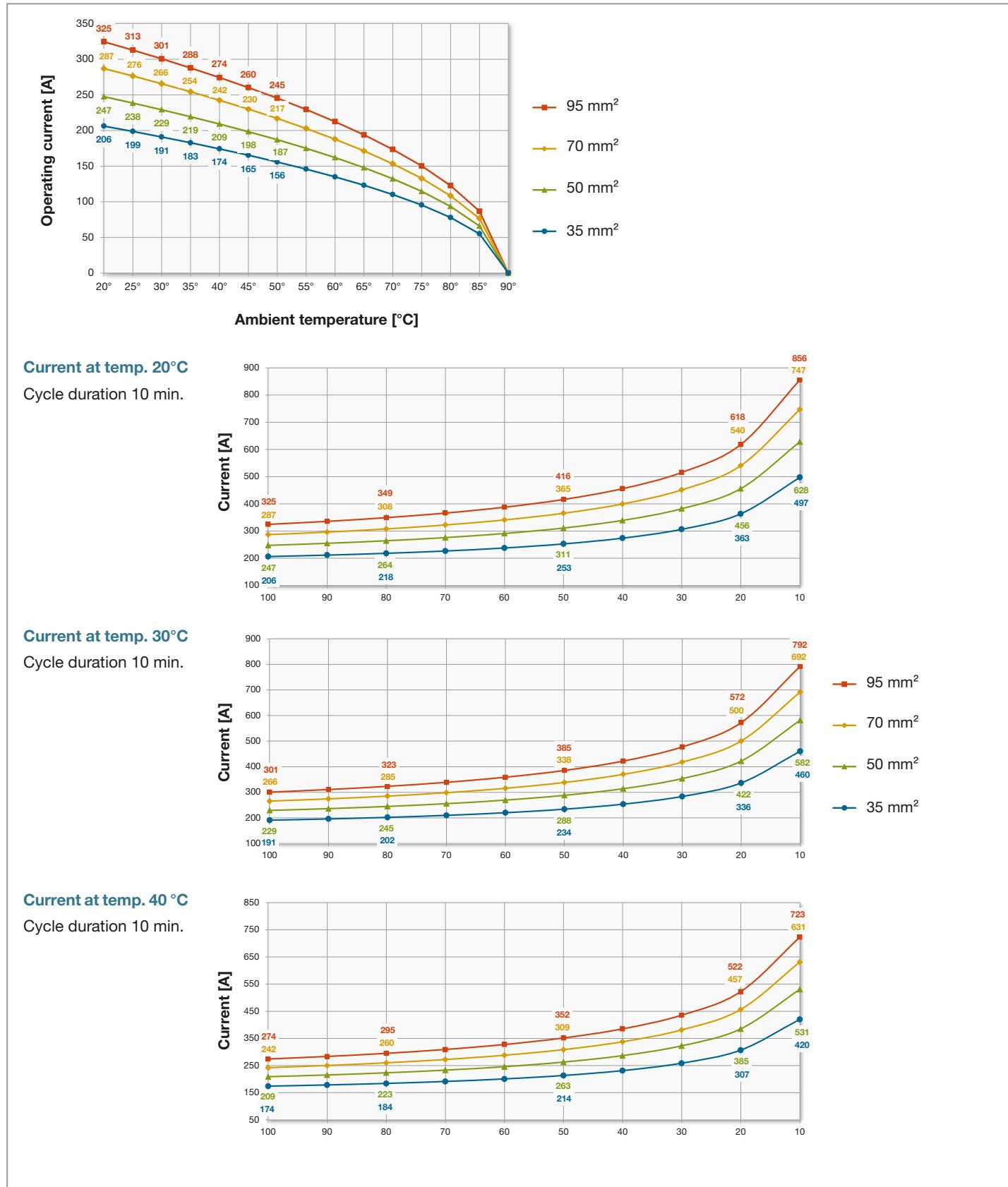
Ø 8 mm contacts

Current-carrying capacity of 35 and 50 mm²-conductors, 3- to 5-pole



Ø 12 mm contacts

Current-carrying capacity of 35, 50, 70 and 95 mm²-conductors, 3-pole



Technical data

Number of poles:¹⁾

2+PE, 3+PE, 3+PE+N

Rated current:

To 325 A

(see derating diagram, p. 68–72)

Rated voltage power contacts:

AC 690 V – AC 1000 V

Test voltage:

3.5 kV (50 Hz 1 min.)

Insulation resistance:

> 10³ MΩ

Insulation coordination:

6kV/3 VDE 0110-1, IEC 60664-1

Operating temperature:

-40 °C to +100 °C

Connection:

Crimping

6 mm² to 95 mm² for main contacts

0.5 mm² to 1.5 mm² for pilot contacts

Screw connections for TID/2-S8/M8

25 mm² to 50 mm² with ferrules for multiple and fine wire lines.

Conductor cross-section:

67 A – 139 A: 6 mm² to 25 mm²

TID-S6/M5 cable lug

DIN46234 5-6 to 5-25

105 A – 206 A: 16 mm² to 50 mm²

TID-S8/M8 cable lug

DIN46234 8 to 50

174 A – 325 A 35 mm² to 95 mm²

Material/Surface:

Contacts:

CuZn alloy, silver-plated. Rigid pins, sockets with Stäubli MULTILAM, spring loaded.

Insulation body:

Elastomer or UP (TID-S..., TID...-S...)

Mounting flanges:

Aluminum alloy anodized/POM

End housing: PA

Degree of protection:

In accordance with IEC 529/DIN VDE 0470-T1

EN 60529 when plugged in:

IP 67 with use of heat-shrink molded parts.

IP 54 with use of 2-part end housing.

Longitudinally watertight when unmated.

Additional regulations:

DIN EN 61984, ISO 10656

VDE 0627

¹⁾ Pilot contacts optional

Technical notes

Stäubli MULTILAM

- A technical description for electrical contacts with contact plates
- See catalog: MULTILAM – Technical overview

Extraction and insertion force

Stated values are forces after 20 to 30 actuations and thin lubricant film. The forces are higher when parts are new.

Tightening torques

The torques apply to clean, lightly greased bolts, nuts and washers.

Rated current

Rated current (IEC/EN 61984, DIN VDE 0298-4) is the current which a connector can simultaneously carry through all contacts (not intermittent) without exceeding the upper limit temperature. In addition, the current carrying capacity of the connected conductors is considered.

Duty cycle

The duty cycle is an equivalent current consideration, which is based on the current and break times according to the VDE 0530-1 standard.

Rated voltage

(IEC/EN 60664, IEC/EN 61984) is the voltage according to the connector rated and related to the specific operating properties.

Contact resistance

Contact resistance is the resistance occurring at the point where two contact surfaces touch. Its value is calculated using the measured voltage drop at the rated current.

Test voltage

The voltage that a connector can withstand under the determined conditions without breakdown or flashover.

Insulation coordination

(IEC/EN 60664) is used to rate the insulation and determines the rated voltage.

Mating cycles

The maximum mating frequency of the standard connector is 1 000 to 5 000 connections depending on the conditions of use. This requires a thin lubricant film on the contacts before the first mating process. Higher mating cycles put stress on the surface, the guide and the lubrication, and always necessitate special clarifications and special versions.

Crimp connection

Crimping tools are a critical aspect of achieving the rated electrical and mechanical performance. Stäubli therefore recommends reliable, quality tools. If using a crimper not listed in this catalog, please contact your local Stäubli representative for compatibility.

Screw terminal connectors

Ferrules should be used when connecting flexible or highly-flexible conductors.

Derating diagrams

The current-carrying capacity of connectors is limited by the thermal load capacity of the materials of the contact elements including connections and insulating parts. The derating curve applies to currents that are continuous, not intermittent, allowed to flow through each phase conductor, unoccupied PE, at the same time, without the upper temperature limit being exceeded. The values given in the derating diagrams apply to connectors and connected lines. For the permissible load of the lines, the relevant regulations such as DIN VDE 0298-4 should be considered.

IP degree of protection

IP (Ingress Protection)

Specification of the degree of protection according to international regulations for contact protection and density

Cable gland

For proper insulation, Stäubli recommends the use of plastic cable glands only. Should metallic cable glands be used, those have to be grounded to prevent risk of electric shock. Cable glands are not supplied.

Used plastics

Initials	Material designation	Temperature °C	Flammable UL94
CR	Chloroprene rubber	-40°C to +100°C	V1
PO	Polyolefin	-40°C to +100°C	
PA	Polyamide (PA)	-40°C to +100°C	V0
POM	Polyoxymethylene	-40°C to +100°C	HB
PF	Phenol formaldehyde	-40°C to +100°C	V0
TPE	Thermoplastic elastomer	-40°C to +100°C	HB
UP	Polyester resin, GF		V0

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