FAST MOVING TECHNOLOGY

STÄUBLI

Connectors for multi-couplings

DuraDock multi

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.

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.

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 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 applications, 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

Stäubli's multipole connectors are used in docking systems, tool changers, and in manually or automatically operated multi-couplings.

Our solutions are ideal for a wide range of standard industrial applications, as well as other highly demanding applications where reliability is of the essence.

- Unparalleled contact reliability thanks to MULTILAM advanced contact technology
- Robust, reliable and user-friendly – up to 1 million mating cycles
- High current-carrying capacity with minimal contact resistance for a long lifespan
- Many possible combinations to work with almost any application, from data transmission to high-current applications
- Our standard program covers cable cross-sections of up to 50 mm^2 (AWG 1/0), currents up to 200 A and up to 72 poles

Content

General information

Colour code

For those items available in various colours, replace the asterisk "*" with the appropriate colour code.

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

Changes / Provisos

All data, illustrations and drawings in the catalogue 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 catalogue but to consult us to make sure this information is up to date. We shall be pleased to advise you.

Copyright

RoHS

European Directive 2011/65/EU incl. all related amendments (e.g. Delegated Directive (EU) 2015/863)

For further information please follow the link below

www.staubli.com/de/en/electrical-connectors/downloads/certificates/material-compliance.html

Symbols

Accessories or special tools exist for this product

www.staubli.com/electrical

The assembly instruction MA000 is available for this product

www.staubli.com/electrical

UNLIMITED POSSIBILITIES FOR CONTACT SOLUTIONS

MULTILAM Technology

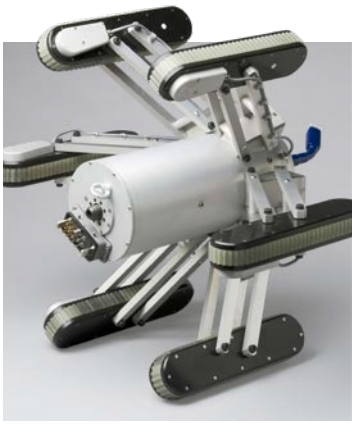
MULTILAM are specially formed and resilient contact elements. All Stäubli Electrical Connectors products benefit from the unique and outstanding performance of the MULTILAM Technology.

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
- Particularly suitable for high current connectors, but also for data and signal contacts as well as for high voltage connections
- Automated solutions with a high number of mating cycles



Technical data

The contacts are equipped with a crimping sleeve. In the unplugged condition the complete socket and pin parts are longitudinally waterproof over the contacts. The use of plastic housings eliminates the need for earthing, thus simplifying the work of assembly.

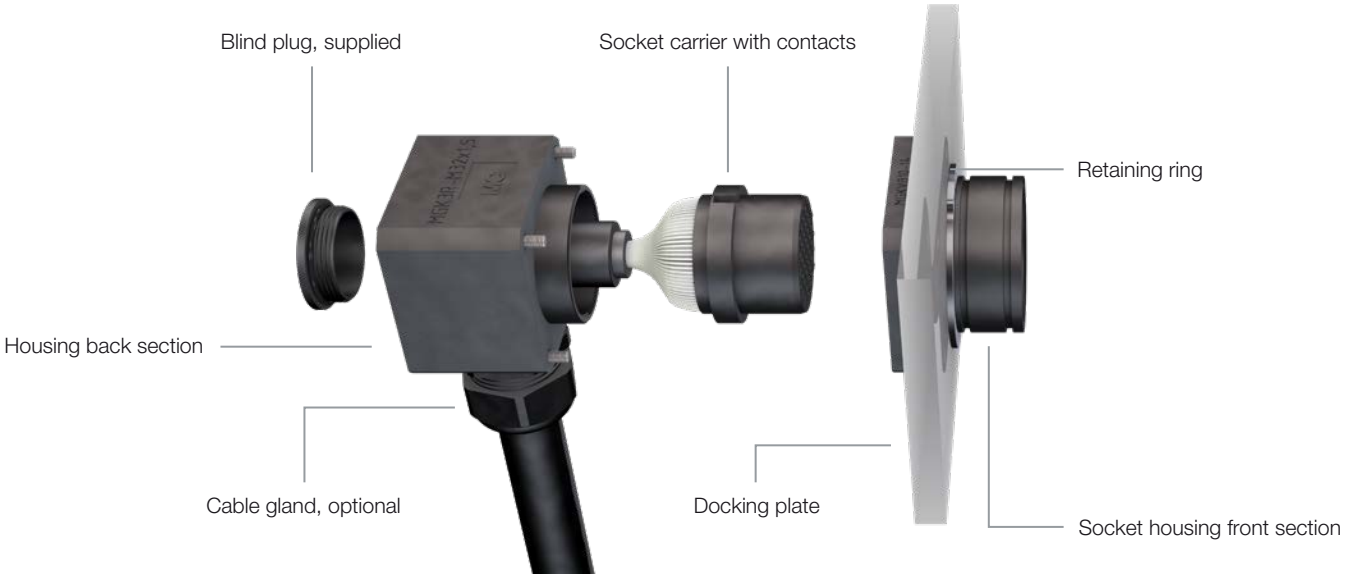
When using metal housings, the housings must be earthed using a protective conductor according to IEC 60364-4-41.

Note:
The housings may not be used as mechanical centering. For safe operation and correct alignment of plates stable guiding pins are mandatory.

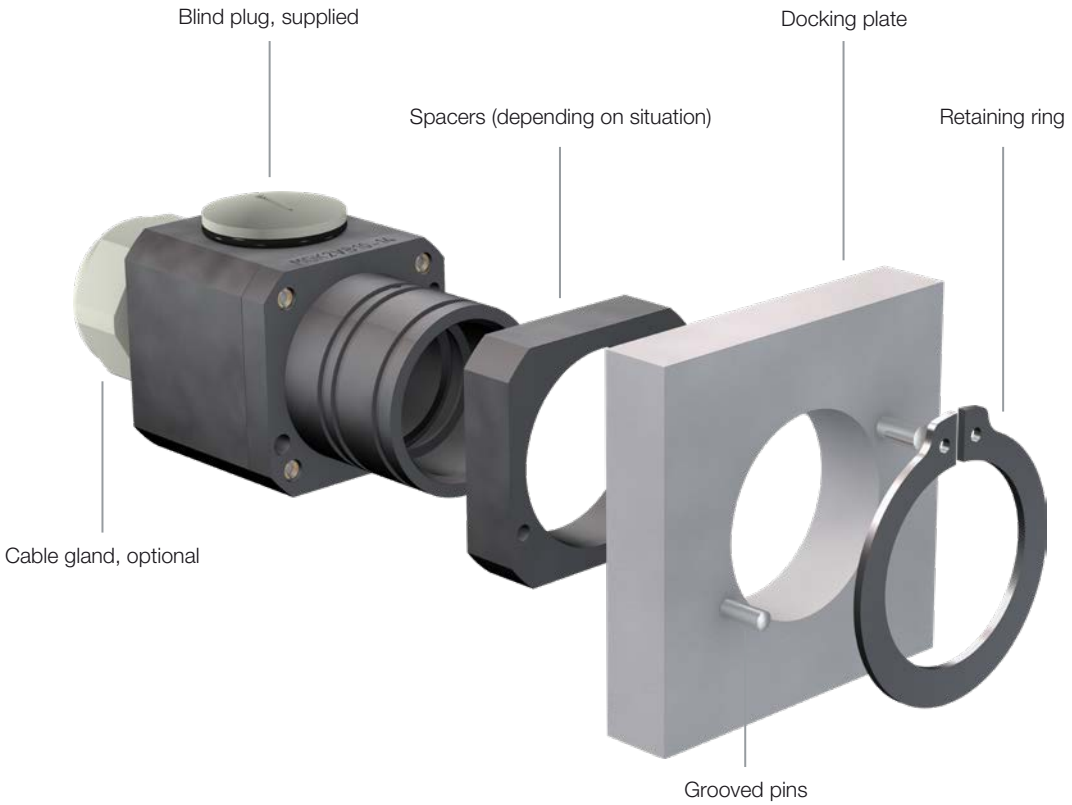
Technical data	
Contact system	MULTILAM
Rated voltage	max. 830 V
Rated current (Derating diagrams, page 95)	max. 200 A
Overvoltage category Pollution degree	CATIII 3[1)]
Test voltage	0,84 kV – 3,31 kV/50 – 60 Hz/1 min.
Insulation coordination according to IEC 60664-1, DIN VDE 0110-1	4 kV: 3 V – 300 V 6 kV: 3 V – 630 V
Temperature resistance contact carriers	NBR: -30 °C...+100 °C CR: -40 °C...+100 °C SIL: -40 °C...+150 °C PK: -40 °C...+150 °C TPE: -20 °C...+90 °C
Operating temperature (Plastic housing) (Metal housing)	-10 °C...+90 °C -40 °C...+150 °C
Storage temperature	-40 °C...+80 °C
Degree of protection, mated (DIN 40050) MGK..., MGS... mated (DIN 40050) MGA... unmated (Socket side)	IP65 IP67 IP2X[2)]
Safety class	II[1)]
Number of poles	2+PE – 70+2PE
Nominal-Ø contact	1 mm – 11 mm
Conductor cross section	0.14 mm^2 – 50 mm^2 26 AWG – 1/0 AWG
Type of connection	Crimping
Contact material	CuZn alloy; silver or gold plated
Carrier material	NBR/CR/SIL/PEEK
Housing material	Metal/POM or PA
Shielding (360°)	Available (G1 – G3)
For further instructions	EN 60664-1/2008-01 DIN VDE 0627/EN 61984/2009-11 DIN VDE 0298-4/2003-08

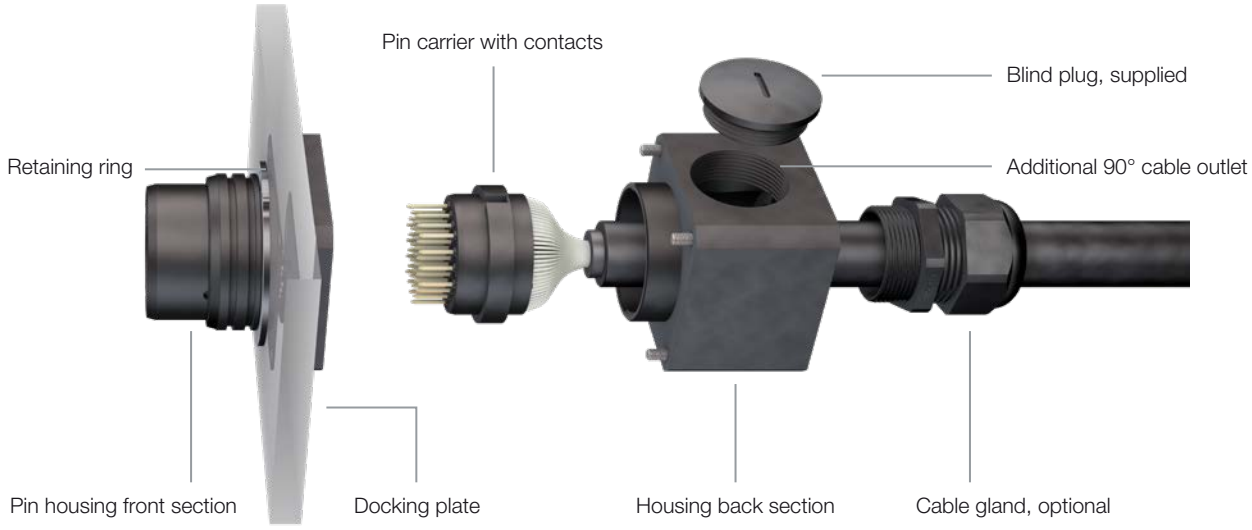
1) Except PEEK (Pollution degree 2)
2) Except PEEK 19.6660, 19.6658, 19.6654 & 19.6626

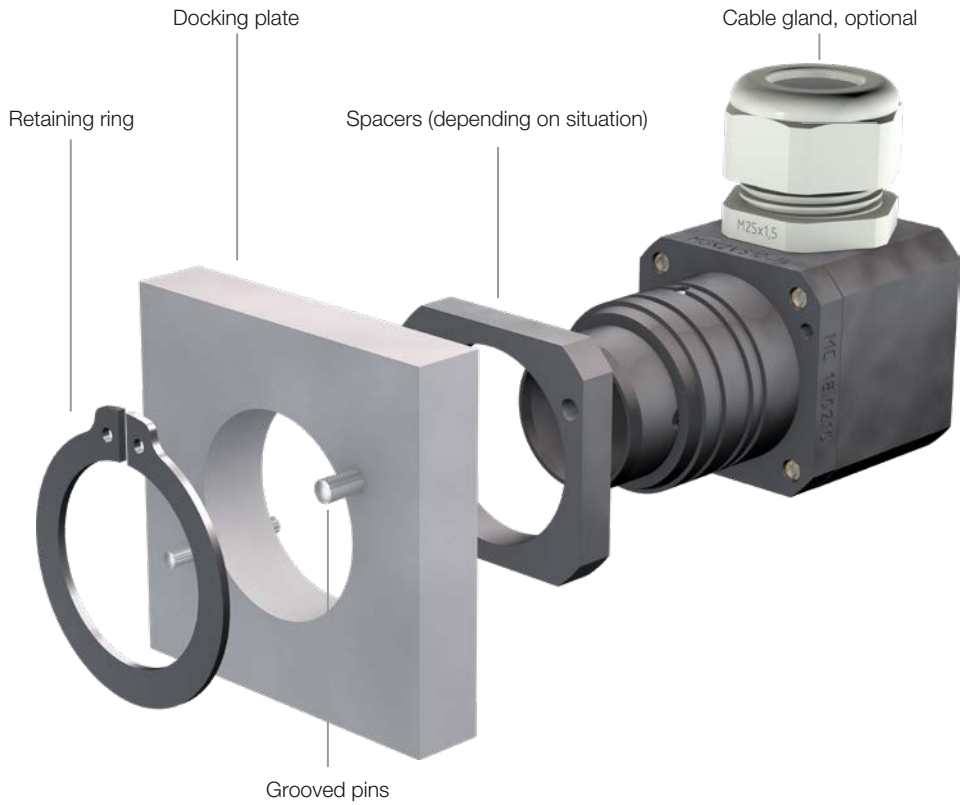
Assembly principle



Installation situation

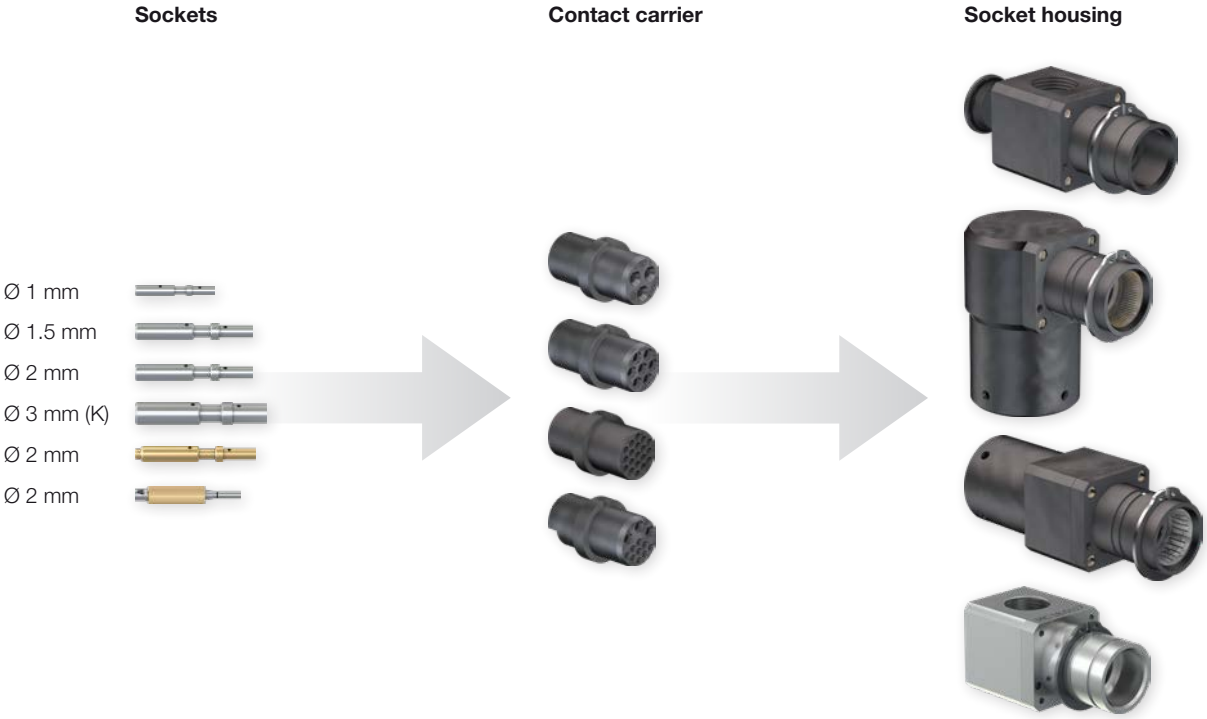



Pin carrier with contacts
Blind plug, supplied
Retaining ring
Additional 90° cable outlet
Pin housing front section
Docking plate
Housing back section
Cable gland, optional

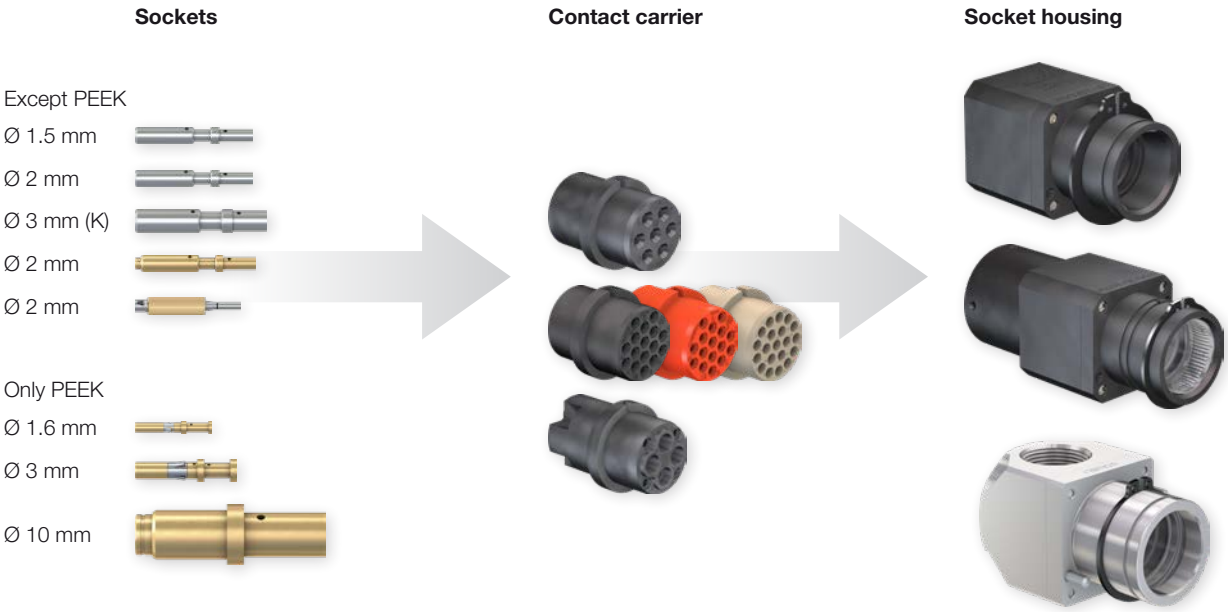

Docking plate
Cable gland, optional
Retaining ring
Spacers (depending on situation)
M25x1,5
Grooved pins

Combination possibilities

Size G1

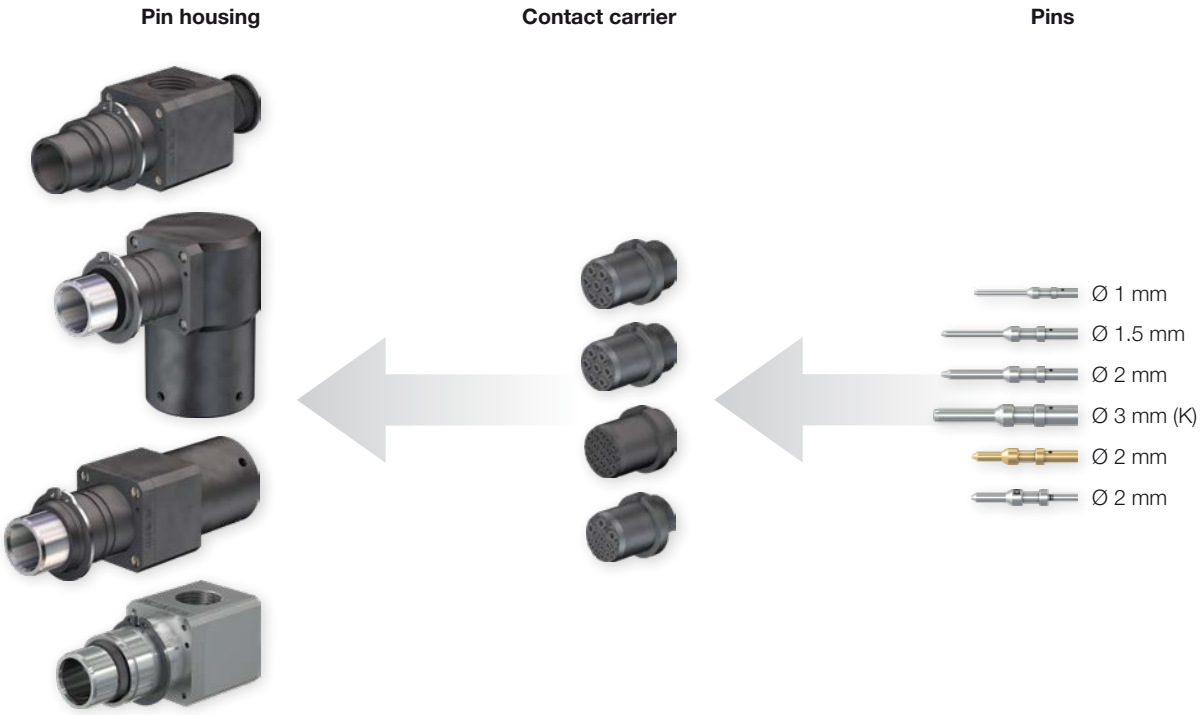


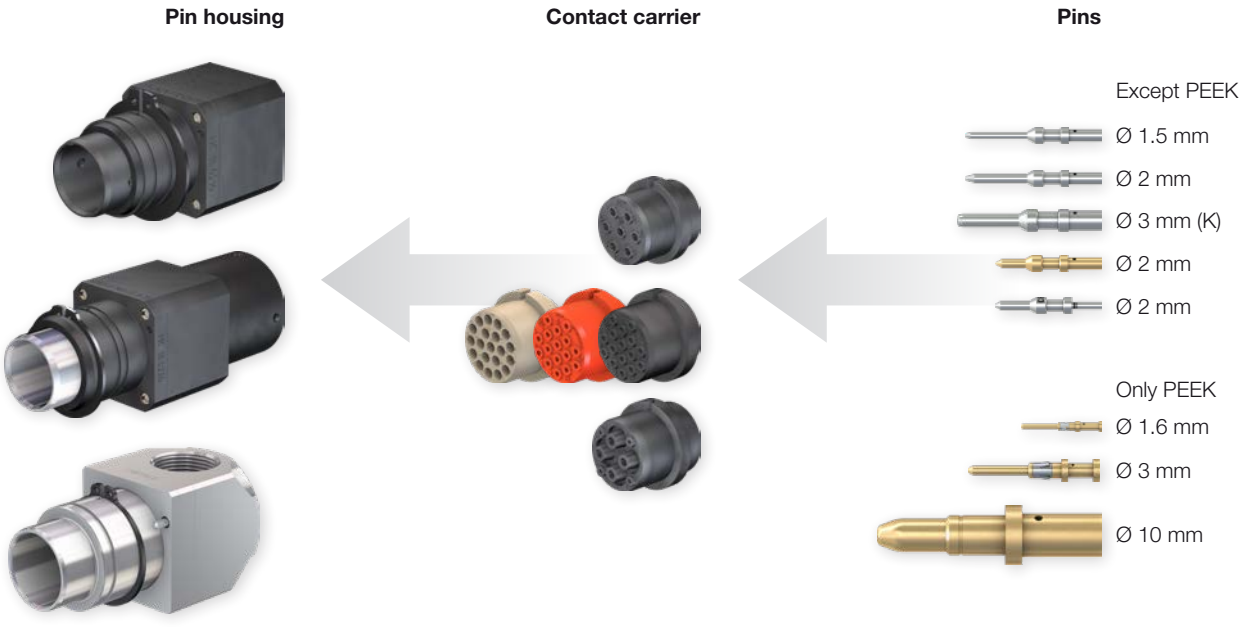
Size G2



Note:
In case insulators do not exist with the exact pole count:

- pick an insulator with more poles than needed
- close the empty contact chambers with blind plugs (page 88).


Pin housing
Contact carrier
Pins
Ø 1 mm
Ø 1.5 mm
Ø 2 mm
Ø 3 mm (K)
Ø 2 mm
Ø 2 mm


Pin housing
Contact carrier
Pins
Except PEEK
Ø 1.5 mm
Ø 2 mm
Ø 3 mm (K)
Ø 2 mm
Ø 2 mm
Only PEEK
Ø 1.6 mm
Ø 3 mm
Ø 10 mm

Size G3

Sockets

Except PEEK

Ø 1.5 mm

Ø 2 mm

Ø 3 mm

Ø 5 mm

Ø 6 mm

Ø 8 mm

Ø 2 mm

Ø 2 mm

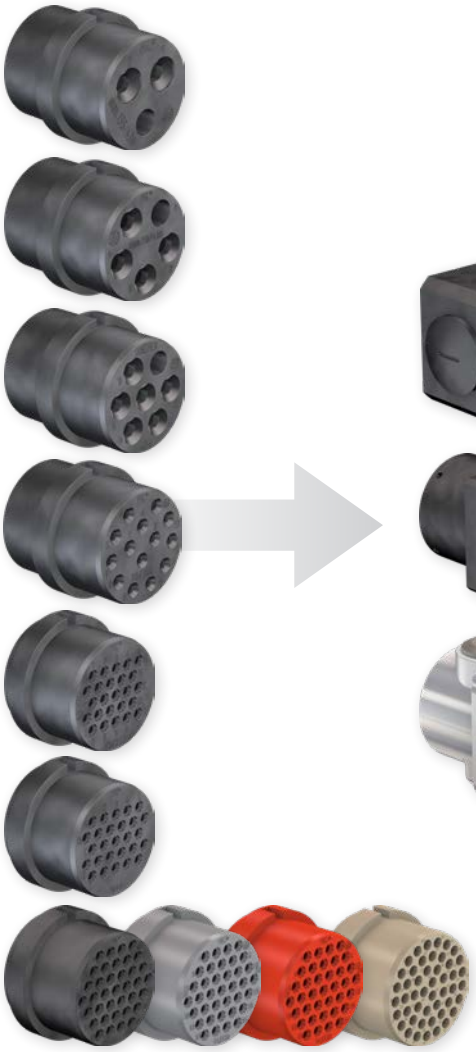
Only PEEK

Ø 1.6 mm

Ø 3 mm

Ø 6 mm

Contact carrier



Socket housing

Size G4

Sockets

Ø 1.5 mm

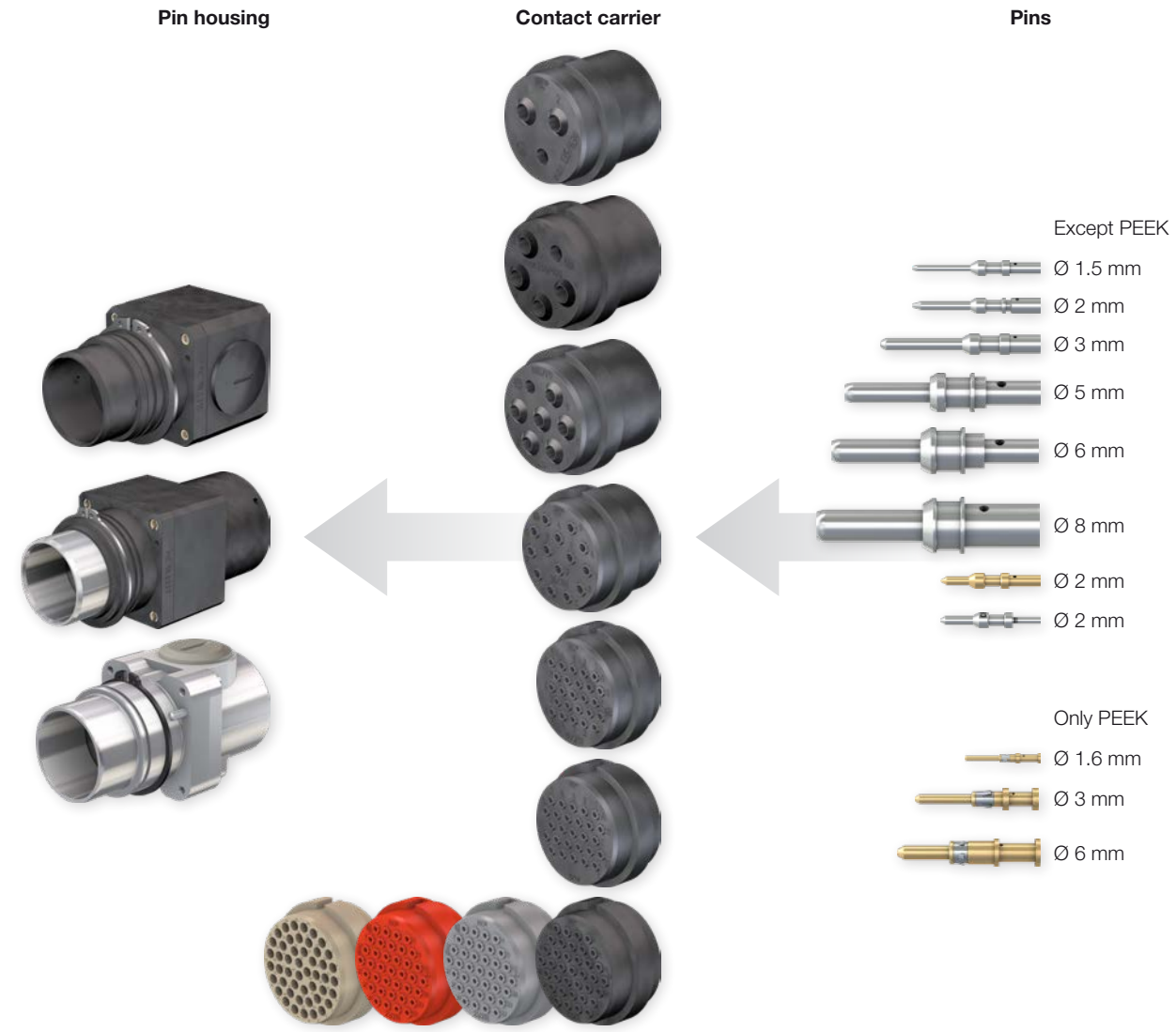
Ø 11 mm

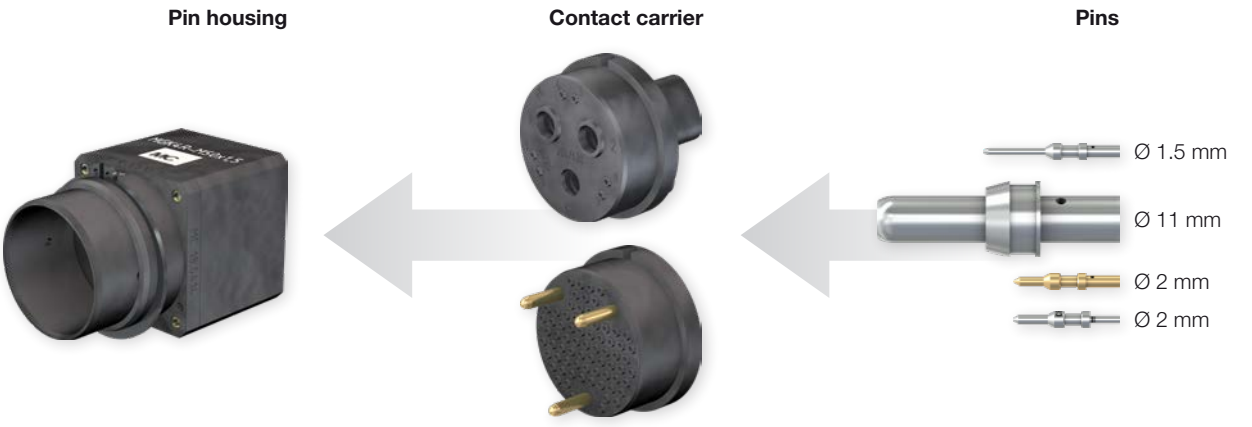
Ø 2 mm

Ø 2 mm

Contact carrier

Socket housing


Pin housing
Contact carrier
Pins
Except PEEK
Ø 1.5 mm
Ø 2 mm
Ø 3 mm
Ø 5 mm
Ø 6 mm
Ø 8 mm
Ø 2 mm
Ø 2 mm
Only PEEK
Ø 1.6 mm
Ø 3 mm
Ø 6 mm


Pin housing
Contact carrier
Pins
Ø 1.5 mm
Ø 11 mm
Ø 2 mm
Ø 2 mm

Connector selection

Select application and contacts

Step 1

Signal		
Standard	**Thermocouple pressure contacts**	**Pressure contacts**
0.14 mm² – 1.5 mm² 1 A – 16 A Page 28	0.14 mm² – 0.5 mm² Page 30	0.5 mm² – 1.5 mm² 2 A – 10 A Page 32

BUS
Standard
0.14 mm² – 1.5 mm² 1 A – 16 A Page 34

Hybrid	
Standard	**Short version**
0.14 mm² – 50 mm² 1 A – 200 A Page 36	2.5 mm² – 4 mm² 20 A – 32 A Page 36

Power	
Standard	**Short version**
0.5 mm² – 4 mm² 10 A – 36 A Page 40	2.5 mm² – 4 mm² 20 A – 32 A Page 40

High Current
Standard
6 mm² – 50 mm² 50 A – 200 A Page 42

PEEK
Standard
0.15 mm² – 70 mm² 5 A – 200 A Page 46

Select contacts carriers

Step 2

Synthetic rubber (NBR)		
Signal	**BUS**	**Hybrid**
2+PE – 70+2PE 25 V – 630 V Page 50	6+PE – 70+2PE 25 V – 250 V Page 52	2+PE+9 – 70+2PE 25 V – 630 V Page 53
Power	**High Current**	
2+PE – 36+PE 250 V – 400 V Page 54	2+PE – 6+PE 25 V – 630 V Page 55	

Chloroprene (CR)	Silicone (SIL)	PEEK (PK)
36+PE 250 V Page 56	3+PE+4, 6+PE, 15+PE, 36+PE 250 V Page 57	1 – 47+PE 150 V – 600 V Page 59

Select housings

Step 3

Plastic		
Standard	**Insulated, shielded**	**Specials**
Page 76	Page 80	Page 78

Metal	
Shielded	**Standard**
Page 83	Page 84

Form shroud
Page 79

Overview of products

Contacts

Conductor cross section		Nom.-Ø contact		Max. rated current	Mating cycles	Carrier size G1				
						250 V	250 V	250 V	150 V	
mm²	AWG	mm		A		2+PE	2+PE+9	6+PE	18+PE	
0.14 – 0.5	26 – 20	Ø 1.5		1 – 10	1,000,000			●		
0.5 – 1.5	20 – 16	Ø 1.5		10 – 16	1,000,000		●	●		
		Ø 1.6		16	10,000					
		Ø 2		10 – 16	1,000,000			●		
1	18	Ø 1		5	1,000,000				●	
2.5	14	Ø 2		16	500,000			▨		
2.5	14	Ø 2		20	1,000,000					
2.5 – 4	14 – 12	Ø 3		20 – 36	1,000,000	●				
2.5 – 6	14 – 10	Ø 3		36 – 50	10,000					
6	10	Ø 5		50	500,000					
		Ø 6		50	500,000					
10	8	Ø 5		63	500,000					
		Ø 6		80	500,000					
		Ø 6		80	10,000					
16	6	Ø 6		90	500,000					
		Ø 6		110	10,000					
25	4	Ø 6		135	500,000					
		Ø 6		135	10,000					
		Ø 8		135	500,000					
		Ø 11		135	500,000					
35	2	Ø 8		150	500,000					
		Ø 10		150	10,000					
35 – 38	~ 2	Ø 11		170	500,000					
50	1/0	Ø 10		180	10,000					
		Ø 11		200	500,000					
70	2/0	Ø 10		200	10,000					
Short version										
2.5 – 4 (K)	14 – 12	Ø 3		20 – 32	1,000,000	●				

Spring-loaded pressure contacts

Conductor cross section		Nom.-Ø contact		Max. rated current	Mating cycles		25 V			
mm²	AWG	mm		A			6+PE			
0.5 – 1.5	20 – 16	Ø 2		10 – 16	10.000		●			

Thermocouple pressure contacts

0.14 – 0.5	26 – 20	Ø 2		< 1	100.000		●			

Note:
In case insulators do not exist with the exact pole count:

- pick an insulator with more poles than needed
- close the empty contact chambers with blind plugs (page 88).

When selecting the conductor cross-sections, please observe DIN VDE 0298-4, DIN EN 60204-1 and the derating diagrams, page 95.

Carrier size																					
G2								G3												G4	
400 V	250 V	830 V		400 V	400 V	250 V	150 V	630 V	630 V	400 V	400 V	630 V	400 V	250 V	25 V	250 V	150 V	24 V		630 / 25 V	250 V
1	3+PE	3+PE+4		4+PE	6+PE	15+PE	19+PE	2+PE	3+PE	4+PE	6+PE	9+PE	13+PE	24+PE	27	36+PE	47+PE	4NET			2+PE	70+2PE
						●								●	●	●					●
		●	●			●								●	●	●					●
							○										○				
						●	●														
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							●									●	●	●			●

Surface Ag	● Material NBR	● Material Silicone	
Surface Au	● Material Chloroprene	○ Material PEEK	
	● Material TPE		

Contact carrier

Our contact carriers in NBR material are available in four sizes. Carriers in silicone and chloroprene are also available. The use of rubber material for these insulators allows a resilient mounting of the contacts in the carriers.

For demanding applications we are able to offer contact carriers in PEEK material in combination with special contacts.

Carrier size	Material				
	NBR	CR (Chloroprene)	SIL (Silicone)	PK (PEEK)	TPE
	-30 °C...+100 °C	-40 °C...+100 °C	-40 °C...+150 °C	-40 °C...+150 °C	-20 °C...+90 °C
G1	●				(carrier color: black)
G2	●		●	●	
G3	●	●	●	●	
G4	●				

Housings

The standard plastic housings are available in four sizes. Additionally, shielded and insulated housings as well as metal housings can be provided for sizes 1 to 3. For size 3 and for applications where space is restricted, form shrouds are available as an alternative to cubic housing backs with cable glands (see page 79).
Housings with various threads are available for the installation of the cable glands.

Stäubli provides generally housings with metric threads, but also housings with PG and NPT threads.

Carrier size	Plastic	Shielded, insulated	Aluminum, shielded	Aluminum	Form shroud
	MGK...	MGS...-IS	MGS...-S	MGA...	MGK...-WST
G1	M20[1)] Pg13	M20[2)] Pg13, Pg16	M20 Pg13	–	–
G2	M25[1)] Pg21	M25[2)] Pg21	–	M25 Pg21 NPT3/4"	–
G3	M25, M32[1)] Pg21, Pg29	M32[2)] Pg29	–	M32 + M40 Pg29 + Pg36 NPT1"	Axial + 90°
G4	M50[1)]	–	–	On request	–

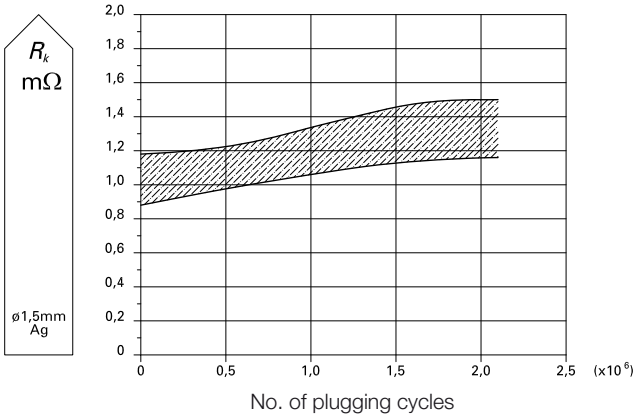
[1)] PA cable gland available as accessory (see page 88)
[2)] Available with or without EMC cable gland

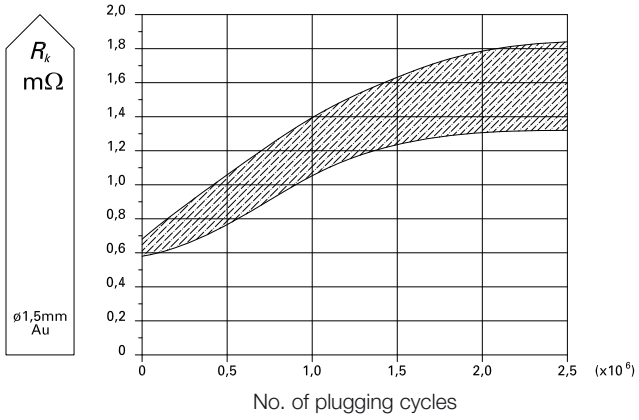
Plugging frequency test

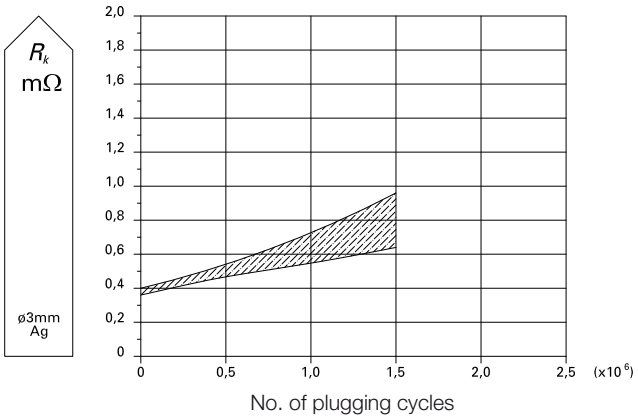
Results of the plugging frequency test (i.e., reliability):
After over 1 million mating cycles, the multipole Stäubli connectors showed no significant mechanical or electrical changes. The connectors tested proved reliable, without any loss of contact, up to 1,5 million cycles.

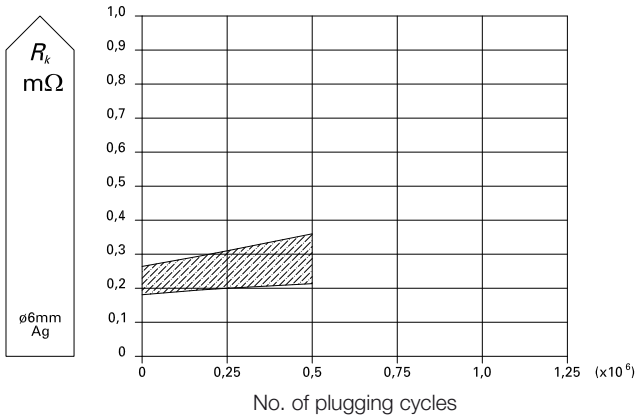
The mating cycle test is always carried out in a load-free state. The circuit is completed after the plugging operation and broken again before undocking.

Contact resistance R_k as a function of the number of mating cycles.



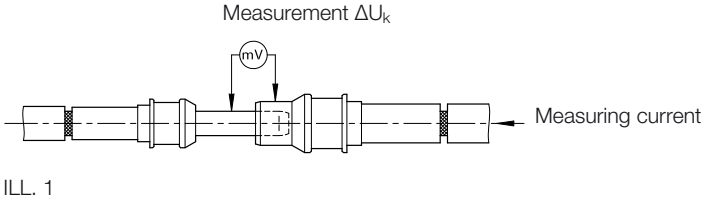






Contact resistance R_k is determined with the test configuration shown in ILL. 1 and calculation according to the equation:

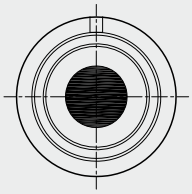
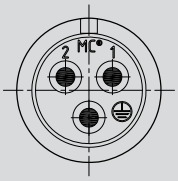
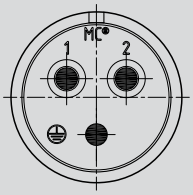
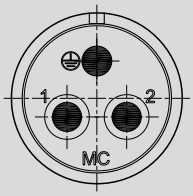
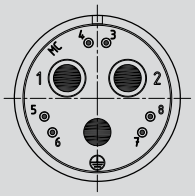
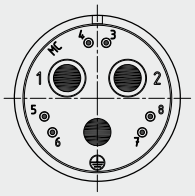
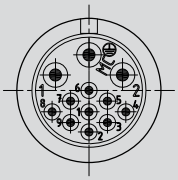
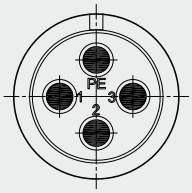
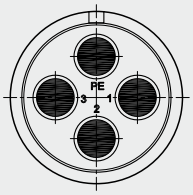
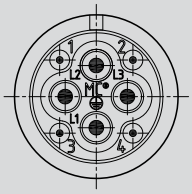
$$R_k = \frac{\Delta U_k}{I}$$

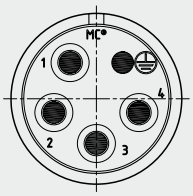
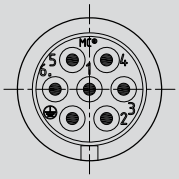
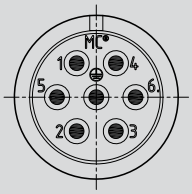
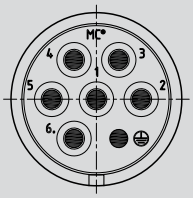
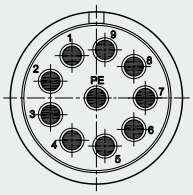
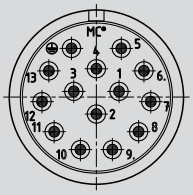
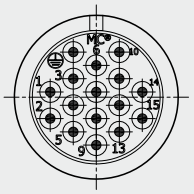
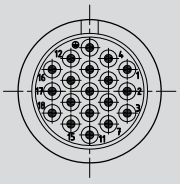


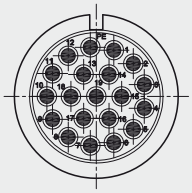
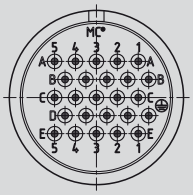
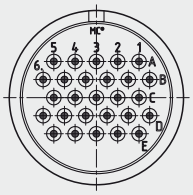
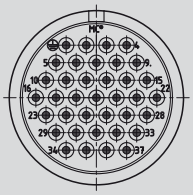
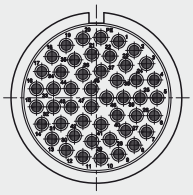
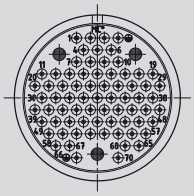
ILL. 1

Footprints

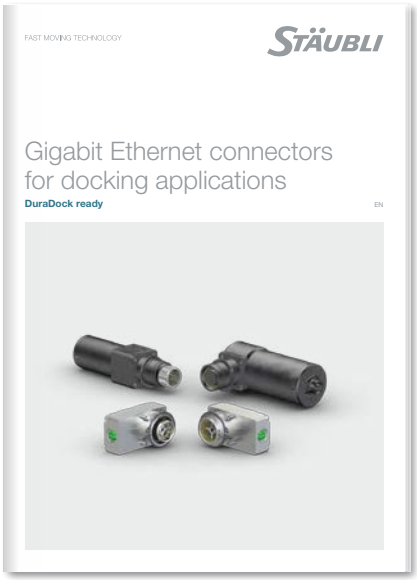
The pole diagrams show the male insulators
(mating side, top view).

Number of poles	Carrier size			
	G1	G2	G3	G4
1	–		–	–
2+PE		–	Ø 6 mm Ø 8 mm  	
2+PE+6	–	–	–	
2+PE+9		–	–	–
3+PE	–			–
3+PE+4	–		–	–

Number of poles	Carrier size			
	G1	G2	G3	G4
4+PE	–	–		–
6+PE	**2 variants** **(both plug-compatible):** **A: NBR material** **B: TPE material** 			–
9+PE	–	–		–
13+PE	–	–		–
15+PE	–		–	–
18+PE		–	–	–

Number of poles	Carrier size			
	G1	G2	G3	G4
19+PE	–		–	–
24+PE	–	–		–
27	–	–		–
36+PE	–	–		–
47+PE	–	–		–
70+2PE	–	–	–	

We are a solution provider –
from the first concept to the final product



Gigabit Ethernet connectors available in the document „Gigabit Ethernet connectors for docking applications“
see also www.staubli.com/electrical

Insertion and withdrawal force

The insertion and withdrawal forces depend on the number of poles and the surface characteristics of the contacts. The sliding properties can be improved by the use of gold contacts.

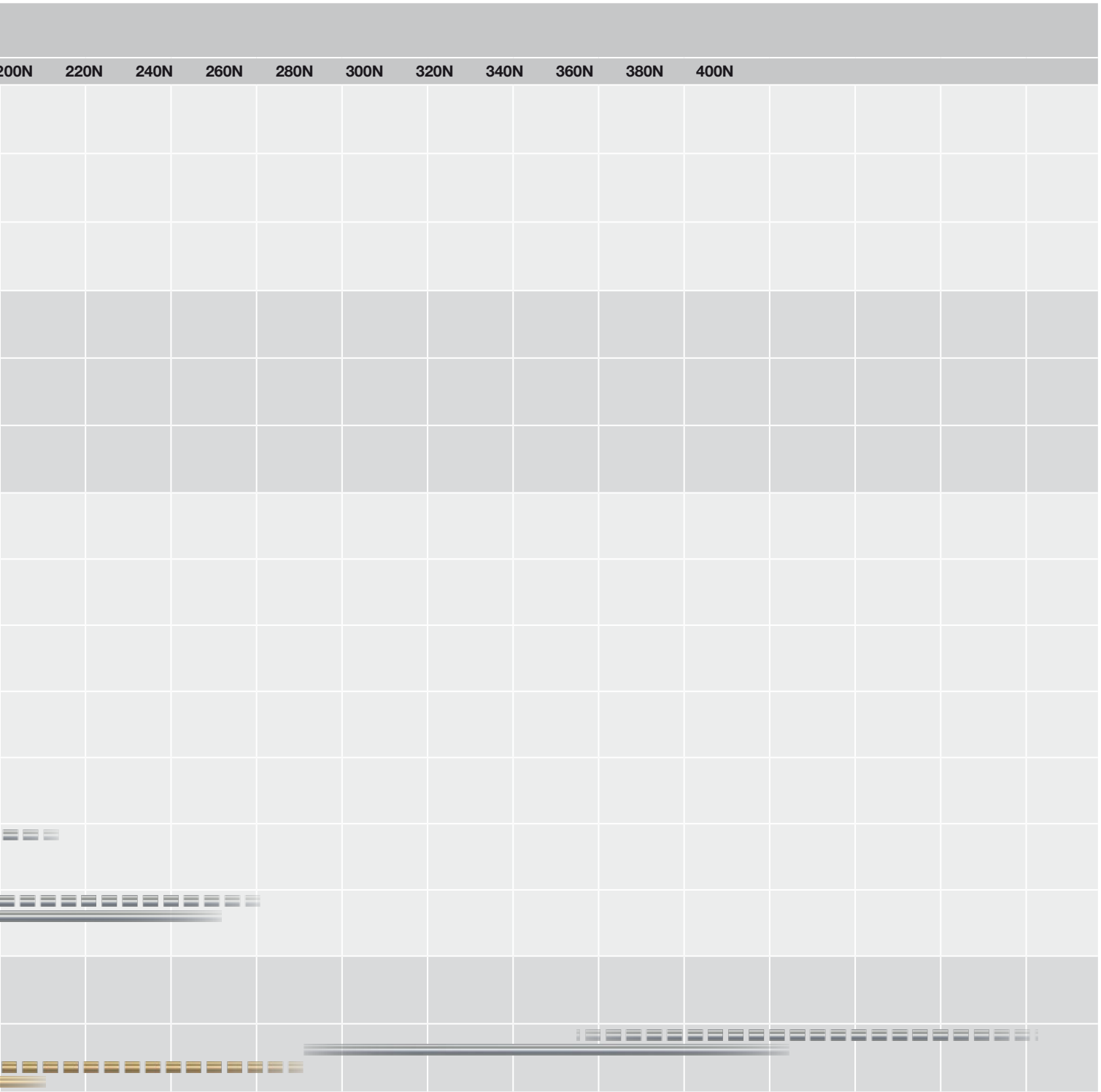
Note:
The withdrawal force is smaller than the insertion force.

Size	Number of poles	Contact Ø	Insertion and withdrawal force
		mm	20N 40N 60N 80N 100N 120N 140N 160N 180N
G1	2+PE	3	
	6+PE	2/1.5	
	18+PE	1	
G2	4+PE	3	
	6+PE		
	15+PE	2/1.5	
G3	2+PE-S8/B8	8	
	2+PE	6	
	4+PE		
	6+PE	5	
	13+PE	3	
	24+PE 27	1.5	
	36+PE 36PE/2,5	2/1.5	
G4	2+PE	11/1.5	
	70+2PE	1.5	

Insertion force Au

Withdrawal force Au

Insertion force Ag



Withdrawal force Ag

CONTACTS

Overview

	Conductor cross section[1]		Nom.-Ø contact	Surface	Rated current	Mating cycles	Page
	mm²	AWG	mm		A	max.	
Signal applications							
	0.14 – 1.5	26 – 16	1 – 2		1 – 16	1,000,000	28
Thermocouple pressure contacts							
	0.14 – 0.5	26 – 20	2		Details see page 30	10,000	30
Pressure contacts							
	0.5 – 1.5	20 – 16	2		2 – 10	10,000	32
BUS applications							
	0.14 – 1.5	26 – 16	1 – 1.5		1 – 16	1,000,000	34

	Conductor cross section[1]		Nom.-Ø contact	Surface	Rated current	Mating cycles	Page
	mm²	AWG	mm		A	max.	
Hybrid applications							
	0.14 – 50	26 – 1/0	1 – 11		1 – 200	500,000 – 1,000,000	36
Power applications							
	0.5 – 4	20 – 12	2 – 3		10 – 36	500,000 – 1,000,000	40
High Current applications							
	6 – 50	10 – 1/0	5 – 11		50 – 200	500,000	42
PEEK applications – on request –							
	0.5 – 70	20 – 2/0	1.6 – 10		5 – 200	10,000	46

Contacts for Signal applications

Standard version

Contacts for the transmission of signal currents between 1 A and 16 A for cable cross-sections of 0.14 mm² to 1.5 mm². They are either silver plated (Ag) or gold plated (Au) and every socket is provided with the tried and tested MULTILAM.

These contacts can then be used in different types of contact carriers (up to 72 poles).

Important:

Empty contact cavities must be fitted with blind plugs. If the cavities are only partly occupied, care must be taken to distribute the contacts evenly in the carrier; this way, connectors remain longitudinally waterproof and carriers do not get deformed.

Mating cycles: max. 1,000,000

Conductor cross section [1]		Nom.-Ø contact	Surface	Order No.	Type	Max. rated current [2]	
mm²	AWG	mm				A	
0.14 – 0.5	26 – 20	1.5		**18.9024** **18.8024**	SP1.5/0.14-0.5 BP1.5/0.14-0.5	1 – 10	
				18.9025 **18.8025**	SP1.5/0.14-0.5 AU BP1.5/0.14-0.5 AU		
0.2 – 1	24 – 18	1		**18.9002** **18.8002**	SP1/1 BP1/1	2 – 5	
				18.9003 **18.8003**	SP1/1 AU BP1/1 AU		
0.5 – 1.5	20 – 16	1.5		**18.9004** **18.8004**	SP1.5/0.5-1.5 BP1.5/0.5-1.5	10 – 16	
				18.9005 **18.8005**	SP1.5/0.5-1.5 AU BP1.5/0.5-1.5 AU		
0.5 – 1.5	20 – 16	2		**18.9008** **18.8008**	SP2/0.5-1.5 BP2/0.5-1.5	10 – 16	
				18.9009 **18.8009**	SP2/0.5-1.5 AU BP2/0.5-1.5 AU		

[1] If the number of contacts is > 2, when selecting the conductor cross-sections observe DIN VDE 0298-4, DIN EN 60204-1 and the derating diagrams, page 95

[2] Dependent on conductor cross section

Assembly tools, page 86

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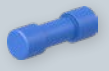
	For appropriate carrier size on page 50				Blind plug
	G1	G2	G3	G4	
	6+PE	15+PE	24+PE / 27 / 36+PE	70+2PE	18.5500 
	18+PE	–	–	–	18.5506 
	6+PE	3+PE+4 15+PE	24+PE / 27 / 36+PE	70+2PE	18.5500 
	6+PE	15+PE	–	–	18.5500 

Type code example:

SP2/0,5 – 1,5 AU

SP2/0,5 – 1,5 AU	**SP:** Pin; **BP:** Socket
SP**2**/0,5 – 1,5 AU	Nom.-Ø pin (mm)
SP2/**0,5 – 1,5** AU	Conductor cross section (mm^2)
SP2/0,5 – 1,5 **AU**	Surface

Contacts for Signal applications

Thermocouple pressure contacts

Thermocouple allows for the precise measurement of temperatures. Between two wires of different materials a voltage is generated that varies according to the rise in temperature.

The electrical measurement of temperature requires that the entire measurement chain (temperature sensor, cable connection points) consists of the same combination of materials. Using a uniform material prevents thermal imbalances in the case of the connection of two parts with the same initial temperature.

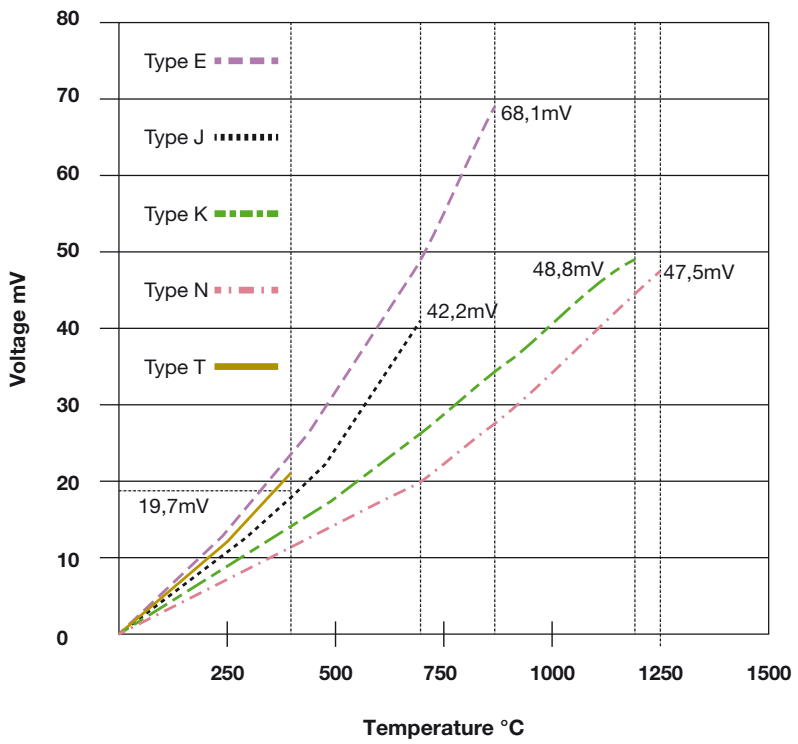
With Stäubli thermocouple contacts, you can extend the measurement chains or lay them out as plug contact connections.

There are several types of thermocouples made from different materials adapted to the measured temperature range.

Stäubli thermocouple pressure contacts are available for 5 different types of sensor: E, J, K, N, and T. For that reason, Stäubli has developed different types of spring loaded contacts for thermocouples from the 7 most commonly used alloys: NiCr, NiAl, NiCrSi, NiSi, CuNi, Fe, Cu.

Stäubli thermocouple pressure contacts can be built into standard contact carriers.

Mating cycles: max. 100,000



Stäubli thermocouple types

Type J Fe + CuNi
Type T Cu + CuNi

Maintenance note (Cleaning):

Every 10,000 mating cycles with compressed air
Every 50,000 mating cycles with alcohol (eg. methylated spirit) with a cotton swab

Stäubli thermocouple types

Type E NiCr + CuNi
Type K NiCr + NiAl
Type N NiCrSi + NiSi

Maintenance note (Cleaning):

Every 50,000 mating cycles with compressed air
Every 100,000 mating cycles with alcohol (eg. methylated spirit) with a cotton swab

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Description according to: IEC 60584-1

To ensure clear identification, our thermocouple pressure contacts are provided with different grooves and markings.

Cu
Copper (without groove)

Fe
Iron (without groove)

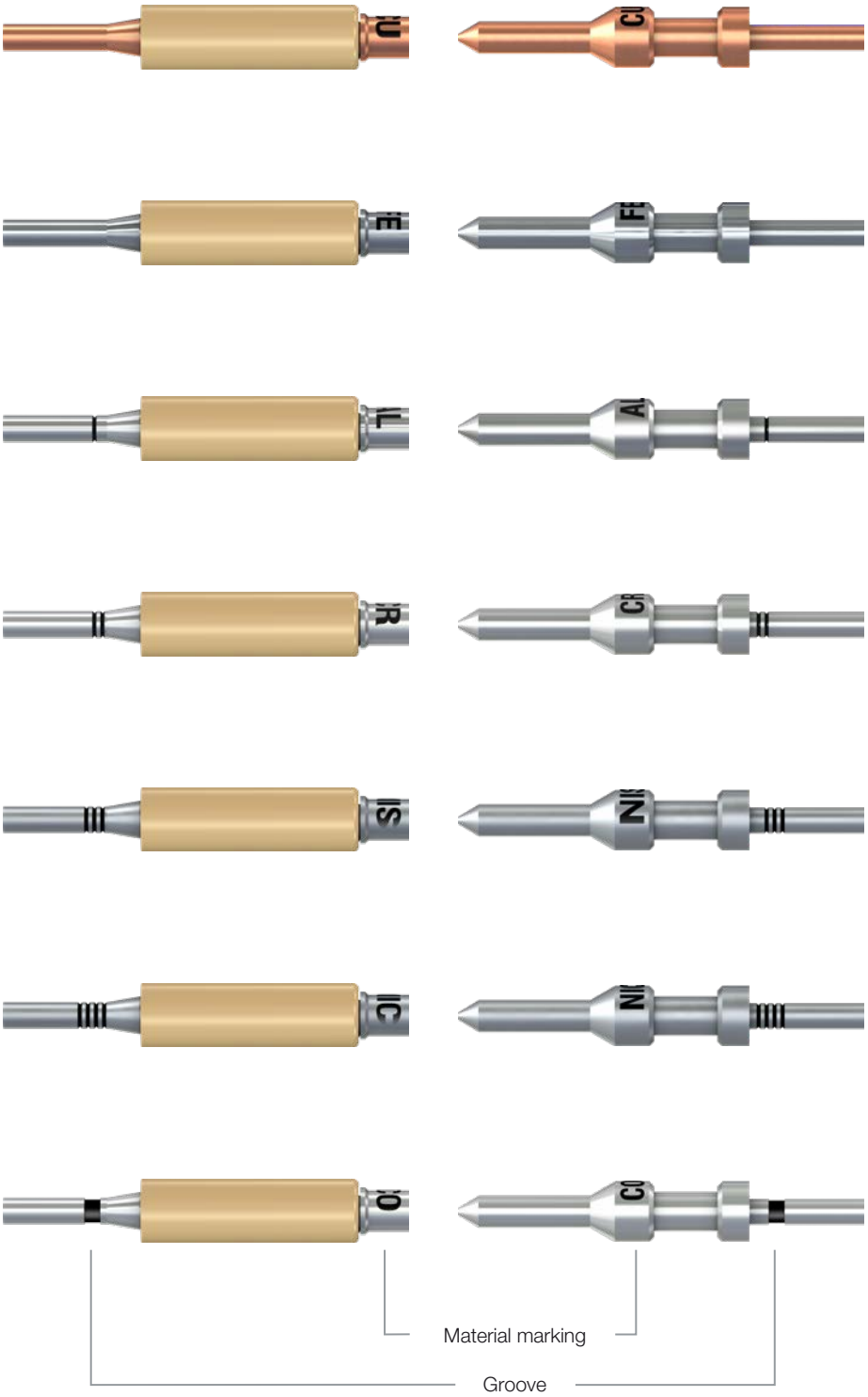
NiAl
Alumel® (1 groove)

NiCr
Chromel® (2 grooves)

NiSi
Nisil (3 grooves)

NiCrSi
Nicrosil (4 grooves)

CuNi
Constantan® (1 wide groove)



Contacts for Signal applications

Thermocouple pressure contacts

Conductor cross section		Nom.-Ø contact	Surface	Order No.	Type	Contact pressure [1]	
mm²	AWG	mm				N	
0.14 – 0.5	26 – 20	2	NiSi	**19.6723** **19.6724**	DSP2-NISI/0,14-0,5 DBP2-NISI/0,14-0,5	6 – 9	
0.14 – 0.5	26 – 20	2	NiCrSi	**19.6721** **19.6722**	DSP2-NICRSI/0,14-0,5 DBP2-NICRSI/0,14-0,5	6 – 9	
0.14 – 0.5	26 – 20	2	Cu	**19.6725** **19.6726**	DSP2-CU/0,14-0,5 DBP2-CU/0,14-0,5	6 – 9	
0.14 – 0.5	26 – 20	2	Fe	**19.6719** **19.6720**	DSP2-FE/0,14-0,5 DBP2-FE/0,14-0,5	6 – 9	
0.14 – 0.5	26 – 20	2	CuNi	**19.6717** **19.6718**	DSP2-CO/0,14-0,5 DBP2-CO/0,14-0,5	6 – 9	
0.14 – 0.5	26 – 20	2	NiAl	**18.9062** **18.8062**	DSP2-AL/0,14-0,5 DBP2-AL/0,14-0,5	6 – 9	
0.14 – 0.5	26 – 20	2	NiCr	**18.9063** **18.8063**	DSP2-CR/0,14-0,5 DBP2-CR/0,14-0,5	6 – 9	

Spring-loaded pressure contacts

Stäubli pressure contacts consist of a rigid contact pin and a resilient contact socket equipped with the tried and tested MULTILAM. For use in standard contact carriers. Pressure contacts are used in docking systems with short stroke distances (approx. 6 mm) or in combination with standard plug contacts for switching functions. Stäubli pressure contacts are made from brass and gold plated. The wire termination is effected by crimping.

Mating cycles: max. 10,000

Conductor cross section [2]		Nom.-Ø contact	Surface	Order No.	Type	Max. rated current [3]	
mm²	AWG	mm				A	
0.5 – 1.5	20 – 16	2		**18.9061** **18.8061**	DSP2/0,5-1,5 AU DBP2/0,5-1,5 AU	2 – 10	

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Assembly tools, page 86

[1] With 1 mm spring insertion

[2] If the number of contacts is > 2, when selecting the conductor cross-sections observe DIN VDE 0298-4, DIN EN 60204-1 and the derating diagrams, page 95

[3] Dependent on conductor cross section

	For appropriate carrier size on pages 50, 53				Blind plug
	G1	G2	G3	G4	
	6+PE	15+PE	24+PE / 27 / 36+PE	70+2PE	18.5500
	6+PE	15+PE	24+PE / 27 / 36+PE	70+2PE	18.5500
	6+PE	15+PE	24+PE / 27 / 36+PE	70+2PE	18.5500
	6+PE	15+PE	24+PE / 27 / 36+PE	70+2PE	18.5500
	6+PE	15+PE	24+PE / 27 / 36+PE	70+2PE	18.5500
	6+PE	15+PE	24+PE / 27 / 36+PE	70+2PE	18.5500
	6+PE	15+PE	24+PE / 27 / 36+PE	70+2PE	18.5500

Contact carrier with pressure contact sockets

Contact carrier with pressure contact pins, mixed with standard pins

	For appropriate carrier size on pages 50, 53				Blind plug
	G1	G2	G3	G4	
	6+PE	15+PE	24+PE / 27 / 36+PE	70+2PE	18.5500

Contacts for BUS applications

Standard version

Contacts for the transmission of BUS signals and are suitable for cable cross-sections of 0.14 mm² to 1.5 mm².
They are either silver plated (Ag) or gold plated (Au) and every socket is provided with the tried and tested MULTILAM.

These contacts can then be used in different types of contact carriers (up to 72 poles), including hybrid carriers (page 53).

Important:
Empty contact cavities must be fitted with blind plugs. If the cavities are only partly occupied, care must be taken to distribute the contacts evenly in the carrier; this way, connectors remain longitudinally waterproof and carriers do not get deformed.

Mating cycles: max. 1,000,000

Conductor cross section [1]		Nom.-Ø contact	Surface	Order No.	Type	Max. rated current [2]	
mm²	AWG	mm				A	
0.14 – 0.5	26 – 20	1.5		**18.9025** **18.8025**	SP1,5/0,14-0,5 AU BP1,5/0,14-0,5 AU	1 – 10	
0.2 – 1	24 – 18	1		**18.9003** **18.8003**	SP1/1 AU BP1/1 AU	2 – 5	
0.5 – 1.5	20 – 16	1.5		**18.9004** **18.8004**	SP1,5/0,5-1,5 BP1,5/0,5-1,5	10 – 16	
				18.9005 **18.8005**	SP1,5/0,5-1,5 AU BP1,5/0,5-1,5 AU		

[1] If the number of contacts is > 2, when selecting the conductor cross-sections observe DIN VDE 0298-4, DIN EN 60204-1 and the derating diagrams, page 95

[2] Dependent on conductor cross section

Assembly tools, page 86

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	For appropriate carrier size on page 52				Blind plug
	G1	G2	G3	G4	
	6+PE	15+PE	24+PE / 27 / 36+PE	70+2PE	18.5500 
	18+PE	–	–	–	18.5506 
	6+PE	15+PE	24+PE / 27 / 36+PE	70+2PE	18.5500 

Contacts for Hybrid applications

Standard and short version

Contacts for the connection of data leads with different voltages or for carriers equipped with mixed contacts, allowing the combination of power and control contacts (e.g. servo motor). They cover a range of cable cross sections from 0.14 mm² to 4 mm².

They are either silver plated (Ag) or gold plated (Au) and every socket is provided with the tried and tested MULTILAM.

Important:

Empty contact cavities must be fitted with blind plugs. If the cavities are only partly occupied, care must be taken to distribute the contacts evenly in the carrier; this way, connectors remain longitudinally waterproof and carriers do not get deformed.

Mating cycles: max. 1,000,000

Conductor cross section [1]		Nom.-Ø contact	Surface	Order No.	Type	Max. rated current [2]	
mm²	AWG	0				A	
0.14 – 0.5	26 – 20	1.5		**18.9024** **18.8024**	SP1,5/0,14-0,5 BP1,5/0,14-0,5	1 – 10	
				18.9025 **18.8025**	SP1,5/0,14-0,5 AU BP1,5/0,14-0,5 AU		
0.2 – 1	24 – 18	1		**18.9002** **18.8002**	SP1/1 BP1/1	2 – 5	
				18.9003 **18.8003**	SP1/1 AU BP1/1 AU		
0.5 – 1.5	20 – 16	1.5		**18.9004** **18.8004**	SP1,5/0,5-1,5 BP1,5/0,5-1,5	10 – 16	
				18.9005 **18.8005**	SP1,5/0,5-1,5 AU BP1,5/0,5-1,5 AU		
Short version							
2.5 – 4	14 – 12	3		**18.9012** **18.8012**	SP3/2,5-4(K) BP3/2,5-4(K)	20 – 32	
				18.9013 **18.8013**	SP3/2,5-4(K) AU BP3/2,5-4(K) AU		

[1] If the number of contacts is > 2, when selecting the conductor cross-sections observe DIN VDE 0298-4, DIN EN 60204-1 and the derating diagrams, page 95

[2] Dependent on conductor cross section

Assembly tools, page 86

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	For appropriate carrier size on page 53				Blind plug
	G1	G2	G3	G4	
	6+PE	15+PE	24+PE / 27 / 36+PE	70+2PE	18.5500 
	18+PE	–	–	–	18.5506 
	6+PE	15+PE	24+PE / 27 / 36+PE	70+2PE	18.5500 
	–	3+PE+4 / 4+PE / 6+PE	–	–	18.5501 

Hybrid applications

Standard version

Contacts for the connection of data leads with different voltages or for carriers equipped with mixed contacts, allowing the combination of power and control contacts (e.g. servo motor).
They cover a range of cable cross sections from 6 mm² to 50 mm².

They are either silver plated (Ag) or gold plated (Au) and every socket is provided with the tried and tested MULTILAM.
These contacts can then be used in different types of contact carriers, including in particular hybrid carriers (page 53).

Important:
Empty contact cavities must be fitted with blind plugs. If the cavities are only partly occupied, care must be taken to distribute the contacts evenly in the carrier; this way, connectors remain longitudinally waterproof and carriers do not get deformed.

Mating cycles: max. 500,000

Conductor cross section [1]		Nom.-Ø contact	Surface	Order No.	Type	Max. rated current [2]	
mm²	AWG	mm				A	
6	10	5		**18.9016** **18.8016**	SP5/6 BP5/6	50	
				18.9030 **18.8030**	SP5/6 AU BP5/6 AU		
10	8	5		**18.9017** **18.8017**	SP5/10 BP5/10	63	
				18.9031 **18.8031**	SP5/10 AU BP5/10 AU		
25	4	11		**18.9055** **18.8055**	SP11/25 BP11/25	135	
35 – 38	~ 2	11		**18.9021** **18.8021**	SP11/35-38 BP11/35-38 [3]	170	
50	1/0	11		**18.9056** **18.8056**	SP11/50 BP11/50 [3]	200	

[1] If the number of contacts is > 2, when selecting the conductor cross-sections observe DIN VDE 0298-4, DIN EN 60204-1 and the derating diagrams, page 95
[2] Dependent on conductor cross section
[3] IP2X

	For appropriate carrier size on page 53				Blind plug
	G1	G2	G3	G4	
	–	–	6+PE	–	18.5502 
	–	–	6+PE	–	18.5502 
	–	–	–	2+PE	–
	–	–	–	2+PE	–
	–	–	–	2+PE	–

Contacts for Power applications

Standard and short version

Contacts for the transmission of currents between 10 A and 36 A for cable cross sections from 0.5 mm² to 4 mm².
They are mainly silver plated (Ag), or also gold plated (Au) for demanding applications and every socket is provided with the tried and tested MULTILAM. These contacts can be used in different types of contact carriers (up to 37 poles).

Important:
Empty contact cavities must be fitted with blind plugs. If the cavities are only partly occupied, care must be taken to distribute the contacts evenly in the carrier; this way, connectors remain longitudinally waterproof and carriers do not get deformed.

Mating cycles: max. 1,000,000

Conductor cross section [1]		Nom.-Ø contact	Surface	Order No.	Type	Max. rated current [2]	
mm²	AWG	mm				A	
0.5 – 1.5	20 – 16	2		**18.9008** **18.8008**	SP2/0,5-1,5 BP2/0,5-1,5	10 – 16	
				18.9009 **18.8009**	SP2/0,5-1,5 AU BP2/0,5-1,5 AU		
2.5	14	2		**18.9010** **18.8010**	SP2/2,5 BP2/2,5	16 – 20	
				18.9011 **18.8011**	SP2/2,5 AU BP2/2,5 AU		
2.5 – 4	14 – 12	3		**18.9014** **18.8014**	SP3/2,5-4 BP3/2,5-4	20 – 36	
				18.9015 **18.8015**	SP3/2,5-4 AU BP3/2,5-4 AU		

Short version
These contacts are ideal for applications with limited stroke distance (8 mm shorter in mated condition).

2.5 – 4	14 – 12	3		**18.9012** **18.8012**	SP3/2,5-4(K) BP3/2,5-4(K)	20 – 32	
				18.9013 **18.8013**	SP3/2,5-4(K) AU BP3/2,5-4(K) AU		

[1] If the number of contacts is > 2, when selecting the conductor cross-sections observe DIN VDE 0298-4, DIN EN 60204-1 and the derating diagrams, page 95
[2] Dependent on conductor cross section

Assembly tools, page 86

Assembly instructions MA202

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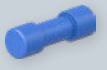
	For appropriate carrier size on page 54				Blind plug
	G1	G2	G3	G4	
	6+PE	15+PE	–	–	18.5500 
	6+PE (TPE)	–	36+PE (CR/SIL)	–	18.5500 
	–	–	13+PE	–	18.5501 
	2+PE	3+PE+4 / 4+PE / 6+PE	–	–	18.5501 

Contacts for High Current applications

Standard version

Contacts for the transmission of currents between 50 A and 135 A for cable cross sections from 6 mm² to 25 mm². They are silver plated (Ag), or also gold plated (Au) for demanding applications and every socket is provided with the tried and tested MULTILAM.
These contacts can then be used in different types of contact carriers (up to 7 poles).

Important:
Empty contact cavities must be fitted with blind plugs. If the cavities are only partly occupied, care must be taken to distribute the contacts evenly in the carrier; this way, connectors remain longitudinally waterproof and carriers do not get deformed.

Mating cycles: max. 500,000

Conductor cross section [1]		Nom.-Ø contact	Surface	Order No.	Type	Max. rated current [2]	
mm²	AWG	mm				A	
6	10	5		**18.9016** **18.8016**	SP5/6 BP5/6	50	
				18.9030 **18.8030**	SP5/6 AU BP5/6 AU		
6	10	6		**18.9029** **18.8029**	SP6/6 BP6/6	50	
				18.9032 **18.8032**	SP6/6 AU BP6/6 AU		
10	8	5		**18.9017** **18.8017**	SP5/10 BP5/10	63	
				18.9031 **18.8031**	SP5/10 AU BP5/10 AU		
10	8	6		**18.9018** **18.8018**	SP6/10 BP6/10	80	
				18.9033 **18.8033**	SP6/10 AU BP6/10 AU		
16	6	6		**18.9019** **18.8019**	SP6/16 BP6/16	90	
				18.9034 **18.8034**	SP6/16 AU BP6/16 AU		
25	4	6		**18.9020** **18.8020**	SP6/25 BP6/25	135	
				18.9035 **18.8035**	SP6/25 AU BP6/25 AU		

MA

Assembly instructions MA202

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[1] If the number of contacts is > 2, when selecting the conductor cross-sections observe DIN VDE 0298-4, DIN EN 60204-1 and the derating diagrams, page 95

[2] Dependent on conductor cross section

	For appropriate carrier size on page 55				Blind plug
	G1	G2	G3	G4	
	–	–	6+PE	–	18.5502 
	–	–	2+PE / 4+PE	–	18.5503 
	–	–	6+PE	–	18.5502 
	–	–	2+PE / 4+PE	–	18.5503 
	–	–	2+PE / 4+PE	–	18.5503 
	–	–	2+PE	–	18.5503 

High Current applications

Standard version

Contacts for the transmission of currents between 135 A and 200 A for cable cross sections from 25 mm² to 50 mm².
They are either silver plated (Ag) and every socket is provided with the tried and tested MULTILAM.

These contacts can then be used in different types of contact carriers (up to 3 poles).
Important:
Empty contact cavities must be fitted with blind plugs. If the cavities are only partly occupied, care must be taken to distribute the contacts evenly in the carrier; this way, connectors remain longitudinally waterproof and carriers do not get deformed.

Mating cycles: max. 500,000

Conductor cross section [1]		Nom.-Ø contact	Surface	Order No.	Type	Max. rated current [2]	
mm²	AWG	mm				A	
25	4	8		**18.9050** **18.8050**	SP8/25 BP8/25	135	
25	4	11		**18.9055** **18.8055**	SP11/25 BP11/25	135	
35	2	8		**18.9051** **18.8051**	SP8/35 BP8/35	150	
35 – 38	~ 2	11		**18.9021** **18.8021**	SP11/35-38 BP11/35-38 [3]	170	
50	1/0	11		**18.9056** **18.8056**	SP11/50 BP11/50 [3]	200	

[1] If the number of contacts is > 2, when selecting the conductor cross-sections observe DIN VDE 0298-4, DIN EN 60204-1 and the derating diagrams, page 95
[2] Dependent on conductor cross section
[3] IP2X

MA

Assembly instructions MA202

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	For appropriate carrier size on page 55				Blind plug
	G1	G2	G3	G4	
	–	–	2+PE	–	18.5505 
	–	–	–	2+PE	–
	–	–	2+PE	–	18.5505 
	–	–	–	2+PE	–
	–	–	–	2+PE	–

Contacts for PEEK applications

Standard version

Special contacts for the transmission of currents up to 200 A for cable cross sections from 0.15 mm² to 70 mm².
They are gold plated (Au) and every socket is provided with the tried and tested MULTILAM.
These contacts can be used in different types of machined contact carriers (up to 48 poles), plus custom carriers, if necessary.

Important:
If the cavities are only partly occupied, care must be taken to distribute the contacts evenly in the carrier.

Mating cycles: max. 10,000

Note:
Ø 6 mm and Ø 10 mm contacts are on request.

Availability:
Not in stock. Price and lead-time upon request.

Conductor cross section [1]		Nom.-Ø contact	Surface	Order No.	Type	Max. rated current [2]	
mm²	AWG	mm				A	
0.15 – 0.75	26 – 18	1		**19.9110** **19.9108**	CT-NET/S [3] CT-NET/B [3]	5	
0.5 – 1.5	20 – 16	1.6		**19.6742** **19.6741**	SP-C1,6/0,5-1,5 AU BP-C1,6/0,5-1,5 AU	16	
2.5 – 4	14 – 12	3		**19.6744** **19.6743**	SP-C3/2,5-4 AU BP-C3/2,5-4 AU	36	
4 – 6	12 – 10			**19.6759** **19.6745**	SP-C3/4-6 AU BP-C3/4-6 AU	50	
10	8	6		**19.6748** **19.6747**	SP-C6/10 AU BP-C6/10 AU	80	
16	6			**19.6750** **19.6749**	SP-C6/16 AU BP-C6/16 AU	110	
25	4			**19.6752** **19.6751**	SP-C6/25 AU BP-C6/25 AU	135	
35	2	10		**19.6754** **19.6753**	SP-R10/35 AU BP-R10/35 AU	150	
50	1/0			**19.6756** **19.6755**	SP-R10/50 AU BP-R10/50 AU	180	
70	2/0			**19.6758** **19.6757**	SP-R10/70 AU BP-R10/70 AU	200	

[1] If the number of contacts is > 2, when selecting the conductor cross-sections observe DIN VDE 0298-4, DIN EN 60204-1 and the derating diagrams, page 95
[2] Dependent on conductor cross section
[3] Set including 8 contacts

MA

Assembly instructions MA303

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	For appropriate carrier size on page 61			
	G1	G2	G3	G4
	–	–	4	–
	–	19+PE	47+PE	–
	–	3+PE	9+PE	–
	–	3+PE	13+PE	–
	–	–	3+PE	–
	–	–	3+PE	–
	–	–	3+PE	–
	–	1 	–	–
	–	1 	–	–
	–	1 	–	–

CONTACT CARRIERS

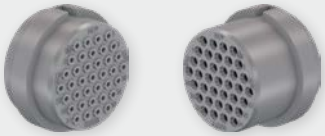
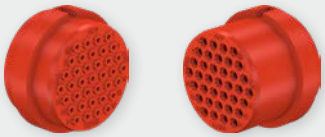
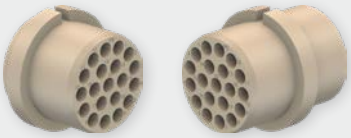
Overview of contact carriers

	Carrier size	Number of poles	Rated voltage	Page
			V	
NBR				
Signal applications				
	G1 – G4	6+PE – 70+2PE	25 – 250	50
BUS applications				
	G1 – G4	6+PE – 70+2PE	25 – 250	52
Hybrid applications				
	G1 – G2, G4	2+PE+6 2+PE+9 3+PE+4	25 – 830	53
Power applications				
	G1 – G3	2+PE – 36+PE	250 – 630	54
High Current applications				
	G3 – G4	2+PE – 6+PE	400 – 630	55

Note:

All earth contacts (PE) are mating first and breaking last:

- Up to a nominal Ø of 3 mm, the pin mates first and breaks last.
- As of a nominal Ø of 5 mm, the socket mates first and breaks last.

	Carrier size	Number of poles	Rated voltage	Page
			V	
Chloroprene (CR)				
	G3	36+PE	250	56
Silicone (SIL)				
	G2 – G3	3+PE+4 6+PE 15+PE 36+PE	250 – 830	57
PEEK (PK) – on request –				
	G2 – G3	1 – 47+PE	24 – 600	59
TPE				
	G1	6+PE	250	52

Contact carriers for Signal applications

Standard, without contacts

The pin and socket carriers are made of synthetic rubber. After the leads have been crimped onto the pins and sockets resp., they can be mounted and dismounted with the suitable tooling accordingly (See page 86). The pins and sockets are seated elastically in their carrier.

Operating temperature: +5 °C...+100 °C.

Note:

- The nominal voltage can be increased by selectively populating the carrier with less contacts. Ask us for special pole diagrams!
- Inserts populated with contacts see page 62.

Type code example:

E1-6PE/S

E1-6PE/S	Empty Contact carrier
E**1**-6PE/S	Housing size
E1-**6PE**/S	Number of contacts
E1-6PE/**S**	**S:** Pin; **B:** Socket

Assembly tools, page 86

Carrier size	Number of poles	Order No.	Type	Rated voltage for plastic housings	To fit housing size
				V	
G1	6+PE	**18.4201**	E1-6PE/S	250	MGK1... MGS1...-IS MGS1...-S
		18.4301	E1-6PE/B		
	18+PE	**18.4202**	E1-18PE/S	150 [1]	
		18.4302	E1-18PE/B		
G2	15+PE	**18.4401**	E2-15PE/S	250	MGK2... MGS2...-IS MGA2...
		18.4501	E2-15PE/B		
G3	24+PE	**18.4604**	E3-24PE/S	250	MGK3... MGS3...-IS MGA3...
		18.4704	E3-24PE/B		
	27	**18.4605**	E3-27/S	25	
		18.4705	E3-27/B		
	36+PE	**18.4606**	E3-36PE/S	250	
		18.4706	E3-36PE/B		
G4	70+2PE	**18.4800**	E4-70/2PE/S	250	MGK4...
		18.4900	E4-70/2PE/B		

[1] Special contact arrangements are required for applications using 250 V; please request pole diagram.

Contact carriers for BUS applications

Standard, without contacts

The pin and socket carriers are made of synthetic rubber. After the leads have been crimped onto the pins and sockets resp., they can be mounted and dismounted with the suitable tooling accordingly (See page 86). The pins and sockets are seated elastically in their carrier.

Operating temperature: +5 °C...+100 °C[2].

Note:
The nominal voltage can be increased by selectively populating the carrier with less contacts. Ask us for special pole diagrams!

Carrier size	Number of poles	Order No.	Type	Rated voltage	To fit housing size
				V	
G1	2+PE+9	**18.4203**	E1-2PE+9/S	250	MGK1... MGS1...-IS MGS1...-S
		18.4303	E1-2PE+9/B	25 [1]	
	6+PE (for 0.5-1.5 mm²)	**18.4201**	E1-6PE/S	250	
		18.4301	E1-6PE/B		
	6+PE (for 2.5 mm²)	**18.4204** [2]	E1-6PE/S		
		18.4304 [2]	E1-6PE/B		
	18+PE	**18.4202**	E1-18PE/S		
		18.4302	E1-18PE/B		
G2	15+PE	**18.4401**	E2-15PE/S	250	MGK2... MGS2...-IS MGA2...
		18.4501	E2-15PE/B		
G3	24+PE	**18.4604**	E3-24PE/S	250	MGK3... MGS3...-IS MGA3...
		18.4704	E3-24PE/B		
	27	**18.4605**	E3-27/S	25	
		18.4705	E3-27/B		
	36+PE	**18.4606**	E3-36PE/S	250	
		18.4706	E3-36PE/B		
G4	70+2PE	**18.4800**	E4-70/2PE/S	250	MGK4...
		18.4900	E4-70/2PE/B		

[1] For pilot contacts

[2] Special TPE carrier with operating temperature: -20 °C ... +90 °C

Assembly tools, page 86

Contact carriers for Hybrid applications

Standard, without contacts

The pin and socket carriers are made of synthetic rubber. After the leads have been crimped onto the pins and sockets resp., they can be mounted and dismounted with the suitable tooling accordingly (See page 86). The pins and sockets are seated elastically in their carrier.

Operating temperature: +5 °C...+100 °C.

Note:

- The nominal voltage can be increased by selectively populating the carrier with less contacts. Ask us for special pole diagrams!
- Inserts populated with contacts see page 64.

Carrier size	Number of poles	Order No.	Type	Rated voltage	To fit housing size
				V	
G1	2+PE+9	**18.4203**	E1-2PE+9/S	250 25 [1]	MGK1... MGS1...-IS MGS1...-S
		18.4303	E1-2PE+9/B		
G2	3+PE+4	**18.4403**	E2-3PE+4/S	830 250 [1]	MGK2... MGS2...-IS MGA2...
		18.4503	E2-3PE+4/B		
G4	2+PE+6	**18.4801**	E4-2PE+6/S	630 25 [1]	MGK4...
		18.4901	E4-2PE+6/B		

[1] For pilot contacts

Assembly tools, page 86

Contact carriers for Power applications

Standard, without contacts

The pin and socket carriers are made of synthetic rubber. After the leads have been crimped onto the pins and sockets resp., they can be mounted and dismounted with the suitable tooling accordingly (See page 86). The pins and sockets are seated elastically in their carrier.

Operating temperature: +5 °C...+100 °C.

Note:

- The nominal voltage can be increased by selectively populating the carrier with less contacts. Ask us for special pole diagrams!
- Inserts populated with contacts see page 66.

Carrier size	Number of poles	Order No.	Type	Rated voltage for plastic housings	To fit housing size
				V	
G1	2+PE	18.4200	E1-2PE/S	250	MGK1... MGS1...-IS MGS1...-S
		18.4300	E1-2PE/B		
	6+PE	18.4201	E1-6PE/S		
		18.4301	E1-6PE/B		
G2	6+PE	18.4400	E2-6PE/S	400	MGK2... MGS2...-IS MGA2...
		18.4500	E2-6PE/B		
	15+PE	18.4401	E2-15PE/S	250	
		18.4501	E2-15PE/B		
G3	2+PE	18.4650	E3-2PE/S8	630	MGK3... MGS3...-IS MGA3...
		18.4750	E3-2PE/B8		
		18.4600	E3-2PE/S		
		18.4700	E3-2PE/B		
	4+PE	18.4601	E3-4PE/S	400	
		18.4701	E3-4PE/B		
	6+PE	18.4602	E3-6PE/S	400	
		18.4702	E3-6PE/B		
	13+PE	18.4603	E3-13PE/S	400	
		18.4703	E3-13PE/B		
	36+PE	18.4606	E3-36PE/S	250	
		18.4706	E3-36PE/B		

Assembly tools, page 86

Contact carriers for High Current applications

Standard, without contacts

The pin and socket carriers are made of synthetic rubber. After the leads have been crimped onto the pins and sockets resp., they can be mounted and dismounted with the suitable tooling accordingly (See page 86). The pins and sockets are seated elastically in their carrier.

Operating temperature: +5 °C...+100 °C.

Note:

- The nominal voltage can be increased by selectively populating the carrier with less contacts. Ask us for special pole diagrams!
- Inserts populated with contacts see page 68.

Carrier size	Number of poles	Order No.	Type	Rated voltage for plastic housings	To fit housing size
				V	
G3	2+PE	**18.4650**	E3-2PE/S8	630	MGK3... MGS3...-IS MGA3...
		18.4750	E3-2PE/B8		
	2+PE	**18.4600**	E3-2PE/S		
		18.4700	E3-2PE/B		
	4+PE	**18.4601**	E3-4PE/S	400	
		18.4701	E3-4PE/B		
	6+PE	**18.4602**	E3-6PE/S	400	
		18.4702	E3-6PE/B		
G4	2+PE	**18.4802**	E4-2PE/S	630	MGK4...
		18.4902	E4-2PE/B		

Assembly tools, page 86

Special contact carrier in Chloroprene

These grey contact carriers are suitable for oil-sensitive applications.

The swelling behavior with the following oils have been tested and passed:

- Motorex COOLANT-F
- AVIA Fluid HLPD-46
- FRAGOL Ucotherm W-EGA

For all other oil types, tests would need to be carried out.

Note:

- The nominal voltage can be increased by selectively populating the carrier with less contacts. Ask us for special pole diagrams!
- Inserts populated with contacts see page 70.
- Single contacts see page 28, 40.

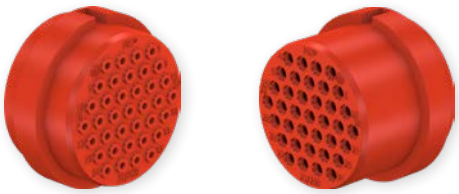
Carrier size	Number of poles	Order No.	Type	Rated voltage	Operating temperature	To fit housing size
				V	°C	
G3	36+PE	**18.4608**	E3-36PE/S2,5-CR	250	-10...+100 °C	MGK3... MGA3...
		18.4708	E3-36PE/B2,5-CR			

Special contact carrier in Silicone

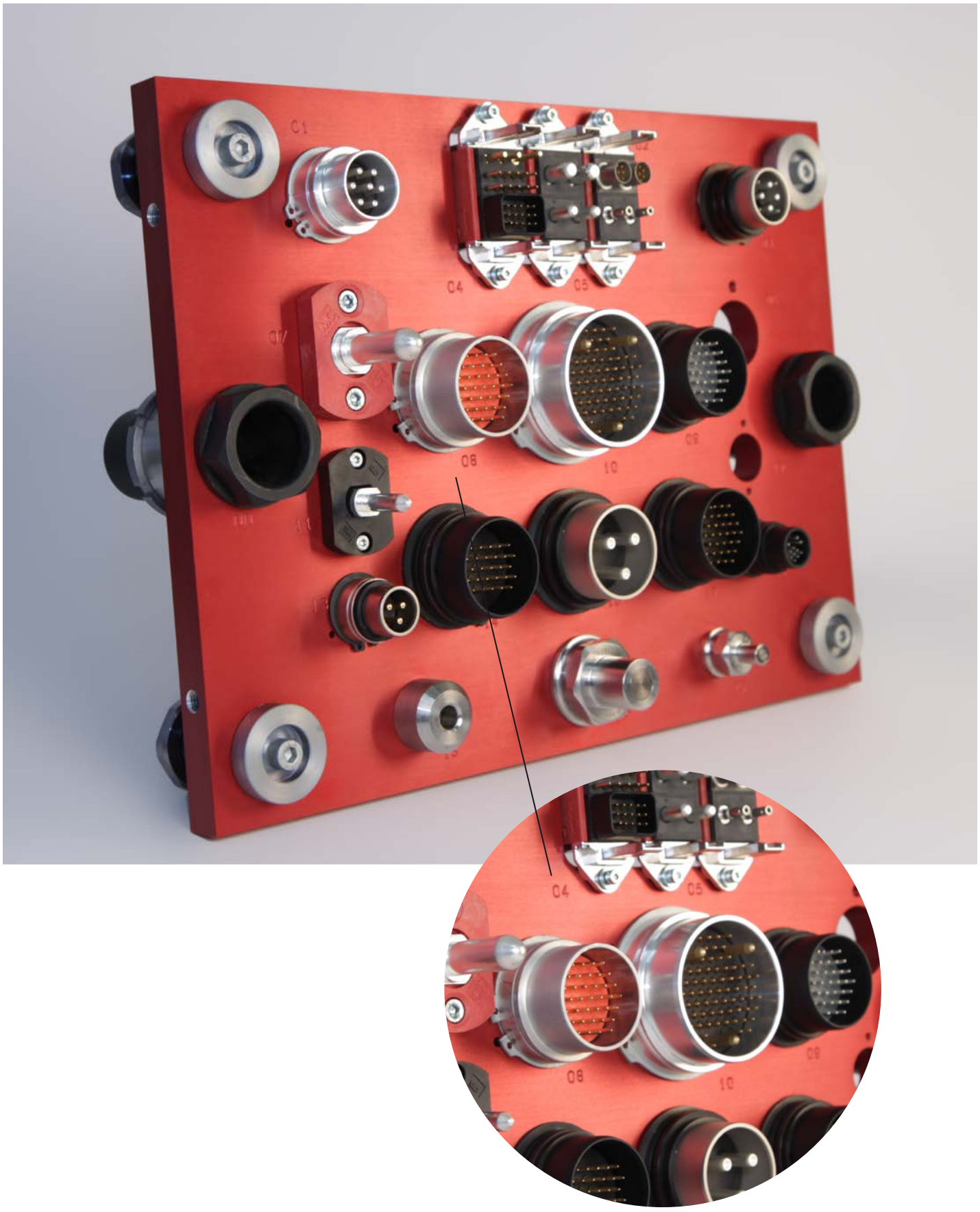
These red contact carriers, in combination with gold plated contacts, are suitable for high-temperature applications (up to 150°C).

Note:

- The nominal voltage can be increased by selectively populating the carrier with less contacts. Ask us for special pole diagrams!
- At temperatures above 90°C, we recommend the use of metallic housings.
- Inserts populated with contacts see page 71.
- Single contacts see page 40.



Carrier size	Number of poles	Order No.	Type	Rated voltage	Operating temperature	To fit housing size
				V	°C	
G2	3+PE+4	**18.4612**	E2-3+PE+4/S SIL	830	-10...+150 °C	MGK2... MGA2...
		18.4712	E2-3+PE+4/B SIL	250		
	6+PE	**18.4613**	E2-6PE/S SIL	400		
		18.4713	E2-6PE/B SIL			
	15+PE	**18.4614**	E2-15PE/S SIL	250		
		18.4714	E2-15PE/B SIL			
G3	6+PE	**18.4609**	E3-6PE/S SIL	400		MGK3... MGA3...
		18.4709	E3-6PE/B SIL			
	36+PE	**18.4607**	E3-36PE/S2,5-SIL	250		
		18.4707	E3-36PE/B2,5-SIL			



Special contact carrier in PEEK

Standard, without contacts

These beige pin and socket carriers are made of hard PEEK material and are suitable for very demanding areas of application, such as in nuclear technology. To match, there are 10 types of gold plated special contacts (see page 46). After the leads have been crimped onto the contacts, they can normally be fitted by hand. If necessary, they can be removed using a suitable extraction tool (see page 86).

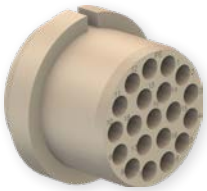
Operating temperature: -10 °C...+150 °C.

Note:

- The nominal voltage can be increased by selectively populating the carrier with less contacts. Ask us for special pole diagrams!
- Inserts populated with contacts see page 72.
- Single contacts see page 46.
-

Availability:

Not in stock. Price and lead-time on request.



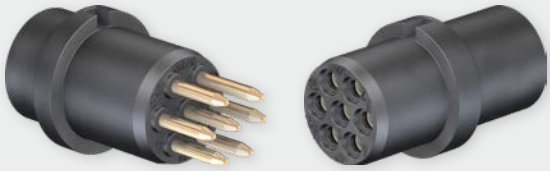
Carrier size	Number of poles	Order No.	Type	Rated voltage for plastic housings	To fit housing size
				V	
G2	1	**19.6627**	E2-1-PK/S	600	MGK2... MGS2...-IS MGA2...
		19.6626	E2-1-PK/B [2]		
	3+PE	**19.6633**	E2-3PE-PK/S	600	
		19.6632	E2-3PE-PK/B		
	19+PE	**19.6635**	E2-19PE-PK/S	150	
		19.6634	E2-19PE-PK/B		
G3	3+PE	**19.6637**	E3-3PE-PK/S	600	MGK3... MGS3...-IS MGA3...
		19.6636	E3-3PE-PK/B		
	9+PE	**19.6645**	E3-9PE-PK/S		
		19.6644	E3-9PE-PK/B		
	13+PE [1]	**19.6649**	E3-13PE-PK/S	600	
		19.6648	E3-13PE-PK/B		
	47+PE	**19.6647**	E3-47PE-PK/S	150	
		19.6646	E3-47PE-PK/B		
	4xNET	**19.9109**	E3-4NET-PK/S	24	
		19.9106	E3-4NET-PK/B		

[1] Mating compatibility with the standard (NBR) version
[2] No touch protection

Assembly tools, page 86

CONTACT INSERT SETS

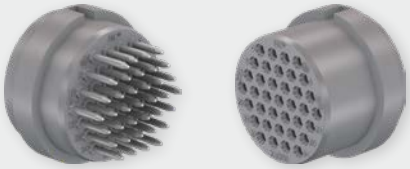
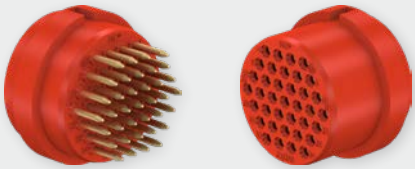
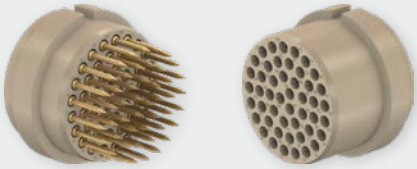
Overview

	Carrier size	Number of poles	Rated voltage	Page
			V	
NBR				
Signal applications				
	G1 – G4	6+PE – 70+2PE	25 – 250	62
Hybrid applications				
	G1, G2, G4	2+PE+6 – 3+PE+4	250 – 830	64
Power applications				
	G1 – G3	2+PE – 15+PE	250 – 400	66
High Current applications				
	G3 – G4	2+PE – 6+PE	25 – 630	68

Note:

All earth contacts (PE) are mating first and breaking last:

- Up to a nominal Ø of 3 mm, the pin mates first and breaks last.
- As of a nominal Ø of 5 mm, the socket mates first and breaks last.

	Carrier size	Number of poles	Rated voltage	Page
			V	
Chloroprene (CR)				
	G3	36+PE	250	70
Silicone (SIL)				
	G2 – G3	3+PE+4 6+PE 15+PE 36+PE	250 – 830	71
PEEK (PK) – on request –				
	G2 – G3	1 – 47+PE	24 – 600	72

Contact insert sets for Signal applications

These sets are consisting of a contact carrier and the corresponding number of pins or sockets.

This makes it easier for you to order contact carriers which are to be fully loaded (after crimping).

Note:

- Empty contact carrier see page 48.
- Single contacts pins/sockets see page 28.

Type code example:

ME1-18+PE-SP1/1 AU

ME1-18+PE-SP1/1 AU	Contact insert-set
ME**1**-18+PE-SP1/1 AU	Housing size
ME1-**18+PE**-SP1/1 AU	Number of contacts
ME1-18+PE-**SP**1/1 AU	**SP:** Pin; **BP:** Socket
ME1-18+PE-SP**1**/1 AU	Nom.-Ø pin (mm)
ME1-18+PE-SP1/**1** AU	max. conductor cross section (mm^2)
ME1-18+PE-SP1/1 **AU**	Surface

Carrier size	Conductor cross section		Number of poles	Nom.-Ø Contact	Surface	Order No.	Type	Max. rated current	Rated voltage
	mm²	AWG		mm				A	V
G1	0.2 – 1	24 – 18	18+PE	1		18.1206	ME1-18+PE-SP1/1	5	150[1]
						18.1207	ME1-18+PE-BP1/1		
						18.1306	ME1-18+PE-SP1/1 AU		
						18.1307	ME1-18+PE-BP1/1 AU		
	0.5 – 1.5	20 – 16	6+PE	2		18.1202	ME1-6+PE-SP2/0,5-1,5	16	250
						18.1203	ME1-6+PE-BP2/0,5-1,5		
						18.1302	ME1-6+PE-SP2/0,5-1,5 AU		
						18.1303	ME1-6+PE-BP2/0,5-1,5 AU		
				1.5		18.1204	ME1-6+PE-SP1,5/0,5-1,5		
						18.1205	ME1-6+PE-BP1,5/0,5-1,5		
						18.1304	ME1-6+PE-SP1,5/0,5-1,5 AU		
						18.1305	ME1-6+PE-BP1,5/0,5-1,5 AU		
	2.5	14	6+PE	2		18.1214	ME1-6+PE-SP2/2,5		
						18.1314	ME1-6+PE-BP2/2,5		
						18.1215	ME1-6+PE-SP2/2,5 AU		
						18.1315	ME1-6+PE-BP2/2,5 AU		
G2	0.5 – 1.5	20 – 16	15+PE	2		18.1404	ME2-15+PE-SP2/0,5-1,5	16	250
						18.1405	ME2-15+PE-BP2/0,5-1,5		
						18.1504	ME2-15+PE-SP2/0,5-1,5 AU		
						18.1505	ME2-15+PE-BP2/0,5-1,5 AU		
				1.5		18.1406	ME2-15+PE-SP1,5/0,5-1,5		
						18.1407	ME2-15+PE-BP1,5/0,5-1,5		
						18.1506	ME2-15+PE-SP1,5/0,5-1,5 AU		
						18.1507	ME2-15+PE-BP1,5/0,5-1,5 AU		
G3	0.5 – 1.5	20 – 16	24+PE	1.5		18.1616	ME3-24+PE-SP1,5/0,5-1,5[2]	16	250
						18.1617	ME3-24+PE-BP1,5/0,5-1,5[2]		
						18.1702	ME3-24+PE-SP1,5/0,5-1,5 AU[2]		
						18.1703	ME3-24+PE-BP1,5/0,5-1,5 AU[2]		
			27	1.5		18.1618	ME3-27-SP1,5/0,5-1,5		25
						18.1619	ME3-27-BP1,5/0,5-1,5		
						18.1704	ME3-27-SP1,5/0,5-1,5 AU		
						18.1705	ME3-27-BP1,5/0,5-1,5 AU		
			36+PE	1.5		18.1622	ME3-36+PE-SP1,5/0,5-1,5		250
						18.1623	ME3-36+PE-BP1,5/0,5-1,5		
						18.1708	ME3-36+PE-SP1,5/0,5-1,5 AU		
						18.1709	ME3-36+PE-BP1,5/0,5-1,5 AU		
G4	0.5 – 1.5	20 – 16	70+2PE	1.5		18.1800	ME4-70+2PE-SP1,5/0,5-1,5	16	250
						18.1801	ME4-70+2PE-BP1,5/0,5-1,5		
						18.1900	ME4-70+2PE-SP1,5/0,5-1,5 AU		
						18.1901	ME4-70+2PE-BP1,5/0,5-1,5 AU		

[1] Special contact arrangements are required for applications using 250 V; please request pole diagram.

[2] Also available with: SP1,5/0,14-0,5 / BP1,5/0,14-0,5

Contact insert sets for Hybrid applications

Contact inserts equipped with mixed contacts for power supply and signal transmission to servo motors.

Note:

- Empty contact carrier see page 53.
- Single contacts pins/sockets see page 36.

		Power						Signal			
Carrier size	Number of poles (Power & Signal)	Conductor cross section		Number of poles	Nom.-Ø contact	Max. rated current	Rated voltage	Conductor cross section		Number of poles	
		mm²	AWG		mm	A	V	mm²	AWG		
G1	2+PE+9	0.5 – 1.5	20 – 16	2+PE	1.5	16	250	0.2 – 1		9	
G2	3+PE+4	2.5 – 4	14 – 12	3+PE	3	32	830	0.5 – 1.5	20 – 16	4	
G4	2+PE+6	25/50	4 – 1/0	2+PE	11	200	630	0.5 – 1.5	20 – 16	6	
		35-38	~ 2			170					

	Nom.-Ø contact	Max. rated current	Rated voltage	Surface	Order No.	Type
	mm	A	V			
	1	5	25		**18.1212**	ME1-2+PE-SP1,5/0,5-1,5+9SP1/1K
					18.1312	ME1-2+PE-BP1,5/0,5-1,5+9BP1/1K
	1.5	16	250		**18.1410**	ME2-3+PE-SP3/2,5-4(K)+4SP1,5/0,5-1,5
					18.1411	ME2-3+PE-BP3/2,5-4(K)+4BP1,5/0,5-1,5
	1.5	5	25		**18.1816**	ME4-2+PE-SP11/25+50 [1)]
					18.1817	ME4-2+PE-BP11/25+50 [1)]
					18.1812	ME4-2+PE-SP11/35-38 [1)]
					18.1813	ME4-2+PE-BP11/35-38 [1)]

[1)] Can be fitted with up to 6 pilot contacts (please order separately)

Contact insert sets for Power applications

The contact insert sets are consisting of a contact carrier and the corresponding number of pins or sockets.

This makes it easier for you to order contact carriers which are to be fully loaded (after crimping).

Note:

- Empty contact carrier see page 54.
- Single contacts pins/sockets see page 40.

Type code example:

ME1-6+PE-SP2/0,5-1,5 AU

ME1-6+PE-SP2/0,5-1,5 AU	Contact insert-set
ME**1**-6+PE-SP2/0,5-1,5 AU	Housing size
ME1-**6+PE**-SP2/0,5-1,5 AU	Number of contacts
ME1-6+PE-**SP**2/0,5-1,5 AU	**SP**: Pin; **BP**: Socket
ME1-6+PE-SP**2**/0,5-1,5 AU	Nom.-Ø pin (mm)
ME1-6+PE-SP2/**0,5-1,5** AU	max. conductor cross section (mm^2)
ME1-6+PE-SP2/0,5-1,5 **AU**	Surface

Carrier size	Conductor cross section		Number of poles	Nom.-Ø Contact	Surface	Order No.	Type	Max. rated current	Rated voltage
	mm²	AWG		mm				A	V
G1	0.5 – 1.5	20 – 16	6+PE	2		18.1202	ME1-6+PE-SP2/0,5-1,5	16	250
						18.1203	ME1-6+PE-BP2/0,5-1,5		
						18.1302	ME1-6+PE-SP2/0,5-1,5 AU		
						18.1303	ME1-6+PE-BP2/0,5-1,5 AU		
	2.5 – 4	14 – 12	2+PE	3		18.1200	ME1-2+PE-SP3/2,5-4(K)	36	
						18.1201	ME1-2+PE-BP3/2,5-4(K)		
						18.1300	ME1-2+PE-SP3/2,5-4(K) AU		
						18.1301	ME1-2+PE-BP3/2,5-4(K) AU		
G2	0.5 – 1.5	20 – 16	15+PE	2		18.1404	ME2-15+PE-SP2/0,5-1,5	16	250
						18.1405	ME2-15+PE-BP2/0,5-1,5		
						18.1504	ME2-15+PE-SP2/0,5-1,5 AU		
						18.1505	ME2-15+PE-BP2/0,5-1,5 AU		
	2.5 – 4	14 – 12	4+PE	3		18.1400	ME2-4+PE-SP3/2,5-4(K)	36	400
						18.1401	ME2-4+PE-BP3/2,5-4(K)		
						18.1500	ME2-4+PE-SP3/2,5-4(K) AU		
						18.1501	ME2-4+PE-BP3/2,5-4(K) AU		
			6+PE			18.1402	ME2-6+PE-SP3/2,5-4(K)		
						18.1403	ME2-6+PE-BP3/2,5-4(K)		
						18.1502	ME2-6+PE-SP3/2,5-4(K) AU		
						18.1503	ME2-6+PE-BP3/2,5-4(K) AU		
G3	2.5 – 4	14 – 12	13+PE	3		18.1614	ME3-13+PE-SP3/2,5-4	27	400
						18.1615	ME3-13+PE-BP3/2,5-4		
						18.1700	ME3-13+PE-SP3/2,5-4 AU		
						18.1701	ME3-13+PE-BP3/2,5-4 AU		

Contact insert sets for High Current applications

The contact insert sets are consisting of a contact carrier and the corresponding number of pins or sockets.

This makes it easier for you to order contact carriers which are to be fully loaded (after crimping).

Note:

- Empty contact carrier see page 55.
- Single contacts pins/sockets see page 42.

Type code example:

ME3-6+PE-SP5/6

ME3-6+PE-SP5/6	Contact insert-set
ME**3**-6+PE-SP5/6	Housing size
ME3-**6+PE**-SP5/6	Number of contacts
ME3-6+PE-**SP**5/6	**SP**: Pin; **BP**: Socket
ME3-6+PE-SP**5**/6	Nom.-Ø pin (mm)
ME3-6+PE-SP5/**6**	max. conductor cross section (mm^2)

Carrier size	Conductor cross section		Number of poles	Nom.-Ø Contact	Surface	Order No.	Type	Max. rated current	Rated voltage
	mm²	AWG		mm				A	V
G3	6	10	6+PE	5		**18.1612**	ME3-6+PE-SP5/6	50	400
						18.1613	ME3-6+PE-BP5/6		
	10	8	2+PE	6		**18.1604**	ME3-2+PE-SP6/10	80	630
						18.1605	ME3-2+PE-BP6/10		
			4+PE	6		**18.1608**	ME3-4+PE-SP6/10	63	400
						18.1609	ME3-4+PE-BP6/10		
			6+PE	5		**18.1610**	ME3-6+PE-SP5/10		
						18.1611	ME3-6+PE-BP5/10		
	16	6	2+PE	6		**18.1602**	ME3-2+PE-SP6/16	110	630
						18.1603	ME3-2+PE-BP6/16		
			4+PE	6		**18.1606**	ME3-4+PE-SP6/16	90	400
						18.1607	ME3-4+PE-BP6/16		
	25	4	2+PE	6		**18.1600**	ME3-2+PE-SP6/25	135	630
						18.1601	ME3-2+PE-BP6/25		
				8		**18.1750**	ME3-2+PE-SP8/25		
						18.1751	ME3-2+PE-BP8/25		
	35	2	2+PE	8		**18.1752**	ME3-2+PE-SP8/35	150	
						18.1753	ME3-2+PE-BP8/35		
G4	25/50	4 – 1/0	2+PE	11		**18.1816**	ME4-2+PE-SP11/25+50 [1]	200	630
						18.1817	ME4-2+PE-BP11/25+50 [1]	16 [2]	25 [2]
	35 – 38	2				**18.1812**	ME4-2+PE-SP11/35-38 [1]	170	
						18.1813	ME4-2+PE-BP11/35-38 [1]	16 [2]	

[1] Can be fitted with up to 6 pilot contacts (please order separately)

[2] For pilot contacts

Special contact insert sets for Chloroprene applications

The contact inserts consist of the grey contact carriers and the corresponding number of pins or sockets.
This makes it easier for you to order contact carriers which are to be fully loaded (after crimping). These grey contact carriers are suitable for oil-sensitive applications.

The swelling behavior with the following oils have been tested and passed:

- Motorex COOLANT-F
- AVIA Fluid HLPD-46
- FRAGOL Ucotherm W-EGA

For all other oil types, tests would need to be carried out.

Note:

- Empty contact carrier see page 56.
- Single contacts Pins/Sockets see pages 28, 40.

Carrier size	Conductor cross section		Number of poles	Nom.-Ø Contact	Surface	Order No.	Type	Max. rated current	Rated voltage
	mm²	AWG		mm				A	V
G3	2.5	14	36+PE	2		**18.1624**	ME3-36+PE-SP2/2,5-CR	25	250
						18.1625	ME3-36+PE-BP2/2,5-CR		

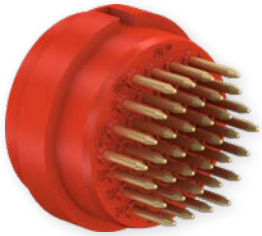
Special contact insert sets for Silicone applications

The contact inserts consist of the red contact carriers and the appropriate number of pins or sockets.
They are suitable for high-temperature applications (up to 150 °C).

For applications above 90 °C we recommend the use of gold plated contacts and tinned cable strands and the use of metallic housings.
This makes it easier for you to order contact carriers which are to be fully loaded (after crimping).

Note:

- Empty contact carrier see page 57.
- Single contacts see page 40.



Carrier size	Conductor cross section		Number of poles	Nom.-Ø Contact	Surface	Order No.	Type	Max. rated current	Rated voltage
	mm²	AWG		mm				A	V
G2	0.5 – 1.5	20 – 16	15+PE	2		**18.1512**	ME2-15PE/S SIL	16	250
						18.1513	ME2-15PE/B SIL		
	2.5 – 4	14 – 12	3+PE+4	3		**18.1508**	ME2-3+PE+4/S SIL	32	830
	0.5 – 1.5	20 – 16		1.5		**18.1509**	ME2-3+PE+4/B SIL	16	250
	2.5 – 4	14 – 12	6+PE	3		**18.1510**	ME2-6PE/S SIL	32	400
						18.1511	ME2-6PE/B SIL		
G3	2.5	14	36+PE	2		**18.1706**	ME3-36+PE-SP2/2,5-SIL AU	25	250
						18.1707	ME3-36+PE-BP2/2,5-SIL AU		
	10	8	6+PE	5		**18.1710**	ME3-6PE/S SIL	63	400
						18.1711	ME3-6PE/B SIL		

Special contact insert sets for PEEK applications

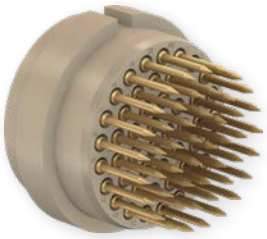
The contact insert sets are consisting of a contact carrier and the corresponding number of pins or sockets.
This makes it easier for you to order contact carriers which are to be fully loaded (after crimping).

Note:

- Empty contact carrier see page 59.
- Single contacts pins/sockets see page 46.

Availability:

Not in stock. Price and lead-time on request.



Type code example:

ME2-19+PE-SP-C1,6/0,5-1,5-PK AU

ME2-19+PE-SP-C1,6/0,5-1,5-PK AU	Contact insert-set
ME**2**-19+PE-SP-C1,6/0,5-1,5-PK AU	Housing size
ME2-**19+PE**-SP-C1,6/0,5-1,5-PK AU	Number of contacts
ME2-19+PE-**SP**-C1,6/0,5-1,5-PK AU	**SP**: Pin; **BP**: Socket
ME2-19+PE-SP-**C**1,6/0,5-1,5-PK AU	**C**: Clip; **R**: Retaining ring
ME2-19+PE-SP-C**1,6**/0,5-1,5-PK AU	Nom.-Ø pin (mm)
ME2-19+PE-SP-C1,6/**0,5-1,5**-PK AU	Conductor cross section (mm^2)
ME2-19+PE-SP-C1,6/0,5-1,5-**PK** AU	PEEK
ME2-19+PE-SP-C1,6/0,5-1,5-PK **AU**	Surface

Carrier size	Conductor cross section		Number of poles	Nom.-Ø contact	Surface	Order No.	Type	Max. rated current	Rated voltage
	mm²	AWG		mm				A	V
G2	0.5 – 1.5	20 – 16	19+PE	1.6		**19.6651**	ME2-19+PE-SP-C1,6/0,5-1,5-PK AU	16	150
						19.6650	ME2-19+PE-BP-C1,6/0,5-1,5-PK AU		
	2.5 – 4	14 – 12	3+PE	3		**19.6657**	ME2-3+PE-SP-C3/2,5-4-PK AU	36	600
						19.6656	ME2-3+PE-BP-C3/2,5-4-PK AU		
	4 – 6	12 – 10				**19.6653**	ME2-3+PE-SP-C3/4-6-PK AU	50	
						19.6652	ME2-3+PE-BP-C3/4-6-PK AU		
	35	2	1	10		**19.6661**	ME2-1-SP-R10/35-PK AU	150	600
						19.6660 [2]	ME2-1-BP-R10/35-PK AU		
	50	1/0				**19.6659**	ME2-1-SP-R10/50-PK AU	180	
						19.6658 [2]	ME2-1-BP-R10/50-PK AU		
	70	2/0				**19.6655**	ME2-1-SP-R10/70-PK AU	200	
						19.6654 [2]	ME2-1-BP-R10/70-PK AU		
G3	0.5 – 1.5	20 – 16	47+PE	1.6		**19.6663**	ME3-47+PE-SP-C1,6/0,5-1,5-PK AU	16	150
						19.6662	ME3-47+PE-BP-C1,6/0,5-1,5-PK AU		
	2.5 – 4	14 – 12	9+PE	3		**19.6669**	ME3-9+PE-SP-C3/2,5-4-PK AU	36	600
						19.6668	ME3-9+PE-BP-C3/2,5-4-PK AU		
			13+PE [1]			**19.6675**	ME3-13+PE-SP3/2,5-4-PK AU	36	600
						19.6674	ME3-13+PE-BP3/2,5-4-PK AU		
	4 – 6	12 – 10	9+PE			**19.6665**	ME3-9+PE-SP-C3/4-6-PK AU	50	600
						19.6664	ME3-9+PE-BP-C3/4-6-PK AU		
			13+PE [1]			**19.6677**	ME3-13+PE-SP3/4-6-PK AU	50	600
						19.6676	ME3-13+PE-BP3/4-6-PK AU		
	10	8	3+PE	6		**19.6671**	ME3-3+PE-SP-C6/10-PK AU	80	600
						19.6670	ME3-3+PE-BP-C6/10-PK AU		
	16	6				**19.6667**	ME3-3+PE-SP-C6/16-PK AU	110	
						19.6666	ME3-3+PE-BP-C6/16-PK AU		
	25	4				**19.6673**	ME3-3+PE-SP-C6/25-PK AU	135	
						19.6672	ME3-3+PE-BP-C6/25-PK AU		
	0.5 – 0.75	26 – 18	4xNET1	1		**19.9111**	ME3-4NET-PK/S	5	24
						19.9107	ME3-4NET-PK/B		

[1] Mating compatibility with the standard (NBR) version
[2] No touch protection

HOUSINGS

Overview

	Housing size	Mating cycles	Page
Plastic housings			
	MGK1 – MGK4	10,000,000	76
Plastic housings, shielded, insulated			
	MGS1...-IS – MGS3...-IS MGS3...N-...	1,000,000	80
Metal housing, shielded			
	MGS1...-S	1,000,000	83
Metal housing			
	MGA2... – MGA3...	1,000,000	84

Note:

Housings out of stainless steel on request

Shielding principle

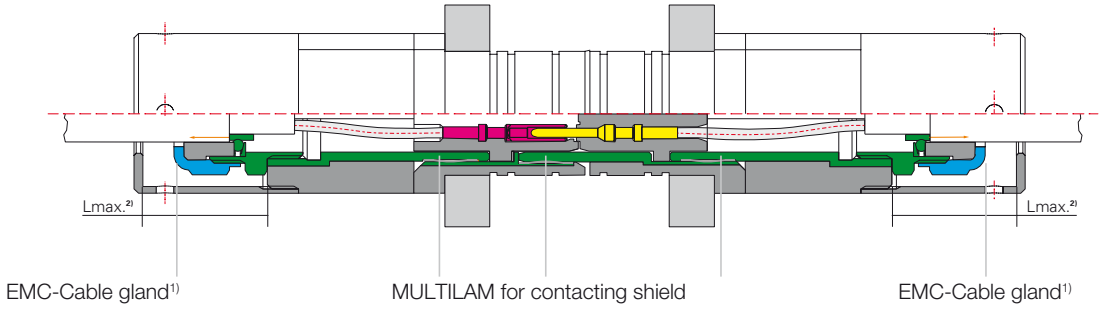
The MULTILAM serve as a contact element between the housings, providing continuity of the shield and an optimum 360° schielding effect.
For selected housings, the shield is connected via an EMC cable gland that is protected against touching by means of insulating sleeves.

Advantages (shielding):

- Secure BUS signal transfer (360° shielding)
- Ideal for Profinet and Ethernet applications (CAT5 and CAT6)
- Simple cabling with shielded cable gland

Advantages (plastic insulation):

- No electrical connection between housing and mounting panel
- Shield loops are already prevented on assembly



Continuous shield contacting | Plastic housing | Pin | Socket

1) EMC-threaded glands are supplied with selected housings. Please see ordering information

2) If alternative glands are used, please observe the correct size Lmax:
Housing size 1: 25 mm
Housing size 2: 31.5 mm
Housing size 3: 32.5 mm

Plastic housings

Pin and socket housing MGK...

Fully insulated plastic housings of high-impact material. Unlike metal housings, they do not need to be earthed.
The standard housings are available in 4 different sizes. For size 3 a special housing for mounting a form shroud (page 80) is available.
The socket and pin housings each consist of two parts (front and rear part) which are screwed together. The cylindrical front part of the housing serves for the positioning of the contact carrier and the square rear part for the insertion and mounting of the leads.
The strain relief on the housing is provided by the cable gland.
The cable lead-in may be in-line or right-angled. as desired. **Only plastic cable glands may be used.**
For multicouplings and docking systems the housings are incorporated in prepared mounting panels, see section “installation situation” page 90. A retaining ring is supplied for mounting in panels.
Depending on the panel thickness and panel spacing, spacer rings may be required, see pages 89 and 90.

Cable outlets: 2 (5 directions)

Type code example:

MGK1VB10-14+MGK1R-M20

MGK1VB10-14+MGK1R-M20	“Multi-pole” series
M**GK**1VB10-14+MGK1R-M20	Housings plastic
MGK**1**VB10-14+MGK1R-M20	Housing size
MGK1**VB**10-14+MGK1R-M20	**VB:** Front section of socket housing **VS:** Front section of pin housing
MGK1VB**10-14**+MGK1R-M20	Plate thickness (mm)
MGK1VB10-14+MGK1**R**-M20	Back of housing
MGK1VB10-14+MGK1R-**M20**	Cable glands metric threads

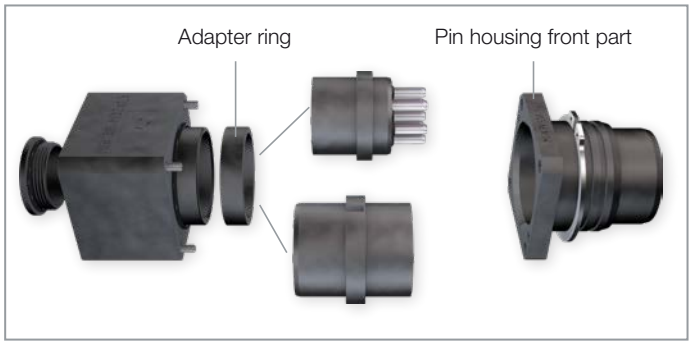
Housing size	Order No.	Type	Cable gland		Spacers	Fits
			optional	not supplied		
MGK1...	18.0111	MGK1VB10-14+MGK1R-M20	M20 18.5896		18.5652 [1]	ME1... E1...
	18.0110	MGK1VS10-14+MGK1R-M20				
	18.0101	MGK1VB10-14+MGK1R13		PG13		
	18.0100	MGK1VS10-14+MGK1R13				
MGK2...	18.0211	MGK2VB10-14+MGK2R-M25	M25 15.5377		18.5633 [1]	ME2... E2...
	18.0210	MGK2VS10-14+MGK2R-M25			18.5632 [1]	
	18.0201	MGK2VB10-14+MGK2R21		PG21	18.5633 [1]	
	18.0200	MGK2VS10-14+MGK2R21			18.5632 [1]	
MGK3...	18.0309	MGK3VB10-14+MGK3R-M25	M25 15.5377		18.5617 [1]	ME3... E3...
	18.0311	MGK3VS10-14+MGK3R-M25			18.5618 [1]	
	18.0308	MGK3VB10-14+MGK3R-M32	M32 15.5378		18.5617 [1]	
	18.0310	MGK3VS10-14+MGK3R-M32			18.5618 [1]	
	18.0303	MGK3VB10-14+MGK3R21		PG21	18.5617 [1]	
	18.0302	MGK3VS10-14+MGK3R21			18.5618 [1]	
	18.0301	MGK3VB10-14+MGK3R29		PG29	18.5617 [1]	
	18.0300	MGK3VS10-14+MGK3R29			18.5618 [1]	
MGK4...	18.0415	MGK4VB10-14+MGK4R-M50	M50 15.5373		–	ME4... E4...
	18.0414	MGK4VS10-14+MGK4R-M50			18.5809 [2]	

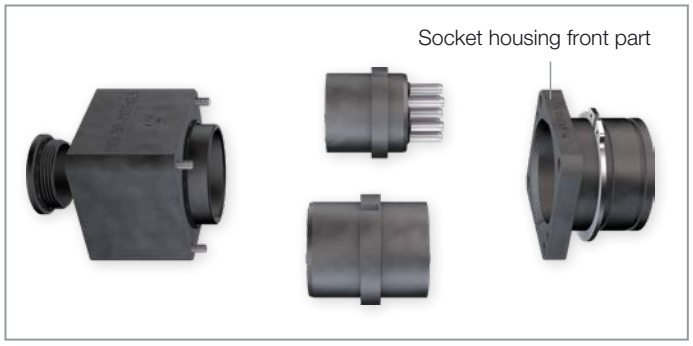
Special case in housing size 3

Both the pin as well as the socket contact carrier may be fitted into housing front part. Example of use: Power supply on the consumer side, e.g. battery set for mobile power supply on tool.

Note:

In the case of the pin housing front part (picture left), an adapter ring (supplied) is needed for assembly.





[1] For plate spacing 13 mm, not supplied
[2] For plate spacing 37 mm, supplied

MA

Assembly instructions MA202, MA203, MA303

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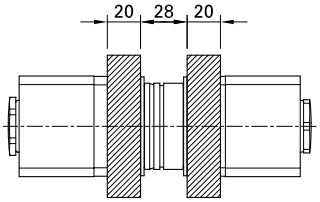
Special pin and socket housings

For plate thickness 20 mm and plate spacing 28 mm

In addition to our standard housings, we also offer special housings. Available in three sizes, with PG threads, fitting the standard contact carriers (E…) and contact insert sets (ME…).
Only available on request.



Housing size	Order No.	Socket housing	Pin housing	Short housing	Cable gland[1)]	Fits
G1	**18.0103**	×			PG16	ME1... E1...
	18.0102		×			
G2	**18.0205**	×			PG21	ME2... E2...
	18.0204		×			
G3	**18.0319**	×			PG29	ME3... E3...
	18.0318		×			
	18.0317	×		×	PG21	ME3... E3...
	18.0316		×	×		
	18.0321	×			PG21	ME3... E3...
	18.0320		×			

[1)] not supplied

Housing front parts

For form shroud

To save space, a shrink-on shroud may be used instead of a cubic rear housing (only in size 3). This enables the total length to be reduced in mated condition.

The shrink-on shrouds are available with either an axial or a right-angled cable outlet.

Housing size	Order No.	Type	Form shroud	Fits
			Axial	
-WST	**18.0305**	MGK3VB10-14+MGK3R-WST	30.0021 WST-TS 150 	ME3... E3...
	18.0304	MGK3VS10-14+MGK3R-WST	30.0021 WST-TS 150 	

Plastic housings, shielded, insulated

Pin and socket housing shielded/insulated MGS... -IS

These housings are used in all applications where continuous shielding contact is required.
If separation between the shield and earth connection is required, these are housing (MGS...-IS) to use.

The MULTILAM serve as a contact element between the housings, providing continuity of the shield and an optimum 360° shielding effect.
In selected housings the shield is connected via an EMC gland (Stäubli recommends: Pflitsch “Iris UNI Dicht”, if not supplied in delivery). EMC glands are protected against touching by means of insulating sleeves.

MGS1VS-90-M20-IS

MGS1VB-90-M20-IS

Cable outlet: 1 (90°)

Type code example:

MGS1VB-M20-IS/9-13

MGS1VB-M20-IS/9-13	“Multi-pole” series
M**GS**1VB-M20-IS/9-13	Shielded plastic housing
MGS**1**VB-M20-IS/9-13	Housing size
MGS1**VB**-M20-IS/9-13	**VB:** Front section of socket housing **VS:** Front section of pin housing
MGS1VB-**M20**-IS/9-13	Cable gland metric
MGS1VB-M20-**IS**/9-13	Insulated, shielded
MGS1VB-M20-IS/**9-13**	Cable outer Ø (min. – max.)

Housing size	Order No.	Type	EMC cable gland		For cable outside Ø	Right angled	Spacers[1]	Fits
			without	with	mm	90°		
MGS1...-IS	**18.0137**	MGS1VB-90-M20-IS		×	7.0 – 10.5	×	18.5652	ME1... E1...
	18.0136	MGS1VS-90-M20-IS		×		×		
	18.0133	MGS1VB-M20-IS	×					
	18.0130	MGS1VS-M20-IS	×					
	18.0134	MGS1VB-M20-IS/7-10,5		×	7.0 – 10.5			
	18.0131	MGS1VS-M20-IS/7-10,5		×				
	18.0135	MGS1VB-M20-IS/9-13		×	9 – 13			
	18.0132	MGS1VS-M20-IS/9-13		×				
	18.0121	MGS1VB-R13-IS	×					
	18.0120	MGS1VS-R13-IS	×					
	18.0123	MGS1VB-R16-IS	×					
	18.0122	MGS1VS-R16-IS	×					
MGS2...-IS	**18.0231**	MGS2VB-M25-IS	×				18.5954	ME2... E2...
	18.0229	MGS2VS-M25-IS	×					
	18.0232	MGS2VB-M25-IS/9-13		×	9 – 13			
	18.0230	MGS2VS-M25-IS/9-13		×				
	18.0221	MGS2VB-R21-IS	×					
	18.0220	MGS2VS-R21-IS	×					

[1] only for plate spacing 13 mm

Plastic housings, shielded, insulated

Warning note:
The new MGS3...N-... housings are not mating-compatible with the previous version! If upgrading, the pin and socket side need to be replaced by the new MGS3...N-... version.

The new housings are optimized in terms of insertion and withdrawal forces and therefore designed for a long service life.

Housing size	Order No.		Type	EMC cable gland		For cable outside Ø	Spacers[1]	Fits
	NEW	OLD[2]		without	with	mm		
MGS3...-IS	**18.0350**	18.0340	MGS3BN-M32-IS	×			18.5675	ME3... E3...
	18.0353	18.0338	MGS3SN-M32-IS	×			18.5674	
	18.0351	18.0339	MGS3BN-M32-IS/14-18		×	14 –18	18.5675	
	18.0354	18.0337	MGS3SN-M32-IS/14-18		×		18.5674	
	18.0352	18.0328	MGS3BN-R29-IS	×			18.5675	
	18.0355	18.0327	MGS3SN-R29-IS	×			18.5674	

MGS3SN...

MGS3BN...

Cable outlet: 1 (straight)

Important:
The drilling plan distinguishes between MGS3...-IS and MGK3... see page 94.

[1] only for plate spacing 13 mm
[2] Spare parts, still available on request

Metal housing, shielded

Pin and socket housing shielded MGS...-S

With voltages > 60 V DC or > 30 V AC, the housing must be connected to the earth line (PE).
If EMC cable glands are used, the housing can also be used for shielding. It may be necessary to insulate it from the mounting panel.

EMC cable glands are not supplied in the delivery. (Stäubli recommends: Pflitsch "Iris UNI Dicht"). The cable outlet may be either axial or right-angled.

Note:
The shielding connection between the pin and the socket housing is via the contact carrier. The shield is laid on a contact pair (pin and socket contact), and thus an electrical connection is made.
Type code see page 80.

Cable outlets:
2 (5 directions)

Housing size	Order No.	Type	Cable gland		Spacers[1)]	Fits
			without	with		
MGS1...-S	**18.0117**	MGS1VB-10-14+MGS1R-M20	×		18.5652	ME1... E1...
	18.0116	MGS1VS-10-14+MGS1R-M20	×			
	18.0107	MGS1VB-R13-S	×			
	18.0106	MGS1VS-R13-S	×			

[1)] only for plate spacing 13 mm

Metal housing

Pin and socket housing MGA...

These aluminum housings are suitable for demanding areas of application, mostly but not exclusively in combination with contact carriers made from silicon or PEEK materials.

With voltages > 60 V DC or > 30 V AC, metal housings must be connected to the earth line (PE).
As well as metric and PG cable glands, NPT cable glands can also be used.

Note:
The housings listed below are designed for a plate spacing of 37 mm when mated. They fit both 10 mm and 14 mm mounting plates. Spacer rings (if required) are included in the delivery.

Housing size	Order No.	Type	Mounting plates	Cable gland[1)]		Fits
			mm	Axial	90°	
MGA2...	**18.0240**	MGA2B14-PG21	14	PG21	PG21	ME2... E2...
	18.0241	MGA2B14-NPT3/4	14	NPT3/4	NPT3/4	
	18.0242	MGA2B14-M25	14	M25×1,5	M25×1,5	
	18.0243	MGA2S10-PG21	10	PG21	PG21	
	18.0244	MGA2S14-PG21	14	PG21	PG21	
	18.0245	MGA2S10-NPT3/4	10	NPT3/4	NPT3/4	
	18.0246	MGA2S14-NPT3/4	14	NPT3/4	NPT3/4	
	18.0247	MGA2S10-M25	10	M25×1,5	M25×1,5	
	18.0248	MGA2S14-M25	14	M25×1,5	M25×1,5	

[1)] Not supplied.

Housing size	Order No.	Type	Mounting plates	Cable gland[1)]		Fits
			mm	Axial	90°	
MGA3...	**18.0360**	MGA3B14-2PG	14	PG36	PG29	ME3... E3...
	18.0361	MGA3B14-NPT1	14	NPT1"	NPT1"	
	18.0362	MGA3B14-2M	14	M40×1,5	M32×1,5	
	18.0363	MGA3S10-2PG	10	PG36	PG29	
	18.0364	MGA3S14-2PG	14	PG36	PG29	
	18.0365	MGA3S10-NPT1	10	NPT1"	NPT1"	
	18.0366	MGA3S14-NPT1	14	NPT1"	NPT1"	
	18.0367	MGA3S10-2M	10	M40×1,5	M32×1,5	
	18.0368	MGA3S14-2M	14	M40×1,5	M32×1,5	

ASSEMBLY TOOLS

Insertion tool ME-...

Insertion tool	Nom.-Ø contact	Order No.	Type
ME-...	mm		
	1/1.2	**18.3000**	ME-WZ1/1,2
	1.5/1.57/2/2.36	**18.3003**	ME-WZ1,5/2
	1.6	**18.3039**	ME-CWZ1,6 [1)]
	3	**18.3010**	ME-WZ3
	5	**18.3013**	ME-WZ5
	6	**18.3016**	ME-WZ6
	8/11	**18.3021**	ME-WZ11/38

Extraction tools M...A-WZ..., MA-CWZ...

Extraction tool (pin)	Nom.-Ø contact	Order No.	Type
M...A-WZ..., MA-CWZ...	mm		
	1/1.2	**18.3002**	MSA-WZ1/1,2
	1.5/1.57	**18.3005**	MSA-WZ1,5
	1.5	**18.3020**	MSA-WZ1,5/109
	1.6	**18.3037**	MA-CWZ1,6 [1)]
	2	**18.3009**	MSA-WZ2
	2.36/3	**18.3012**	MSA-WZ3
	3	**18.3036**	MA-CWZ3 [1)]
	5	**18.3015**	MSA-WZ5
	6	**18.3018**	MSA-WZ6
	6	**18.3038**	MA-CWZ6 [1)]
	8	**18.3022**	MSA-WZ8
	11	**18.3014**	MBA-WZ5

Extraction tool (socket)	Nom.-Ø contact	Order No.	Type
M...A-WZ..., MA-CWZ...	mm		
	1/1.2	**18.3001**	MBA-WZ1/1,2
	1.5/1.57	**18.3004**	MBA-WZ1,5
	1.5	**18.3019**	MBA-WZ1,5/109
	1.6	**18.3037**	MA-CWZ1,6 [1)]
	2/2.36	**18.3008**	MBA-WZ2
	3	**18.3011**	MBA-WZ3
	3	**18.3036**	MA-CWZ3 [1)]
	5	**18.3014**	MBA-WZ5
	6/8	**18.3017**	MBA-WZ6
	6	**18.3038**	MA-CWZ6 [1)]
	11	**18.3022**	MSA-WZ8

[1)] For PEEK carriers, other tools see MA303

MA

Assembly instructions MA202, MA203, MA205, MA303

www.staubli.com/electrical

Crimping tools

Recommended by Stäubli

- Leads from 0.14 mm² to 4 mm²: Crimping tool M-CZ
- Leads from 6 mm² to 35 mm²: Crimping tool M-PZ13 (small volumes)
- Leads from 16 mm² to 70 mm²: crimping tool CZK2-... (series assembly)

CZK2-...

M-PZ13

MES-PZ-T...

MTB9-16-50

MTB14,5-50-50

M-CZ

MES-CZ

MES-CZ1,5/2

Conductor cross section		Nom.-Ø contact	Order No.	Type	Designation	MA
mm²	AWG	mm				
For power contacts						
25/35/38	4/~2	6/8/10/11	**18.3111**	CZK2-230	Crimping tool case (Battery charger 230 V) see Flyer „Crimping Tool Case CZK2“	MA306
			18.3112	CZK2-110	Crimping tool case (Battery charger 110 V) see Flyer „Crimping Tool Case CZK2“	
Optional accessories						
16	6		**18.3029**	MTB9-16-50	Crimping die	MA306
50	1/0		**18.3025**	MTB14,5-50-50	Crimping die	
–	–	–	**18.3700**	M-PZ13	Crimping tool	MA224
6	10	5/6	**18.3701**	MES-PZ-TB5/6	Crimping die for M-PZ13	
10	8	5/6	**18.3702**	MES-PZ-TB8/10	Crimping die for M-PZ13	
16	6	6	**18.3703**	MES-PZ-TB9/16	Crimping die for M-PZ13	
25	4	6/8/11	**18.3704**	MES-PZ-TB11/25	Crimping die for M-PZ13	
35	2	8/10/11	**18.3705**	MES-PZ-TB13/35	Crimping die for M-PZ13	
For signal contacts						
–	–	–	**18.3800**	M-CZ	Crimping tool	MA085
0.14 – 4	26 – 12	1 – 3	**18.3801**	MES-CZ	Locator to M-CZ	
0.5 – 1.5	20 – 16	1.5/1.6/2	**18.3802**	MES-CZ1,5/2	Locator to M-CZ	

ACCESSORIES

Blind plugs

Vacant contact cavities must be fitted with blind plugs in order to ensure longitudinal watertightness and mechanical stability.

The blind plugs are coloured differently, so they can be easily distinguished.

Nom.-Ø contact	Order No.	Type	Color
mm			
1	**18.5506**	MVS-1/1 	white
1.5/1.57/2	**18.5500**	MVS-1,5/2 	blue
3	**18.5501**	MVS-3 	yellow
5	**18.5502**	MVS-5 	white
6	**18.5503**	MVS-6 	black
8	**18.5505**	MVS-8 	

Cable glands made of polyamide (PA)

These polyamide (PA) cable glands are designed as accessories for our plastic housings (MGK1... to MGK4...).

The use of the following cable glands in combination with our plastic housings eliminates the need for earthing (making assembly easier).

Note:
1 blind plug is included in the delivery (see page 8)

Order No.	Type	Housing size	Thread	For cable outside Ø
				mm
18.5896	K-VSH M20X1,5 6-12 PA 	**G1**	M20	6 – 12
15.5377	K-VSH M25X1,5 9-16 PA 	**G2 + G3**	M25	9 – 16
15.5378	K-VSH M32X1,5 18-25 PA 	**G3**	M32	18 – 25
15.5373	K-VSH M50X1,5 27-35 PA 	**G4**	M50	26 – 35

Spacers

By means of the spacer rings, the housing can be adapted to different panel thicknesses and panel spacings in mated condition, see installation situation on page 90.

Carrier size	Order No.	Type	Fits	Socket side	Pin side
G1	**18.5652**	DST-RG GR. 1/10	MGK1... MGS1...		
G2	**18.5633**	DST-RG GR. 2/12 BU	MGK2... MGS2...-IS		–
	18.5632	DST-RG GR. 2/8 STI		–	
G3	**18.5618**	DST-RG GR. 3/14 BU	MGK3...		–
	18.5617	DST-RG GR. 3/6 STI		–	
	18.5675	DST-RG-3S/14BU-IS	MGS3...-IS		–
	18.5674	DST-RG-3S/6STI-IS		–	

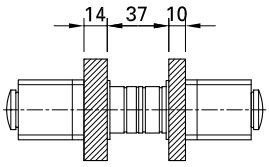
Admissible installation situation

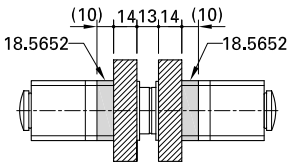
Stäubli DuraDock connectors have been designed for mounting inside a plate. Depending on the thickness of the plate (e.g. 14 mm and/or 10 mm) and the distance between the plates (e.g. 37 mm or 13 mm in mated condition) spacer rings (see table page 89) may be required. This allows various combinations.

		Plate spacing 37 mm		Plate spacing 13 mm	
Housings		Plate thicknesses		Plate thicknesses	
Size	Type	Socket housing	Pin housing	Socket housing	Pin housing
		14 mm	10 mm	14 mm	14 mm
1	**MGK1...**	no spacing ring		**18.5652**	**18.5652**
	MGS1...-IS				
	MGS1...-S				
2	**MGK2...**	no spacing ring		**18.5633**	**18.5632**
	MGS2...-IS				
3	**MGK3...**	no spacing ring		**18.5618**	**18.5617**
	MGS3...-IS			**18.5675**	**18.5674**
4	**MGK4...**	no spacing ring	supplied		

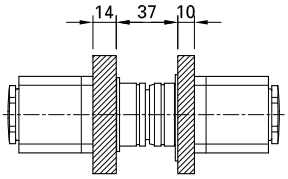
Plate spacing 37 mm (MGK...)

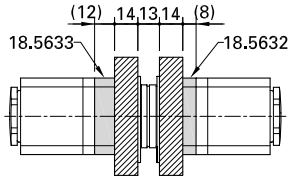
Size 1
MGK1**...**



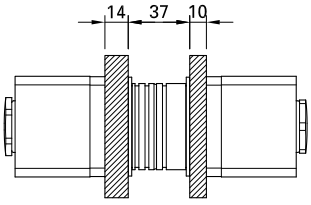


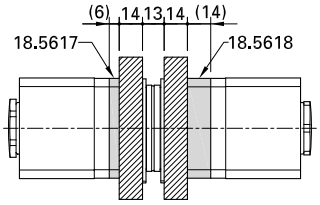
Size 2
MGK2...





Size 3
MGK3...





Size 4
MGK4...

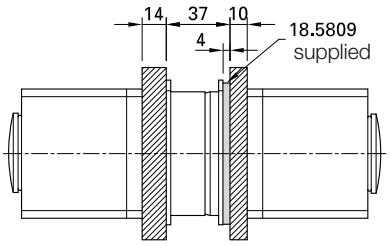
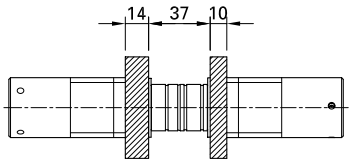
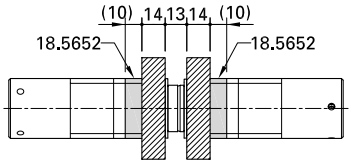


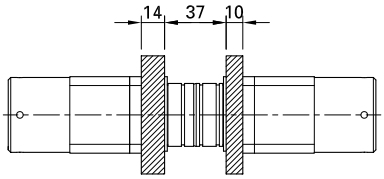
Plate spacing 37 mm (MGS...-IS)

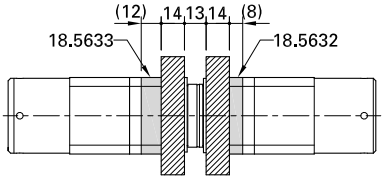
Size 1
MGS1...-IS



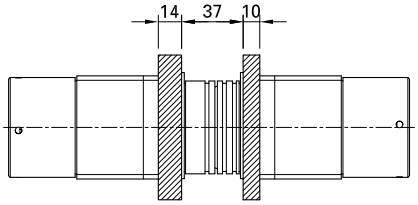


Size 2
MGS2...-IS





Size 3
MGS3...-IS



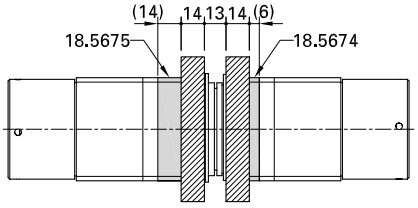
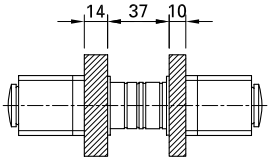
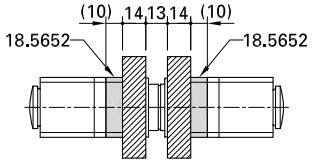


Plate spacing 37 mm (MGS...)

Size 1
MGS1...-S

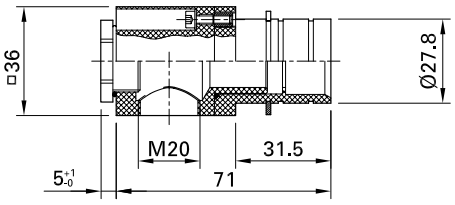




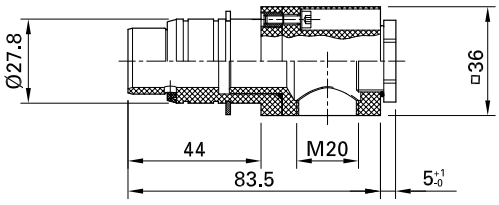
Outer dimensions

Plastic housings MGK...

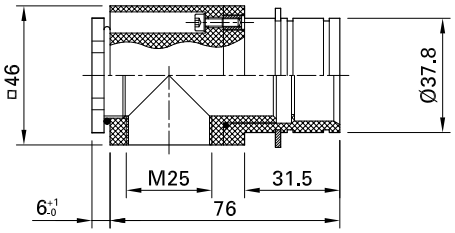
MGK1VB10-14+MGK1R-M20



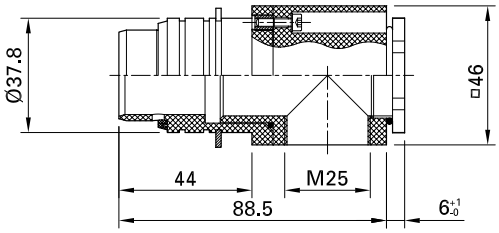
MGK1VS10-14+MGK1R-M20



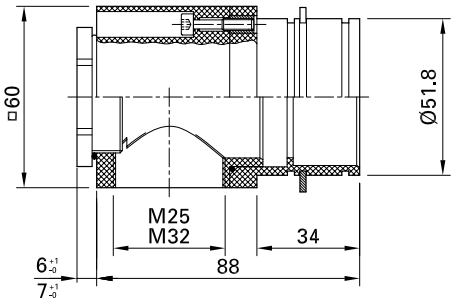
MGK2VB10-14+MGK2R-M25



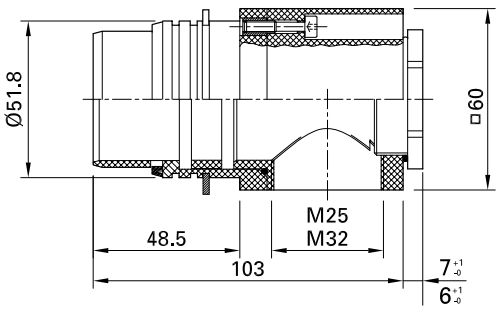
MGK2VS10-14+MGK2R-M25



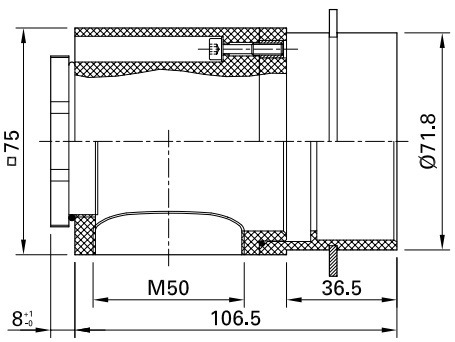
MGK3VB10-14+MGK3R-M...



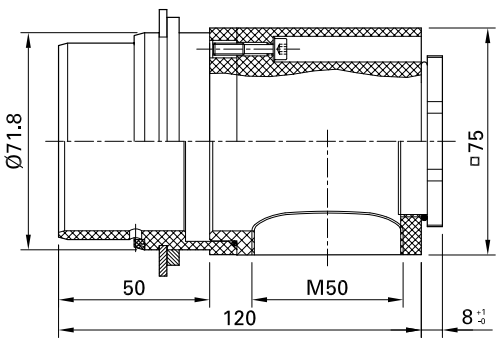
MGK3VS10-14+MGK3R-M...



MGK4VB10-14+MGK4R-M50

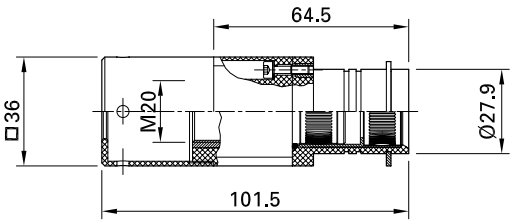


MGK4VS10-14+MGK4R-M50

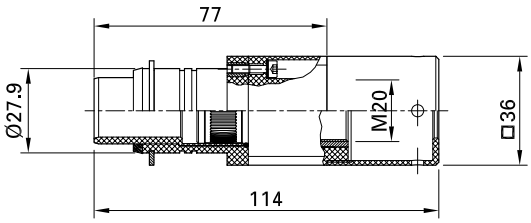


Plastic housings, shielded, insulated MGS...-IS

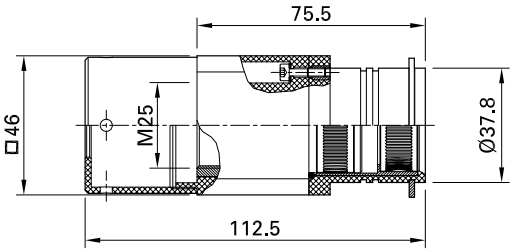
MGS1VB-M20-IS...



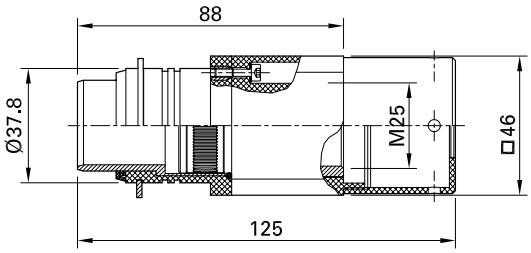
MGS1VS-M20-IS...



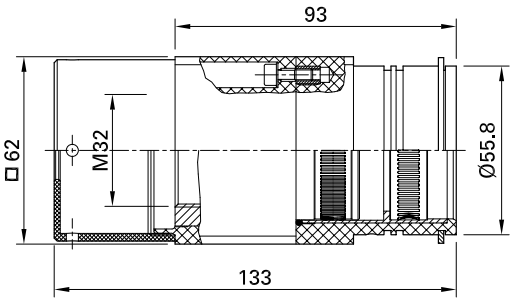
MGS2VB-M25-IS...



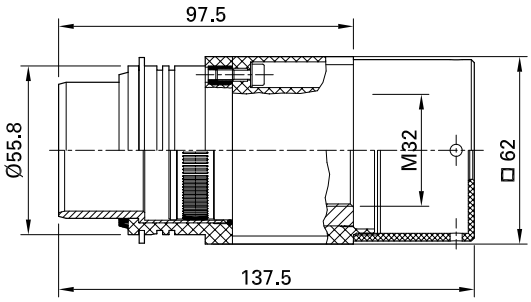
MGS2VS-M25-IS...



MGS3VB-M32-IS...

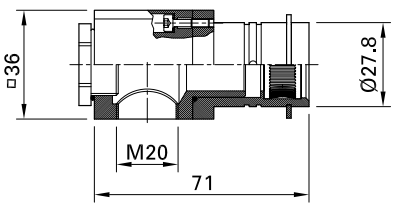


MGS3VS-M32-IS...

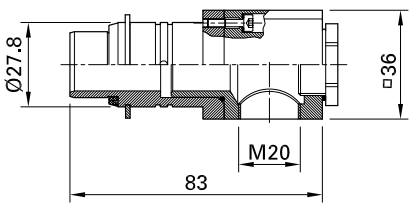


Metal housing, shielded MGS...-S

MGS1VB-M20



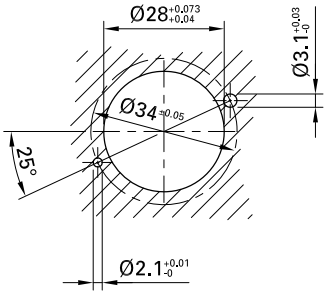
MGS1VS-M20



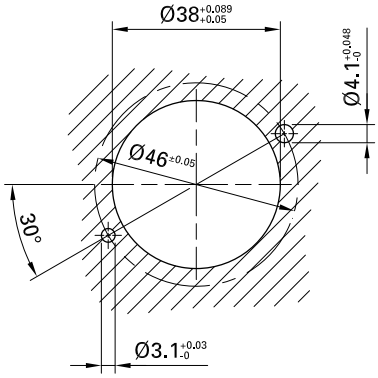
Drilling plans

Drilling plans for mounting plates. View from front of pin housing. Slotted pins are included in the delivery of the housing (see Installation situation, page 9).

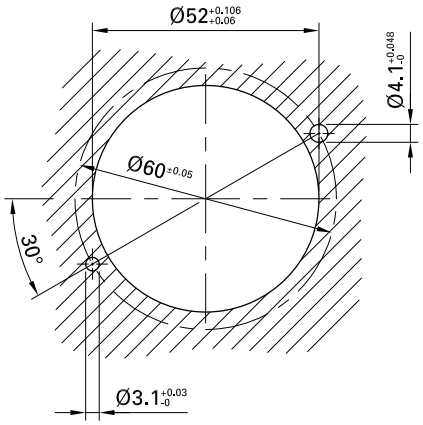
MGK1...
MGS1...-IS
MGS1...-S



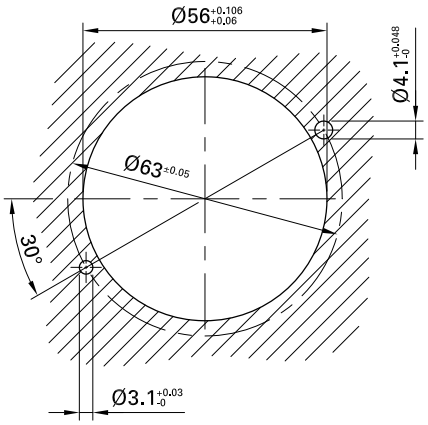
MGK2...
MGS2...-IS



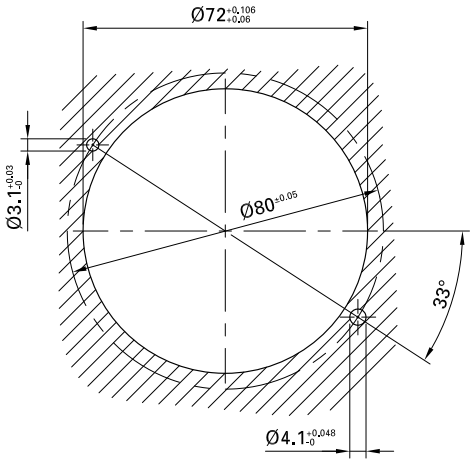
MGK3...

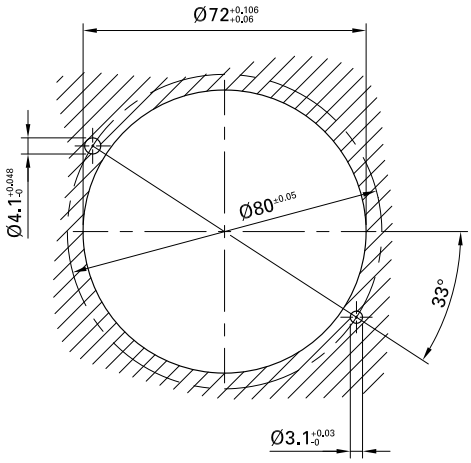


MGS3...-IS



MGK4...



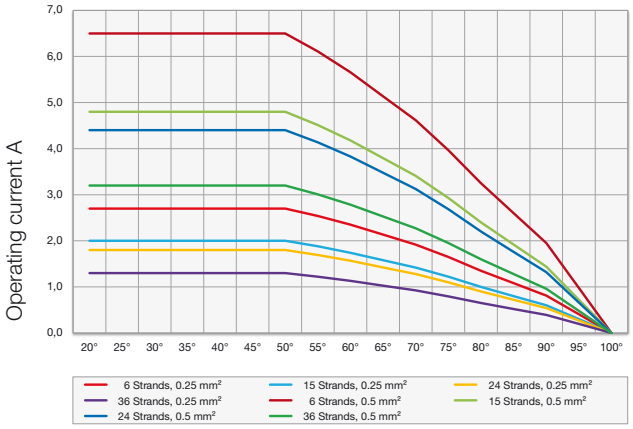


Derating diagrams

The current capacity of a connection is limited by the thermal capacity of its contact, connecting and insulating materials. The derating diagram shows the continous current (not intermittent) that flows through all the contact elements of a connector at one time, whereby the max. temperature limit is not exceeded.
Calibration and test method according to DIN 41640/Part 3.
The derating diagram values are valid for the connection (see standard EN 60204).

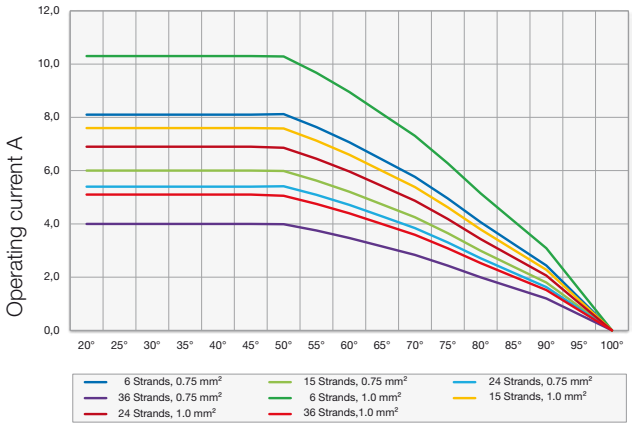
The permissable current load of the cables can be seen in DIN VDE 0298-4 and DIN EN 60204-1, IEC 60204-1.

NBR/CR: Cable 0.25 mm² & 0.5 mm²



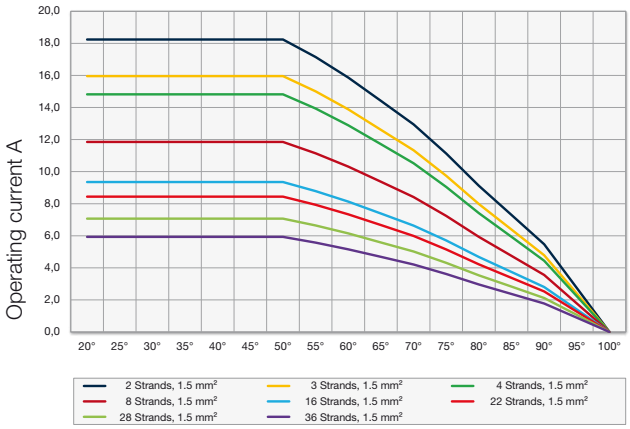
Ambient temperature °C

NBR/CR: Cable 0.75 mm² & 1 mm²



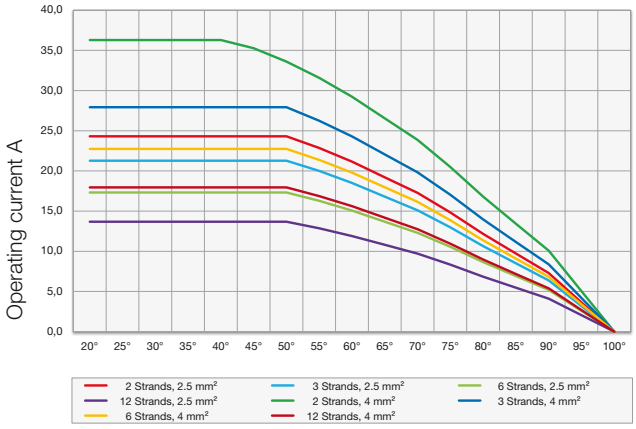
Ambient temperature °C

NBR/CR: Cable 1.5 mm²



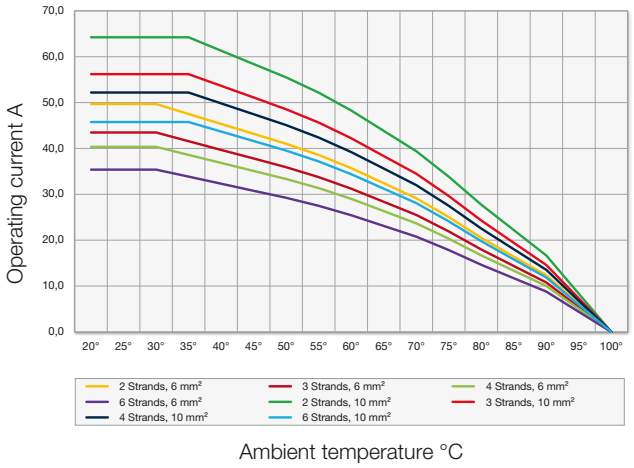
Ambient temperature °C

NBR/CR: Cable 2.5 mm² & 4 mm²

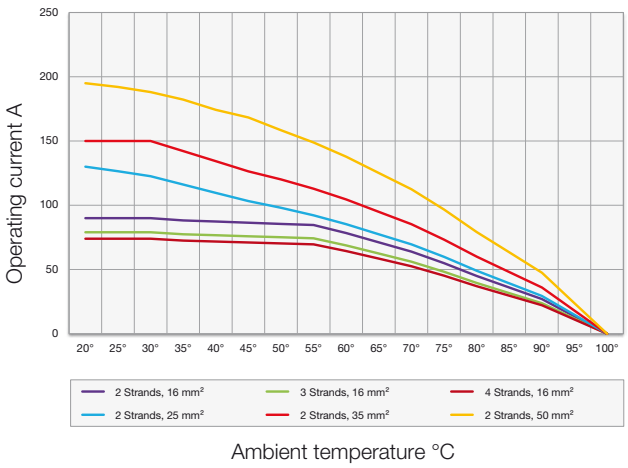


Ambient temperature °C

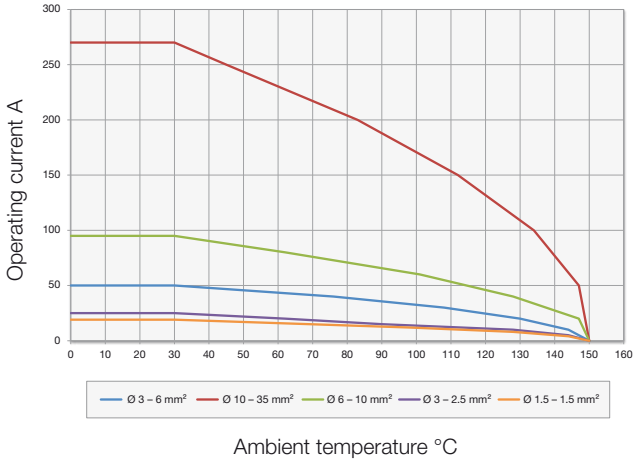
NBR/CR: Cable 6 mm² & 10 mm²



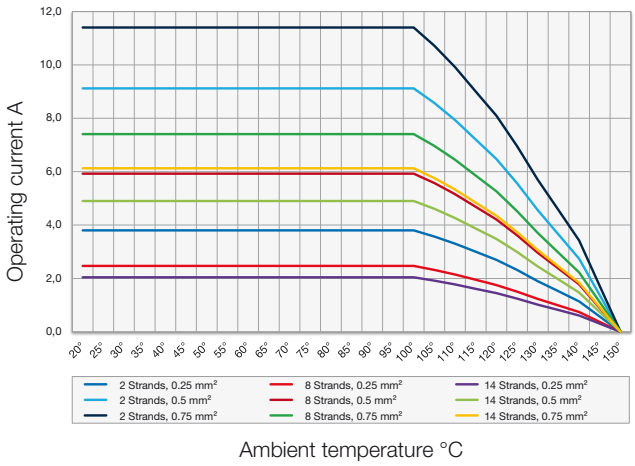
NBR/CR: Cable 16 mm², 25 mm², 35 mm² & 50 mm²



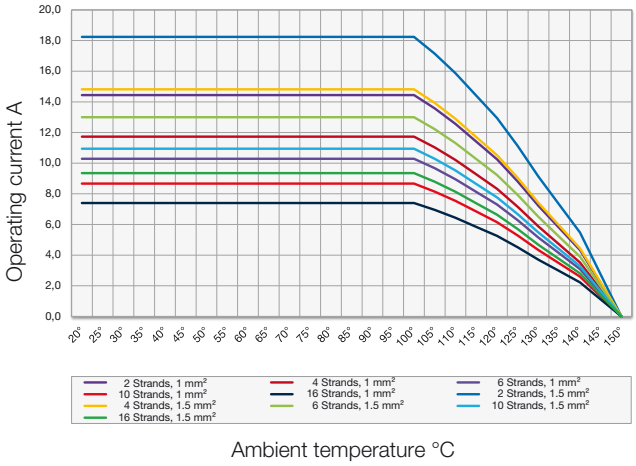
PEEK: Cable 1.5 mm² 2.5 mm², 6 mm², 10 mm² & 35 mm²



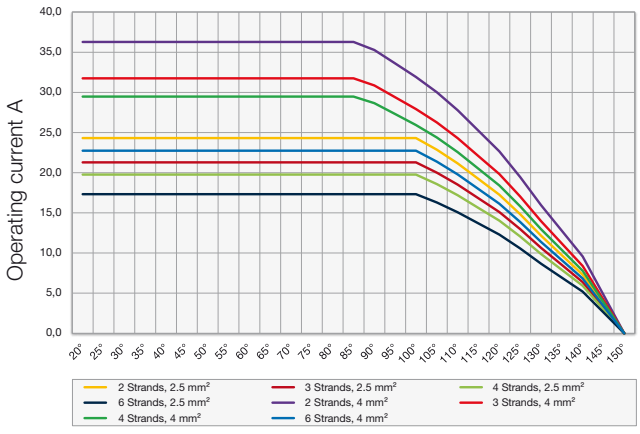
SIL: Cable 0.25 mm², 0.5 mm² & 0.75 mm²



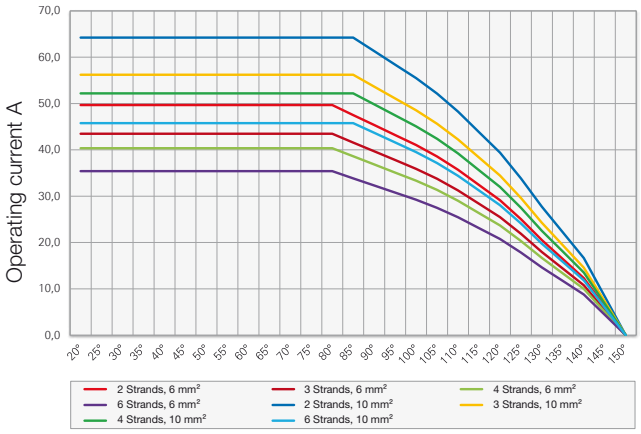
SIL: Cable 1 mm² & 1.5 mm²



SIL: Cable 2.5 mm² & 4 mm²



SIL: Cable 6 mm² & 10 mm²



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