

Amphenol

Series SJT

Series SJT

VG 96912, Series 1
PAN 6433-2
JN 1003



Ordering information

Ordering example:

SJT G 06 RT 14-35 P A 014

Series (p. 9, 15, 18)

SJT – Scoop proof
(100% scoop-proof)

Junior
(Miniature version)

Tri-Lock
(Three pin bayonet coupling)

With crimp, solder (hermet.),
GS dip solder, and wire wrap
contacts

G – Grounding fingers
(Grounding ring)
Only with design type 06 (p. 13)

Design type (p. 10 to 22)

00 – Receptacle with square flange

01 – Cable connecting plug

06 – Plug

07 – Receptacle with single hole
mounting

I – Receptacle with solder flange
(only hermetic)

Service class (p. 9, 15, 18)

RT – Moisture-proof version.
Rear removable crimp contacts.
Rear thread and teeth for
backshells.

Y – Hermetically sealed version.
Non-removable solder contacts
(pin contacts).

GS – Moisture-proof version.
Rear removable contacts
for soldering into printed circuit
boards.

WW – Moisture-proof version.
Non-removable contacts
with wire-wrap connection.

Surface treatment/ Modifications

014 – Standard surface treatment:
Nickel-plated, cadmium-plated,
olive green
chromate coating
(conductive).

Other surface treatments upon
request.

– With connector modifications,
the modification designation is
shown here.

In such cases, the surface
treatment is included in the
designation

Modifications upon request.

Coding (p. 4)

Coding of connectors is possible
with 5 angular positions of the main
guide groove:

Normal position and angles A, B, C, D.
No specification for normal position
required.

Contact type

P – Pin contact (PIN)

S – Socket contact (Socket)

Contact arrangement (p. 5-7)

The contact arrangements are listed
in the table and underneath the
corresponding contact arrangement
image. They consist of a double
designation (14-35), in which the first
of the two numbers always indicates
the size of shell.

Backshells must be ordered separately using the order numbers shown on pages 26 and 27.

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Safety information

Our products are constantly being developed and improved. Therefore, we reserve the right to change designs for quality improvements, enhancements, or manufacturing needs.

All technical specifications concern connectors, which is equipment that cannot be disconnected or separated under voltage.



Plugs and receptacles in the SJT series

- Contacts mechanically protected
- Grounding ring on plug (HF-tightness)
- Three pin bayonet coupling
- Non-interchangeable through coding
- High contact density

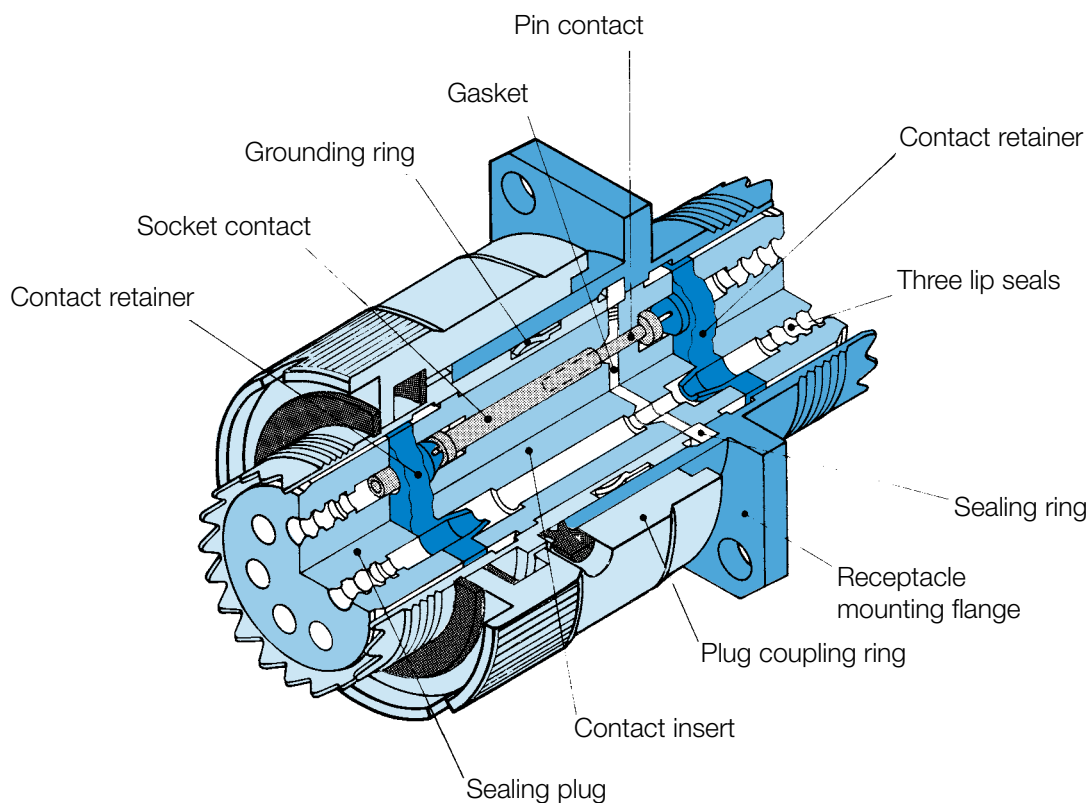
These miniature circular connectors of the SJT series adhere to the VG 96912 standard. They meet the requirements of specification PAN 6433-2, and have all essential features of connectors specified according to MIL-C-38999. They feature 100% contact protection (scoop-proof), high contact density and HF-tightness.

The Amphenol-Air LB SJT series are approved:
as per VG 96912 under No. 332 (84)
as per PAN 6433-2 under DDP No. MP 466

The environment-resistant connectors of this series are available with crimp contacts, dip solder contacts for printed circuit boards, and wire-wrap contacts. In addition, the series contains hermetically sealed receptacles with solder contacts.

These connectors with three pin bayonet couplings are well-suited for new technologies in the industrial and military sectors as well as aerospace applications, where size, weight and reliability are of crucial importance.

Amphenol-Air LB GmbH manufactures the SJT series at its plant in Saarlouis.



Contact current load

Contact size	Nominal current A		Test current A		Voltage drop at test current mV max.	
	Crimp contact	Solder contact (hermet.)	Crimp contact	Solder contact (hermet.)	Crimp contact	Solder contact (hermet.)
22D	5	3	5	3	40	85
20	7.5	5	7.5	5	35	60
16	13	10	13	10	25	85
12	23	17	23	17	25	85

Operating voltage

Voltage class *	Recommended max. operating voltage at sea level		Test voltage (eff.)			
	AC voltage (eff.) V	DC voltage V	Sea level V (coupled or disconnected)	15 000m V (coupled)	20 000m V (coupled)	30 000m V (coupled)
M	400	550	1300	800	800	800
I	600	850	1800	1000	1000	1000
II	900	1250	2300	1000	1000	1000

* Contact arrangements are divided into the voltage classes M, I, and II, depending on contact distance and size (pages 5, 6 and 7).

Operating temperature/Insulation resistance

Operating temperature	Insulation resistance	
-65° C to 175° C (= ambient temperature + overheating due to current)	Moisture-proof version (crimp contacts)	5000 M Ω at room temperature 500 M Ω at maximum temperature
	Hermetically sealed version (solder contacts)	5000 M Ω at room temperature 50 M Ω at maximum temperature

Contact resistance

Contact size	Stranded wire gauge AWG	Test current A	Contact resistance m Ω max.
22D	28	1.5	46.7
	26	2	32.0
	24	3	23.3
	22	5	17.6
20	24	3	18.0
	22	5	12.4
	20	7.5	8.8
16	20	7.5	7.3
	18	10	5.3
	16	13	4.5
12	14	17	2.5
	12	23	2.0

Contact information

Contact size	Dimensions of crimp sleeves		Strip length of conductor mm	
	Inner-Ø mm	Depth mm	min.	max.
22D	0.88 ± 0.03	3.6	3.5	4.0
20	1.19 ± 0.03	5.3	5.6	6.4
16	1.70 ± 0.03	5.3	5.6	6.4
12	2.54 ± 0.05	5.3	5.6	6.4

Connection data

Contact size	Stranded wire gauge AWG	Conductor cross-section (mm ² copper cross-section)	Strand type Single wire X AWG	Insulation outer diameter	
				mm min. *	mm max.
22D	28	△ 0.09	7 x 36	0.80	1.50
	26	△ 0.15	7 x 34		
	24	△ 0.24	19 x 36		
	22	△ 0.38	19 x 34		
20	24	△ 0.24	19 x 36	1.02	2.11
	22	△ 0.38	19 x 34		
	20	△ 0.62	19 x 32		
16	20	△ 0.62	19 x 32	1.65	2.77
	18	△ 0.96	19 x 30		
	16	△ 1.23	19 x 29		
12	14	△ 1.94	19 x 27	2.46	3.61
	12	△ 2.97	37 x 28		

*) The minimum insulation diameter is necessary to ensure moisture protection.

Coupling and decoupling

Shell size	Coupling and decoupling	Decoupling
	Torque Nm max.	Torque Nm min.
8	0.90	0.12
10	1.36	0.12
12	1.81	0.23
14	2.26	0.46
16	2.71	0.46
18	3.16	0.46
20	3.62	0.69
22	4.07	0.80
24	4.07	0.80

Recommended tightening torque for backshells

Shell size	Torque Nm
8	4
10	6
12	8
14	10
16	10
18	13
20	13
22	13
24	13

} +0.5

} ±1

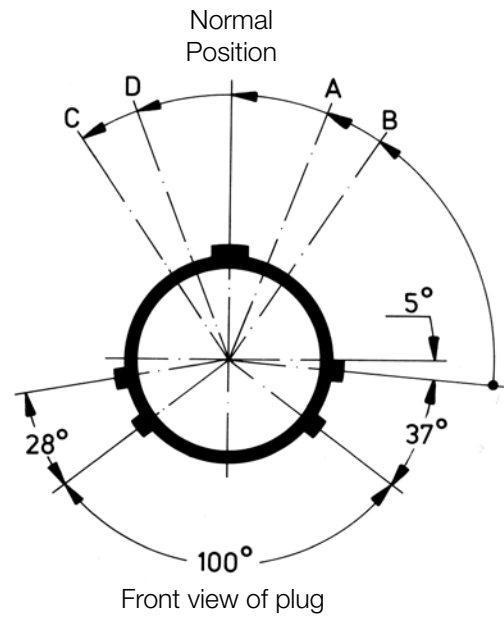
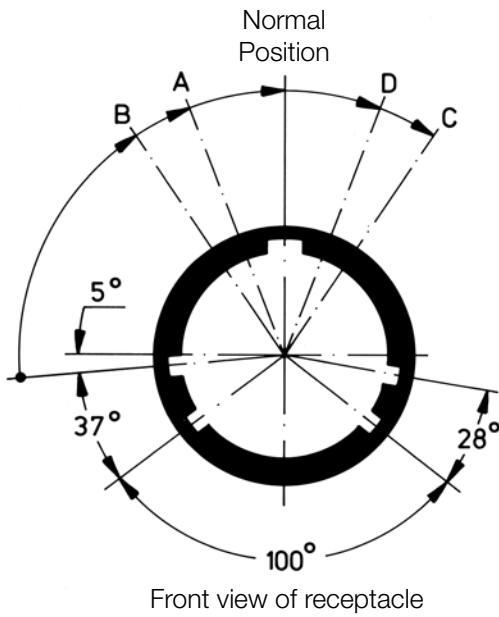
Contact holding force

Contact size	Contact holding force (axial) N min.
22D	40
20	60
16	100
12	100

Leak rate

Coupled connector	< 4.5 X 10 ⁻³ cm ³ /s at 2 bar
Hermetically sealed connector	1 X 10 ⁻⁷ cm ³ /s at 1 bar

All connectors have five guide lugs and grooves. If polarization of connectors with the same size and same number of contacts is necessary, this is achieved with different angular positions (A to D) of the contact insert in relation to the main guide groove/lug, as seen in the figures below.



Shell size	Angular positions				
	Normal position	A	B	C	D
8	95°	77°	–	–	113°
10	95°	81°	67°	123°	109°
12	95°	75°	63°	127°	115°
14	95°	74°	61°	129°	116°
16	95°	77°	65°	125°	113°
18	95°	77°	65°	125°	113°
20	95°	77°	65°	125°	113°
22	95°	80°	69°	121°	110°
24	95°	80°	69°	121°	110°

Overview

Shell size	Contact arrangement	Total number of contacts	Number of contacts per contact size				Voltage class *	Contact arrangements as per VG 96912
			22 D	20	16	12		
8	8-35	6	6				M	•
	8-98	3		3			I	•
10	10-35	13	13				M	•
	10-98	6		6			I	•
12	12-8	8		8			I	•
	12-35	22	22				M	•
	12-98	10		10			I	•
14	14-5	5			5		II	•
	14-18	18		18			I	•
	14-19	19		19			I	•
	14-35	37	37				M	•
	14-97	12		8	4		I	•
16	16-6	6				6	I	•
	16-8	8			8		II	•
	16-26	26		26			I	•
	16-35	55	55				M	•
	16-99	23		21	2		I	•
18	18-11	11			11		II	•
	18-32	32		32			I	•
	18-35	66	66				M	•
20	20-11	11				11	I	•
	20-16	16			16		II	•
	20-35	79	79				M	•
	20-39	39		37	2		I	
	20-41	41		41			I	•
22	22-21	21			21		II	•
	22-35	100	100				M	•
24	24-19	19				19	I	•
	24-29	29			29		I	•
	24-35	128	128				M	•
	24-61	61		61			I	•

Contact arrangements in hermetically sealed design or with coaxial contacts upon request.

*See p. 2.

Ordering information inside front cover

Contact symbols:  12  16  20  22D

The following images show the front view of the pin insert and the back of the socket insert.





Image (contact arrangement)				
Contact arrangement	8-35	8-98	10-35	10-98
Number of contacts	6	3	13	6
Contact size	22 D	20	22 D	20
Voltage class	M	I	M	I

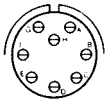
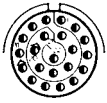
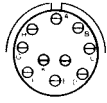
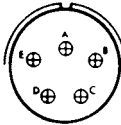
Image (contact arrangement)				
Contact arrangement	12-8	12-35	12-98	14-5
Number of contacts	8	22	10	5
Contact size	20	22 D	20	16
Voltage class	I	M	I	II

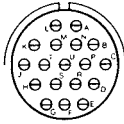
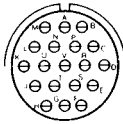
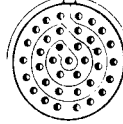
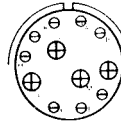
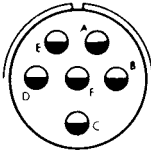
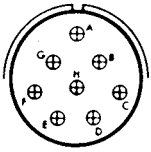
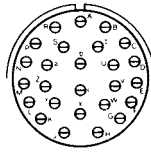
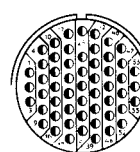
Image (contact arrangement)				
Contact arrangement	14-18	14-19	14-35	14-97
Number of contacts	18	19	37	4/8
Contact size	20	20	22 D	16/20
Voltage class	I	I	M	I

Image (contact arrangement)				
Contact arrangement	16-6	16-8	16-26	16-35
Number of contacts	6	8	26	55
Contact size	12	16	20	22 D
Voltage class	I	II	I	M

Contact arrangements in hermetically sealed design or with coaxial contacts upon request.

Ordering information inside front cover

Contact symbols: 12 16 20 22D

The following images show the front view of the pin insert and the back of the socket insert.

Image (contact arrangement)				
Contact arrangement	16-99	18-11	18-32	18-35
Number of contacts	2/21	11	32	66
Contact size	16/20	16	20	22 D
Voltage class	I	II	I	M
Image (contact arrangement)				
Contact arrangement	20-11	20-16	20-35	20-39
Number of contacts	11	16	79	2/37
Contact size	12	16	22 D	16/20
Voltage class	I	II	M	I
Image (contact arrangement)				
Contact arrangement	20-41	22-21	22-35	24-19
Number of contacts	41	21	100	19
Contact size	20	16	22 D	12
Voltage class	I	II	M	I
Image (contact arrangement)				
Contact arrangement	24-29	24-35	24-61	
Number of contacts	29	128	61	
Contact size	16	22 D	20	
Voltage class	I	M	I	

Contact arrangements in hermetically sealed design or with coaxial contacts upon request.

Ordering information inside front cover

Connector	Amphenol designation	VG designation (VG 96912)	PAN 6433-2
Receptacle with square flange	SJT 00 RT	A	B
	SJT 00 GS	–	–
	SJT 00 WW	–	–
	SJTP 00 RT	AA	–
Cable connecting plug	SJT 01 RT	–	–
Plug Plug (HF-sealed)	SJT 06 RT	E	F
	SJTG 06 RT	D	FG
Receptacle for single hole mounting	SJT 07 RT	B	A
	SJT 07 GS	–	–
	SJT 07 WW	–	–
	SJT 07 Y	–	–
Receptacle with solder flange	SJT IY	C	–
Backshell F	39013	F	–
Backshell SQ	42415	L	–
Strain release clamp	10-476808	G	–
Protective cap	For SJT 00	V1	A/B
	For SJT 06	V3	A/B
	For SJT 07	V2	A/B
Dummy	10-476807	W	–

The SJT series includes the following connectors with back-mounted removable crimp contacts.

These connectors are available as a moisture-proof version (service class RT), with a thread and anti-rotation teeth for attaching backshells (see p. 26 and 27).

Design features

Shell

- Aluminum alloy
- Standard surface treatment: nickel-plated, cadmium-plated olive green chromate coating; conductive (see inside front cover)
- 100% contact protection (scoop-proof)
- Three pin bayonet coupling
- 5 guide grooves and lugs
- Coding from 5 angular positions of main guide groove
- 4 shell designs
- 9 shell sizes
- Grounding ring on plug SJTG 06 (360° HF-shielding)

Contact insert

- Plastic contact insert and contact retention system
- Fluorosilicone sealing elements on plug and wiring sides
- Lip seal on each pin contact
- Contact chamber identification on plug and wiring sides
- Numerous contact arrangements with 3 to 128 contacts

Crimp contacts

Pin and socket contacts made of high-quality copper alloy
 Hard gold plated contact surface
 Contact sizes 12 to 22D for cables AWG 12 to 28
 Pin and socket contacts removable from back side



SJT 00 RT
Receptacle with square flange



SJT 01 RT
Cable connecting plug



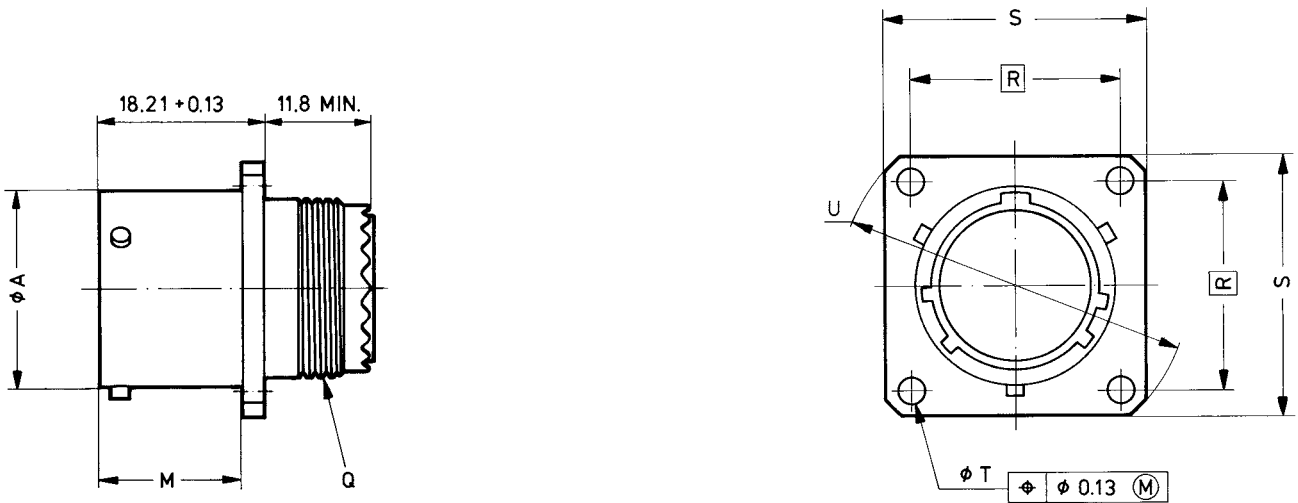
SJT 06 RT
Plug

SJTG 06 RT
Plug (HF-sealed)

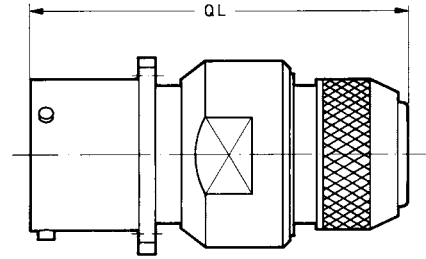
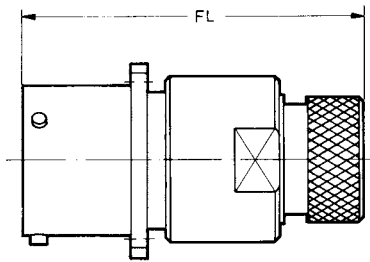


SJT 07 RT
Receptacle for single hole mounting

Receptacle with square flange SJT 00 RT



Ordering example: SJT 00 RT 14-35 P 014 See inside front cover



Receptacle with backshell F (see p. 26) Receptacle with backshell SQ (see p. 26)
Backshells must be ordered separately.

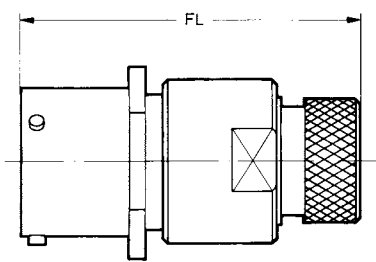
Dimensions in mm

Shell size	Ø A + 0.03 - 0.13	FL max.	M 0 - 0.13	Thread Q Class 2 A UNEF	QL max.	\overline{R} Theoret. dimensions	S ± 0.4	Ø T ± 0.13	U max.
8	12.01	52	16.05	0.4375-28	56	15.1	20.6	3.05	27.2
10	14.99	52	16.05	0.5625-24	57	18.3	23.8	3.05	32.0
12	19.05	52	16.05	0.6875-24	57	20.6	26.2	3.05	35.2
14	22.23	52	16.05	0.8125-20	57	23.0	28.6	3.05	38.4
16	25.40	52	16.05	0.9375-20	58	24.6	31.0	3.05	41.5
18	28.58	52	16.05	1.0625-18	58	27.0	33.3	3.05	44.7
20	31.75	52	15.29	1.1875-18	58	29.4	36.5	3.05	47.9
22	34.93	53	15.29	1.3125-18	58	31.8	39.7	3.05	51.1
24	38.10	54	15.29	1.4375-18	60	34.9	42.9	3.73	55.8

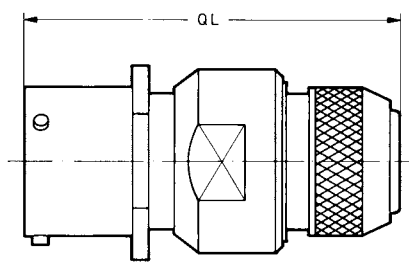
Cable connecting plug SJT 01 RT



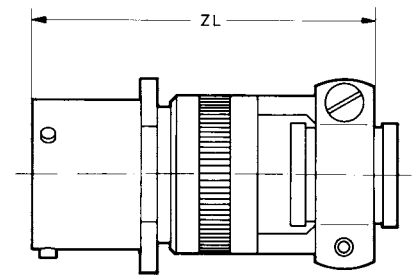
Ordering example: SJT 01 RT 14-35 P 014 See inside front cover



Cable connecting plug with backshell F (see p. 26)



Cable connecting plug with backshell SQ (see p. 26)



Cable connecting plug with strain release clamp (see p. 27)

Backshells and strain release clamp must be ordered separately.

Dimensions in mm

Shell size	Ø A + 0.03 -0.13	FL max.	M 0 -0.13	Thread Q Class 2 A UNEF	QL max.	S ± 0.4	Y ± 0.4	ZL max.
8	12.01	52	16.05	0.4375-28	56	20.6	23.8	48
10	14.99	52	16.05	0.5625-24	57	23.8	27.0	48
12	19.05	52	16.05	0.6875-24	57	26.2	29.3	48
14	22.23	52	16.05	0.8125-20	57	28.6	31.8	54
16	25.40	52	16.05	0.9375-20	58	31.0	34.1	54
18	28.58	52	16.05	1.0625-18	58	33.3	36.5	54
20	31.75	52	15.29	1.1875-18	58	36.5	39.7	57
22	34.93	53	15.29	1.3125-18	58	39.7	42.9	57
24	38.10	54	15.29	1.4375-18	60	42.9	46.0	59

Plug SJT 06 RT



Ordering example: SJT 06 RT 14-35 S 014 See inside front cover



Plug with backshell F (see p. 26)

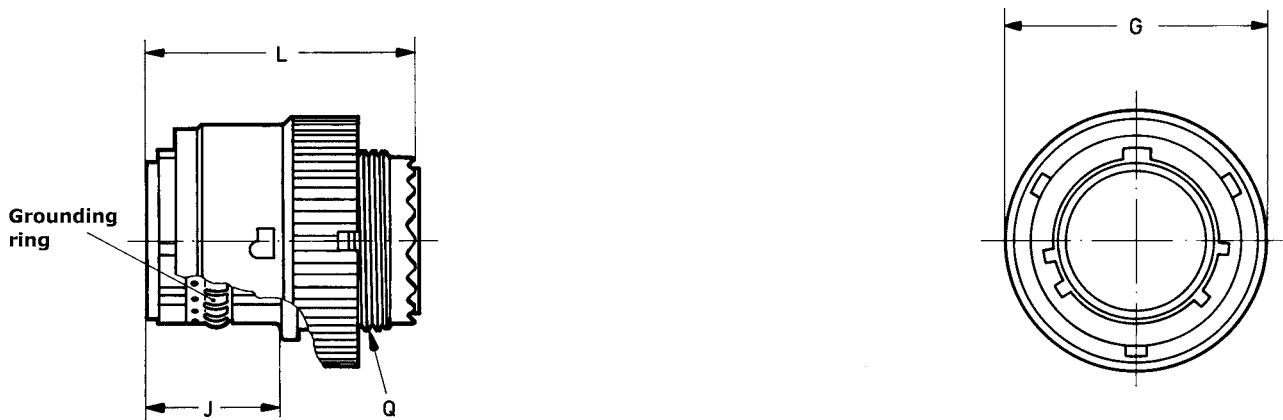
Plug with strain relief clamp (see p. 27)

Backshell and strain relief clamp must be ordered separately.

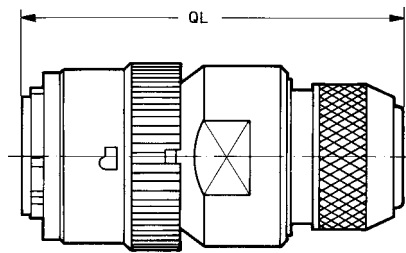
Dimensions in mm

Shell size	FL max.	G max.	J + 0.08 - 0.05	L max.	Thread Q Class 2 A UNEF	ZL max.
8	52	18.7	15.09	31	0.4375-28	48
10	52	21.5	15.09	31	0.5625-24	48
12	52	25.9	15.09	31	0.6875-24	48
14	52	29.0	15.09	31	0.8125-20	55
16	52	32.2	15.09	31	0.9375-20	55
18	52	35.4	15.09	31	1.0625-18	55
20	52	38.2	15.09	31	1.1875-18	58
22	53	41.3	15.09	31	1.3125-18	58
24	54	44.5	15.09	32	1.4375-18	59

Plug SJTG 06 RT



Ordering example: SJTG 06 RT 14-35 S 014 See inside front cover



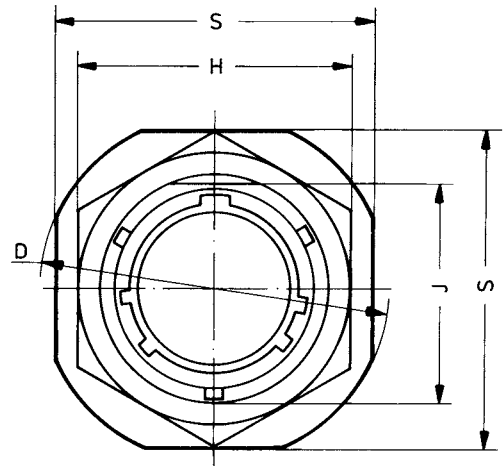
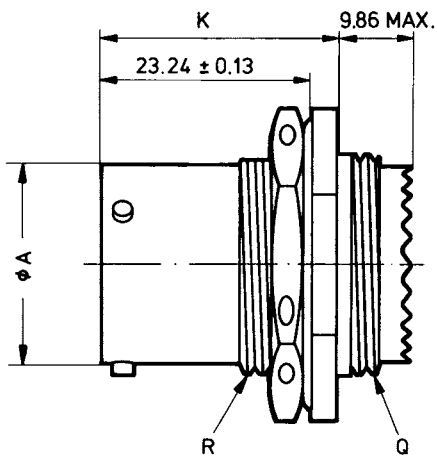
Plug with backshell SQ (see p. 26)
Backshell must be ordered separately.

Dimensions in mm

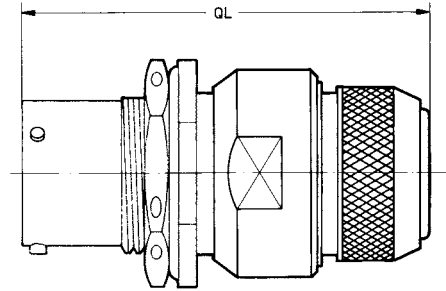
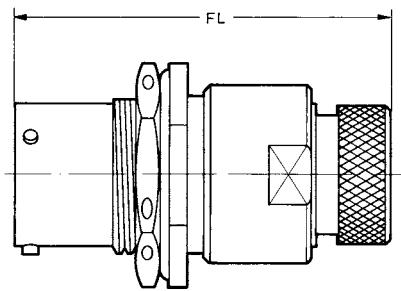
Shell size	G max.	J + 0.08 - 0.05	L max.	Thread Q Class 2 A UNEF	QL max.
8	18.7	15.09	31	0.4375-28	56
10	21.5	15.09	31	0.5625-24	57
12	25.9	15.09	31	0.6875-24	57
14	29.0	15.09	31	0.8125-20	57
16	32.2	15.09	31	0.9375-20	58
18	35.4	15.09	31	1.0625-18	58
20	38.2	15.09	31	1.1875-18	58
22	41.3	15.09	31	1.3125-18	58
24	44.5	15.09	32	1.4375-18	59

Assembly instructions p. 32 – 46.

Receptacle with single hole mounting SJT 07 RT



Ordering example: SJT 07 RT 14-35 P 014 See inside front cover



Receptacle with backshell F (see p. 26)

Receptacle with backshell SQ (see p. 26)

Backshells must be ordered separately.

Dimensions in mm

Shell size	ϕA + 0.03 - 0.13	D max.	FL max.	H ± 0.4	J max.	K ± 0.2	Thread Q Class 2 A UNEF	QL max.	Thread R Class 2 A UNEF	S ± 0.3
8	12.01	27.3	57	19.1	13.46	26.0	0.5625-24	62	0.5625-24	23.8
10	14.99	30.5	57	22.2	16.64	26.0	0.6875-24	63	0.6875-24	27.0
12	19.05	35.3	57	27.0	20.78	26.0	0.8125-20	63	0.8750-20	31.8
14	22.23	38.4	57	30.2	23.93	26.0	0.9375-20	63	1.0000-20	34.9
16	25.40	41.6	57	33.3	27.08	26.0	1.0625-18	64	1.1250-18	38.1
18	28.58	44.8	58	36.5	30.25	26.8	1.1875-18	65	1.2500-18	41.3
20	31.75	49.6	58	39.7	33.43	26.8	1.3125-18	65	1.3750-18	46.0
22	34.93	52.7	59	42.9	36.60	26.8	1.4375-18	65	1.5000-18	49.2
24	38.10	55.9	59	46	39.78	26.8	1.4375-18	65	1.6250-18	52.4

In addition to removable crimp contacts, the SJT series includes hermetically sealed receptacles of the service class Y.

The hermetically sealed receptacles are only available with **non-removable pin contacts** and solder connection.

Design features

- Steel shell, tin-plated.
- 9 shell sizes
- Contacts made of high-quality nickel alloy, tin-plated.
- Compression glass insert.
- Contacts are labeled on mating and termination face.

Technical data

See p. 2 and 3.



SJT 07 Y

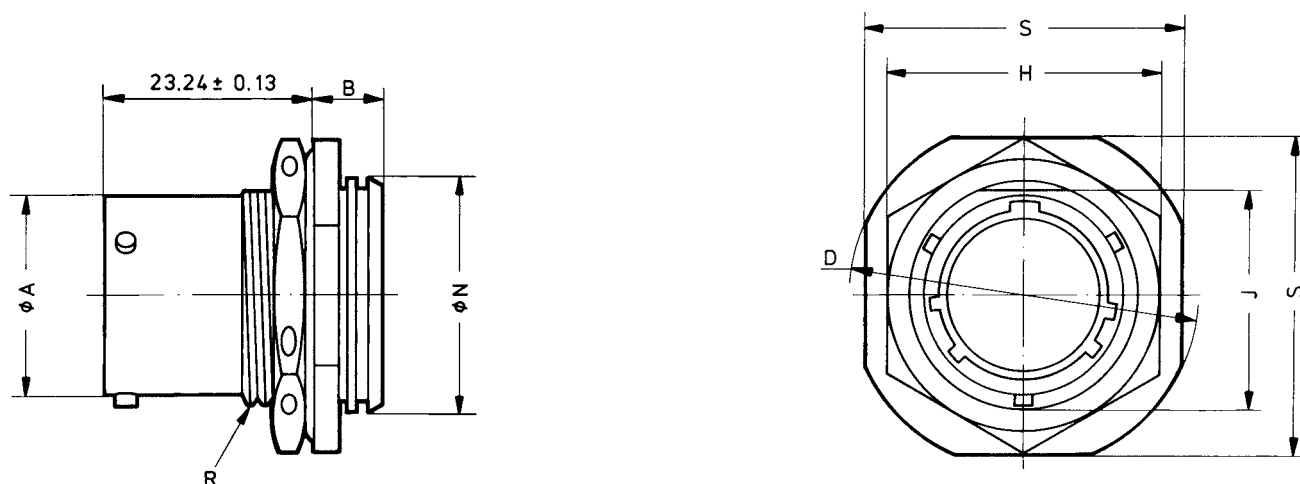
Hermetically sealed receptacle for single hole mounting



SJT IY

Hermetically sealed receptacle with solder flange

Hermetically sealed receptacle for single hole mounting SJT 07 Y

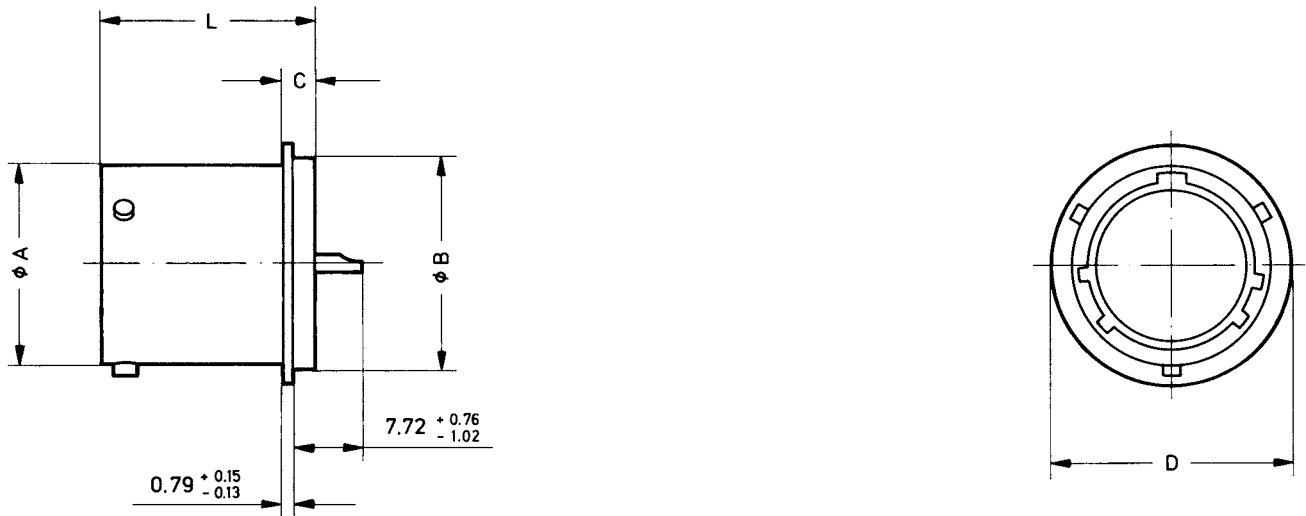


Ordering example: SJT 07 Y 14-19 P See inside front cover

Dimensions in mm

Shell size	Ø A + 0.03 -0.13	B max.	D max.	H ± 0.4	J max.	Ø N + 0.28 0	Thread R Class 2 A UNEF	S ± 0.3
8	12.01	7.54	27.3	19.1	13.46	16.31	0.5625-24	23.8
10	14.99	7.54	30.5	22.2	16.64	19.46	0.6875-24	27.0
12	19.05	7.54	35.3	27.0	20.78	22.66	0.8750-20	31.8
14	22.23	7.54	38.4	30.2	23.93	25.86	1.0000-20	34.9
16	25.40	7.54	41.6	33.3	27.08	29.01	1.1250-18	38.1
18	28.58	8.33	44.8	36.5	30.25	32.21	1.2500-18	41.3
20	31.75	8.33	49.6	39.7	33.43	35.36	1.3750-18	46.0
22	34.93	8.33	52.7	42.9	36.60	38.56	1.5000-18	49.2
24	38.10	8.33	55.9	46.0	39.78	41.71	1.6250-18	52.4

Receptacle with solder flange SJT IY



Ordering example: SJT IY 14-19 P See inside front cover

Dimensions in mm

Shell size	Ø A + 0.03 - 0.13	Ø B + 0.03 - 0.13	C + 0.15 - 0.13	Ø D + 0.28 - 0.25	L + 0.28 0
8	12.01	14.27	3.18	17.45	20.04
10	14.99	17.07	3.18	20.24	20.04
12	19.05	19.84	3.18	23.01	20.04
14	22.22	23.01	3.18	26.19	20.04
16	25.40	26.19	3.18	29.36	20.04
18	28.57	29.36	3.18	32.54	20.04
20	31.75	31.75	3.18	34.93	20.04
22	34.92	34.93	3.96	38.10	20.85
24	38.10	38.10	3.96	41.28	20.85

SJT GS

PCB-connection

The receptacles SJT 00 GS and SJT 07 GS for printed circuit boards are identical to those of the service class RT (see p. 9 and inside front cover), with the exception of the contacts designed for soldering in rigid or flexible PCBs.

The pin and socket contacts are removable, and are delivered with the receptacle. To mount these contacts, use the same tools as for mounting crimp contacts (see p. 31). The necessary contact bore holes are shown on pages 39 to 46. The images show the front view of the pin insert in the normal position.

**SJT 00 GS**

Receptacle with PCB connection

**SJT 07 GS**

Receptacle with PCB connection

SJT WW

Wire-wrap connection

The receptacles SJT 00 WW and SJT 07 WW are identical to those of the service class RT (see p. 9 and inside front cover), with the exception of pin and socket contacts designed for wire-wrap connections, and are not removable.

The cross-section of the wire-wrap post is 0.6 x 0.6 mm, and corresponds to the specifications in DIN 41611, Sheet 2.

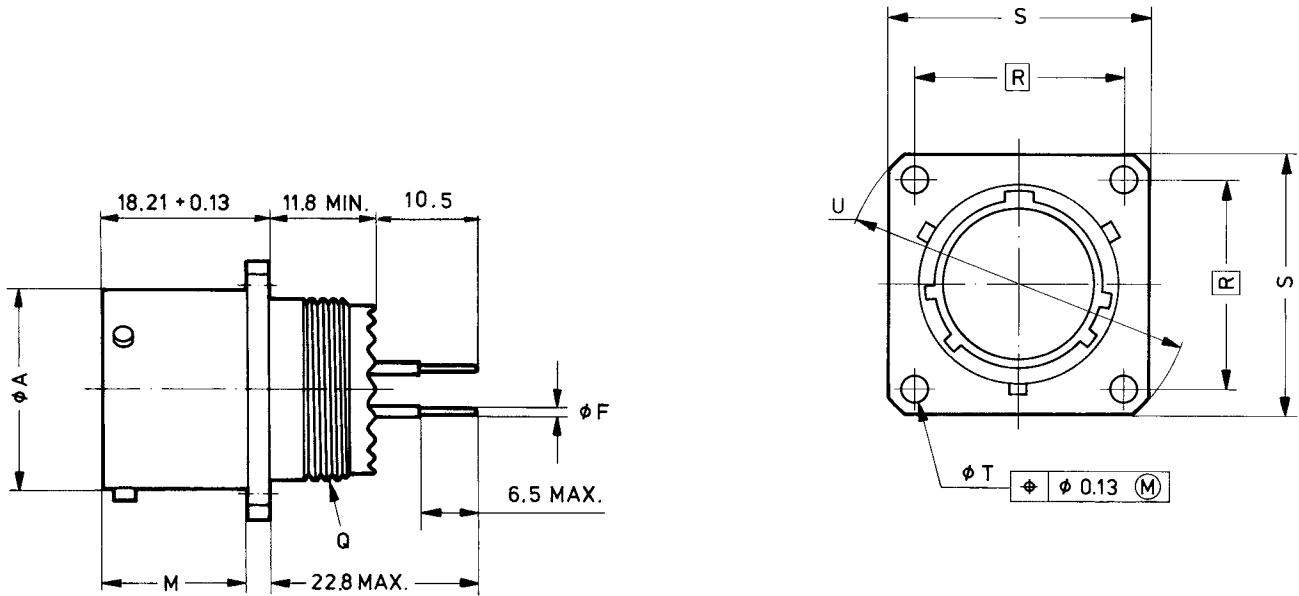
**SJT 00 WW**

Receptacle with wire-wrap connection

**SJT 07 WW**

Receptacle with wire-wrap connection

Receptacle with square flange SJT 00 GS



Ordering example: SJT 00 RT 14-35 P 014 See inside front cover

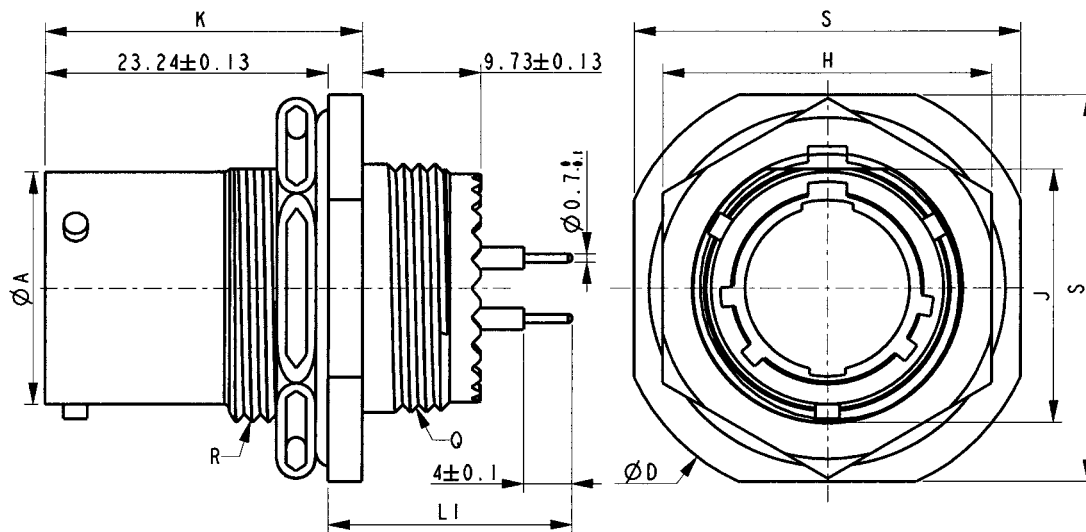
Position of contact bore holes p. 39 to 46.

Dimensions in mm

Shell size	Ø A + 0.03 - 0.13	M 0 - 0.13	Thread Q Class 2 A UNEF	\boxed{R} Theoret. dimensions	S ± 0.4	Ø T ± 0.13	U max.	Contact size	Ø F ± 0.05
8	12.01	16.05	0.4375-28	15.1	20.6	3.05	27.2	22 D	0.6
10	14.99	16.05	0.5625-24	18.3	23.8	3.05	32.0	20	0.8
12	19.05	16.05	0.6875-24	20.6	26.2	3.05	35.2		
14	22.23	16.05	0.8125-20	23.0	28.6	3.05	38.4		
16	25.40	16.05	0.9375-20	24.6	31.0	3.05	41.5		
18	28.58	16.05	1.0625-18	27.0	33.3	3.05	44.7		
20	31.75	15.29	1.1875-18	29.4	36.5	3.05	47.9		
22	34.93	15.29	1.3125-18	31.8	39.7	3.05	57.1		
24	38.10	15.29	1.4375-18	34.9	42.9	3.735	55.8		

Assembly instructions p. 32 – 46.

Receptacle with single hole mounting SJT 07 GS



Ordering example: SJT 07 GS 14-35 S 014 See inside front cover

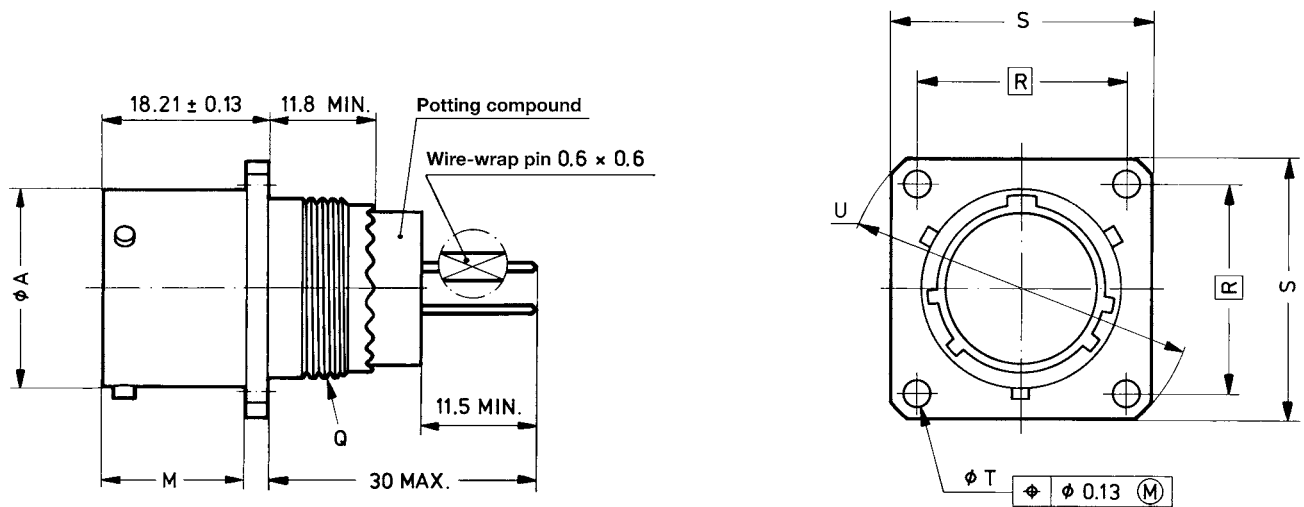
Position of contact bore holes p. 39 to 46.

Dimensions in mm

Shell size	Ø A	D	H	J	K	Thread Q	Thread R	S	Contact type	LI
	+ 0.03 -0.13	max.	± 0.4	max.	± 0.2	Class 2 A UNEF	Class 2 A UNEF	± 0.3		
8	12.01	27.3	19.1	13.46	26.0	0.5625-24	0.5625-24	23.8	Pin	19.50 ± 0.51
10	14.99	30.5	22.2	16.64	26.0	0.6875-24	0.6875-24	27.0	Socket	19.38 ± 0.57
12	19.05	35.3	27.0	20.78	26.0	0.8125-20	0.8750-20	31.8		
14	22.23	38.4	30.2	23.93	26.0	0.9375-20	1.0000-20	34.9		
16	25.40	41.6	33.3	27.08	26.0	1.0625-18	1.1250-18	38.1		
18	28.58	44.8	36.5	30.25	26.8	1.1875-18	1.2500-18	41.3		
20	31.75	49.6	39.7	33.43	26.8	1.3125-18	1.3750-18	46.0		
22	34.93	52.7	42.9	36.60	26.8	1.4375-18	1.5000-18	49.2		
24	38.10	55.9	46.0	39.78	26.8	1.4375-18	1.6250-18	52.4		

Assembly instructions p. 32 – 46.

Receptacle with square flange SJT 00 WW

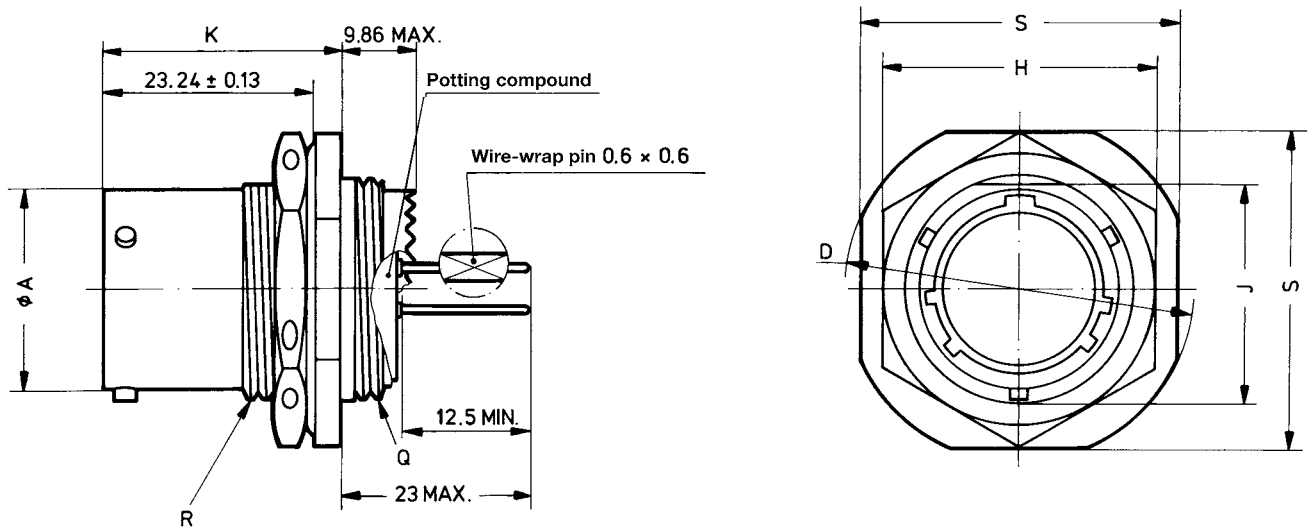


Ordering example: SJT 00 WW 14-35 S 014 See inside front cover

Dimensions in mm

Shell size	Ø A + 0.03 - 0.13	M 0 - 0.13	Thread Q Class 2 A UNEF	R Theoret. Dimensions	S ± 0.4	ø T ± 0.13	U max.
8	12.01	16.05	0.4375-28	15.1	20.6	3.05	27.2
10	14.99	16.05	0.5625-24	18.3	23.8	3.05	32.0
12	19.05	16.05	0.6875-24	20.6	26.2	3.05	35.2
14	22.23	16.05	0.8125-20	23.0	28.6	3.05	38.4
16	25.40	16.05	0.9375-20	24.6	31.0	3.05	41.5
18	28.58	16.05	1.0625-18	27.0	33.3	3.05	44.7
20	31.75	15.29	1.1875-18	29.4	36.5	3.05	47.9
22	34.93	15.29	1.3125-18	31.8	39.7	3.05	51.1
24	38.10	15.29	1.4375-18	34.9	42.9	3.73	55.8

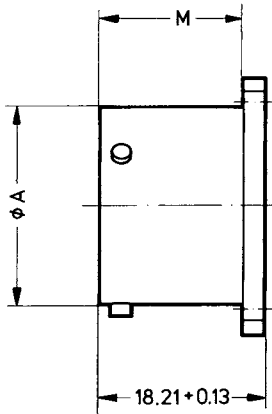
Receptacle for single hole mounting SJT 07 WW



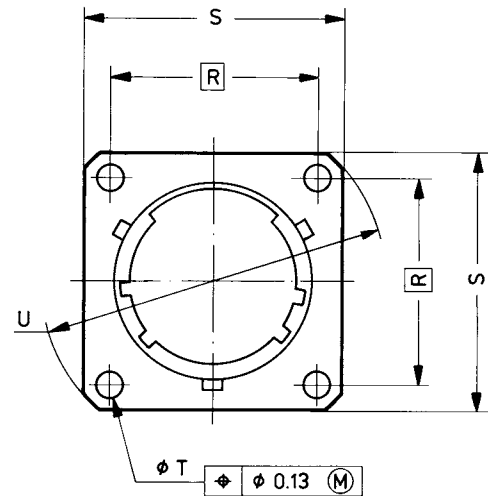
Ordering example: SJT 01 RT 14-35 P 014 See inside front cover

Dimensions in mm

Shell size	Ø A + 0.03 -0.13	D max.	H ± 0.4	J max.	K ± 0.2	Thread Q Class 2 A UNEF	Thread R Class 2 A UNEF	S ± 0.3
8	12.01	27.3	19.1	13.46	26.0	0.5625-24	0.5625-24	23.8
10	14.99	30.5	22.2	16.64	26.0	0.6875-24	0.6875-24	27.0
12	19.05	35.3	27.0	20.78	26.0	0.8125-20	0.8750-20	31.8
14	22.23	38.4	30.2	23.93	26.0	0.9375-20	1.0000-20	34.9
16	25.40	41.6	33.3	27.08	26.0	1.0625-18	1.1250-18	38.1
18	28.58	44.8	36.5	30.25	26.8	1.1875-18	1.2500-18	41.3
20	31.75	49.6	39.7	33.43	26.8	1.3125-18	1.3750-18	46.0
22	34.93	52.7	42.9	36.60	26.8	1.4375-18	1.5000-18	49.2
24	38.10	55.9	46.0	39.78	26.8	1.4375-18	1.6250-18	52.4



**Dummy
10-476807**



Dimensions in mm

Shell size	Order number	Ø A + 0.03 - 0.13	M 0 - 0.13	R Theoret. Dimensions	S ± 0.4	Ø T ± 0.13	U max.
8	10-476807-89	12.01	16.05	15.1	20.6	3.05	27.2
10	10-476807-109	14.99	16.05	18.3	23.8	3.05	32.0
12	10-476807-129	19.05	16.05	20.6	26.2	3.05	35.2
14	10-476807-149	22.23	16.05	23.0	28.6	3.05	38.4
16	10-476807-169	25.40	16.05	24.6	31.0	3.05	41.5
18	10-476807-189	28.58	16.05	27.0	33.3	3.05	44.7
20	10-476807-209	31.75	15.29	29.4	36.5	3.05	47.9
22	10-476807-229	34.93	15.29	31.8	39.7	3.05	51.1
24	10-476807-249	38.10	15.29	34.9	42.9	3.73	55.8

Crimp contacts



Contact size	Order number	
	Pin contact	Socket contact
22D	39587-003	39628-003
	M39029/58-360	M39029/56-348
20	39585-003	39625-003
	M39029/58-363	M39029/56-351
16	39583-003	39622-003
	M39029/58-364	M39029/56-352
12	39581-003	39619-003
	M39029/58-365	M39029/56-353

GS dip solder contacts (for printed circuit boards)



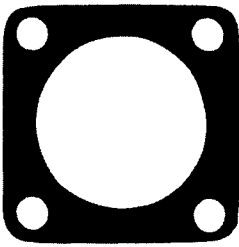
Contact size	Design	Order number	
		Pin contact	Socket contact
22D	00	39833-003	39835-003
	07	50075-003	50076-003
20	00	46279-003	46282-003
	07	50077-003	50078-003

Contact sizes 12 and 16 upon request

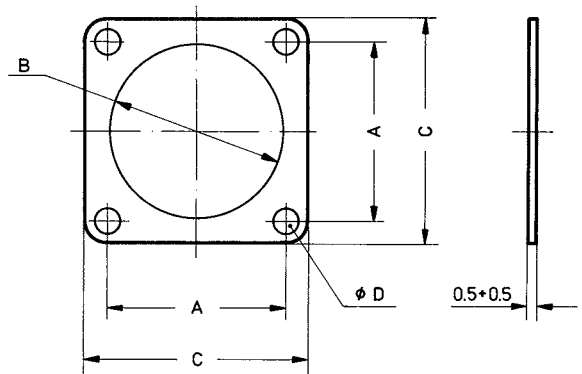
Sealing plug



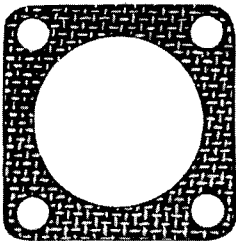
Contact size	Color code	Order number
22D	black	10-405996-221
		MS 27488-221
20	red	10-405996-201
		MS 27488-201
16	blue	10-405996-161
		MS 27488-161
12	yellow	10-405996-121
		MS 27488-121



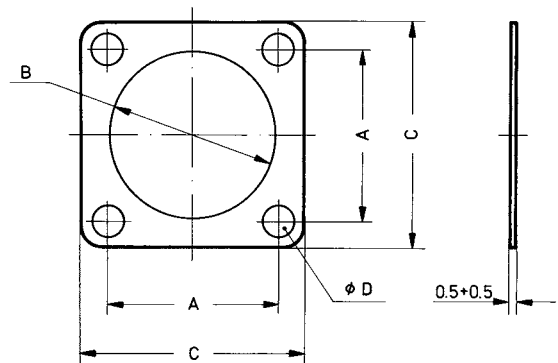
**Flange gasket
10-101949**
(VG 95328 T 0 7 A)



Shell size	Order number	Dimensions in mm			
		A ± 0.3	ø B + 1	C max.	ø D ± 0.3
8	10-101949-8	15.1	12.7	22.7	3.30
10	10-101949-10	18.3	15.9	25.8	3.30
12	10-101949-12	20.6	19.0	28.2	3.30
14	10-101949-14	23.0	22.2	30.6	3.30
16	10-101949-16	24.6	25.4	33.0	3.30
18	10-101949-18	27.0	28.6	35.4	3.30
20	10-101949-20	29.4	31.7	38.5	3.30
22	10-101949-22	31.8	34.9	41.7	3.30
24	10-101949-24	34.9	38.1	44.9	4.00



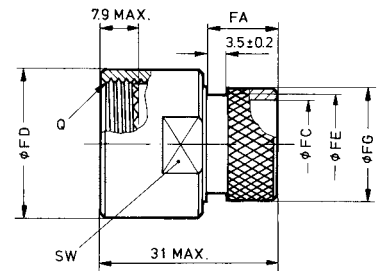
**Flange gasket
with shielding braid
10-40450**
(VG 95328 T 0 7 B)



Shell size	Order number	Dimensions in mm			
		A ± 0.3	ø B + 1	C max.	ø D ± 0.3
8	10-40450-8 S	15.1	12.7	22.7	3.3
10	10-40450-10 S	18.3	15.9	25.8	3.3
12	10-40450-12 S	20.6	19.0	28.2	3.3
14	10-40450-14 S	23.0	22.2	30.6	3.3
16	10-40450-16 S	24.6	25.4	33.0	3.3
18	10-40450-18 S	27.0	28.6	35.4	4.0
20	10-40450-20 S	29.4	31.7	38.5	4.0
22	10-40450-22 S	31.8	34.9	41.7	4.0
24	10-40450-24 S	34.9	38.1	44.9	4.0



Backshell F
39013
(VG 96912 FXX)



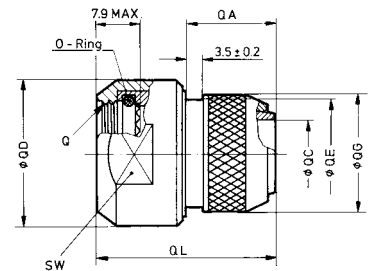
Dimensions in mm

Shell size	Order number	FA + 0.4 - 0.6	Ø FC min.	Ø FD ± 0.2	Ø FE ± 0.2	Ø FG - 0.5	Thread Q Class 2 B UNEF	SW - 0.2
8	39013-071	12.0	6.0	15	8.0	9.0	.4375-28	13
10	39013-072	12.0	8.0	18	9.8	12.0	.5625-24	16
12	39013-073	12.0	11.0	21	12.8	15.0	.6875-24	19
14	39013-074	12.0	14.4	24	16.1	18.3	.8125-20	22
16	39013-075	12.0	17.4	27	19.3	21.5	.9375-20	25
18	39013-076	12.0	19.8	30	21.8	24.0	1.0625-18	28
20	39013-077	14.2	21.9	34	25.0	27.2	1.1875-18	32
22	39013-078	14.2	25.2	37	27.3	30.5	1.3125-18	35
24	39013-079	14.2	28.0	40	30.3	33.5	1.4375-18	38

The backshell F is used for attaching a heat shrink part; it has anti-rotation teeth which function as an anti-rotation mechanism.



Backshell SQ
42415
(VG 96912 LXX)



Dimensions in mm

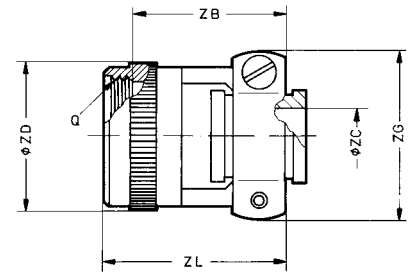
Shell size	Order number	QA + 0.2	Ø QC min.	Ø QD ± 0.2	Ø QE ± 0.2	Ø QG - 0.5	QL max.	Thread Q Class 2 B UNEF	SW - 0.2
8	42415-061	16	6.2	19	12	14	34	.4375-28	17
10	42415-062	17	7.0	22	14	16	35	.5625-24	20
12	42415-063	17	9.5	25	16	18	35	.6875-24	23
14	42415-064	17	12.5	28	20	22	35	.8125-20	26
16	42415-065	18	15.5	30	23	25	35	.9375-20	28
18	42415-066	18	18.5	34	24.5	28	36	1.0625-18	32
20	42415-067	18	21.5	38	28.5	32	36	1.1875-18	36
22	42415-068	18	23.5	43	30.5	34	36	1.3125-18	41
24	42415-069	18	27.5	45	34.5	38	36	1.4375-18	43

The SQ backshell enables the attachment of a shielding braid and a heat shrink part (see p. 34 and 38), which ensure a high level of HF-tightness between cable and connector. The anti-rotation teeth function as an anti-rotation mechanism, and ensure minimum coupling resistance.



Strain release clamp 10-476808

(VG 96912 GXX)
(LN 29729 D)

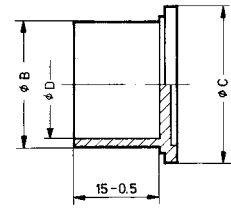


Dimensions in mm

Shell size	Order number	ZB max.	Ø ZC min.	Ø ZD max.	ZG max.	ZL max.	Thread Q Class 2 B UNEF
8	10-476808-89	17	2.5	15	20	23.5	.4375-28
10	10-476808-109	17	4.1	18	22	23.5	.5625-24
12	10-476808-129	17	7.2	21	25	23.5	.6875-24
14	10-476808-149	23	8.8	25	28	30.0	.8125-20
16	10-476808-169	23	12.0	28	30	30.0	.9375-20
18	10-476808-189	23	15.2	31	36	30.0	1.0625-18
20	10-476808-209	26	15.2	34	36	30.0	1.1875-18
22	10-476808-229	26	18.4	37	41	33.0	1.3125-18
24	10-476808-249	26	19.6	40	43	33.0	1.4375-18



Plastic dust cap 37024



Dimensions in mm

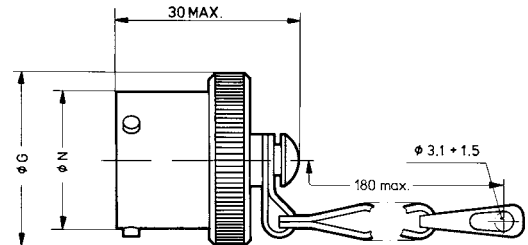
Shell size	Order code (for plugs)	Dimensions in mm		
		$\phi B - 0.2$	$\phi C \pm 0.2$	$\phi D - 0.2$
8	S8	12.0	16.0	10
10	D8 S10	15.0	20.0	13.0
12	D10 S12	18.3	23.0	16.3
14	D12 S14	21.5	27.0	19.5
16	D14 S16	25.0	29.5	23.0
18	D16 S18	27.7	32.0	25.7
20	D18 S20	30.9	35.5	28.9
22	D20 S22	34.1	39.0	32.1
24	D22 S24	37.3	42.0	35.3

Shell size	Order code (for receptacles)	Dimensions in mm		
		$\phi B - 0.2$	$\phi C \pm 0.2$	$\phi D - 0.2$
8	D8 S10	15.0	20.0	13.0
10	D10 S12	18.3	23.0	16.3
12	D12 S14	21.5	27.0	19.5
14	D14 S16	25.0	29.5	23.0
16	D16 S18	27.7	32.0	25.7
18	D18 S20	30.9	35.5	28.9
20	D20 S22	34.1	39.0	32.1
22	D22 S24	37.3	42.0	35.3
24	D24	42.0	46.0	40.0

The dust caps protect the contacts during shipping and storage.



Metal protective cap (for design type 06) (VG 96912 V3XX)



Dimensions in mm

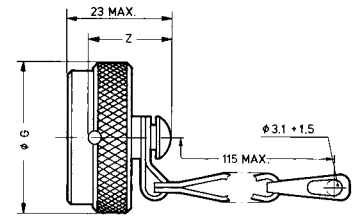
Shell size	Order number		ϕG max.	ϕN + 0.03 - 0.13
	With link chain (Type A)	With nylon cord (Type B)		
8	42160-071	42162-071	17.5	12.01
10	42160-072	42162-072	20.6	14.99
12	42160-073	42162-073	24.6	19.05
14	42160-074	42162-074	27.8	22.23
16	42160-075	42162-075	31.0	25.40
18	42160-076	42162-076	34.1	28.58
20	42160-077	42162-077	37.3	31.75
22	42160-078	42162-078	40.5	34.93
24	42160-079	42162-079	43.7	38.10

The grommet is for attaching the protective cap. The protective cap is fitted with a seal which guarantees watertight sealing between the plug and the cap. Protective caps with other fastening types are available. Please send inquiry.



Metal protective cap

(for design type 00)
(VG 96912 V1XX)



Dimensions in mm

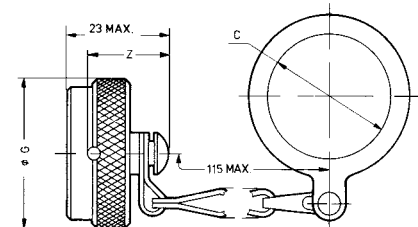
Shell size	Order number		Dimensions in mm	
	With link chain (Type A)	With nylon cord (Type B)	ø G max.	Z max.
8	38822-071	38828-071	18.65	17.5
10	38822-072	38828-072	21.82	17.5
12	38822-073	38828-073	25.50	17.5
14	38822-074	38828-074	28.58	17.5
16	38822-075	38828-075	31.75	17.5
18	38822-076	38828-076	34.93	17.5
20	38822-077	38828-077	38.10	17.5
22	38822-078	38828-078	41.28	17.5
24	38822-079	38828-079	44.45	20.0

The protective cap is attached to one of the receptacle flange screws by means of a grommet. The protective cap is fitted with a seal which guarantees a splash-proof connection between cap and receptacle. Protective caps with other fastening types are available. Please send inquiry.



Metal protective cap

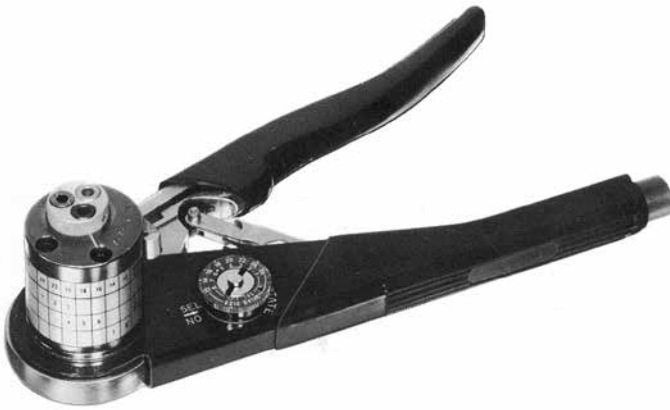
(For design type 07)
(VG 96912 V2XX)



Dimensions in mm

Shell size	Order number		Dimensions in mm		
	With link chain (Type A)	With nylon cord (Type B)	ø C + 0.5 - 0.1	ø G max.	Z max.
8	38824-071	38826-071	14.7	18.7	17.5
10	38824-072	38826-072	17.9	21.9	17.5
12	38824-073	38826-073	22.6	25.5	17.5
14	38824-074	38826-074	25.8	28.6	17.5
16	38824-075	38826-075	29.0	31.8	17.5
18	38824-076	38826-076	32.2	35.0	17.5
20	38824-077	38826-077	35.3	38.1	17.5
22	38824-078	38826-078	38.5	41.3	17.5
24	38824-079	38826-079	41.7	44.5	20.0

The fastening ring of the protective cap attaches the cap to the receptacle. The protective cap is fitted with a seal which guarantees a splash-proof connection between cap and receptacle. Protective caps with other fastening types are available. Please send inquiry.



Crimp tool M 22520/1-01
(8-notch crimping)

Dimensions in mm

Order code		Color code	Contact size	Wire size AWG
Crimp tool	Crimp insert			
M 22520/1-01	M 22520/1-04	red	20	20 to 24
		blue	16	16 to 20
		yellow	12	12 to 14

This tool allows the setting of eight different crimping depths depending on contact and wire size. Crimp tool and crimp insert must be ordered separately.



Crimp tool M 22520/2-01
(8-notch crimping)

Dimensions in mm

Crimp tool	Order code		Contact size	Wire size AWG
	Pin contact	Socket contact		
M 22520/2-01	M 22520/2-09	M 22520/2-07	22 D	22 to 28
	M 22520/2-10		20	20 to 24

The crimp tool M 22520/2-01 allows the setting of eight different crimp depths depending on the contact sizes and wire size. Crimp tool and crimp insert must be ordered separately.

Installation and removal tools for contacts



Straight type (preferable for design type 07)



Angled version

Contact size	Order number				Color designation	
	Installation tools		Removal Tools		Installation tools	Removal Tools
	Straight	Angled	Straight	Angled		
22 D	11-8794-24 MS27495-A22MS	11-8674-24 MS27495-A22M	11-8795-24 MS27495-R22MS	11-8675-24 MS27495-R22M	black	black-white
20	11-8794-20 MS27495-A20S	11-8674-20 MS27495-A20	11-8795-20 MS27495-R20S	11-8675-20 MS27495-R20	red	red-white
16	11-8794-16 MS27495-A16S	11-8674-16 MS27495-A16	11-8795-16 MS27495-R16S	11-8675-16 MS27495-R16	blue	blue-white
12	11-8794-12 MS27495-A12S	11-8674-12 MS27495-A12	11-8795-12 MS27495-R12S	11-8675-12 MS27495-R12	yellow	yellow-white



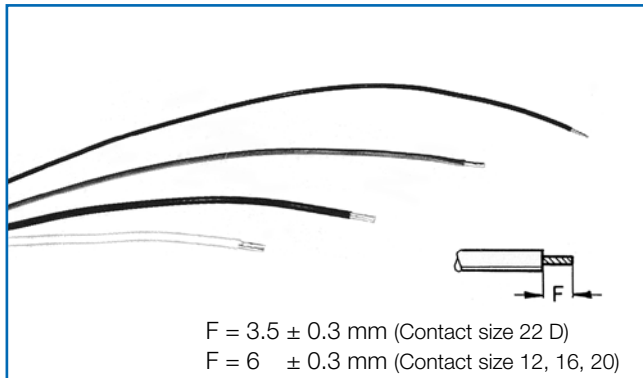
Extraction tool
for unwired contacts

Contact size	Order number
22 D	36561-001
20	36561-003
16	36561-004
12	36561-005

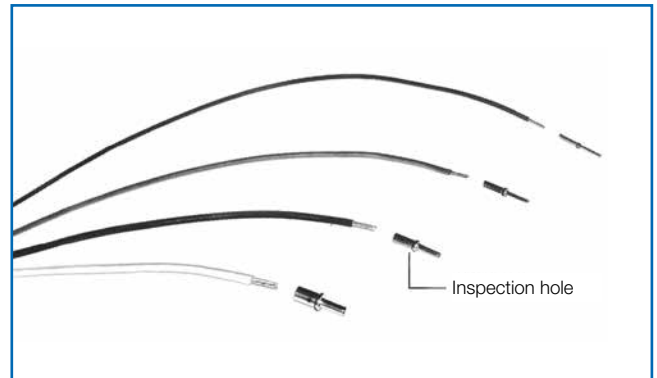
Assembly tool
for coupling connectors

Shell size	Order number
8 to 24	TG 69

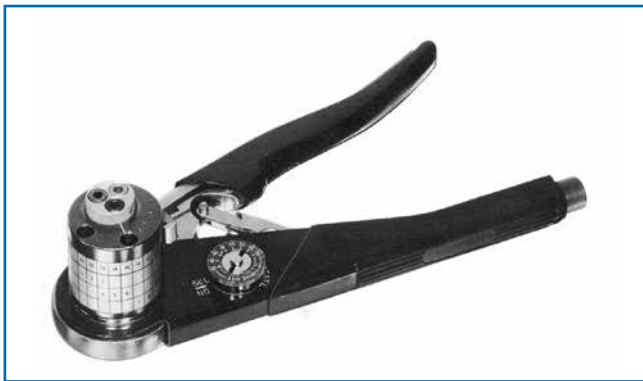
Contact crimping



a Cut the conductor to the required length and strip it. The stranded wire must not be damaged. A heat-absorbing type is recommended.



b Put the stripped wire into the contact crimp sleeve. Make sure that the stranded wire is visible through the inspection hole.



c The crimp tool M22520/1-01 (8-notch crimping) is equipped with a single insert (see p. 30), which allows the crimping of contacts in the sizes 12, 16, and 20. See also user manual provided by manufacturer.



d There are three crimp inserts for the crimp tools M22520/2-01 and MS 3198-1 (8-notch crimping) available (see p. 30). These allow crimping for contact sizes 22 and 22 D. See also user manual provided by manufacturer.

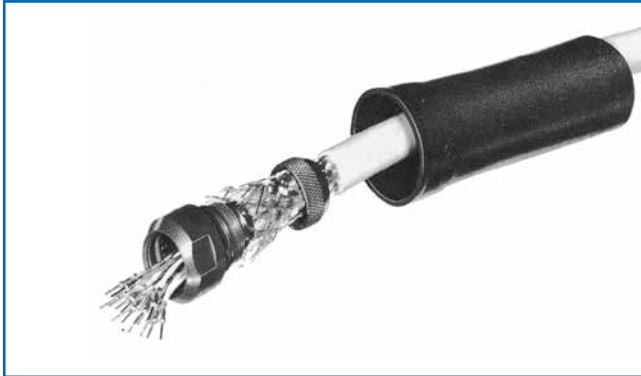


e After properly setting the wire size and contact size, close and reopen tool M 22520/1-01 to ensure that the crimp jaws are open. Insert contact with the conductor into receptacle. Close tool until it automatically reopens. Remove contact from the receptacle and check if conductor is visible through the inspection hole.



f After selecting the appropriate crimp insert, close and open the crimp tool M22520/2-01 or MS 3198-1 to make sure that the crimp jaws are open. Insert contact with conductor into receptacle. Close tool completely until it automatically reopens. Remove contact from the receptacle and check if conductor is visible through the inspection hole.

Insertion of contacts



a Remove individual backshell components from the connector and place them over the wire bundles in the correct order.



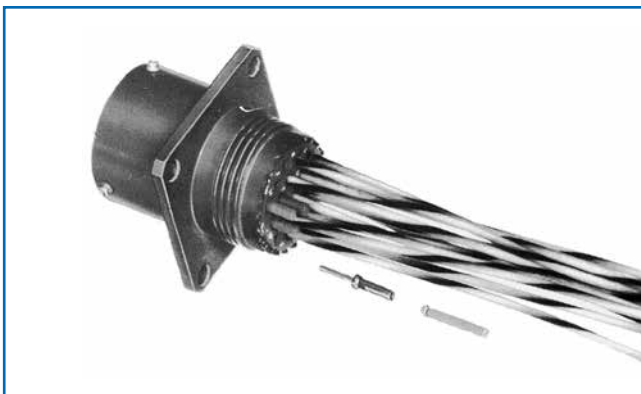
b Use the appropriate tool to insert contacts into the connector (see p. 31).



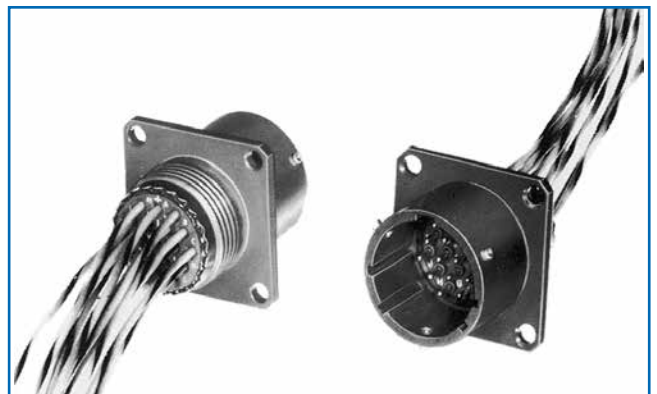
c Place the tip of the insertion tool over the conductor up to the contact shoulder.



d Insert the contact on the back of the connector lineally and press forward until it clicks into place. Remove tool. By pulling gently on the conductor, check that the contact is correctly inserted.



e Place an uncrimped contact and a sealing plug in unused contact openings. Put the sealing plug into the sealing insert in the manner shown above.

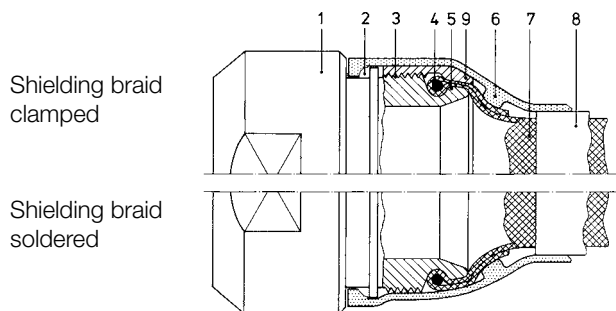


f After equipping the connector, determine by visual inspection if all contacts are inserted correctly. The backshell can then be screwed on.

Mounting the backshell SQ

The backshell SQ (see p. 26) is used to hold the cable shielding braid through clamping or soldering, and for shrink-fitting a heat shrink part (see p. 38) as described to the right.

In conjunction with the plug SJTG 06 RT, which is equipped with a grounding ring (see p. 13), full shielding of the plug connection is achieved.



Backshell SQ with shielding braid and heat shrink part

Clamping of shielding braid

- Before the shielding braid is clamped, screw the backshell with coupling ring (1) onto the wired connector until the teeth are engaged.
- Loosen the clamping nut (9). Place heat shrink part (6) and clamping nut over cables (8).
- Push shielding braid (7) onto backshell and over the thread (3).
- Fasten shielding braid (7) to the rounded groove with binding wire (4).
- Fold the protruding shielding braid back over the cone (5).
- Screw the clamping nut (9) onto the backshell (the folded shielding braid must protrude under the clamping nut on the cable side).
- Apply adhesive from the rectangular groove (2) down to the knurl of the clamping nut (9).
- Shrink-fit heat shrink part (6) (the lip of the heat shrink part grips into the rectangular groove (2)).

Removal of wired contacts

- Detach backshell from connector.
Select appropriate removal tool (see p. 31) according to contact size.
- Open removal tool and place it over the conductor, then push the tool into the connector axially until it stops. The tool must not be rotated or opened during this procedure.
- Hold the conductor, then remove the tool together with contact and conductor.

Removal of unwired contacts

- Detach backshell from connector.
- Remove sealing plug.
- Select removal tool according to contact size (see p. 31) and push it into the back of the connector axially until it stops.
- Push the contact out of the connector from the front to the back side using the extraction tool 36561 (see p. 31).

With pin contacts, the extraction tool side marked with P is placed over the tip of the pin contact, and with socket contacts, the side marked S is pushed into the socket contact.

Soldering of the shielding braid

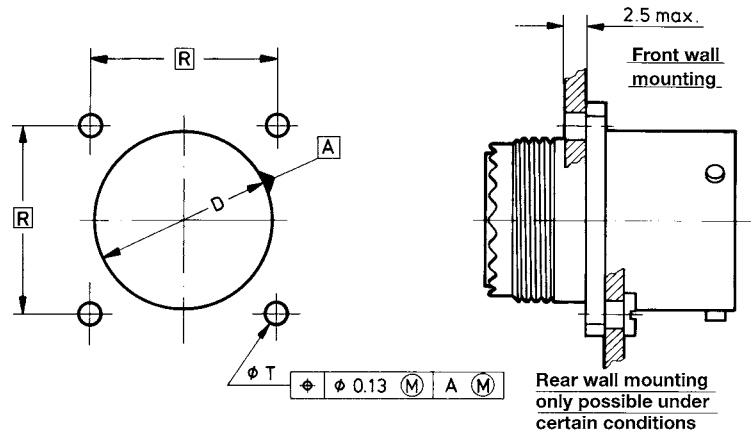
Please send inquiry.



Receptacles with square flange

Square flange receptacles can be mounted onto the front or back side of the mounting wall.

The respective flange gaskets on page 25 are to be used only for front wall mounting.



Dimensions in mm

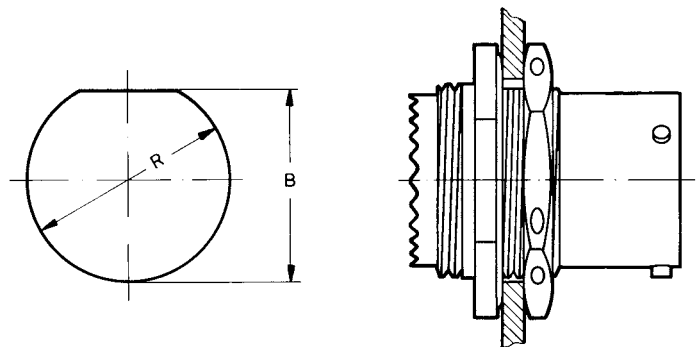
Mounting hole

Installation example: SJT 00 RT

Shell size	8	10	12	14	16	18	20	22	24
∅ D Front wall mounting	12.10	15.20	18.40	21.60	24.80	27.90	31.10	34.30	37.40
∅ D Rear wall mounting	14.00	17.00	22.00	25.00	28.00	31.00	34.50	37.50	41.00
R Theoretical dimensions	15.1	18.3	20.6	23.6	24.6	27.0	29.4	31.8	34.9
∅ T ± 0.3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	4.0

Receptacles for single hole mounting

The receptacles for single hole mounting can be fixed to mounting walls with a thickness of 1.6 mm to 3.2 mm. The mounting nut torques are listed in the table below.



Dimensions in mm

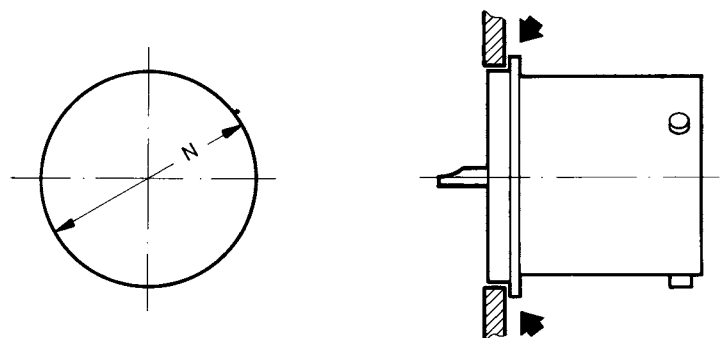
Mounting hole

Installation example: SJT 07 RT

Shell size	8	10	12	14	16	18	20	22	24
B - 0.25	13.77	16.99	21.08	24.26	27.53	30.68	33.86	37.06	40.1
∅ R + 0.25	14.53	17.70	22.45	25.58	28.80	31.98	35.15	38.28	41.50
Max. torque Nm	3.6	4.1	5.6	6.8	8.5	9.6	10.7	12.4	13.6

Hermetically sealed receptacle

The receptacle must be mounted in such a manner that the hermetic seal provided by the compression glass insert is maintained. The shell surface is tin-plated to facilitate soldering. Soldering tin with a low melting point is recommended. The solder is applied at the points indicated by arrows.



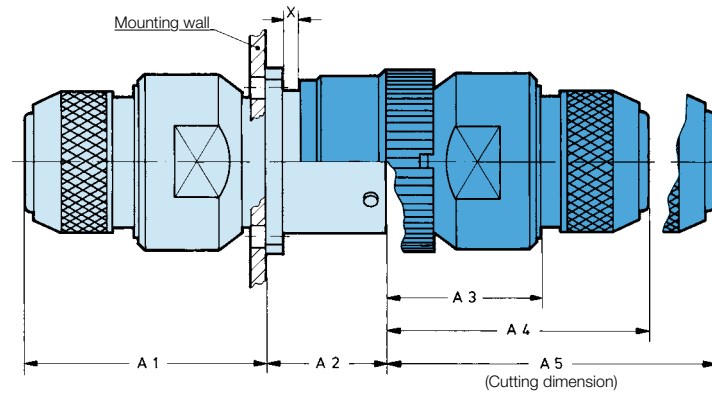
Dimensions in mm

Mounting hole

Installation example: SJT 07 RT

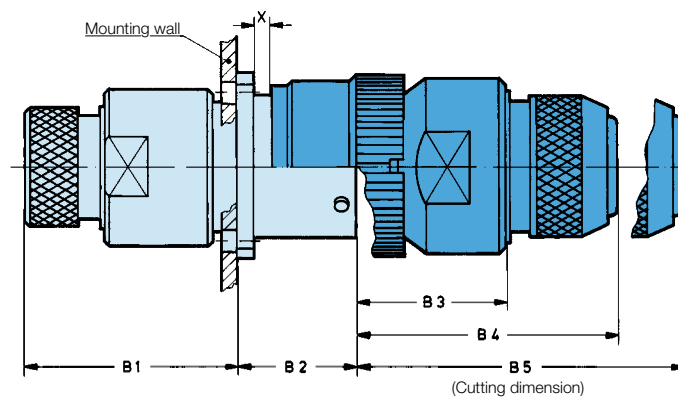
Shell size	8	10	12	14	16	18	20	22	24
∅ N max.	14.78	17.58	20.35	23.52	26.70	29.87	32.30	35.30	38.61

Receptacle SJT 00 RT and plug SJTG 06 RT with backshells



SJT 00 RT with
backshell SQ

SJTG 06 RT with
backshell SQ



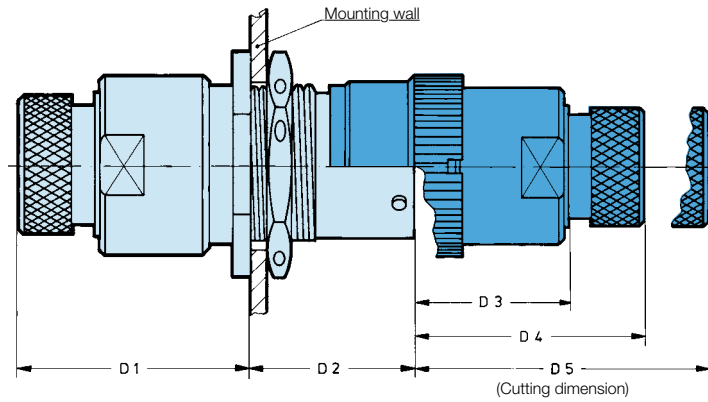
SJT 00 RT with
backshell F

SJTG 06 RT with
backshell SQ

Dimensions in mm

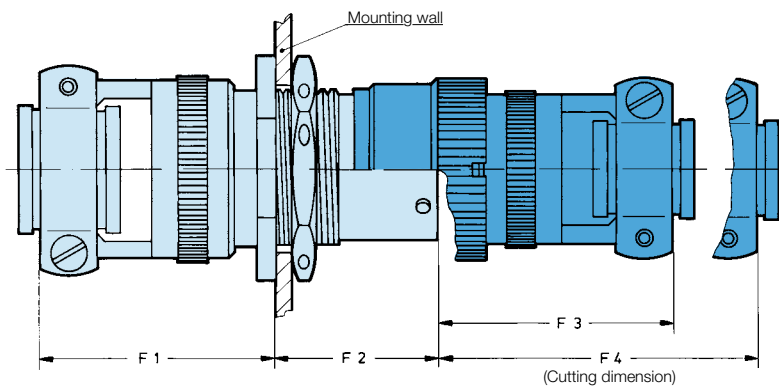
Shell size	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	X min.
8	39	18.4	26	42	58	33	18.4	26	42	58	3.1
10	39	18.4	26	42	58	33	18.4	26	42	58	3.1
12	39	18.4	26	42	58	33	18.4	26	42	58	3.1
14	39	18.4	26	42	58	33	18.4	26	42	58	3.1
16	39	18.4	27	43	59	33	18.4	27	43	59	3.1
18	39	18.4	27	43	59	33	18.4	27	43	59	3.1
20	39	18.4	27	43	59	33	18.4	27	43	59	2.3
22	39	18.4	27	43	59	33	18.4	27	43	59	2.3
24	40	18.4	27	43	59	35	18.4	27	43	59	1.5

Receptacle SJT 07 RT and plug SJT 06 RT with backshells



SJT 07 RT with backshell F

SJT 06 RT with backshell F



SJT 07 RT with strain release clamp

SJT 06 RT with strain release clamp

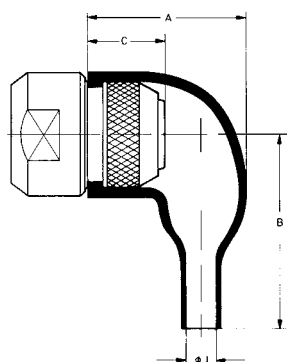
Dimensions in mm

Shell size	D1	D2	D3	D4	D5	F1	F2	F3	F4
8	34	23.4	25	37	53	30	23.4	33	49
10	34	23.4	25	37	53	30	23.4	33	49
12	34	23.4	25	37	53	30	23.4	33	49
14	34	23.4	25	37	53	36	23.4	39	55
16	34	23.4	25	37	53	36	23.4	39	55
18	35	23.4	25	37	53	37	23.4	39	55
20	35	23.4	25	37	53	40	23.4	42	58
22	35	23.4	25	37	53	40	23.4	42	58
24	35	23.4	26	38	54	40	23.4	43	59

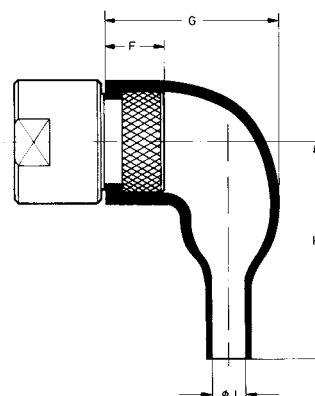
Heat shrink parts

The heat shrink parts shown are suitable for shrink-fitting to fully assembled connectors which use backshells F or SQ (see p. 26).

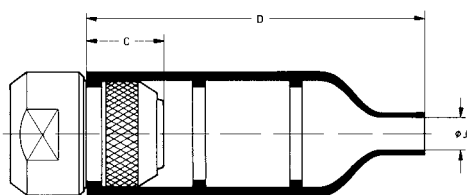
The heat shrink parts 202 and 222 can be obtained from the company RAYCHEM. The information below is for informational purposes only.



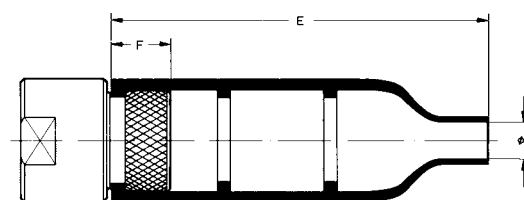
Backshell SQ with molded part 222



Backshell F with molded part 222



Backshell SQ with molded part 202



Backshell F with molded part 202

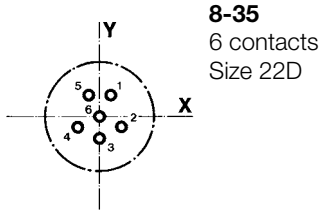
Dimensions in mm

Shell size	Molded part order code	Backshell SQ				
		Dimensions in mm				
		A	B	C	D	Ø J max.
8	222 K 121 202 K 121	25.4	25.0	16	38.4	5.6
10	222 K 132 202 K 132	27.2	32.0	17	54.9	6.6
12	222 K 132 202 K 132	27.2	32.0	17	54.9	6.6
14	222 K 142 202 K 142	30.5	39.4	17	66.8	7.1
16	222 K 152 202 K 153	38.0	46.4	18	80.0	8.4
18	222 K 152 202 K 153	38.0	46.4	18	80.0	8.4
20	222 K 163 202 K 163	45.0	55.0	18	99.1	9.9
22	222 K 163 202 K 163	45.0	55.0	18	99.1	9.9
24	222 K 174 202 K 174	54.0	80.0	18	130.0	15.7

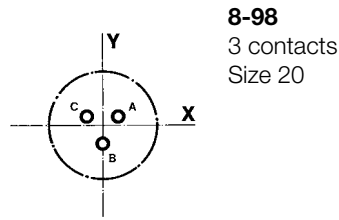
Shell size	Molded part order code	Backshell F				
		Dimensions in mm				
		E	F	G	H	Ø J max.
8	222 A 111 202 A 111	25.4	12	20.1	17.3	3.8
10	222 K 121 202 K 121	38.4	12	25.4	25.0	5.6
12	222 K 121 202 K 121	38.4	12	25.4	25.0	5.6
14	222 K 132 202 K 132	54.9	12	27.2	32.0	6.6
16	222 K 142 202 K 142	66.8	12	30.5	39.4	7.1
18	222 K 142 202 K 142	66.8	12	30.5	39.4	7.1
20	222 K 152 202 K 153	80.0	12	38.0	46.4	8.4
22	222 K 163 202 K 163	99.1	14	45.0	55.0	9.9
24	222 K 163 202 K 163	99.1	14	45.0	55.0	9.9

Contact bore holes for receptacles (p. 18-20)

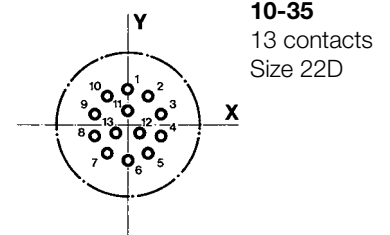
Front view of the pin insert in the normal position (p. 4)



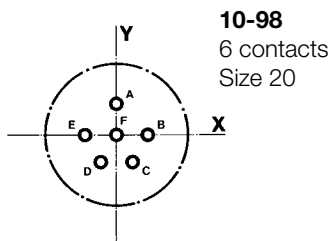
Contact	X	Y
1	+1.14	+1.98
2	+1.98	-1.14
3	0	-2.29
4	-1.98	-1.14
5	-1.14	+1.98
6	0	0



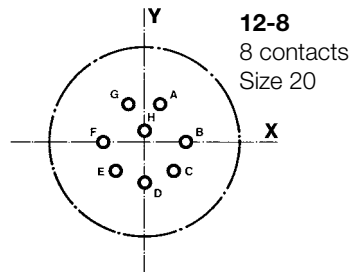
Contact	X	Y
A	+1.65	+0.97
B	0	-1.91
C	-1.65	+0.97



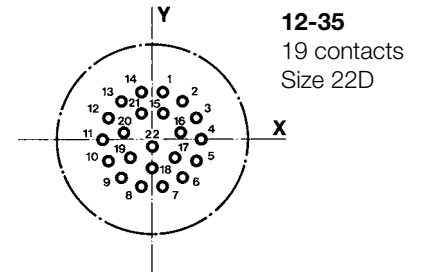
Contact	X	Y	Contact	X	Y
1	0	+3.71	8	-3.51	-1.14
2	+2.16	+3.00	9	-3.51	+1.14
3	+3.51	+1.14	10	-2.16	+3.00
4	+3.51	-1.14	11	0	+1.42
5	+2.16	-3.00	12	+1.24	-0.89
6	0	-3.71	13	-1.24	-0.89
7	-2.16	-3.00			



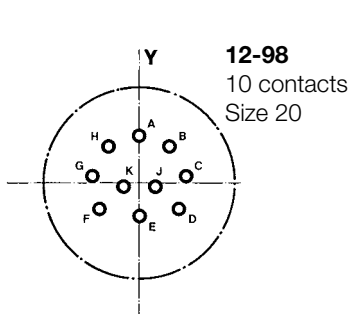
Contact	X	Y
A	0	+3.30
B	+3.30	0
C	+1.65	-2.87
D	-1.65	-2.87
E	-3.30	0
F	0	0



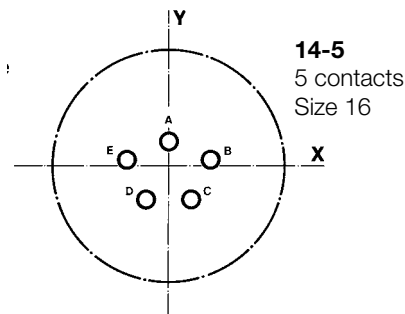
Contact	X	Y
A	+1.65	+3.99
B	+4.32	0
C	+3.05	-3.05
D	0	-4.32
E	-3.05	-3.05
F	-4.32	0
G	-1.65	+3.99
H	0	+1.12



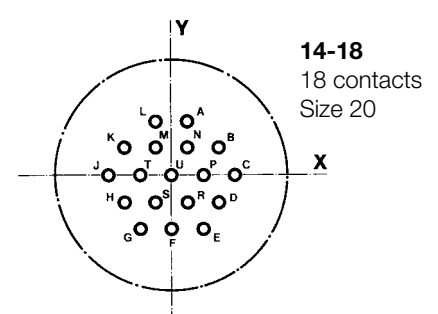
Contact	X	Y	Contact	X	Y
1	+1.14	+5.00	12	-4.62	+2.24
2	+3.20	+4.01	13	-3.20	+4.01
3	+4.62	+2.24	14	-1.14	+5.00
4	+5.16	0	15	+1.14	+2.72
5	+4.62	-2.24	16	+2.97	+0.66
6	+3.20	-4.01	17	+2.36	-1.91
7	+1.14	-5.00	18	0	-3.05
8	-1.14	-5.00	19	-2.36	-1.91
9	-3.20	-4.01	20	-2.97	+0.66
10	-4.62	-2.24	21	1.14	+2.72
11	-5.16	0	22	0	-0.76



Contact	X	Y
A	0	+4.95
B	+3.18	+3.81
C	+4.90	+0.76
D	+4.17	-2.67
E	0	-3.43
F	-4.17	-2.67
G	-4.90	+0.76
H	-3.18	+3.81
J	+1.65	-0.38
K	-1.65	-0.38



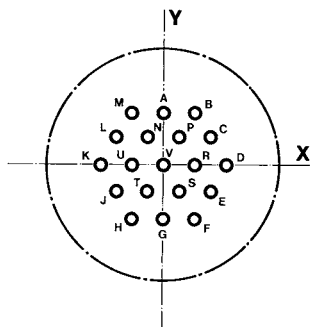
Contact	X	Y
A	0	+2.54
B	+4.42	+0.61
C	+2.39	-3.56
D	-2.39	-3.56
E	-4.42	+0.61



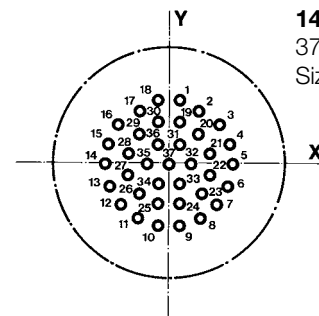
Contact	X	Y	Contact	X	Y
A	+1.65	+6.40	K	-4.95	+2.87
B	+4.95	+2.87	L	-1.64	+6.40
C	+6.60	0	M	-1.65	+2.87
D	+4.95	-2.87	N	+1.65	+2.87
E	+3.30	-5.72	P	+3.30	0
F	0	-5.72	R	+1.65	-2.87
G	-3.30	-5.72	S	-1.65	-2.87
H	-4.95	-2.87	T	-3.30	0
J	-6.60	0	U	0	0

Contact bore holes for receptacles (p. 18-20)

Front view of the pin insert in the normal position (p. 4)



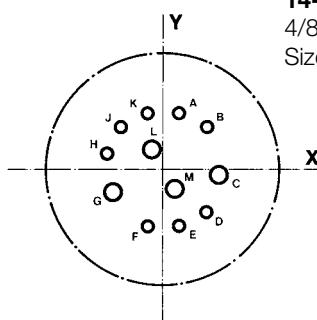
14-19
19 contacts
Size 20



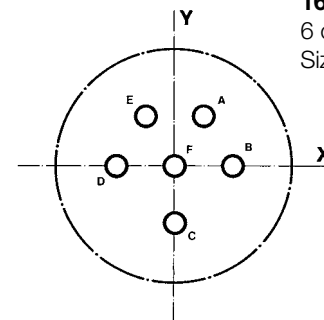
14-35
37 contacts
Size 22D

Contact	X	Y	Contact	X	Y
A	0	+5.72	L	- 4.95	+2.87
B	+3.30	+5.72	M	- 3.30	+5.72
C	+4.95	+2.87	N	- 1.65	+2.87
D	+6.60	0	P	+ 1.65	+2.87
E	+4.95	- 2.87	R	+3.30	0
F	+3.30	- 5.72	S	+ 1.65	- 2.87
G	0	- 5.72	T	- 1.65	- 2.87
H	- 3.30	- 5.72	U	- 3.30	0
J	- 4.95	- 2.87	V	0	0
K	- 6.60	0			

Contact	X	Y	Contact	X	Y
1	+1.14	+6.65	20	+ 3.12	+3.02
2	+3.12	+5.51	21	+ 4.32	+1.02
3	+5.36	+4.06	22	+ 4.32	- 1.27
4	+6.45	+2.03	23	+ 3.12	- 3.23
5	+6.76	- 0.25	24	+ 1.14	- 4.37
6	+6.27	- 2.49	25	- 1.14	- 4.37
7	+5.08	- 4.45	26	- 3.12	- 3.23
8	+3.30	- 5.89	27	- 4.32	- 1.27
9	+1.14	- 6.65	28	- 4.32	+1.02
10	- 1.14	- 6.65	29	- 3.12	+3.02
11	- 3.30	- 5.89	30	- 1.14	+4.37
12	- 5.08	- 4.45	31	+ 1.14	+1.88
13	- 6.27	- 2.49	32	+ 2.29	- 0.10
14	- 6.76	- 0.25	33	+ 1.14	- 2.08
15	- 6.45	+2.03	34	- 1.14	- 2.08
16	- 5.36	+4.06	35	- 2.29	- 0.10
17	- 3.12	+5.51	36	- 1.14	+1.88
18	- 1.14	+6.65	37	0	- 0.10
19	+1.14	+4.37			



14-97
4/8 contacts
Size 16/20



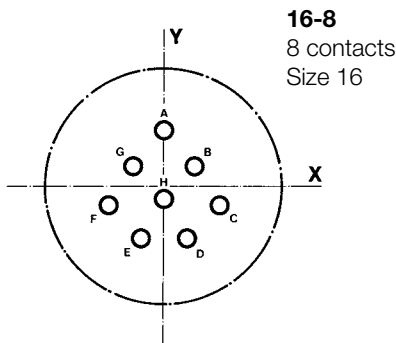
16-6
6 contacts
Size 12

Contact	X	Y
A	+ 1.65	+ 5.94
B	+ 4.52	+ 4.52
C	+ 5.84	- 0.58
D	+ 4.52	- 4.52
E	+ 1.65	- 5.94
F	- 2.26	- 5.96
G	- 5.26	- 2.41
H	- 5.94	+ 1.65
J	- 4.52	+ 4.52
K	- 1.65	+ 5.94
L	- 1.19	+ 2.06
M	+ 1.19	- 2.06

Contact	X	Y
A	+ 3.07	+ 5.31
B	+ 6.12	0
C	0	- 6.12
D	- 6.12	0
E	- 3.07	- 5.31
F	0	0

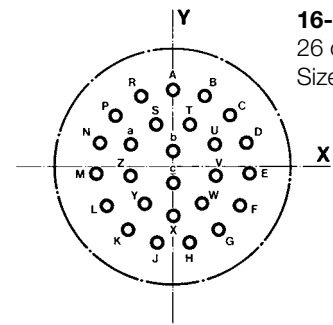
Contact bore holes for receptacles (p. 18-20)

Front view of the pin insert in the normal position (p. 4)



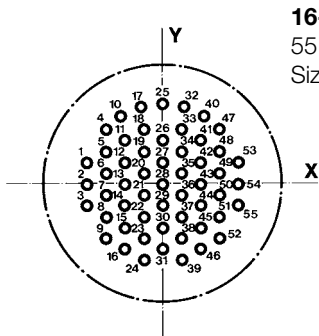
16-8
8 contacts
Size 16

Contact	X	Y
A	0	+5.99
B	+3.25	+2.18
C	+5.84	-1.98
D	+2.39	-5.49
E	-2.39	-5.49
F	-5.84	-1.98
G	-3.25	+2.18
H	0	-1.32



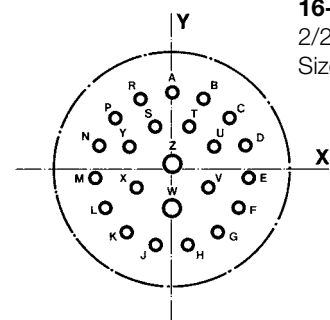
16-26
26 contacts
Size 20

Contact	X	Y	Contact	X	Y
A	0	+8.15	P	-6.07	+5.44
B	+3.33	+7.44	R	-3.33	+7.44
C	+6.07	+5.44	S	-1.78	+4.50
D	+7.75	+2.51	T	+1.78	+4.50
E	+8.10	-0.86	U	+4.45	+2.39
F	+7.06	-4.09	V	+4.52	-0.91
G	+4.80	-6.60	W	+3.02	-3.84
H	+1.70	-7.98	X	0	+5.16
J	-1.70	-7.98	Y	-3.02	-3.84
K	-4.80	-6.60	Z	-4.52	-0.91
L	-7.06	-4.09	a	-4.45	+2.39
M	-8.10	-0.86	b	0	+1.65
N	-7.75	+2.51	c	0	-1.65



16-35
55 contacts
Size 22D

Contact	X	Y	Contact	X	Y
1	-7.92	+2.18	29	0	-2.39
2	-7.92	-0.10	30	0	-4.67
3	-7.92	-2.39	31	0	-6.96
4	-6.15	+5.61	32	+2.26	+8.03
5	-5.94	+3.33	33	+1.98	+5.61
6	-5.94	+1.04	34	+1.98	+3.33
7	-5.94	-1.24	35	+1.98	+1.04
8	-5.94	-3.53	36	+1.98	-1.24
9	-5.94	-5.82	37	+1.98	-3.53
10	-4.37	+7.09	38	+1.98	-5.82
11	-3.96	+4.47	39	+1.98	-8.10
12	-3.96	+2.18	40	+4.37	+7.09
13	-3.96	-0.10	41	+3.96	+4.47
14	-3.96	-2.39	42	+3.96	+2.18
15	-3.96	-4.67	43	+3.96	-0.10
16	-3.96	-6.96	44	+3.96	+2.39
17	-2.26	+8.03	45	+3.96	-4.67
18	-1.98	+5.61	46	+3.96	-6.96
19	-1.98	+3.33	47	+6.15	+5.61
20	-1.98	+1.04	48	+5.94	+3.33
21	-1.98	-1.24	49	+5.94	+1.04
22	-1.98	-3.53	50	+5.94	-1.24
23	-1.98	-5.82	51	+5.94	-3.53
24	-1.98	-8.10	52	+5.94	-5.82
25	0	+8.36	53	+7.92	+2.18
26	0	+4.47	54	+7.92	-0.10
27	0	+2.18	55	+7.92	-2.39
28	0	-0.10			

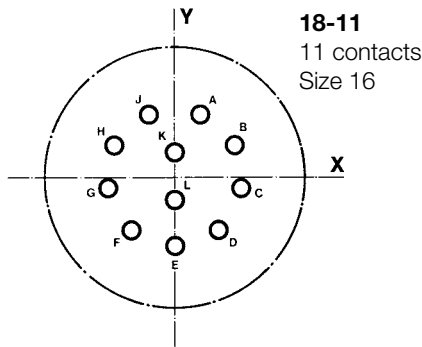


16-99
2/21 contacts
Size 16/20

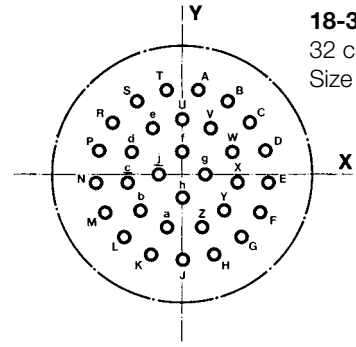
Contact	X	Y	Contact	X	Y
A	0	+8.15	N	-7.75	+2.51
B	+3.33	+7.44	P	-6.07	+5.44
C	+6.07	+5.44	R	-3.33	+7.44
D	+7.75	+2.51	S	-1.78	+4.50
E	+8.10	-0.86	T	+1.78	+4.50
F	+7.06	-4.09	U	+4.45	+2.39
G	+4.80	-6.60	V	+3.81	-1.90
H	+1.70	-7.98	X	0	-6.60
J	-1.70	-7.98	Y	-3.81	-1.90
K	-4.80	-6.60	Z	-4.45	+2.39
L	-7.06	-4.09		0	+0.64
M	-8.10	-0.86			

Contact bore holes for receptacles (p. 18-20)

Front view of the pin insert in the normal position (p. 4)



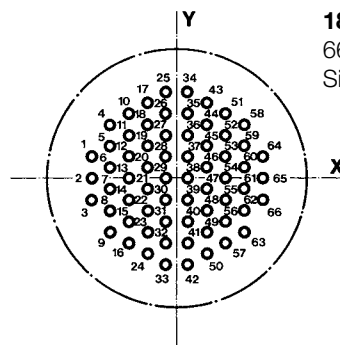
18-11
11 contacts
Size 16



18-32
32 contacts
Size 20

Contact	X	Y
A	+2.67	+6.60
B	+6.35	+3.35
C	+6.99	- 1.35
D	+4.55	- 5.46
E	0	- 7.14
F	- 4.55	- 5.46
G	- 6.99	- 1.35
H	- 6.35	+3.35
J	- 2.67	+6.60
K	0	+2.67
L	0	- 2.67

Contact	X	Y	Contact	X	Y
A	+1.68	+8.97	T	- 1.68	+8.97
B	+4.80	+7.75	U	0	+5.84
C	+7.26	+5.51	V	+3.15	+4.90
D	+8.76	+2.49	W	+5.31	+2.41
E	+9.07	- 0.84	X	+5.79	- 0.84
F	+8.15	- 4.06	Y	+4.42	- 3.84
G	+6.15	- 6.73	Z	+1.65	- 5.61
H	+3.30	- 8.51	a	- 1.65	- 5.61
J	0	- 9.12	b	- 4.42	- 3.84
K	- 3.30	- 8.51	c	- 5.79	- 0.84
L	- 6.15	- 6.73	d	- 5.31	+2.41
M	- 8.15	- 4.06	e	- 3.15	+4.90
N	- 9.07	- 0.84	f	0	+2.44
P	- 8.76	+2.49	g	+2.44	0
R	- 7.26	+5.51	h	0	- 2.44
S	- 4.80	+7.75	j	- 2.44	0

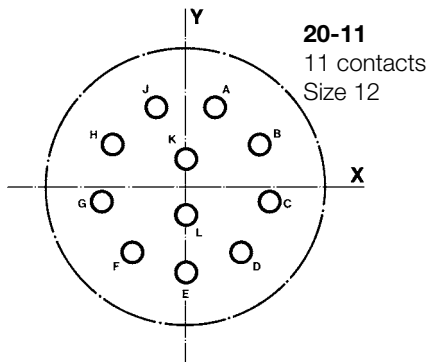


18-35
66 contacts
Size 22D

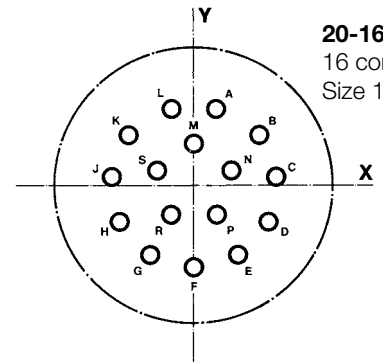
Contact	X	Y	Contact	X	Y	Contact	X	Y	Contact	X	Y
1	-9.07	+2.29	18	- 3.12	+5.72	35	+1.14	+6.86	52	+5.11	+4.57
2	-9.07	0	19	- 3.12	+3.43	36	+1.14	+4.57	53	+5.11	+2.29
3	-9.07	- 2.29	20	- 3.12	+1.14	37	+1.14	+2.29	54	+5.11	0
4	-7.09	+5.72	21	- 3.12	- 1.14	38	+1.14	0	55	+5.11	- 2.29
5	-7.09	+3.43	22	- 3.12	- 3.43	39	+1.14	- 2.29	56	+5.11	- 4.57
6	-7.09	+1.14	23	- 3.12	- 5.72	40	+1.14	- 4.57	57	+5.11	- 6.86
7	-7.09	- 1.14	24	- 3.12	- 8.00	41	+1.14	- 6.86	58	+7.09	+5.72
8	-7.09	- 3.43	25	- 1.14	+9.14	42	+1.14	- 9.14	59	+7.09	+3.43
9	-7.09	- 5.72	26	- 1.14	+6.86	43	+3.12	+8.00	60	+7.09	+1.14
10	-5.11	+6.86	27	- 1.14	+4.57	44	+3.12	+5.72	61	+7.09	- 1.14
11	-5.11	+4.57	28	- 1.14	+2.29	45	+3.12	+3.43	62	+7.09	- 3.43
12	-5.11	+2.29	29	- 1.14	0	46	+3.12	+1.14	63	+7.09	- 5.72
13	-5.11	0	30	- 1.14	- 2.29	47	+3.12	- 1.14	64	+9.07	+2.29
14	-5.11	- 2.29	31	- 1.14	- 4.57	48	+3.12	- 3.43	65	+9.07	0
15	-5.11	- 4.57	32	- 1.14	- 6.86	49	+3.12	- 5.72	66	+9.07	- 2.29
16	-5.11	- 6.86	33	- 1.14	- 9.14	50	+3.12	- 8.00			
17	-3.12	+8.00	34	+1.14	+9.14	51	+5.11	+6.86			

Contact bore holes for receptacles (p. 18-20)

Front view of the pin insert in the normal position (p. 4)



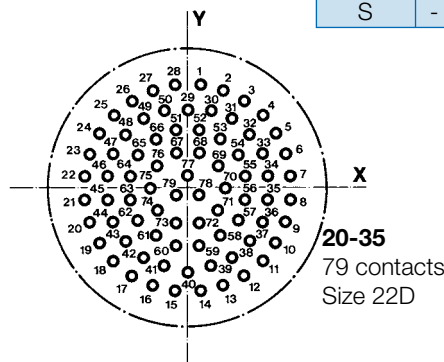
20-11
11 contacts
Size 12



20-16
16 contacts
Size 16

Contact	X	Y
A	+3.07	+8.43
B	+7.77	+4.50
C	+8.84	- 1.55
D	+5.77	- 6.86
E	0	- 8.97
F	- 5.77	- 6.86
G	- 8.84	- 1.55
H	- 7.77	+4.50
J	- 3.07	+8.43
K	0	+3.12
L	0	- 2.92

Contact	X	Y
A	+2.30	+8.18
B	+6.88	+5.36
C	+8.66	+0.91
D	+7.82	- 3.81
E	+4.62	- 7.37
F	0	- 8.71
G	- 4.62	- 7.37
H	- 7.82	- 3.81
J	- 8.66	+0.91
K	- 6.88	+5.36
L	- 2.30	+8.18
M	0	+4.45
N	+3.91	+1.57
P	+2.39	- 3.10
R	- 2.39	- 3.10
S	- 3.91	+1.57

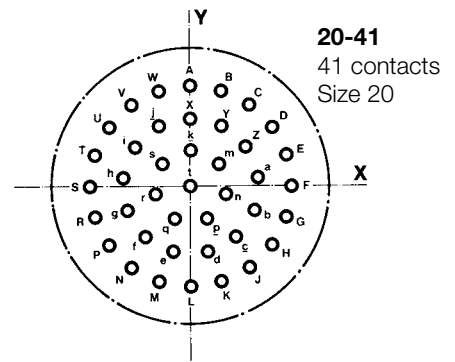
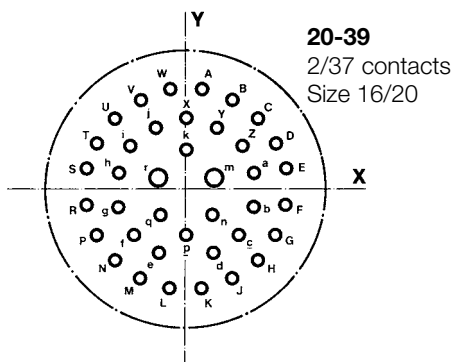


20-35
79 contacts
Size 22D

Contact	X	Y	Contact	X	Y	Contact	X	Y	Contact	X	Y
1	+ 1.35	+10.82	21	-10.85	- 1.22	41	- 2.49	- 8.18	61	- 3.40	- 5.05
2	+ 3.71	+10.26	22	-10.85	+ 1.22	42	- 4.67	- 7.11	62	- 5.28	- 3.53
3	+ 5.89	+ 9.19	23	-10.31	+ 3.58	43	- 6.55	- 5.59	63	- 6.02	- 1.22
4	+ 7.77	+ 7.67	24	- 9.27	+ 5.77	44	- 7.90	- 3.53	64	- 6.02	+1.22
5	+ 9.27	+ 5.77	25	- 7.77	- 7.67	45	- 8.43	- 1.22	65	- 5.28	+3.53
6	+10.31	+ 3.58	26	- 5.89	+ 9.19	46	- 8.43	+1.22	66	- 3.40	+5.05
7	+10.85	+ 1.22	27	- 3.71	+10.25	47	- 7.90	+3.58	67	- 1.22	+3.71
8	+10.85	- 1.22	28	- 1.35	+10.82	48	- 6.55	+5.59	68	- 1.22	+3.71
9	+10.31	- 3.58	29	0	+ 8.20	49	- 4.67	+7.11	69	+3.18	+2.29
10	+ 9.27	- 5.77	30	+ 2.49	+ 8.18	50	- 2.49	+8.18	70	+3.94	0
11	+ 7.77	- 7.67	31	+ 4.67	+ 7.11	51	- 1.22	+6.12	71	+3.18	- 2.29
12	+ 5.89	- 9.19	32	+ 6.55	+ 5.59	52	+1.22	+6.12	72	+1.22	- 3.71
13	+ 3.71	-10.26	33	+ 7.90	+ 3.58	53	+3.40	+5.05	73	- 1.22	- 3.71
14	+ 1.35	-10.82	34	+ 8.43	+ 1.22	54	+5.28	+3.53	74	- 3.18	- 2.29
15	- 1.35	-10.82	35	+ 8.43	- 1.22	55	+6.02	+1.22	75	- 3.94	0
16	- 3.71	-10.26	36	+ 7.90	- 3.58	56	+6.02	- 1.22	76	- 3.18	+2.29
17	- 5.89	- 9.19	37	+ 6.55	- 5.59	57	+5.28	- 3.53	77	0	+1.35
18	- 7.77	- 7.67	38	+ 4.67	- 7.11	58	+3.40	- 5.05	78	+ 1.22	- 0.74
19	- 9.27	- 5.77	39	+ 2.49	- 8.18	59	+1.22	- 6.12	79	- 1.22	- 0.74
20	-10.31	- 3.58	40	0	- 8.84	60	- 1.22	- 6.12			

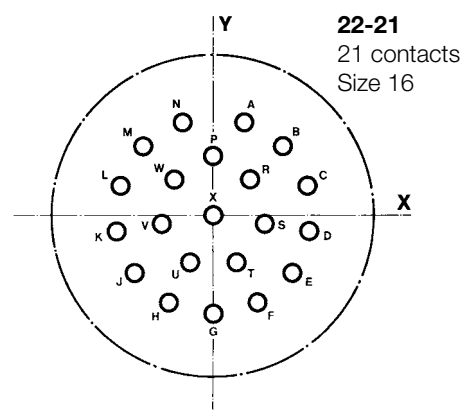
Contact bore holes for receptacles (p. 18-20)

Front view of the pin insert in the normal position (p. 4)



Contact	X	Y
A	+ 1.65	+10.44
B	+ 4.80	+ 9.42
C	+ 7.47	+ 7.47
D	+ 9.42	+ 4.80
E	+10.44	+ 2.16
F	+10.44	- 1.65
G	+ 9.42	- 4.80
H	+ 7.47	- 7.47
J	+ 4.80	- 9.42
K	+ 1.65	- 10.44
L	- 1.65	- 10.44
M	- 4.80	- 9.42
N	- 7.47	- 7.47
P	- 9.42	- 4.80
R	- 10.44	- 1.65
S	- 10.44	+ 2.16
T	- 9.42	+ 4.80
U	- 7.47	+ 7.47
V	- 4.80	+ 9.42
W	- 1.65	+10.44
X	0	+ 7.49
Y	+ 3.20	+ 6.50
Z	+ 5.89	+ 4.55
a	+ 7.11	+ 1.70
b	+ 7.11	- 1.80
c	+ 5.51	- 4.80
d	+ 2.84	- 6.73
e	- 2.84	- 6.73
f	- 5.51	- 4.80
g	- 7.11	- 1.88
h	- 7.11	+ 1.70
i	- 5.89	+ 4.55
j	- 3.20	+ 6.50
k	0	+ 4.17
m	+ 2.89	+ 1.22
n	+ 2.69	- 2.72
p	0	- 4.80
q	- 2.69	- 2.71
r	- 2.89	+ 1.22

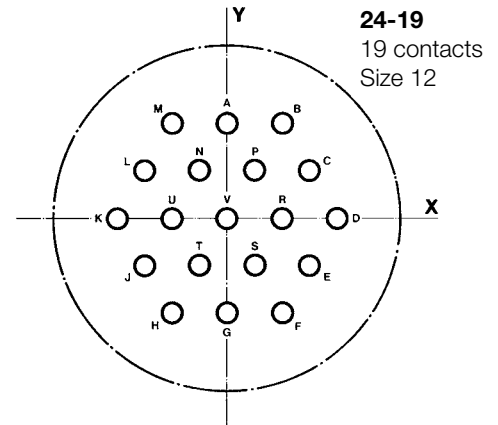
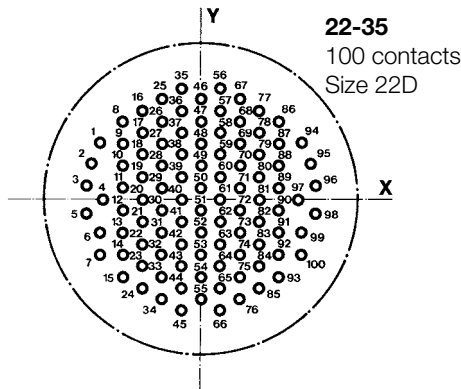
Contact	X	Y	Contact	X	Y
A	0	+10.60	Y	+3.35	+6.38
B	+ 3.28	+10.09	Z	+5.92	+4.09
C	+ 6.23	+ 8.58	a	+7.15	+0.87
D	+ 8.58	+ 6.23	b	+6.73	- 2.55
E	+10.09	+ 3.28	c	- 4.78	- 5.39
F	+10.60	0	d	+1.73	- 6.99
G	+10.09	- 3.28	e	- 1.73	- 6.99
H	+ 8.58	- 6.23	f	- 4.78	- 5.39
J	+ 6.23	- 8.58	g	- 6.73	- 2.55
K	+ 3.28	- 10.09	h	- 7.15	+0.87
L	0	- 10.60	i	- 5.92	+4.09
M	- 3.28	- 10.09	j	- 3.35	+6.38
N	- 6.23	- 8.58	k	0	+3.81
P	- 8.58	- 6.23	m	+2.98	+2.38
R	- 10.09	- 3.28	n	+3.71	- 0.85
S	- 10.60	0	p	- 1.66	- 3.43
T	- 10.09	+ 3.28	q	+1.66	- 3.43
U	- 8.58	+ 6.23	r	- 3.71	- 0.85
V	- 6.23	+ 8.58	s	- 2.98	+2.38
W	- 3.28	+10.09	t	0	0
X	0	+ 7.20			



Contact	X	Y	Contact	X	Y
A	+ 3.25	+ 9.78	M	- 7.34	+7.24
B	+ 7.34	+ 7.24	N	- 3.25	+9.78
C	+ 9.80	+ 3.12	P	0	+6.22
D	+10.16	- 1.65	R	+4.06	+3.71
E	+ 8.33	- 6.07	S	+5.44	- 0.89
F	+ 4.65	- 9.19	T	+2.39	- 4.93
G	0	-10.31	U	- 2.39	- 4.93
H	- 4.65	- 9.19	V	- 5.44	- 0.89
J	- 8.33	- 6.07	W	- 4.06	+3.71
K	- 10.16	- 1.65	X	0	0
L	- 9.80	+ 3.12			

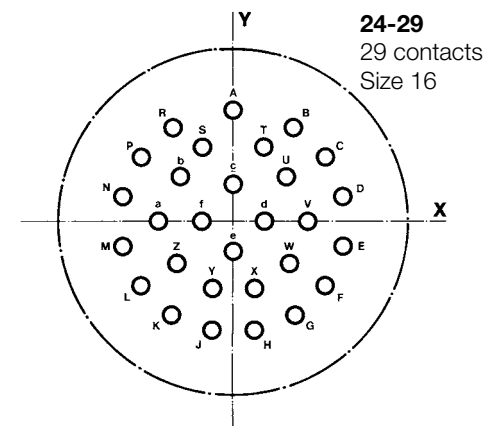
Contact bore holes for receptacles (p. 18-20)

Front view of the pin insert in the normal position (p. 4)



Contact	X	Y	Contact	X	Y
1	- 10.87	+ 6.12	51	0	- 1.19
2	- 11.86	+ 3.91	52	0	- 3.61
3	- 12.40	+ 1.55	53	0	- 6.02
4	- 10.54	0	54	0	- 8.43
5	- 12.40	- 1.55	55	0	- 10.85
6	- 10.87	- 3.61	56	+ 2.11	+12.07
7	- 10.87	- 6.02	57	+ 2.11	+ 9.65
8	- 8.43	+ 8.46	58	+ 2.11	+ 7.24
9	- 8.43	+ 6.05	59	+ 2.11	+ 4.83
10	- 8.43	+ 3.63	60	+ 2.11	+ 2.41
11	- 8.43	+ 1.22	61	+ 2.11	0
12	- 8.43	- 1.19	62	+ 2.11	- 2.41
13	- 8.43	- 3.61	63	+ 2.11	- 4.83
14	- 8.43	- 6.02	64	+ 2.11	- 7.24
15	- 8.43	- 8.43	65	+ 2.11	- 9.65
16	- 6.32	+ 9.65	66	+ 2.11	- 12.07
17	- 6.32	+ 7.24	67	+ 4.22	+10.87
18	- 6.32	+ 4.83	68	+ 4.22	+ 8.46
19	- 6.32	+ 2.41	69	+ 4.22	+ 6.05
20	- 6.32	0	70	+ 4.22	+ 3.63
21	- 6.32	- 2.41	71	+ 4.22	+ 1.22
22	- 6.32	- 4.83	72	+ 4.22	- 1.19
23	- 6.32	- 7.24	73	+ 4.22	- 3.61
24	- 6.32	- 9.65	74	+ 4.22	- 6.02
25	- 4.22	+10.87	75	+ 4.22	- 8.43
26	- 4.22	+ 8.46	76	+ 4.22	-10.85
27	- 4.22	+ 6.05	77	+ 6.32	+ 9.65
28	- 4.22	+ 3.63	78	+ 6.32	+ 7.24
29	- 4.22	+ 1.22	79	+ 6.32	+ 4.83
30	- 4.22	- 1.19	80	+ 6.32	+ 2.41
31	- 4.22	- 3.61	81	+ 6.32	0
32	- 4.22	- 6.02	82	+ 6.32	- 2.41
33	- 4.22	- 8.43	83	+ 6.32	- 4.83
34	- 4.22	- 10.85	84	+ 6.32	- 7.24
35	- 2.11	+12.07	85	+ 6.32	- 9.65
36	- 2.11	+ 9.65	86	+ 8.43	+ 8.46
37	- 2.11	+ 7.24	87	+ 8.43	+ 6.05
38	- 2.11	+ 4.83	88	+ 8.43	+ 3.63
39	- 2.11	+ 2.41	89	+ 8.43	+ 1.22
40	- 2.11	0	90	+ 8.43	- 1.19
41	- 2.11	2.41	91	+ 8.43	- 3.61
42	- 2.11	- 4.83	92	+ 8.43	- 6.02
43	- 2.11	- 7.24	93	+ 8.43	- 8.43
44	- 2.11	- 9.65	94	+10.87	+ 6.12
45	- 2.11	- 12.07	95	+11.86	+ 3.91
46	0	+10.87	96	+12.40	+ 1.55
47	0	+ 8.46	97	+10.54	0
48	0	+ 6.05	98	+12.40	- 1.55
49	0	+ 3.63	99	+10.87	- 3.61
50	0	+ 1.22	100	+10.87	- 6.02

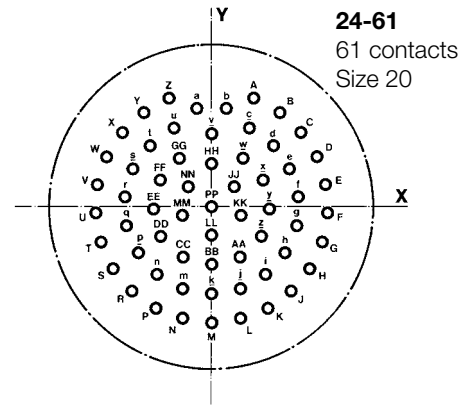
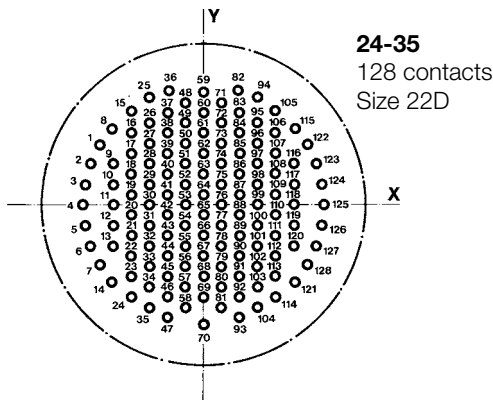
Contact	X	Y	Contact	X	Y
A	0	+10.39	L	- 8.99	+ 5.21
B	+ 5.99	+10.39	M	- 5.99	+10.39
C	+ 8.99	+ 5.21	N	- 3.00	+ 5.21
D	+11.99	0	P	+3.00	+ 5.21
E	+ 8.99	- 5.21	R	+5.99	0
F	+ 5.99	- 10.39	S	+3.00	- 5.21
G	0	- 10.39	T	- 3.00	- 5.21
H	- 5.99	- 10.39	U	- 5.99	0
J	- 8.99	- 5.21	V	0	0
K	- 11.99	0			



Contact	X	Y	Contact	X	Y
A	0	+12.22	S	- 2.31	+8.15
B	+ 6.55	+10.31	T	+2.31	+8.15
C	+10.03	+ 7.04	U	+5.79	+4.93
D	+11.91	+ 2.77	V	+8.10	0
E	+11.91	- 2.77	W	+6.10	- 4.60
F	+10.03	- 7.04	X	+2.31	- 7.37
G	+ 6.68	- 10.31	Y	- 2.31	- 7.37
H	+ 2.31	- 11.99	Z	- 6.10	- 4.60
J	- 2.31	- 11.99	a	- 8.10	0
K	- 6.68	- 10.31	b	- 5.79	+4.93
L	- 10.03	- 7.04	c	0	+4.09
M	- 11.91	- 2.77	d	+3.40	0
N	- 11.91	+ 2.77	e	0	- 3.30
P	- 10.03	+ 7.04	f	- 3.40	0
R	- 6.55	+10.31			

Contact bore holes for receptacles (p. 18-20)

Front view of the pin insert in the normal position (p. 4)



Contact	X	Y	Contact	X	Y
1	-12.17	+7.09	53	-2.11	0
2	-13.21	+4.83	54	-2.11	-2.41
3	-13.87	+2.41	55	-2.11	-4.83
4	-14.10	0	56	-2.11	-7.24
5	-13.87	-2.41	57	-2.11	-9.65
6	-13.21	-4.83	58	-2.11	-12.07
7	-12.17	-7.09	59	0	+13.26
8	-10.77	+9.07	60	0	+10.85
9	-10.54	+4.83	61	0	+8.43
10	-10.54	+2.41	62	0	+6.02
11	-10.54	0	63	0	+3.61
12	-10.54	-2.41	64	0	+1.19
13	-10.54	-4.83	65	0	-1.19
14	-10.77	-9.07	66	0	-3.61
15	-8.43	+11.28	67	0	-6.02
16	-8.43	+8.43	68	0	-8.43
17	-8.43	+6.02	69	0	-10.85
18	-8.43	+3.61	70	0	-14.10
19	-8.43	+1.19	71	+2.11	+12.07
20	-8.43	-1.19	72	+2.11	+9.65
21	-8.43	-3.61	73	+2.11	+7.24
22	-8.43	-6.02	74	+2.11	+4.83
23	-8.43	-8.43	75	+2.11	+2.41
24	-8.43	-10.85	76	+2.11	0
25	-6.32	+12.60	77	+2.11	-2.41
26	-6.32	+9.65	78	+2.11	-4.83
27	-6.32	+7.24	79	+2.11	-7.24
28	-6.32	+4.83	80	+2.11	-9.65
29	-6.32	+2.41	81	+2.11	-12.07
30	-6.32	0	82	+4.06	+13.49
31	-6.32	-2.41	83	+4.22	+10.85
32	-6.32	-4.83	84	+4.22	+8.43
33	-6.32	-7.24	85	+4.22	+6.02
34	-6.32	-9.65	86	+4.22	+3.61
35	-6.32	-12.07	87	+4.22	+1.19
36	-4.06	+13.49	88	+4.22	-1.19
37	-4.22	+10.85	89	+4.22	-3.61
38	-4.22	+8.43	90	+4.22	-6.02
39	-4.22	+6.02	91	+4.22	-8.43
40	-4.22	+3.61	92	+4.22	-10.85
41	-4.22	+1.19	93	+4.22	-13.26
42	-4.22	-1.19	94	+6.32	+12.60
43	-4.22	-3.61	95	+6.32	+9.65
44	-4.22	-6.02	96	+6.32	+7.24
45	-4.22	-8.43	97	+6.32	+4.83
46	-4.22	-10.85	98	+6.32	+2.41
47	-4.22	-13.26	99	+6.32	0
48	-2.11	+12.07	100	+6.32	-2.41
49	-2.11	+9.65	101	+6.32	-4.83
50	-2.11	+7.24	102	+6.32	-7.24
51	-2.11	+4.83	103	+6.32	-9.65
52	-2.11	+2.41	104	+6.32	-12.07

Contact	X	Y	Contact	X	Y
A	+4.98	+12.70	i	+6.38	-7.98
B	+7.98	+11.05	j	+3.38	-9.63
C	+10.49	+8.71	k	0	-10.21
D	+12.32	+5.84	m	-3.38	-9.63
E	+13.39	+2.57	n	-6.38	-7.98
F	+13.61	-0.76	p	-8.66	-5.41
G	+12.98	-4.17	q	-9.96	-2.24
H	+11.53	-7.29	r	-10.13	+1.17
J	+9.35	-9.93	s	-9.19	+4.45
K	+6.58	-11.94	t	-7.24	+7.19
L	+3.40	-13.18	u	-4.39	+9.22
M	0	-13.64	v	0	+8.59
N	-3.40	-13.18	w	+3.73	+5.66
P	-6.58	-11.94	x	+6.02	+3.10
R	-9.35	-9.93	y	+6.78	-0.25
S	-11.53	-7.29	z	+5.79	-3.53
T	-12.98	-4.17	AA	+3.33	-5.92
U	-13.61	-0.76	BB	0	-6.78
V	-13.39	+2.57	CC	-3.33	-5.92
W	-12.32	+5.84	DD	-5.79	-3.53
X	-10.49	+8.71	EE	-6.78	-0.25
Y	-7.98	+11.05	FF	-6.02	+3.10
Z	-4.98	+12.70	GG	-3.73	+5.66
a	-1.73	+11.53	HH	0	+5.08
b	+1.73	+11.53	JJ	+2.67	+2.39
c	+4.39	+9.22	KK	+3.43	-1.04
d	+7.24	+7.19	LL	0	-3.35
e	+9.19	+4.45	MM	-3.43	-1.04
f	+10.13	+1.17	NN	-2.67	+2.39
g	+9.96	-2.24	PP	0	0
h	+8.66	-5.41			

Contact	X	Y	Contact	X	Y
105	+8.43	+11.28	117	+10.54	+2.41
106	+8.43	+8.43	118	+10.54	0
107	+8.43	+6.02	119	+10.54	-2.41
108	+8.43	+3.61	120	+10.54	-4.83
109	+8.43	+1.19	121	+10.77	-9.07
110	+8.43	-1.19	122	+12.17	+7.09
111	+8.43	-3.61	123	+13.21	+4.83
112	+8.43	-6.02	124	+13.87	+2.41
113	+8.43	-8.43	125	+14.10	0
114	+8.43	-10.85	126	+13.87	-2.41
115	+10.77	+9.07	127	+13.21	-4.83
116	+10.54	+4.83	128	+12.17	-7.09

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