

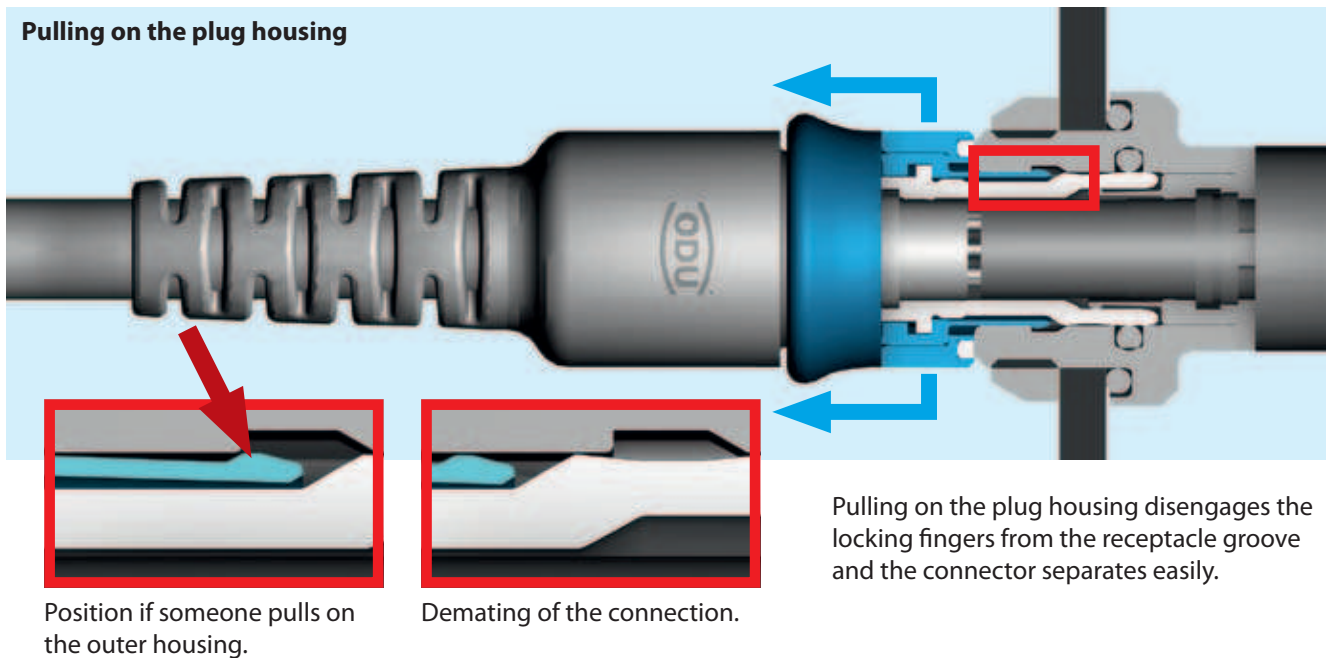
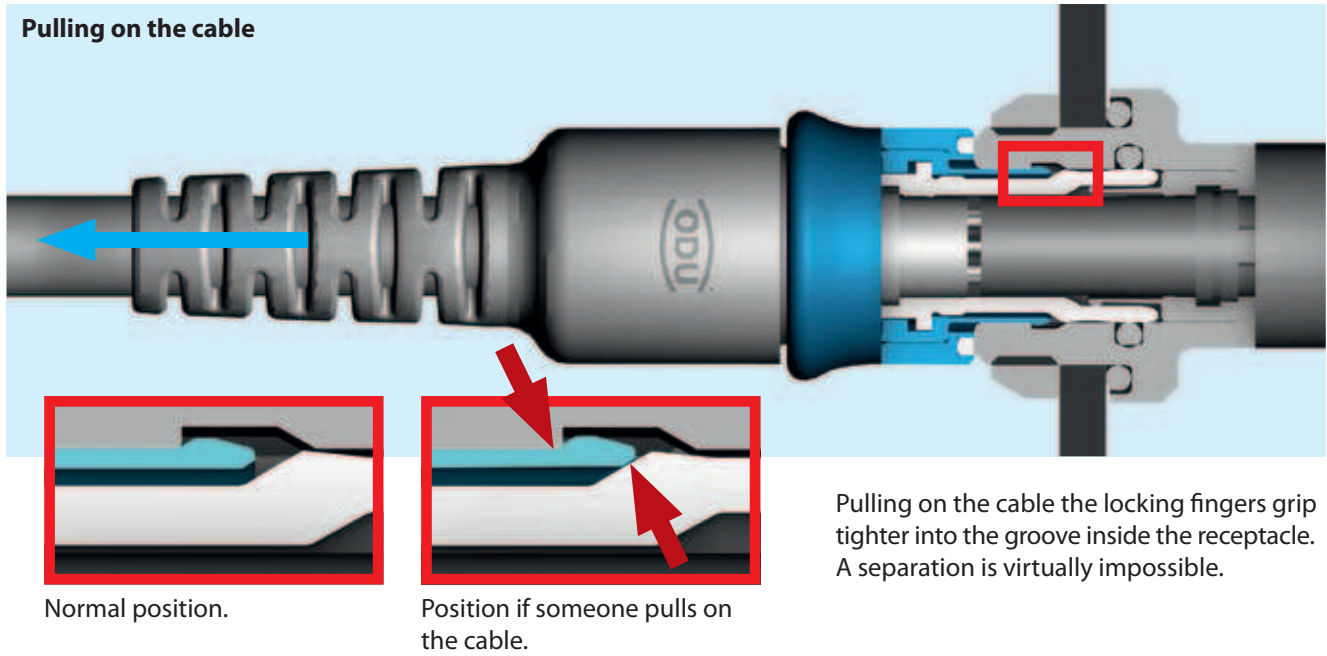
## ODU AMC – Standard Version with Push-Pull or Break-Away Function



Standard Version

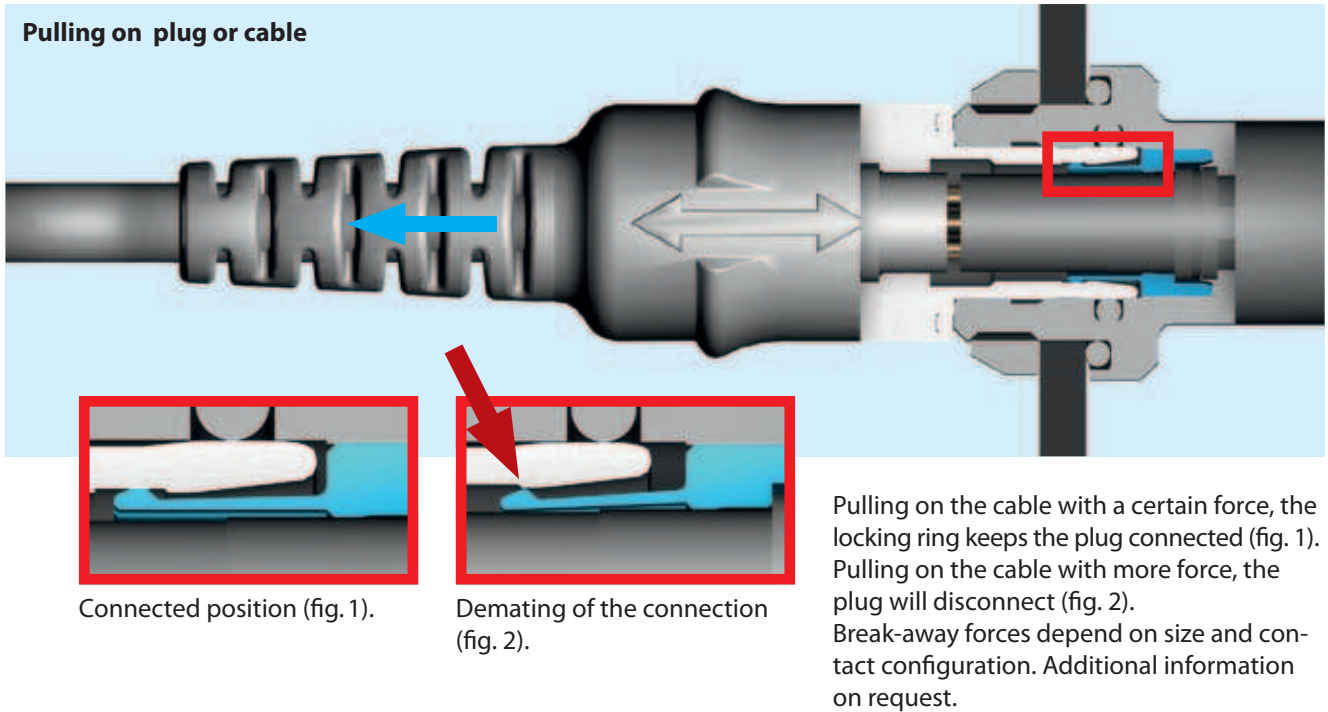


## Push-Pull Locking Principle



- The advantages of Push-Pull connectors**
- Quick and easy mating and demating
  - Quick and easy separating
  - Easy blind mating in difficult-to-reach places
  - Less panel space required
  - Definite and secure locking condition

## Break-Away Function



Standard Version

**The advantages of Break-Away function**

- Disconnect in a hurry
- Quick and easy mating and demating

## Push-Pull Plug

### Size

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

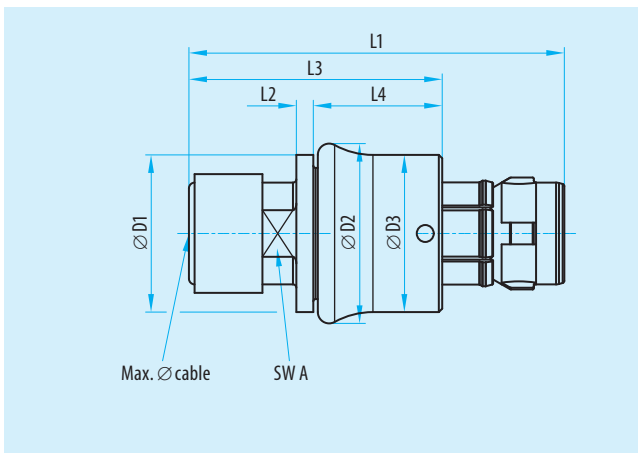
Standard Version

Size	Size	Dimensions in mm									
		L1	L2	L3	L4	D1	D2	D3	SW A	Max. $\varnothing$ cable <sup>1)</sup>	
<b>0</b>	0	31.4	1.5	21.4	10.4	11.9	14.0	12.0	6.5	5.0	
<b>1</b>	1	33.2	1.5	22.4	11.4	13.9	15.9	13.9	8	6.5	
<b>A</b>	1.5	32.7	1.5	22.7	11.7	14.5	16.5	14.5	10	8.0	
<b>2</b>	2	35.2	1.5	23.2	12.2	17.6	19.6	17.6	12	10.0	
<b>3</b>	3	38.3	1.5	23.2	12.2	21.9	23.9	22.0	14	11.5	
<b>E</b>	4.5	52.6	2.2	34.1	18.1	29.8	33.0	30.0	21	17.5	

<sup>1)</sup> Based on cable with one braided shield.



- Technical data see page 62
- Contact configuration and PCB layout see page 22
- Cable assembly information see ODU instruction 010.645.001.000.002 (available at [www.odu.de/amc/assembly](http://www.odu.de/amc/assembly))



## Break-Away Plug

### Size

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

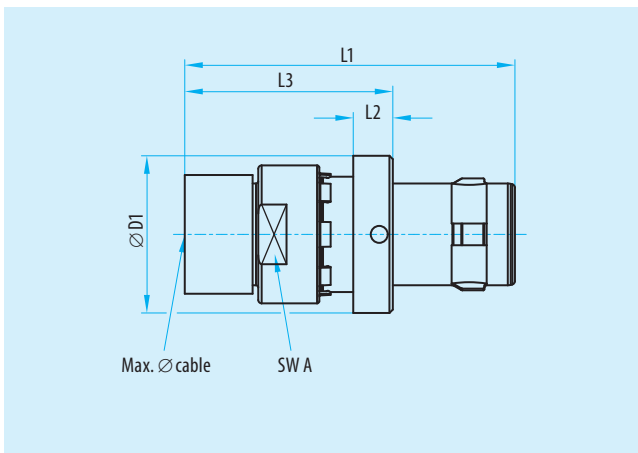
Size	Size	Dimensions in mm					
		L1	L2	L3	D1	SW A	Max. $\varnothing$ cable <sup>1)</sup>
0	0	25.0	3.0	15.0	11.9	9	5.0
1	1	29.2	3.5	18.4	13.9	11	6.5
A	1.5	28.5	3.5	18.5	15.9	12	8.0
2	2	31.0	4.0	19.0	17.6	14	10.0
3	3	37.5	4.0	22.4	21.9	18	11.5

<sup>1)</sup> Based on cable with one braided shield.

Standard Version



- Technical data see page 62
- Contact configuration and PCB layout see page 22
- Cable assembly information see ODU instruction 010.645.001.000.004 (available at [www.odu.de/amc/assembly](http://www.odu.de/amc/assembly))



## In-Line Receptacle

### Size

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

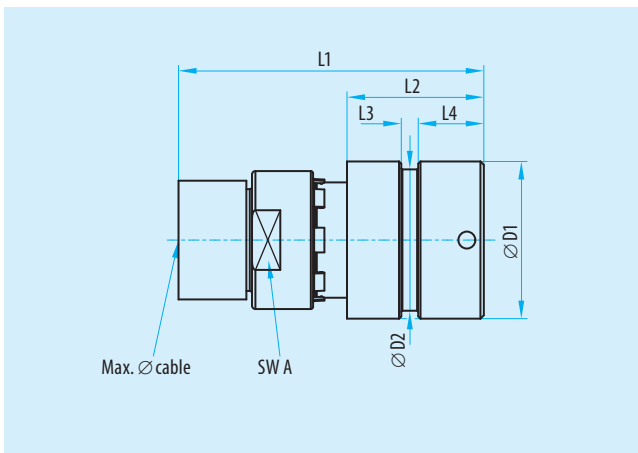
Standard Version

Size	Size	Dimensions in mm							
		L1	L2	L3	L4	D1	D2	SW A	Max. $\varnothing$ cable <sup>1)</sup>
0	0	25.0	13.0	1.5	5.8	11.9	10.5	9	5.0
1	1	27.0	12.1	1.5	5.8	13.9	12.5	11	6.5
A	1.5	27.0	12.0	1.5	5.8	15.9	14.5	12	8.0
2	2	30.0	15.0	1.5	5.8	17.6	16.2	14	10.0
3	3	38.0	19.5	1.5	5.8	21.9	20.8	18	11.5

<sup>1)</sup> Based on cable with one braided shield.



- Technical data see page 62
- Contact configuration and PCB layout see page 22
- Cable assembly information see ODU instruction 010.645.001.000.003 (available at [www.odu.de/amc/assembly](http://www.odu.de/amc/assembly))



## Receptacle

### Connector Type

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

Connector type	Type	
		G K
For installation from rear of panel – low profile inside the device		

### Size

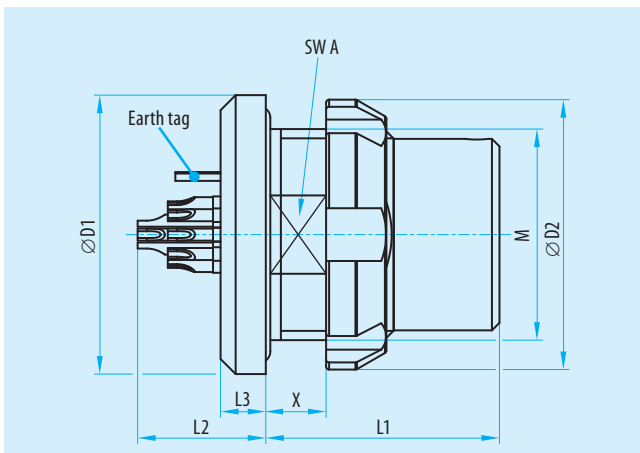
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
			Y	R	-								0	-	0	0	0	L

Size	Size	Dimensions in mm								Panel cut out	
		L1	L2 max.	L3	X max.	D1	D2	SW A	M	SW	∅
0	0	13.0	7.5	2.5	15.5	15.0	15.0	10	11×0.75	10.1	11.1
1	1	15.5	8.5	3.0	18.5	17.9	17.9	13	14×1	13.1	14.1
1.5	A	14.2	8.5	3.0	18.9	17.9	17.9	13	14×1	13.1	14.1
2	2	17.5	9.5	3.0	20.8	21.9	21.9	15	16×1	15.1	16.1

Standard Version



- Technical data see page 62
- Contact configuration and PCB layout see page 22
- IP 68, also in unmated condition



Nutdriver for slotted nut		
Size	Number	Torque in Nm
0	700 098 001 000 000	1.0
1	701 098 002 000 000	3.0
A (1.5)	701 098 002 000 000	3.0
2	702 098 001 000 000	4.0

## Receptacle

### Connector Type

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

Connector type	Type	
G	8	For installation from rear of panel – low profile outside the device

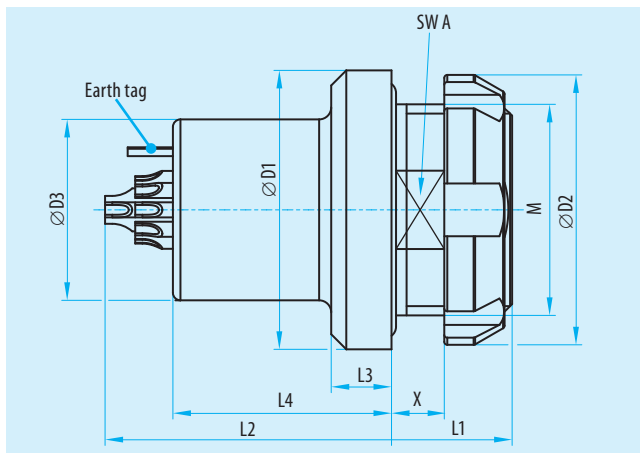
### Size

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

Size	Size	Dimensions in mm										Panel cut out	
		L1	L2 max.	L3	L4	X max.	D1	D2	D3	SW A	M	SW	∅
0	0	6.5	15.5	3.0	11.5	3.0	15.5	15.0	10.0	10	11×0.75	10.1	11.1
1	1	8.0	19	4.0	14.5	3.5	18.5	17.9	12.0	13	14×1	13.1	14.1
1.5	A	7.0	17.7	2.5	12.5	3.0	18.9	17.9	14.0	13	14×1	14.1	14.1
2	2	8.0	21.5	4.0	15.0	3.0	20.8	21.9	14.5	15	16×1	14.6	16.1
3	3	11.0	22.5	4.0	15.5	5.5	26.0	25.0	18.0	18	20×1	18.1	20.1
4.5	E	13.0	19.0	5.0	13.0	6.5	39.0	37.5	27.0	27	30×1.5	27.1	30.1



- Technical data see page 62
- Contact configuration and PCB layout see page 22
- IP 68, also in unmated condition



Nutdriver for slotted nut		
Size	Number	Torque in Nm
0	700 098 001 000 000	1.0
1	701 098 002 000 000	3.0
A (1.5)	701 098 002 000 000	3.0
2	702 098 001 000 000	4.0
3	703 098 001 000 000	5.5
E (4.5)	745 645 098 001 000	10.0



## ODU AMC Standard Version Details for the Part Number Key



Standard Version



**Keying**  
**Housing Material**  
**Contact Inserts**



### Keying Possibilities

### Housing Material

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

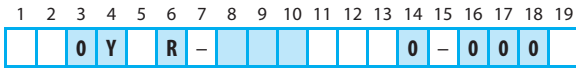
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19  
 [ ] [ ] [ ] [ Y ] [ R ] [ - ] [ P ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ 0 ] [ - ] [ 0 ] [ 0 ] [ 0 ]

	Keying	Receptacle Front view	Colour keying	
Standard	A			Light brown
	B			Red
	C			Blue
	D			Green

	Housing material	
	R	Aluminium EN-6023 Ruthenium over electroless Ni

Standard Version

## Contact Configurations Size 0



Standard Version

Size	Insulation body	Number of contacts <sup>3)</sup>	Contact diameter mm	Nominal current load per contact <sup>2)</sup> A	Test voltage acc. SAE 13441 Contact to contact kV	Rated voltage <sup>1)</sup> kV	Termination		View on the termination side	
							Solder	Print	Male contact side	Female contact side
0	P 0 3	3	0.9	10	1.200	0.400	●	●		
0	P 0 4	4	0.7	7	0.900	0.300	●	●		
0	P 0 7	7	0.5	5	0.900	0.300	●	●		
0	P 0 9	9	0.5	5	0.600	0.200	●	●		
0	P 1 0	10	0.5	5	0.600	0.200	●	●		

<sup>1</sup> Maximal operating voltage at sea level up to 2.000 m acc. to SAE 13441. More information on page 69.

<sup>2</sup> Derating factor see page 70.

<sup>3</sup> Other contact configurations on request.

## PCB Layout for Print Contacts Size 0

### Contact type

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

Termination	Contact type	Contact type
Solder	Socket	W
	Pin	X
Print	Socket	U
	Pin	V

### Contact diameter / Termination cross section

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

#### Solder contacts<sup>1)</sup>

	Contact diameter		Contact diameter		Termination cross section		Termination diameter
	mm		mm	Term. cross section	AWG	mm	
	0.5		C	D	26	0.15	
	0.7		F	G	22	0.38	
	0.9		J	G	22	0.38	

#### Print contacts

	Contact diameter	Contact diameter	Termination cross section	Termination diameter	
	mm			mm	
	0.5		C	0	0.5
	0.7		F	0	0.5
	0.9		J	0	0.7

<sup>1)</sup> Other cross sections on request.

		Fig. 1 G8	Fig. 2 GK
		mm	mm
3 pos.		3.5	3.5
4 pos.		3.5	3.5
7 pos.		3.5	3.3
9 pos.		3.5	3.1
10 pos.		3.5	3.1

Fig. 1: Length earth tag and pin G8

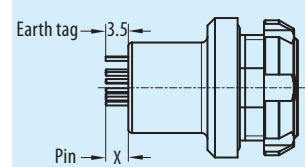
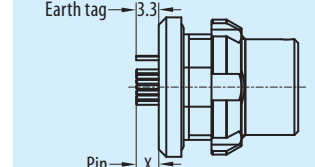
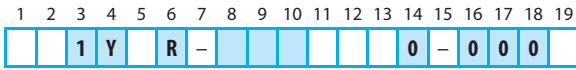


Fig. 2: Length earth tag and pin GK



## Contact Configurations Size 1



Standard Version

Size	Insulation body	Number of contacts <sup>3)</sup>	Contact diameter in mm	Nominal current load per contact <sup>2)</sup> A	Test voltage acc. SAE 13441 Contact to contact kV	Rated voltage <sup>1)</sup> kV	Termination		View on the termination side	
							Solder	Print	Male contact side	Female contact side
1	P 0 5	5	0.9	10	1.350	0.450	●	●		
1	P 0 8	8	0.7	7	1.000	0.333	●	●		
1	P 1 4	14	0.5	5	0.900	0.300	●	●		
1	P 1 6	16	0.5	5	0.900	0.300	●	●		
<b>Data rate insert:</b>										
1	M D 8	8	0.5	Type: CAT5 Gigabit Ethernet <sup>4)</sup>			●	●		

<sup>1</sup> Maximal operating voltage at sea level up to 2.000 m acc. to SAE 13441. More information on page 69.

<sup>2</sup> Derating factor see page 70.

<sup>3</sup> Other contact configurations on request.

<sup>4</sup> Additional information on request.

## PCB Layout for Print Contacts Size 1

### Contact type

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

Termination	Contact type	Contact type
Solder	Socket	W
	Pin	X
Print	Socket	U
	Pin	V

### Contact diameter / Termination cross section

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

#### Solder contacts<sup>1)</sup>

Contact diameter	mm	Contact diameter		Termination cross section		Termination diameter
		mm	Term. cross section	AWG	mm	
0.5		C	D	26	0.15	
0.7		F	G	22	0.38	
0.9		J	G	22	0.38	

#### Print contacts

Contact diameter	mm	Contact diameter	Term. cross section	Termination diameter
0.5		C	O	0.5
0.7		F	O	0.5
0.9		J	O	0.7

<sup>1)</sup> Other cross sections on request.

		Fig. 1 G8	Fig. 2 GK
		mm	mm
5 pos.		3.5	3.0
8 pos.		3.5	3.0
14 pos.		3.0	3.0
16 pos.		3.0	3.0
Data rate 8 pos.		3.5	3.0

Fig. 1: Length earth tag and pin G8

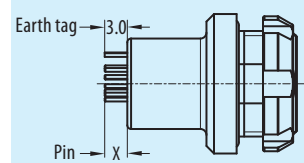
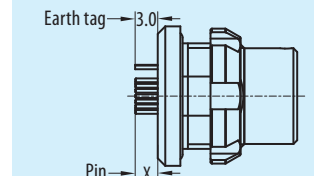


Fig. 2: Length earth tag and pin GK



## Contact Configurations Size 1.5

Standard Version

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

Size	Insulation body	Number of contacts <sup>3)</sup>	Contact diameter mm	Nominal current load per contact <sup>2)</sup> A	Test voltage acc. SAE 13441 Contact to contact kV	Rated voltage <sup>1)</sup> kV	Termination		View on the termination side	
							Solder	Print	Male contact side	Female contact side
A	P	10	0.7	7	1.200	0.400	●	●		
A	P	19	0.5	5	1.000	0.333	●	●		
<b>Data rate insert</b>										
A	P	D 8	0.5	Type: CAT5 Gigabit Ethernet <sup>4)</sup>			●	●		

<sup>1)</sup> Maximal operating voltage at sea level up to 2.000 m acc. to SAE 13441. More information on page 69.

<sup>2)</sup> Derating factor see page 70.

<sup>3)</sup> Other contact configurations on request.

<sup>4)</sup> Additional information on request.



## PCB Layout for Print Contacts Size 1.5

### Contact type

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

Termination	Contact type	Contact type
Solder	Socket	W
	Pin	X
Print	Socket	U
	Pin	V

		Fig. 1 G8	Fig. 2 GK
		mm	mm
10 pos.		3.2	3.0
19 pos.		3.2	3.0

### Contact diameter / Termination cross section

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

#### Solder contacts<sup>1)</sup>

	Contact diameter	Contact diameter / Term. cross section		Termination cross section		Termination diameter
		mm	mm	AWG	mm	
	0.5	C	D	26	0.15	
	0.7	F	G	22	0.38	

#### Print contacts

	Contact diameter	Contact diameter	Termination cross section	Termination diameter
	0.5	C	0	0.5
	0.7	F	0	0.5

<sup>1)</sup> Other cross sections on request.

Fig. 1: Length earth tag and pin G8

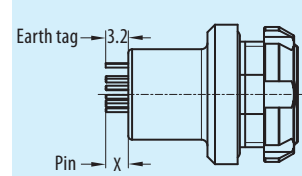
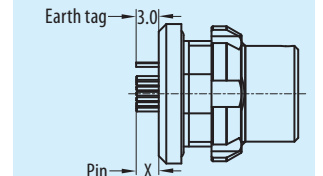
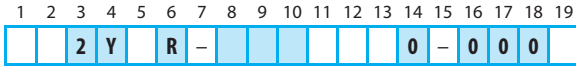


Fig. 2: Length earth tag and pin GK



## Contact Configurations Size 2



Standard Version

Size	Insulation body	Number of contacts <sup>3)</sup>	Contact diameter mm	Nominal current load per contact <sup>2)</sup> A	Test voltage acc. SAE 13441 Contact to contact kV	Rated voltage <sup>1)</sup> kV	Termination		View on the termination side	
							Solder	Print	Male contact side	Female contact side
2	P 0 6	6	1.3	14	1.500	0.500	●	●		
2	P 1 9	9	0.7	7	1.000	0.333	●	●		
2	P 2 6	6	0.5	5	0.900	0.300	●	●		

<sup>1</sup> Maximal operating voltage at sea level up to 2.000 m acc. to SAE 13441. More information on page 69.

<sup>2</sup> Derating factor see page 70.

<sup>3</sup> Other contact configurations on request.

## PCB Layout for Print Contacts Size 2

### Contact type

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

Termination	Contact type	Contact type
Solder	Socket	W
	Pin	X
Print	Socket	U
	Pin	V

### Contact diameter / Termination cross section

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

#### Solder contacts<sup>1)</sup>

Contact diameter	mm	Contact diameter / Term. cross section		Termination cross section		Termination diameter
		C	D	AWG	mm	
0.5		C	D	26	0.15	
0.7		F	G	22	0.38	
1.3		P	H	20	0.50	

#### Print contacts

Contact diameter	mm	C	D	AWG	mm	Termination diameter
0.5		C	O			0.5
0.7		F	O			0.5
1.3		P	O			0.7

<sup>1)</sup> Other cross sections on request.

		Fig. 1 G8	Fig. 2 GK
		mm	mm
6 pos.		4.5	3.0
19 pos.		5.5	3.0
26 pos.		5.5	3.0

Fig. 1: Length earth tag and pin G8

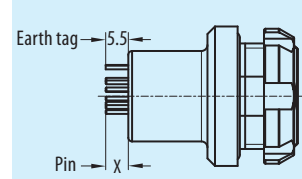
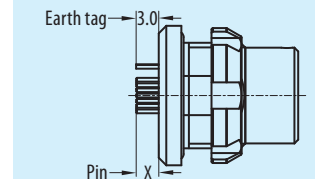
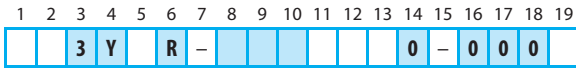


Fig. 2: Length earth tag and pin GK



## Contact Configurations Size 3



Standard Version

Size	Insulation body	Number of contacts <sup>3)</sup>	Contact diameter mm	Nominal current load per contact <sup>2)</sup> A	Test voltage acc. SAE 13441 Contact to contact kV	Rated voltage <sup>1)</sup> kV	Termination		View on the termination side	
							Solder	Print	Male contact side	Female contact side
3	P 0 4		2.0	22	1.650	0.550	●	●		
3	P 1 8		0.9	10	1.350	0.450	●	●		
3	P 2 6		0.7	7	1.000	0.333	●	●		
3	P 3 7		0.5	5	0.900	0.300	●	●		

<sup>1</sup> Maximal operating voltage at sea level up to 2.000 m acc. to SAE 13441. More information on page 69.

<sup>2</sup> Derating factor see page 70.

<sup>3</sup> Other contact configurations on request.

## PCB Layout for Print Contacts Size 3

### Contact type

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

Termination	Contact type	Contact type
Solder	Socket	W
	Pin	X
Print	Socket	U
	Pin	V

### Contact diameter / Termination cross section

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

#### Solder contacts<sup>1)</sup>

	Contact diameter	Contact diameter		Termination cross section		Termination diameter
		mm	mm	AWG	mm	
	0.5	C	D	26	0.15	
	0.7	F	G	22	0.38	
	0.9	J	G	22	0.38	
	2.0	T	S	12	2.5	

#### Print contacts

	Contact diameter	Contact diameter	Termination cross section	Termination diameter
	mm	mm	AWG	mm
	0.5	C	0	0.5
	0.7	F	0	0.5
	0.9	J	0	0.7
	2.0	T	0	0.7

<sup>1)</sup> Other cross sections on request.

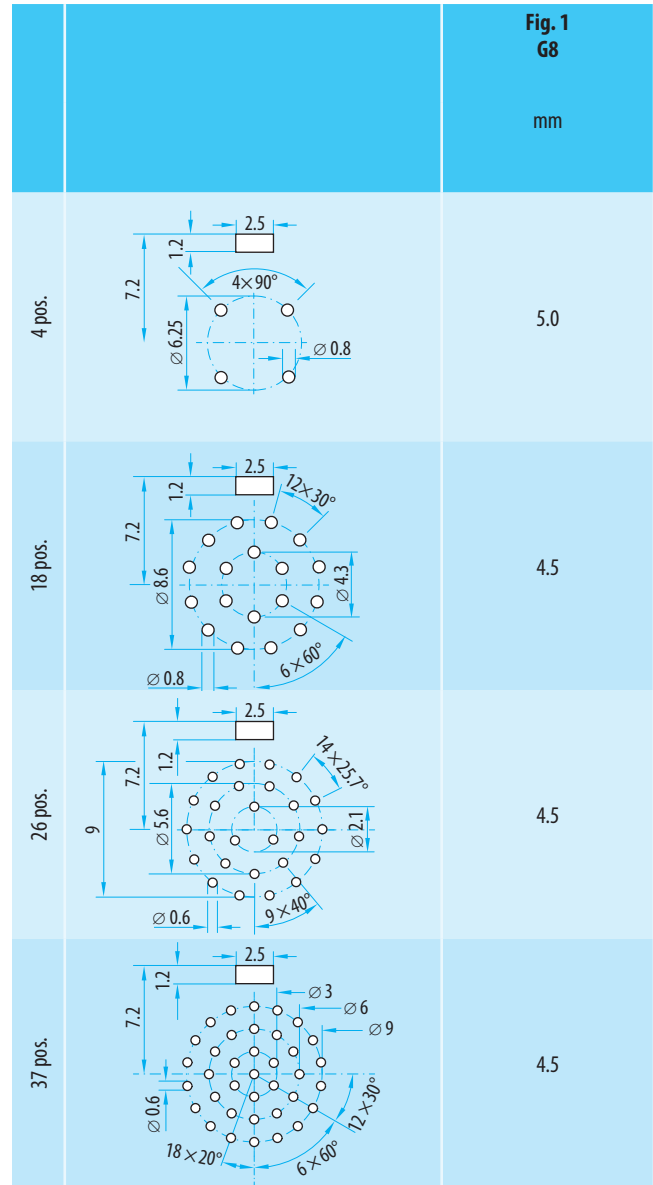
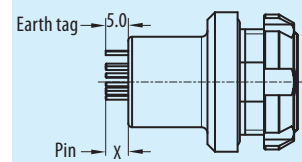


Fig. 1: Length earth tag and pin G8



## Contact Configurations Size 4.5

Standard Version

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19																		
		E	Y			R	-									0	-	0 0 0
Size	Insulation body	Number of contacts <sup>3)</sup>			Contact diameter mm	Nominal current load per contact <sup>2)</sup> A	Test voltage acc. SAE 13441 Contact to contact kV	Rated voltage <sup>1)</sup> kV	Termination		View on the termination side							
									Solder	Print	Male contact side	Female contact side						
E	P	5	5	0.7	7	1.000	0.333	●	●									

<sup>1</sup> Maximal operating voltage at sea level up to 2.000 m acc. to SAE 13441. More information on page 69.

<sup>2</sup> Derating factor see page 70.

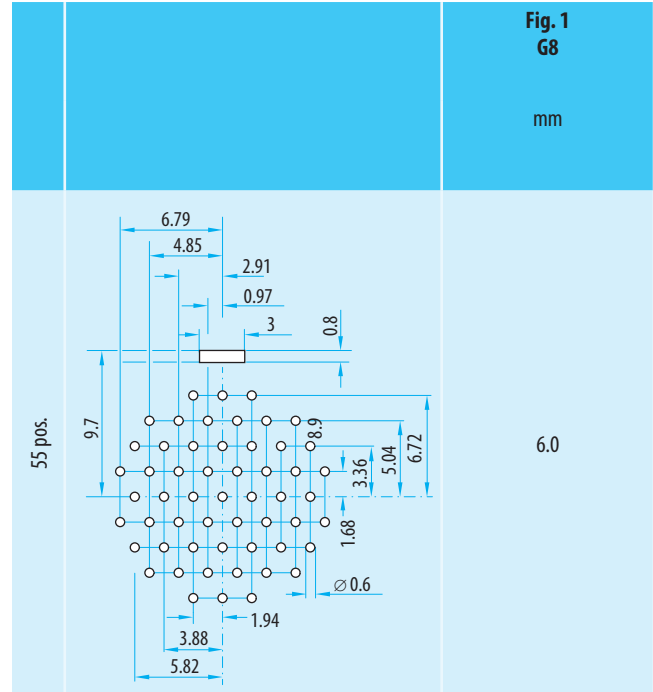
<sup>3</sup> Other contact configurations on request.

## PCB Layout for Print Contacts Size 4.5

### Contact type

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

Termination	Contact type	Contact type
Solder	Socket	W
	Pin	X
Print	Socket	U
	Pin	V



### Contact diameter / Termination cross section

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

#### Solder contacts<sup>1)</sup>

Contact diameter	mm	Contact diameter	mm	Termination cross section		Termination diameter	mm
				AWG	mm		
0.7		F	G	22	0.38		

#### Print contacts

0.7	F	O			0.5
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<sup>1)</sup> Other cross sections on request.

Fig. 1: Length earth tag and pin G8

