

ODU MINI-SNAP

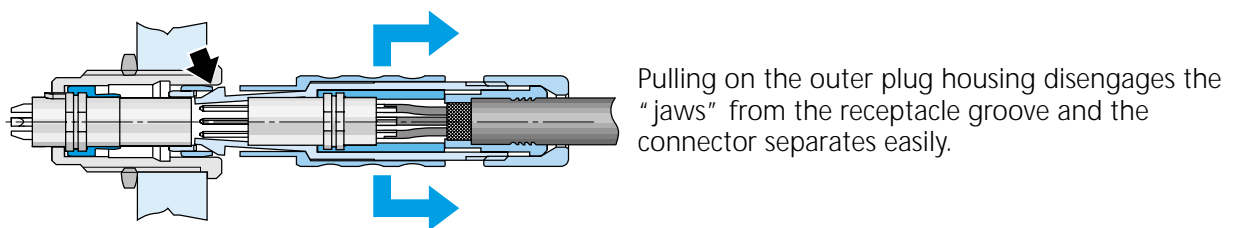
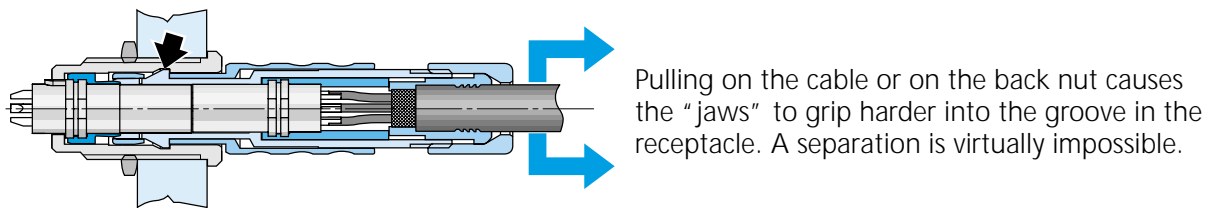
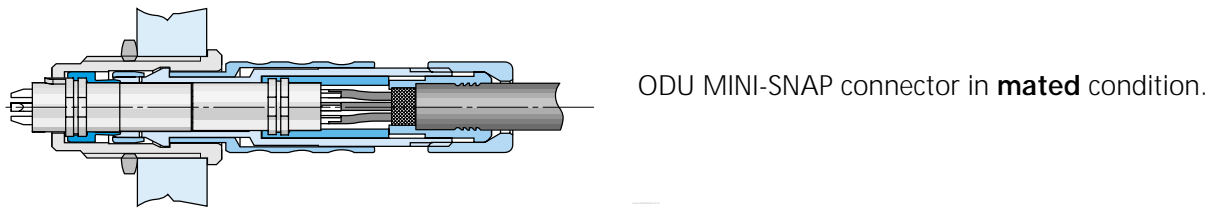
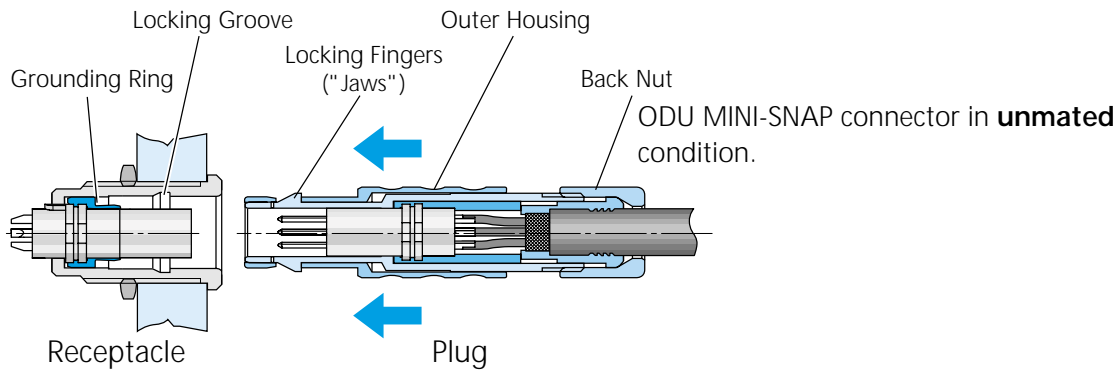


Series L - IP 50 (and IP 68)
LP-Locking Concept
Keying with Pin and Groove



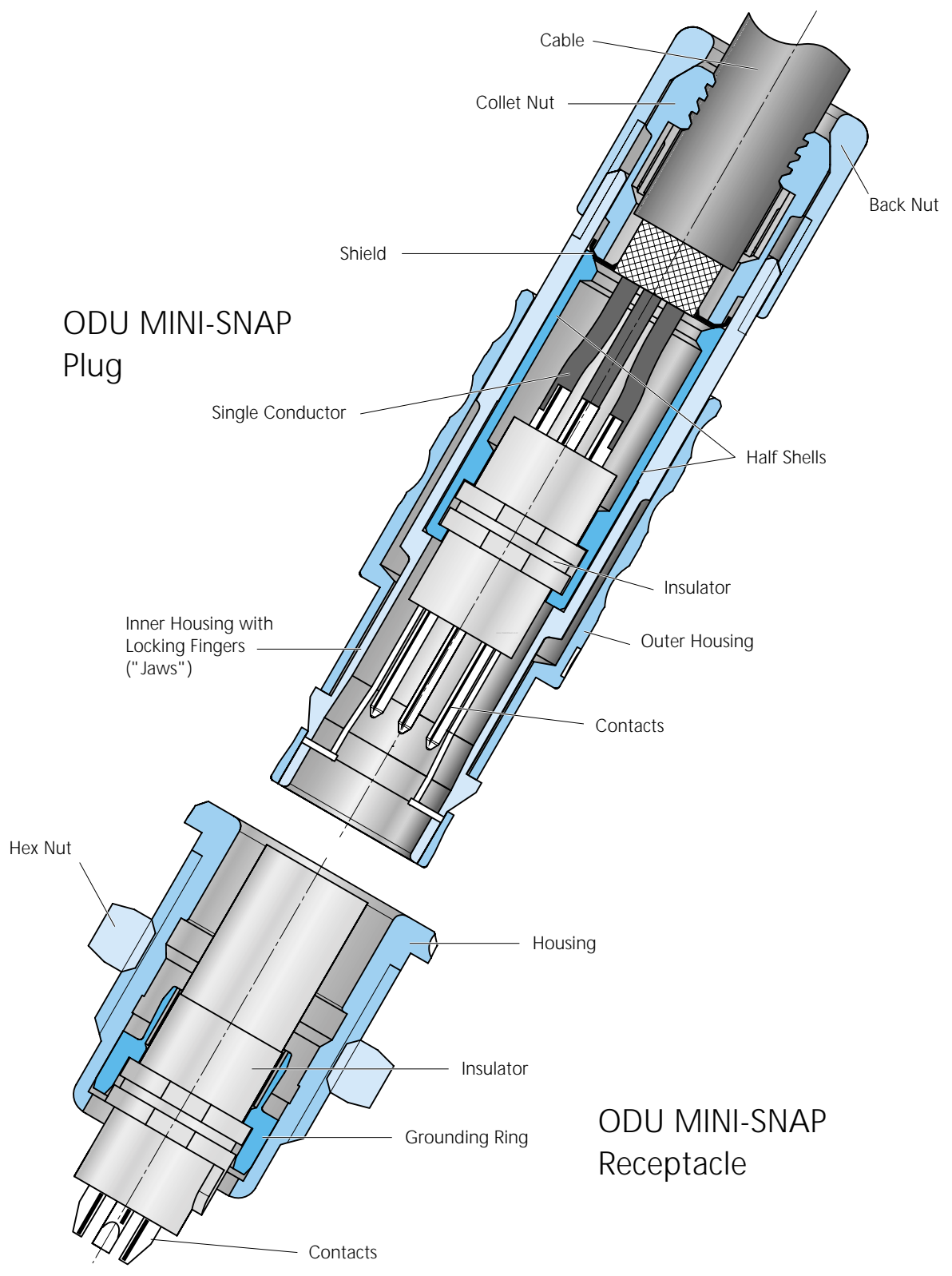
The Push-Pull Locking Principle:

with Jaws like LEMO® (see page 9)



ODU MINI-SNAP

with LP-Locking Scheme in Cross Section

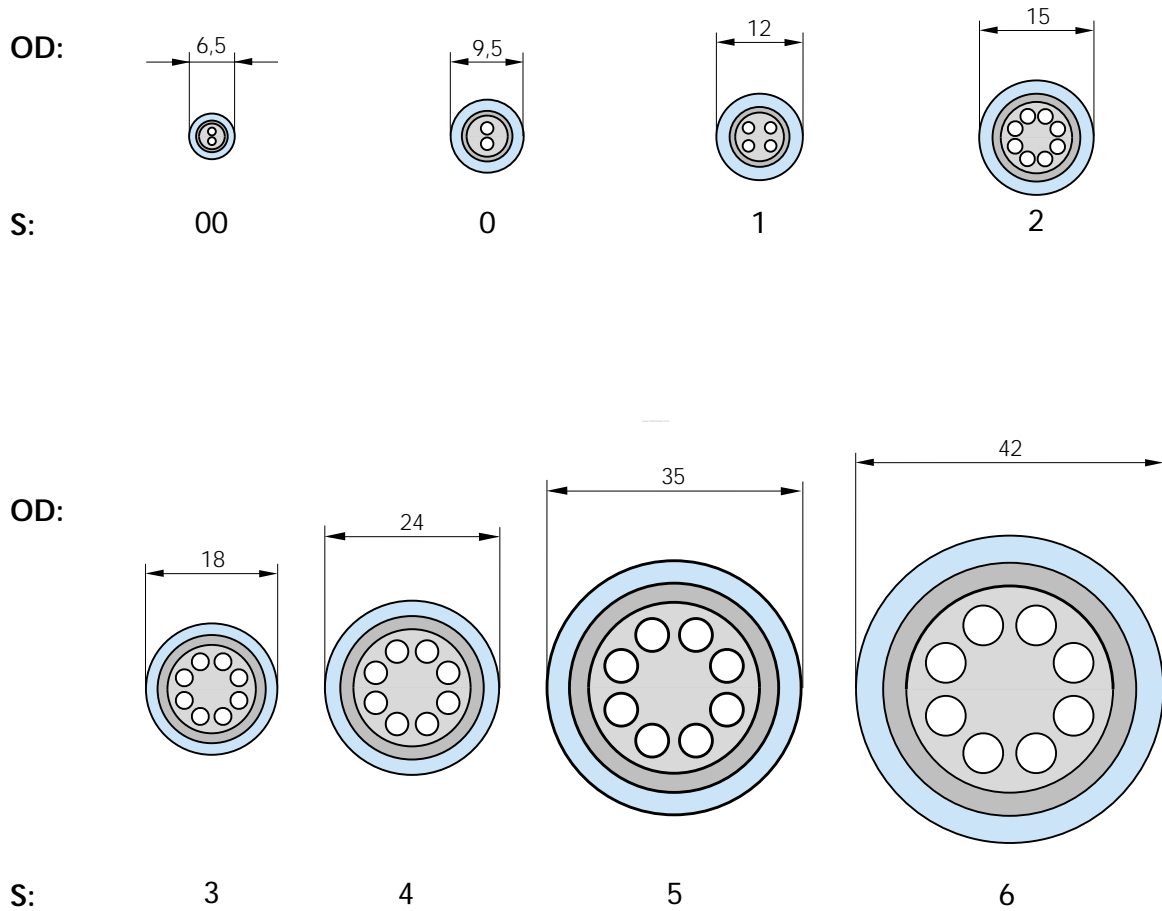


Available Housing Sizes

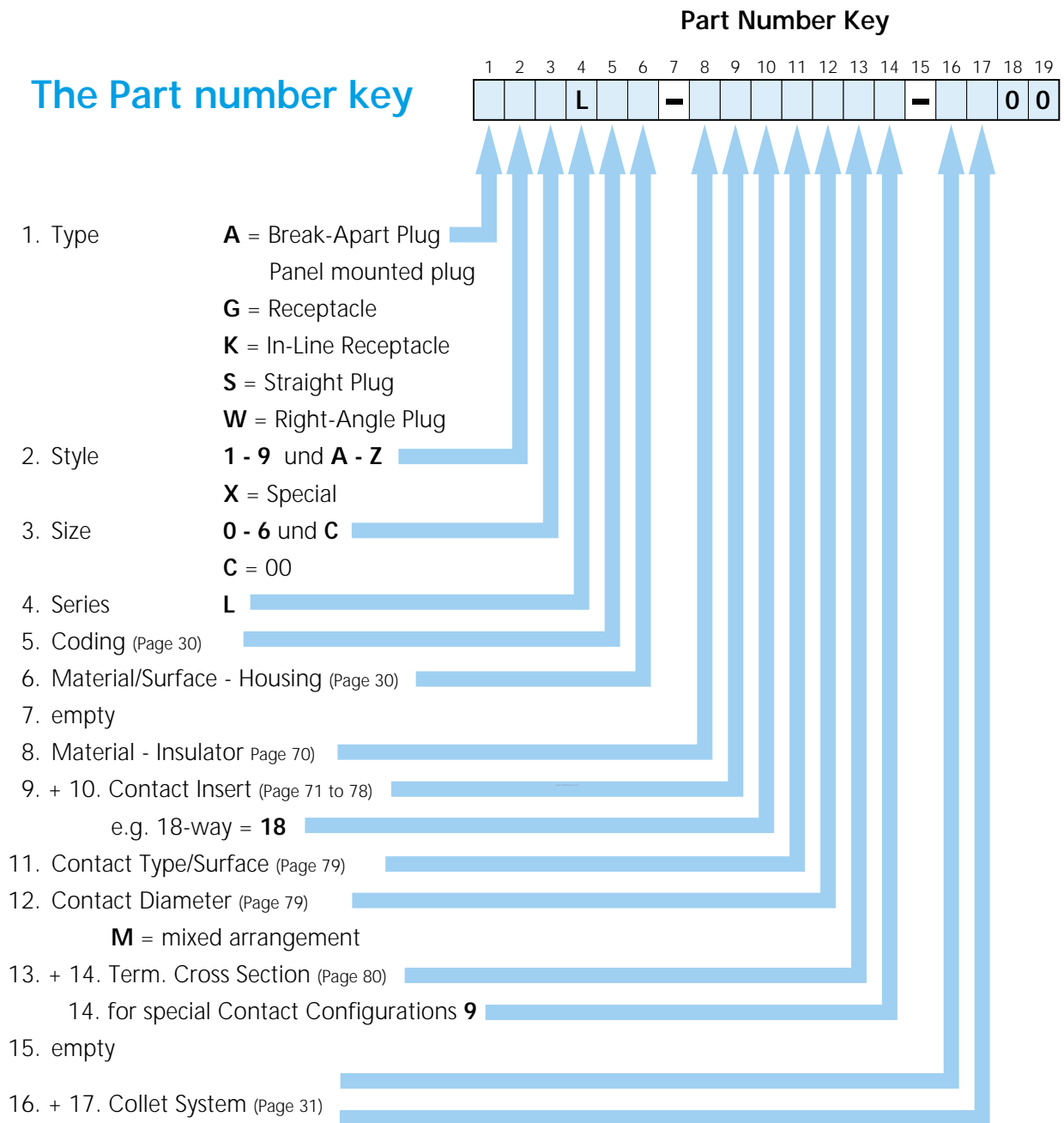
(Scale 1 : 1)

OD = Outside Diameter (Plug)

S = Size



The Part number key



Example:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
G	5	2	L	F	C	-	T	1	6	N	F	G	0	-	0	0	0	0

Receptacle - Style 5 - Size 2 - Series L - Coding 60° - Brass matt chromate Housing - PBT Insulator - 16pos. - Socket(crimp) 0,75 µm Au -Term. Cross Section AWG22

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
S	2	2	L	F	C	-	P	1	6	M	F	G	0	-	7	2	0	0

Plug - Style 2 - Size 2 - Series L - Coding 60° - Brass matt chromate Housing - PEEK Insulator - 16pos. - Pin (solder) 0,75 µm Au - Term. Cross Section AWG22 - Cable Diameter 6.0-7.2 mm

Part Number Key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
			L			-								-			0	0



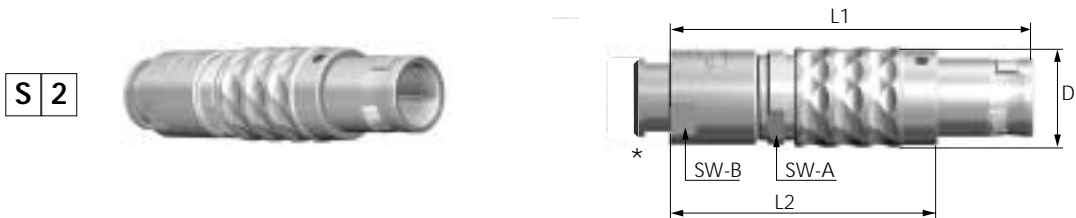
Straight Plug

(Suitable for all following receptacles and in-line receptacles)

- S 1** - IP 50 – with Standard Back Nut
- S 2** - IP 50 – with Back Nut for Cable Bend Relief*



Contact configuration from page 71



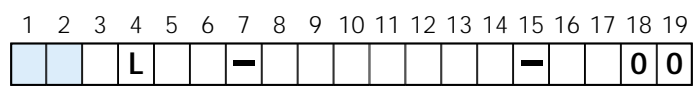
Size	Dimensions in mm				
	L1	L2	D	SW-A	SW-B
00	~ 28	~ 20	6,4	5,5	5
0	~ 37	~ 28	9,4	8	7
1	~ 47	~ 35	12	10	10
2	~ 50	~ 38	15	13	12 ²⁾
3	~ 61	~ 46	18	16	14
4	~ 76	~ 58	24	21	20
5 ¹⁾	~ 106	~ 81	35	31	30
6	~ 104	~ 78	42	40	40

1) only S1

2) only for S1. S2 = 13

* Cable Bend Reliefs have to be ordered separately.
(see page 33)

Part Number Key



Straight Plug with lanyard for fast demating

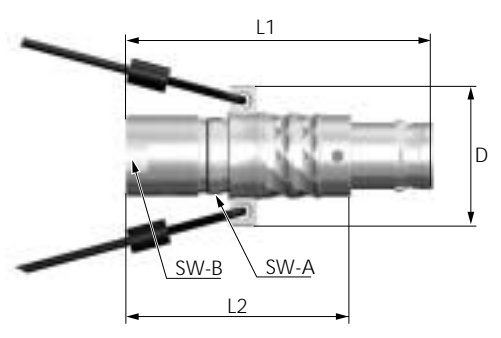
(Suitable for all following receptacles and in-line receptacles)

- S 7** - IP 50 – with Standard Back Nut
- S 8** - IP 50 – with Back Nut for Cable Bend Relief*

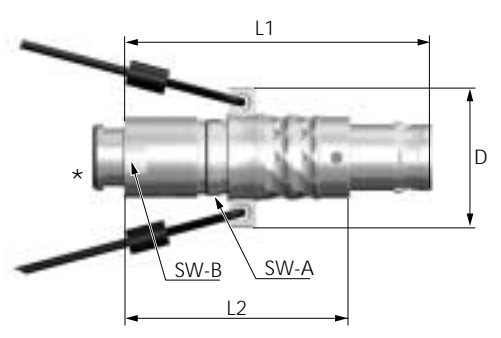


S 7

Contact configuration from page 71



S 8



Size	Dimensions in mm				
	L1	L2	D	SW-A	SW-B
0	~ 36	~ 26	14,5	8	7
1	~ 47	~ 35	19	10	10
4	~ 76	~ 58	32	21	20

* Cable Bend Reliefs have to be ordered separately.
(see page 43)

Part number key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
			L			-								-			0	0



Right-Angle Plug

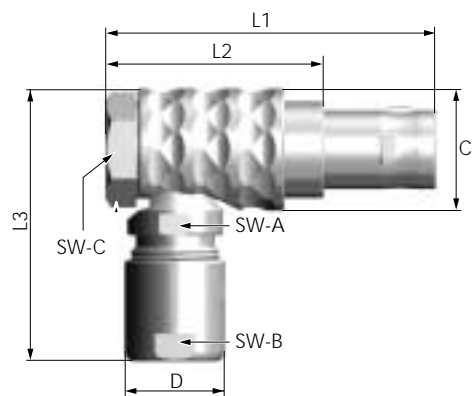
(Suitable for all following receptacles and in-line receptacles)

- W 1** - IP 50 – with Standard Back Nut
- W 2** - IP 50 – with Back Nut for Cable Bend Relief*

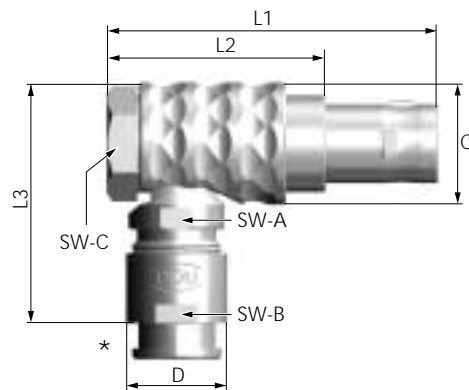
W 1



Contact configuration from page 71



W 2



Size	Dimensions in mm							
	L1	L2	L3	C	D	SW-A	SW-B	SW-C
00	~ 24	16,3	~ 18,5	7,7	6,4	5,5	5	7
0	~ 30	16,5	~ 22,5	11	9	8	7	9
1	~ 36	20,9	~ 28,5	13,5	11	10	10	11
2	~ 41,5	25	~ 35	16,5	14	13	12	14
3	~ 50	~ 29,5	~ 36,5	19	16,5	15	14	17
4	~ 65	47,9	~ 52	25	23	21	20	22

* Cable Bend Reliefs have to be ordered separately.
(see page 33)

Part number key

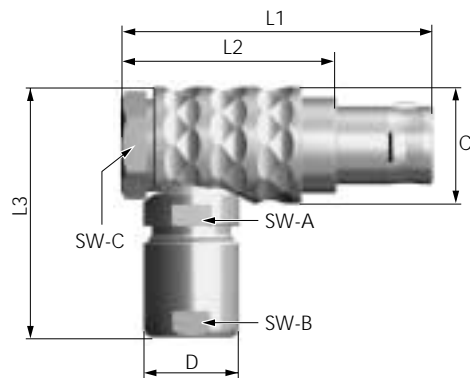
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
			L			-								-			0	0

Right-angled Plug (Break-Apart version)

(Suitable for all following receptacles and in-line receptacles)

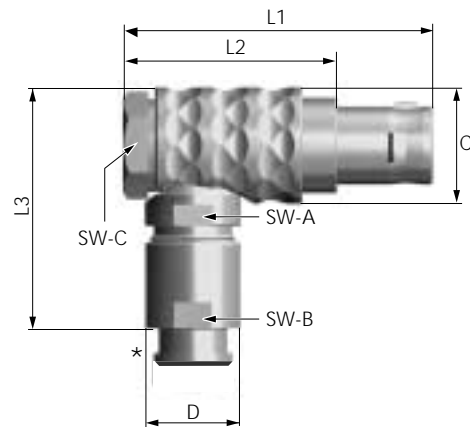
- W 3** - IP 50 – with Standard Back Nut
- W 4** - IP 50 – with Back Nut for Cable Bend Relief*

W 3



Contact configuration from page 71

W 4



Size	Dimensions in mm							
	L1	L2	L3	C	D	SW-A	SW-B	SW-C
1	~ 36	20,9	~ 29	13,5	11	10	10	11
2	~ 41,5	25	~ 35	16,5	14	13	12	14

* Cable Bend Reliefs have to be ordered separately.
(see page 33)

Part number key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
			L			-								-			0	0

Break-Apart-Plug (with latching)

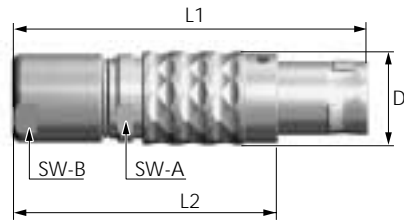
- A 1** - IP 50 – with Standard Back Nut
- A 2** - IP 50 – with Back Nut for Cable Bend Relief*

(Suitable for all following receptacles and in-line receptacles)

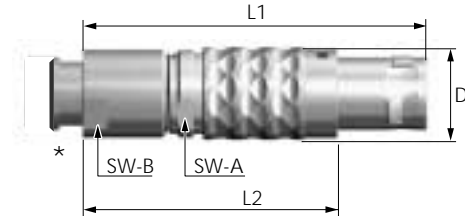
A 1



Contact configuration from page 71



A 2



Size	Dimensions in mm				
	L1	L2	D	SW-A	SW-B
1	43	32	11,5	10	10
2	50	38	14,5	13	12

Connector can be separated by pulling the cable.

* **Cable Bend Reliefs have to be ordered separately.**
(see page 33)

Part number key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
			L			-								-			0	0

Break-Apart-Plug (without latching)

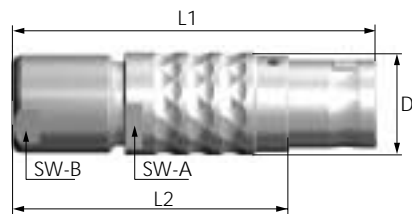
(Suitable for all following receptacles and in-line receptacles)

- A 5** - IP 50 – with Standard Back Nut
- A 6** - IP 50 – with Back Nut for Cable Bend Relief*

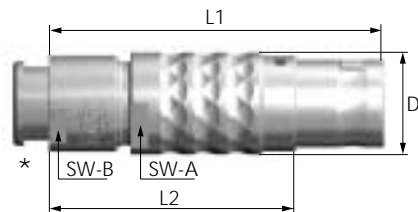


A 5

Contact configuration from page 71



A 6



Size	Dimensions in mm				
	L1	L2	D	SW-A	SW-B
00	~ 28	~ 20	6,4	5,5	5
3	~ 61	~ 46	18	16	14

Connector can be separated by pulling the cable.

* **Cable Bend Reliefs have to be ordered separately.**
(see page 33)

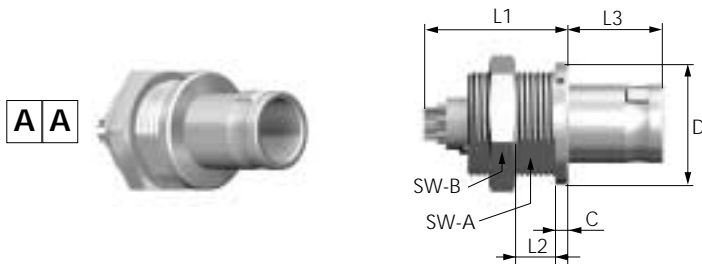
Part number key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
			L			-								-			0	0

Panel-Mounted Plug

(Suitable for all following receptacles and in-line receptacles)

A A - IP 50 – with hex nut, non-latching, installation from front of panel



Contact configuration from page 71

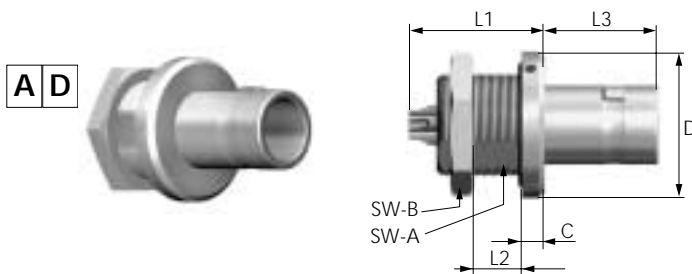
Technical Data

- IP 50 in mated condition
- anti-rotation feature
- contact configuration and PCB-Layout from page 71

Size	Dimensions in mm								
	L1	L2	L3	C	D	SW-A	SW-B		
0	21	3,5	10	1,2	10	8,2	11	SW 8,3 / Ø 9,1	
1	26,8	7	10,8	1,5	14	10,5	14	SW 10,6 / Ø 12,1	
2	27,5	7	12	1,8	18	13,5	17	SW 13,6 / Ø 15,1	
3	34,5	9	15	2	22	16,5	22	SW 16,6 / Ø 18,1	
4	37,1	8	18	2,5	28	23,5	30	SW 23,6 / Ø 25,1	

Created to build up a docking connection between 2 instruments (E.g. a charging station).

A D - IP 68 – with hex nut, non-latching, installation from front of panel



Technical Data

- IP 68 in mated condition
- anti-rotation feature
- contact configuration and PCB-Layout from page 71

Size	Dimensions in mm								
	L1	L2	L3	C	D	SW-A	SW-B		
0	23,5	5,5	10	2	13	8,2	11	SW 8,3 / Ø 9,1	

Created to build up a docking connection between 2 instruments (E.g. a charging station).

Part number key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
			L			-								-			0	0

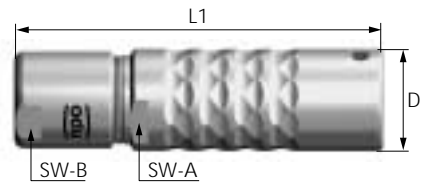
In-Line Receptacle

- K 1** - IP 50 – with Standard Back Nut
- K 2** - IP 50 – with Back Nut for Cable Bend Relief*

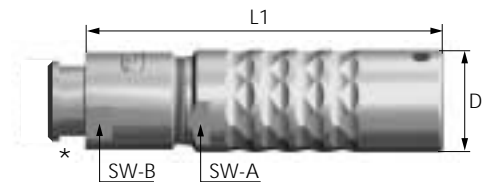
K 1



Contact configuration from page 71



K 2



Size	Dimensions in mm			
	L1	D	SW-A	SW-B
00	~ 27	6,4	5,5	5
0	~ 34,5	9,4	8	7
1	~ 41	11,5	10	10
2	~ 47	14,5	13	12
3	~ 56	18	16	15
4	~ 74	23,5	21	20

* Cable Bend Reliefs have to be ordered separately.
(see page 33)

ODU MINI-SNAP In-line Receptacle connect to plug for cable-to-cable connection.

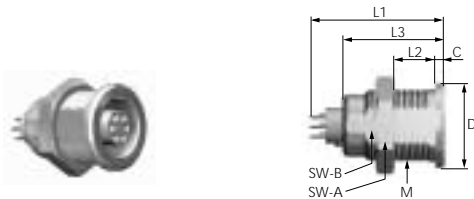
Part number key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
			L			-								-				0 0

¹⁾ L1 = Maximum Length incl. Contact Insert
²⁾ L3 =Length of Housing

Receptacle

G 1 Style 1 – ODU MINI-SNAP RECEPTACLE IP 50, installation from front of panel



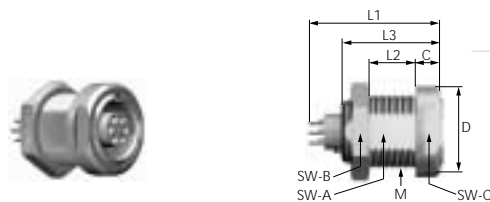
Technical Data

- IP 50
- anti-rotation feature
- contact configuration and PCB-Layout from page 71

Size	Dimensions in mm								Panel cut-out
	¹⁾ L1	L2	²⁾ L3	M	D	SW-A*	SW-B	C	
00	~ 16,0	~ 7,0	12,0	7x0,5	8,0	9,0	6,3	1,0	SW 6,4 / Ø 7,1
0	~ 19,5	~ 9,0	14,5	9x0,5	10,0	11,0	8,2	1,5	SW 8,3 / Ø 9,1
1	~ 24,0	~ 8,0	16,5	12x1	14,0	14,0	10,5	1,5	SW 10,6 / Ø 12,1
2	~ 27,5	~ 10,0	18,5	15x1	18,0	17,0	13,5	2,0	SW 13,6 / Ø 15,1
3	~ 33,0	~ 13,0	22,5	18x1	22,0	22,0	16,5	2,0	SW 16,6 / Ø 18,1
4	~ 36,0	~ 13,0	27,5	25x1	28,0	30,0	23,5	2,5	SW 23,6 / Ø 25,1
5*	~ 43,5	~ 14	34,0	35x1	40,0	-	33,5	3,0	SW 33,6 / Ø 35,1
6	~ 46,0	~ 18,0	33,0	42x1,5	48,0	48,0	40,0	3,5	SW 40,1 / Ø 42,1

* Attention: Size 5 is with a slotted nut instead of a hex nut

G 5 Style 5 – ODU MINI-SNAP RECEPTACLE IP 50, CONTINUOUS THREAD, installation from rear or front of panel. Front extension adjustable



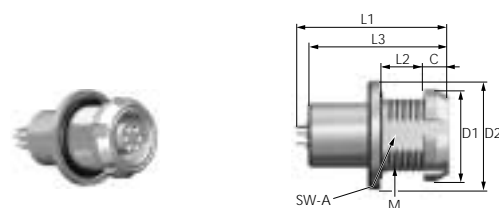
Technical Data

- IP 50
- anti-rotation feature
- contact configuration and PCB-Layout from page 71

Size	Dimensions in mm									Panel cut-out
	¹⁾ L1	L2	²⁾ L3	M	D	SW-A*	SW-B	SW-C	C	
00	~ 16,0	~ 6,0	12,0	7x0,5	9,0	9,0	6,3	8,0	2,0	SW 6,4 / Ø 7,1
0	~ 19,5	~ 8,0	14,5	9x0,5	11,5	11,0	8,2	10,0	2,5	SW 8,3 / Ø 9,1
1	~ 24,0	~ 8,0	16,5	12x1	15,0	14,0	10,5	13,0	4,0	SW 10,6 / Ø 12,1
2	~ 27,5	~ 10,0	18,5	15x1	20,0	17,0	13,5	17,0	4,0	SW 13,6 / Ø 15,1
3	~ 33,0	~ 14,0	22,5	18x1	23,0	22,0	16,5	20,0	5,0	SW 16,3 / Ø 18,1
5*	~ 43,5	~ 12,0	34,0	35x1	42,0	33,5	-	39,0	5,0	SW 33,6 / Ø 35,1

* Attention: Size 5 is with a slotted nut instead of a hex nut

G 8 Style 8 – ODU MINI-SNAP WATERTIGHT RECEPTACLE IP 68*, with slotted nut, installation from rear of panel



Technical Data

- IP 68 to the panel in mated or unmated condition
- anti-rotation feature
- contact configuration and PCB-Layout from page 71
- nutdriver for slotted mounting nut, Page 106

Size	Dimensions in mm							Panel cut-out	
	¹⁾ L1	L2	²⁾ L3	M	D1	D2	SW-A		
0	~ 22,5	6	18,5	9x0,5	12	14	8,2	3	SW 8,3 / Ø 9,1
1	~ 26,0	6	22,5	12x1	15,0	17,9	10,5	4,0	SW 10,6 / Ø 12,1

* Reference: Potted Receptacle please see page 119

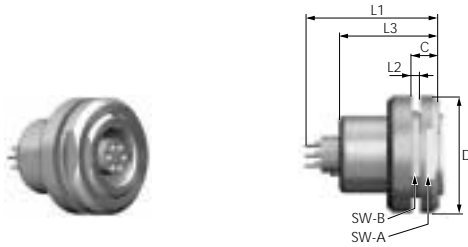
Part number key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
				L			-							-				00

¹⁾ L1 = Maximum Length incl. Contact Insert
²⁾ L3 = Length of Housing


Receptacle

G A **Style A** – ODU MINI-SNAP RECEPTACLE IP 50, with round nut, installation from rear of panel



Technical Data

- IP 50
- anti-rotation feature
- contact configuration and PCB-Layout from page 71

Size	Dimensions in mm								 Panel cut-out
	¹⁾ L1	L2	²⁾ L3	M	D	SW-A	SW-B	C	
1	~ 26,0	~ 2,0	16,5	14x1	19,0	17,0	12,0	5,0	SW 12,1 / Ø 14,1
2	~ 29,0	~ 2,0	18,5	16x1	21,9	19,0	15,0	5,0	SW 15,1 / Ø 16,1
3	~ 33,0	~ 2,0	25,0	20x1	26,9	24,0	18,0	6,0	SW 18,1 / Ø 20,1
6	~ 46,0	~ 5,0	33,0	42x1,5	50,0	45,0	40,0	11	SW 40,1 / Ø 42,1

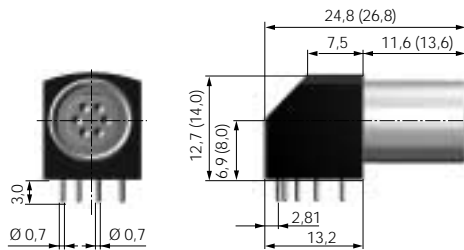
G F **Style F*** – ODU MINI-SNAP RIGHT-ANGLE RECEPTACLE (without thread)



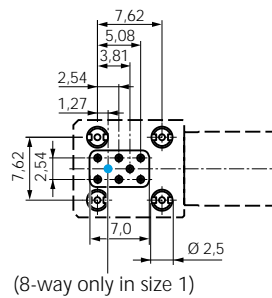
Technical Data

- IP 50
- Contact configuration from page 71
- Standard-Oberfläche Nickel (Ni)

Size 0 / (1)



PCB-Layout



Receptacle for Screw-mounting on the PCB



Order informations to the Screw mounting please see page 32

* Maximum positions in size 0: 7-way
 Maximum positions in size 1: 8-way
 Inserts with more positions on request

Part number key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
			L			-								-				00

¹⁾ L1 = Maximum Length incl. Contact Insert
²⁾ L3 = Length of Housing

Receptacle

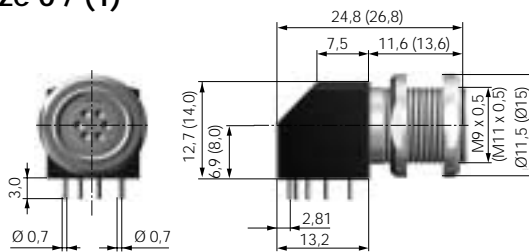
G G Style G* – ODU MINI-SNAP RIGHT-ANGLE RECEPTACLE (with thread)



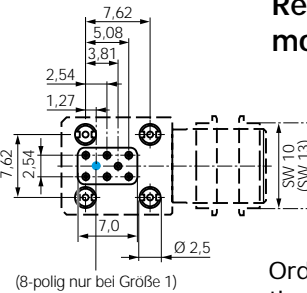
Technical Data

- IP 50
- Contact configuration from page 71
- Standard-Oberfläche Nickel (Ni)

Size 0 / (1)



PCB-Layout

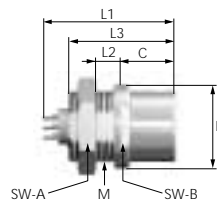


Receptacle for Screw-mounting on the PCB

Order informations to the Screw mounting please see page 32

* Maximum positions in size 0: 7-way
 Maximum positions in size 1: 8-way
 Inserts with more positions on request

G H Style H – ODU MINI-SNAP PROTRUDENT RECEPTACLE IP 50, with low rear profile



Technical Data

- IP 50
- anti-rotation feature
- contact configuration and PCB-Layout from page 71

Size	Dimensions in mm								Panel cut-out
	¹⁾ L1	L2	²⁾ L3	M	D	SW-A	SW-B	C	
00	~ 16,0	~ 2,5	12,5	7x0,5	9,0	9,0	6,3	8,0	SW 6,4 / Ø 7,1
0	~ 21,5	~ 3,5	15,0	9x0,5	11,5	11,0	8,2	9,0	SW 8,3 / Ø 9,1
1	~ 24,0	~ 4,5	17,5	12x1	14,0	14,0	10,0	10,0	SW 10,6 / Ø 12,1
2	~ 26,0	~ 6,0	19,5	15x1	18,0	17,0	13,5	11,0	SW 13,6 / Ø 15,1

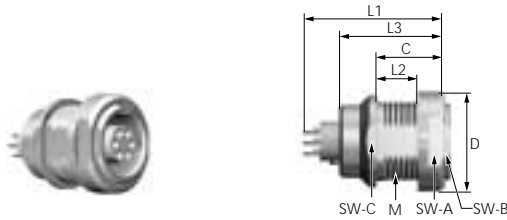
Part number key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
			L			-								-				00

¹⁾ L1 = Maximum Length incl. Contact Insert
²⁾ L3 = Length of Housing

Receptacle

G K **Style K** – ODU MINI-SNAP Receptacle IP 50, with round nut, installation from rear of panel

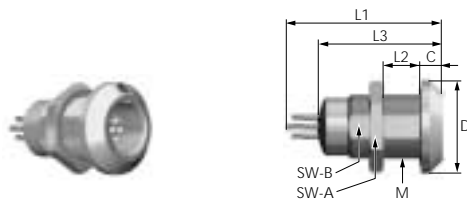


Technical Data

- IP 50
- anti-rotation feature
- contact configuration and PCB-Layout from page 71

Size	Dimensions in mm									Panel cut-out
	¹⁾ L1	L2	²⁾ L3	M	D	SW-A	SW-B	SW-C	C	
0	~ 19,5	~ 3,8	14,5	9x0,5	11,5	10,0	8,2	9,0	6,3	SW 8,3 / Ø 9,1
1	~ 24,0	~ 7,0	16,5	12x1	15,0	13,0	10,5	13,0	11,0	SW 10,6 / Ø 12,1
2	~ 27,5	~ 5,0	18,5	15x1	20,0	17,0	13,5	15,0	9,0	SW 13,6 / Ø 15,1

G L **Style L** – ODU MINI-SNAP Receptacle IP 68, installation from front of panel



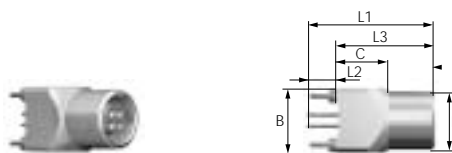
Technical Data

- IP 68
- anti-rotation feature
- contact configuration and PCB-Layout from page 71

Size	Dimensions in mm									Panel cut-out
	L1*	L2	L3*	M	D	SW-A	SW-B	C		
00	~ 18	~ 8,0	14,5	7x0,5	11,0	9,0	6,3	1,5	SW 6,4 / Ø 7,1	
0	~ 21	~ 7,5	16,5	9x0,5	13,0	10,0	11,0	3,0	SW 8,3 / Ø 9,1	
1	~ 27	~ 9,0	21,5	12x1	16,0	13,0	14,0	4,5	SW 10,6 / Ø 12,1	
2	~ 29	~ 8,0	24,0	15x1	20,0	17,0	17,0	4,0	SW 13,6 / Ø 15,1	

* Reference: Potted receptacle please see page 119

G P **Style P** – ODU MINI-SNAP PCB Receptacle IP 50



Technical Data

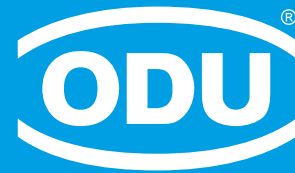
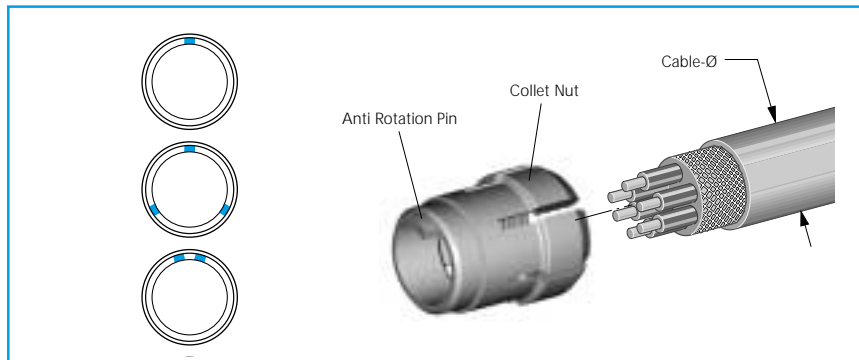
- IP 50
- contact configuration and PCB-Layout from page 71

Size	Dimensions in mm					
	L1	L2	L3	B	C	D
0	19,5	3,8	15,0	10,0	8,0	9,0
1	23,0	4,0	19,0	12,0	8,0	11,0

PCB-layout on request



Details for the Part Number Key:



Keyings
Housing Materials / Surfaces
Collet System
Bend Protection Sleeves



Coding

Part number key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
			L		-									-			0	0



	Angle	Receptacle Front View	Size							
			00	0	1	2	3	4	5	6
0	0°		●	●	●	●	●	●	●	
0	0°									●
A	30°		●	●	●	●	●	○		
B	37,5°					●	●	○		
C	45°					●	●	○		
C	-45°		●	●	●					
F	60°		●	●	●	●	●	○		
J	90°			●	●					
K	95°					●	●	○		
Q	120°					●	●	○		
V	135°			○	●					
W	145°			○	○	●	○	○		
Y	155°		●	●						

● Standard
○ On Request

Housing Materials / Surfaces

Part number key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
			L			-								-				

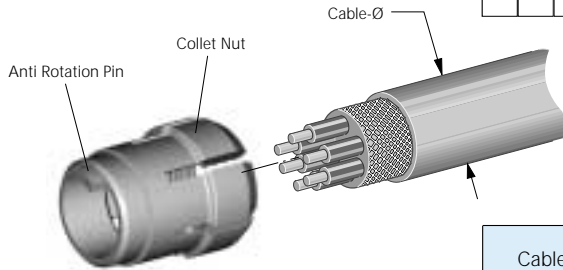


C	Standard Cu-alloy / matt chromate
N	Special materials and surfaces on request. Cu-alloy / nickel
S	Cu-alloy / black chromate

Collet System

Part number key

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
			L			-								-			0	0



Cable diameter in mm	Size							
	00	0	1	2	3	4	5	6
> 0,5 - 1,0	●							
> 1,0 - 1,5								
> 1,5 - 2,0	●							
> 1,5 - 2,2		●						
> 2,0 - 2,5	●							
> 2,5 - 3,0	●							
> 2,0 - 3,2		●	●	●				
> 3,0 - 3,5	●							
> 3,0 - 4,2		●	●	●	●			
> 4,0 - 5,2		○	●	●	●			
> 5,0 - 6,2			●	●	●			
> 6,0 - 7,2			●	●	●			
> 7,0 - 7,7			●					
> 7,0 - 8,0					●			
> 7,0 - 8,2				●	●			
> 8,0 - 9,2				●	●			
> 9,0 - 9,9				○				
> 9,0 - 10,2					●			
> 9,1 - 10,5						●		
> 10,0 - 11,0						●		
> 10,0 - 11,2					●			
> 11,0 - 11,9					○			
> 12,0 - 13,0							●	
> 14,0 - 15,0							●	●
without collet system								



1	0
1	5
2	0
2	2
2	5
3	0
3	2
3	5
4	2
5	2
6	2
7	2
7	7
8	0
8	2
9	2
9	9
0	2
0	2
1	1
1	2
1	9
1	3
1	5
0	0

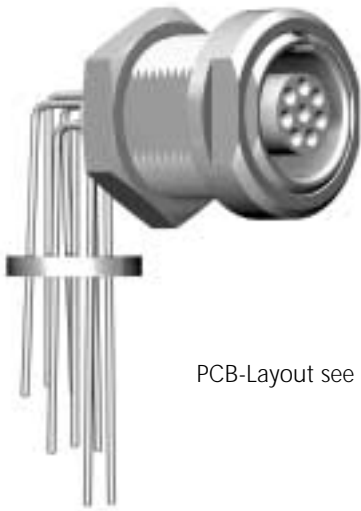
○ This diameters are not deliverable for applications with cable bend relief.

Useable: for all Plugs and In-Line Receptacles.

Application: **Collet nut** for strain relief.

Right-Angled Print Contacts in the Receptacle
Part number key

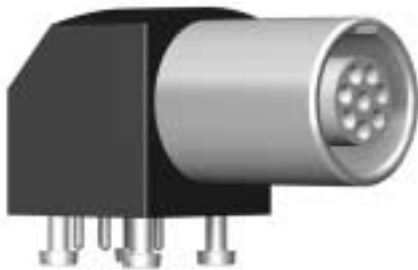
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
			L			-								-			0	0



PCB-Layout see Page 82 - 84

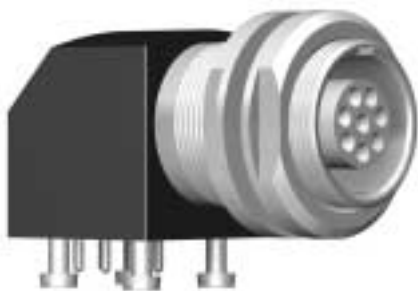
Right-Angled Print Contact

A



Receptacle style F and G for
 Screw Mounting
 (see page 25 and 26)

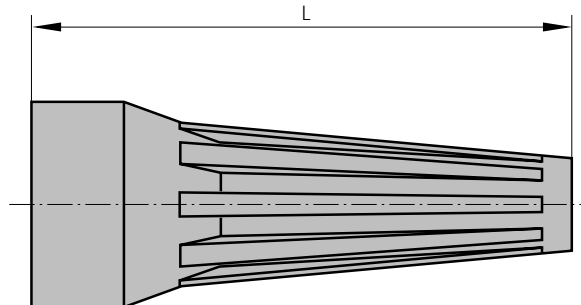
S



Max. tightening torque of the screws M1,4: 5 Nm

Cable Bend Relief

(Has to be ordered separately)



* = In ... please indicate color code

Size	Part Number*	Dim. L	Cable O.D	
			min.	max.
00	713 022 ... 960 020	19	> 2,0	2,5
00	713 022 ... 960 030	19	> 3,0	3,5
0	700 022 ... 960 020	27	> 2,0	2,5
0	700 022 ... 960 025	27	> 2,5	3,0
0	700 022 ... 960 030	27	> 3,0	3,5
0	700 022 ... 960 035	27	> 3,5	4,0
0	700 022 ... 960 040	27	> 4,0	4,5
0	700 022 ... 960 045	27	> 4,5	5,0
1	701 022 ... 960 025	30	> 2,5	3,0
1	701 022 ... 960 030	30	> 3,0	3,5
1	701 022 ... 960 035	30	> 3,5	4,0
1	701 022 ... 960 040	30	> 4,0	5,0
1	701 022 ... 960 050	30	> 5,0	6,0
1	701 022 ... 960 060	30	> 6,0	6,5
1	701 022 ... 960 070	30	> 6,5	7,5
2	702 022 ... 960 030	36	> 3,0	3,5
2	702 022 ... 960 035	36	> 3,5	4,0
2	702 022 ... 960 040	36	> 4,0	5,0
2	702 022 ... 960 050	36	> 5,0	6,0
2	702 022 ... 960 060	36	> 6,0	7,0
2	702 022 ... 960 070	36	> 7,0	8,0
2	702 022 ... 960 080	36	> 8,0	9,0
3	703 022 ... 960 040	42	> 4,0	5,0
3	703 022 ... 960 050	42	> 5,0	6,0
3	703 022 ... 960 060	42	> 6,0	7,0
3	703 022 ... 960 070	42	> 7,0	8,0
3	703 022 ... 960 080	42	> 8,0	9,0
3	703 022 ... 960 090	42	> 9,0	10,0
3	703 022 ... 960 100	42	> 10,0	11,0
3	703 022 ... 960 110	42	> 11,0	12,0
4	704 022 ... 960 080	60	> 8,0	9,0
4	704 022 ... 960 090	60	> 9,0	10,0
4	704 022 ... 960 100	60	> 10,0	11,0
4	704 022 ... 960 015	60	> 11,5	11,5

Color Code	Color	RAL-Nr. (similar)
202	red	3020
203	white	9010
204	yellow	1016
205	green	6029
206	blue	5002
207	grey	7005
208	black	9005
209	orange	2004
210	violet	4005
212	Braun	8016
215	light green	6018
216	light blue	5012

Temperature range

PUR -40 °C to +80 °C
Short-term up to +120 °C

On request:

Silicone -50 °C to +200 °C
Short-term up to +230 °C

