

JBX-JKX Series

General

The JBX-JKX connectors lines are based on the push-pull locking design, which is extremely fast and simple to use, while ensuring perfect protection against vibrations, shocks and accidental pulls on the cables. The push-pull principle allows simple handling in congested areas. In addition, the attractive design of JBX-JKX connectors enhances the overall appearance of equipment front panels in high visibility applications.

JBX Series features :

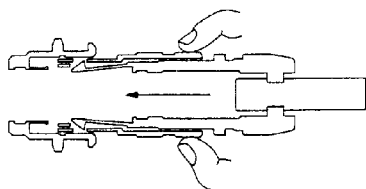
- Contact arrangements from 2 to 30 pins
- Wire gauges range from 12-30 AWG
- High contact density in a small space
- Contact terminations in either crimp, solder or printed circuit
- Mechanically keyed

JKX Series features :

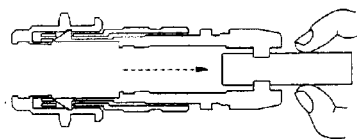
- Environmental connectors (IP68) to provide water and dust sealing
- Contact configurations identical to the JBX Series connectors
- Mechanically keyed

Push-pull system

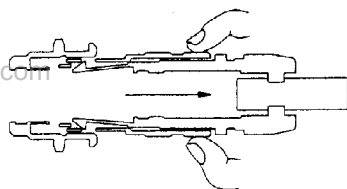
The locking of the plug into the receptacle is achieved by a simple axial push on the outer shell



Connection cannot be broken by pulling the cable or any other parts of the plug than the outer shell

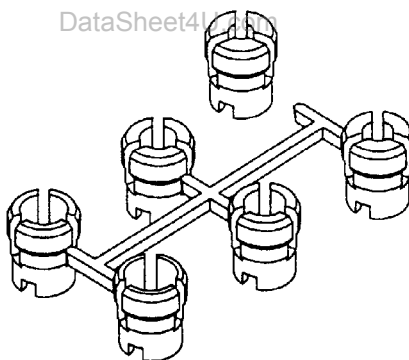


To unmate the plug from the receptacle, just pull axially the outer shell



All the design features you want

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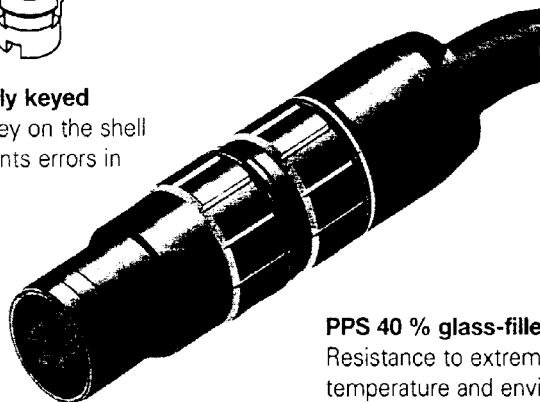


6-collet cluster

Allows a wide range of cable diameter applications for a single connector

Mechanically keyed

Alignment key on the shell which prevents errors in mating



PPS 40 % glass-filled insulator

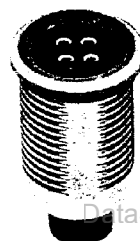
Resistance to extreme radiation, temperature and environmental conditions

Gold-plated contacts

According to MIL-G 45204
Specification type 1, class 00

Removable contacts

Crimp versions allow easier wiring and maintenance



Anti-rotation knurling

Simplify panel cut-out

JBX-JKX Series

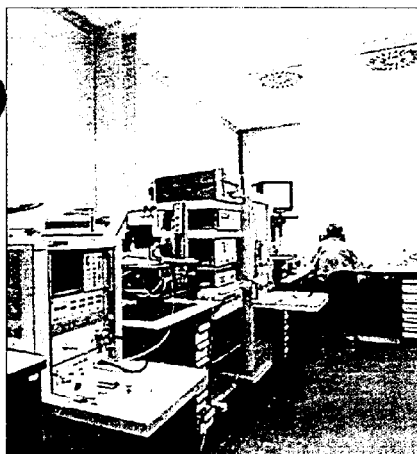
Typical applications

The JBX-JKX connectors lines cover all applications where simple handling and high reliability are major requirements. In particular, these connectors are a perfect fit for industrial and scientific instrumentation, video equipment and light industrial applications.

The Push-pull Series can cover a wide variety of applications thanks to the quick connect-disconnect latching concept and can be preferred to bayonet or screw coupling connectors. The aesthetic construction complements the design of instruments and systems.

From existing JBX-JKX Series, special designs and cable assemblies or other type of connectors can be manufactured to meet customer requirements.

• Instrumentation



- Sensors
- Inspection and measurement devices
- Colliders
- Test and diagnostic equipment
- Recorders
- Detectors

• Professional audio-video



- Cameras
- Studios
- Sound recording
- Lighting
- Mixing
- Pocket transmitter
- Antennas
- Microphones

• Telecommunications



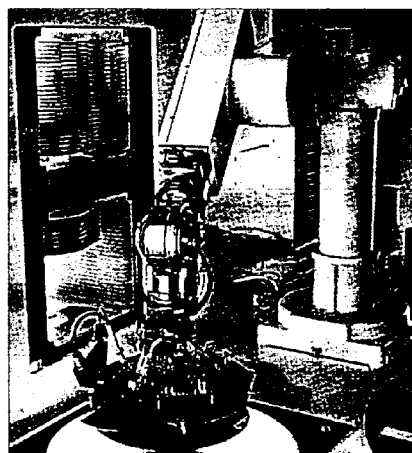
- Fixed power supplies
- Dispatchers
- Switchboards
- Radio-communications
- CB
- Ground station

• Medical



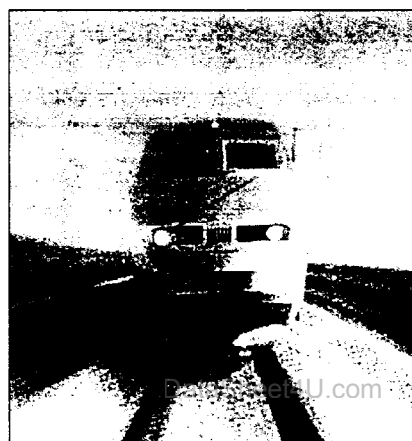
- Scanners
- Analyzers
- Imaging equipment
- Monitoring
- Catheters

• Process control



- Sensors
- Numerical control
- Programmable controllers
- Metrology
- Control racks
- Monitors

• Railways

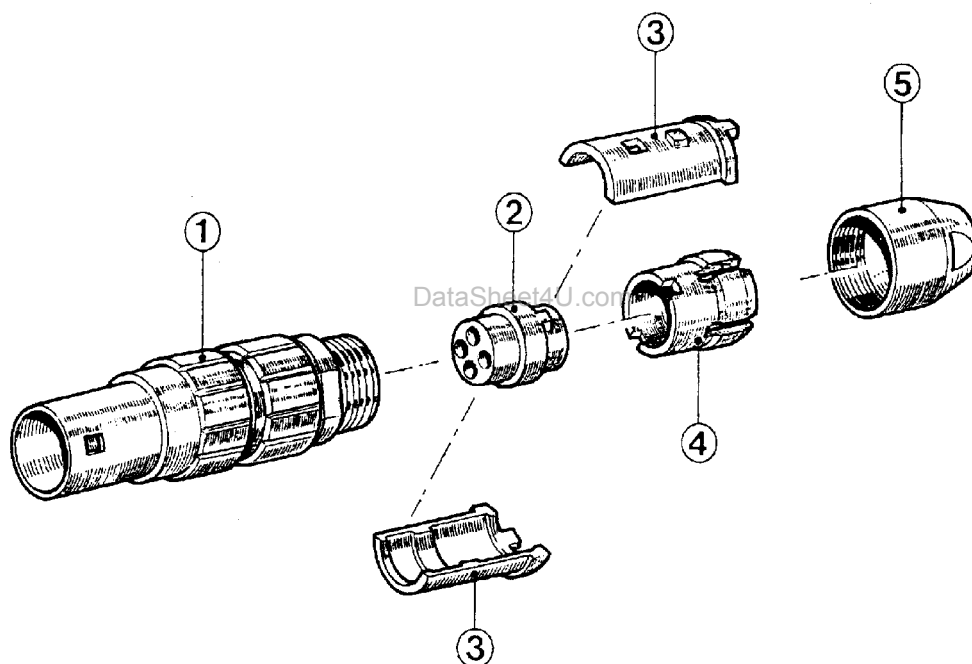


- Video cameras
- Monitors
- Sensors
- Signalling
- Mixing panels
- Board displays

JBX Series

Cable clamping : JBX Series

Connectors comprise a shell fitted with the push-pull locking device ① ; an insulation block ② which holds the contacts ; two half-bushes for grounding ③, used to position the insulating block inside the connector ; and a collet ④, compressed by the pressure-sleeve ⑤, for cable fixing. When shielded cables are used during assembly, the shielding is positioned between the grounding bushes ③ and the collet ④ equipped with two grooves for braiding leadthrough and for avoiding cable rotation.



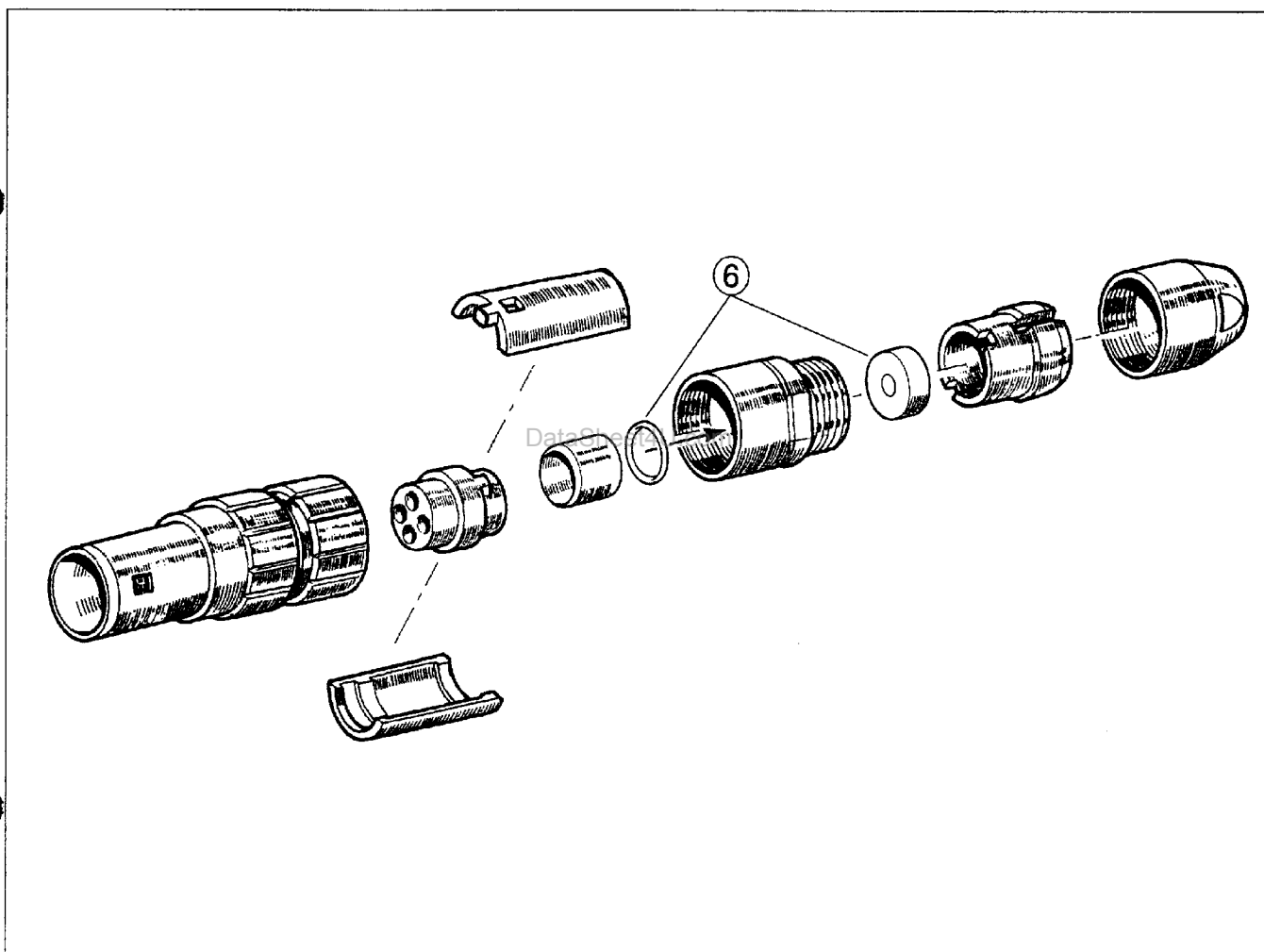
Thanks to an innovative design featuring a set of 6 collets delivered with each JBX connector, the end-user can manage diverse cable diameters without bothering with multiple part numbers.

Shell size	00	0	1	2	3
Cable size (mini)	1.1	1.5	2	3.5	4.9
Cable size (Max)	3.5	5.5	7.5	9.7	12

JKX Series

Cable clamping : JKX Series

Identical functions to JBX Series, except additional components for the sealing ⑥ and more ruggedized shells to provide water resistance.



Thanks to an innovative design featuring a set of collets as well as cable glands delivered with each JKX connector, the end-user can manage diverse cable diameters without bothering with multiple part numbers.

Shell size	0	1	0 G option	1 G option
Cable size (mini)	1.5	2	4.6	6
Cable size (Max)	4.5	6	6	8

G option : to accomodate bigger cables (see page 32). Collets are those of the next size of connector shell.

JBX-JKX Series

Material and treatment

Component	Material	Standard		Surface treatment (µm)		
		ISO	ASTM	Cr	Ni	Au
Outer shell and collet nut	Brass	CuZn40Pb3	C385	0.1-0.6	5 - 8	-
Latching sleeve	Brass	CuZn40Pb3	C385	-	5 - 8	-
Shielding ring	Brass	CuZn40Pb3	C385	-	3 - 7	-
Nut	Brass	CuZn40Pb3	C385	-	5 - 8	-
Tapered washer & half bushes	Brass	CuZn40Pb3	C385	-	5 - 8	-
Socket contact (1)	Cupro-nickel	CuNi1Pb1P	-	-	3 - 5	0.5
Pin contact (1)	Brass	CuZn35Pb2	C353	-	3 - 5	0.5
Clip	Beryllium copper	CuBe1,9	C172	-	-	-
(1) Gold thickness as per MIL-G-45204C type 1, class 00.						

Component	Material	Color	Temperature withstanding	
Insert	FORTRON (PPS+40%GF) or PEEK	black beige	-65°C +200°C -50°C +250°C	-149°F +392°F -122°F +482°F
Collet	ZYTEL (PA 6/6)	black	-40°C +125°C	-104°F +257°F
Cable gland	Silicone rubber	red	-50°C +250°C	-122°F +482°F

Mechanical and climatics

Characteristics	Values	Standard	Method
Protection index (mated connectors)	IP40 : for JBX Series IP68 : for JKX Series	CEI 529	-
Endurance	> 1000 cycles (except for 0.7 mm crimp contacts for which endurance is limited to 500 cycles)	MIL-STD 1344A	2016.1
Shock	50 g, duration 6 ms ; contact Ø 0.7 mm and 0.9 mm 100 g, duration 6 ms ; contact Ø 1.3 mm - 1.6 mm and 2 mm	MIL-STD 1344A	2004.1
Vibrations	10 to 2000 Hz γ : 15 g, contact Ø 0.7 mm and 0.9 mm γ : 20 g, contact Ø 1.3 mm - 1.6 mm and 2 mm	MIL-STD 1344A	2005.1
Radiation stability	10 ⁸ rad : for JBX Series 10 ⁶ rad : for JKX Series	-	-
Operating temperature	-40°C +125°C -104°F +257°F } with plastic collets	-	-
	-40°C +200°C -104°F +392°F } with metal collets*	-	-
Gas	H ₂ S : 100 ppb ± 20 ppb SO ₂ : 500 ppb ± 100 ppb } JBX only	IEC 68-2-60	test Ke method 1

JBX-JKX Series

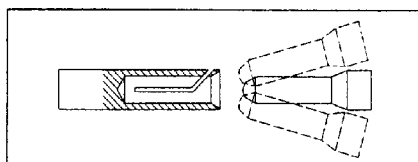
Insert characteristics

Characteristics	Standard	Units	Values	
			FORTRON	PEEK
Water absorption in 24 hrs	ASTM D 570	%	0,02 at 23°C (73°F)	0,11 at 23°C (73°F)
Dielectric withstanding	ASTM D 149	kV / mm	22	19
Volume resistivity	ASTM D 257	$\Omega \times \text{cm}$	10^{16}	10^{16}
Hardness		shore	90	88
Tensile strength		N / mm ²	115	90
Flammability	UL 94		V.O.	V.O.
Thermal conductivity	ASTM C 177	W / mK	0.25	0.28

Good behavior to diluted acid, diluted base, oils, aromatics, ester, chlorinated hydrocarbon...

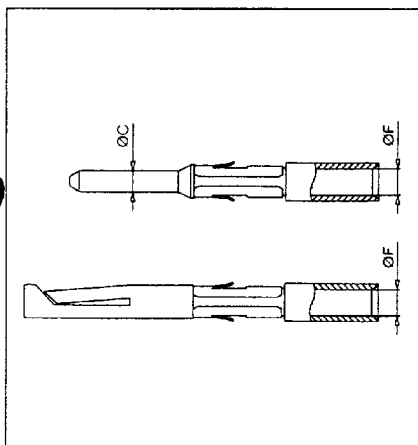
Removable contacts

• Reliable design



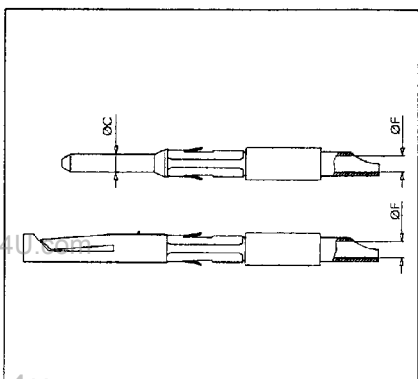
- Conical entry with chamfered edge on the socket contact and smooth slope on the pin contact ensure perfect concentric mating even with well used connectors or when handled carelessly.
- The pressure spring of the socket contact maintains a constant force on the pin contact when mated.

• Crimp contacts



Contact		Usable cables			Max. intensity (A)	Contact resistance (mΩ)	Endurance (number of cycles)
Ø C	Ø F	Core section (mm²)		AWG			
		min	Max.				
0.7	0.85	0.129	0.326	22-24-26	7	5	500 Max.
0.9	1.1	0.205	0.518	20-22-24	10	3.5	> 1000
1.3	1.4	0.326	0.823	18-20-22	15	3	> 1000
1.6	1.9	0.823	2.081	14-16-18	17	2.5	> 1000
2.0	2.4	1.309	3.309	12-14-16	30	2.5	> 1000

• Solder contacts

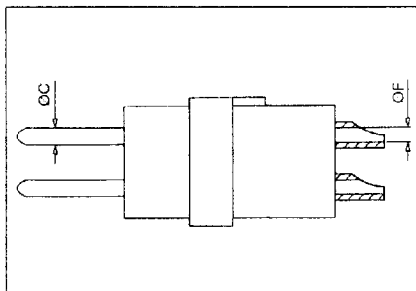


Contact		Usable cables			Max. intensity (A)	Contact resistance (mΩ)	Endurance (number of cycles)
Ø C	Ø F	Core section (mm²)		AWG			
		min	Max.				
0.9	0.8	-	0.21	24	10	3.5	> 1000
1.3	1.1	-	0.60	20	15	3	> 1000
1.6	1.5	-	0.93	18	17	2.5	> 1000
2	1.9	-	1.34	16	30	2.5	> 1000

JBX-JKX Series

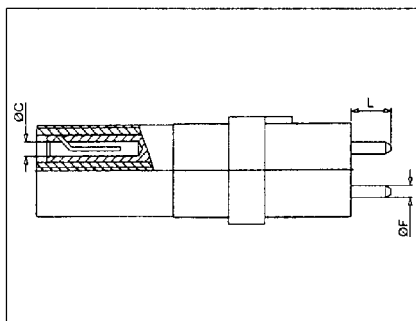
Fixed contacts

• Solder contacts



Contact		Shell size	Usable cables		Max. intensity (A)	Contact resistance (mΩ)	Endurance (number of cycles)
Ø C	Ø F		Core section (mm²) Max.	AWG			
0.5	0.4	00	0.06	30	5	10	> 1000
	0.5	0-1	0.096	28			
0.7	0.63	0-1-2-3	0.15	26	7	5	> 1000

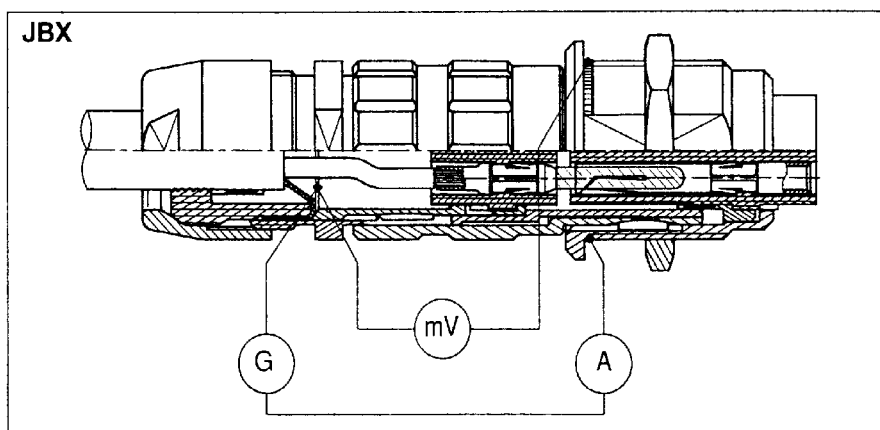
• Contacts for PCB



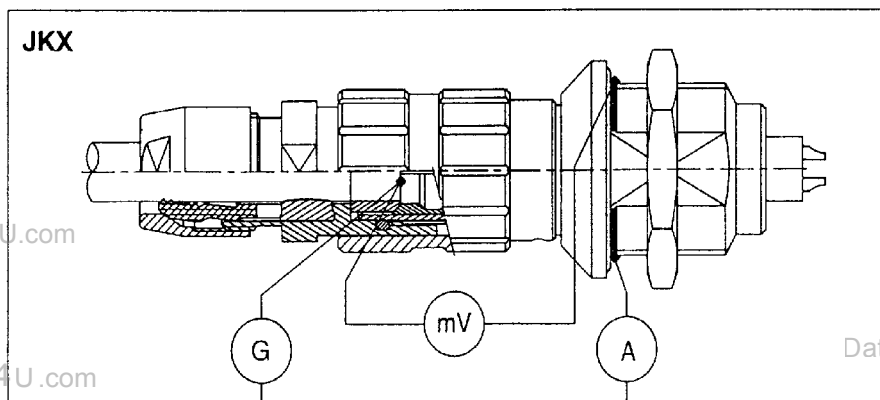
Contact		Shell size	L	Max. intensity (A)	Contact resistance (mΩ)	Endurance (number of cycles)
Ø C	Ø F					
0.7	0.5	0	5	7	5	> 1000
		1-2	6			
0.9	0.7	0	5	10	3.5	> 1000
		1-2	6			

Shielding

Tested to MIL-STD 1344 A, method 3007



Shell size	Shielding (mΩ)
00	4.5
0	4
1	3
2	2.5
3	2.5



Insulating resistance

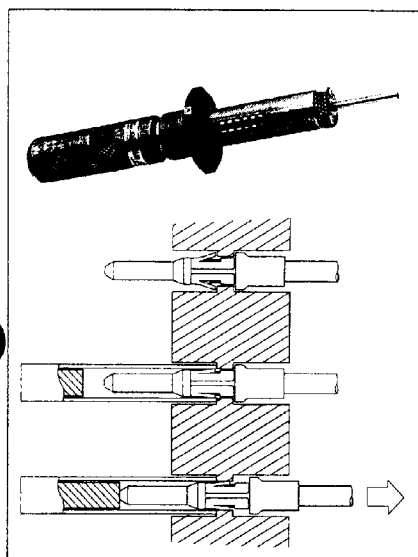
For all shell sizes, tested under 500 VDC
 $R_i > 5000 \text{ M}\Omega$

JBX-JKX Series

Extraction tools

• Automatic

The extraction tool is similar for both male and female contacts.



Shell size	Ø Contacts	FCI Part number	ASTRO Part number
0	0,7	JBX OUT DC 07	ATJP 2045
	0,9	JBX OUT DC 09	ATJP 2057
1	0,7	JBX OUT DC 07	ATJP2045
	0,9	JBX OUT DC 09	ATJP 2057
	1,3	JBX OUT DC 13	ATJP 2077
2	0,7	JBX OUT DC 07	ATJP 2045
	0,9	JBX OUT DC 09	ATJP 2057
	1,3	JBX OUT DC 13	ATJP 2077
	1,6	JBX OUT DC 16	ATJP 2095
	2,0	JBX OUT DC 20	ATJP 2115
3	0,7	JBX OUT DC 07	ATJP 2045
	0,9	JBX OUT DC 09	ATJP 2057
	1,3	JBX OUT DC 13	ATJP 2077
	1,6	JBX OUT DC 16	ATJP 2095
	2,0	JBX OUT DC 20	ATJP 2115

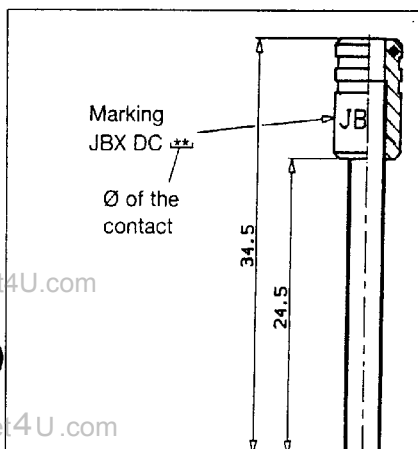
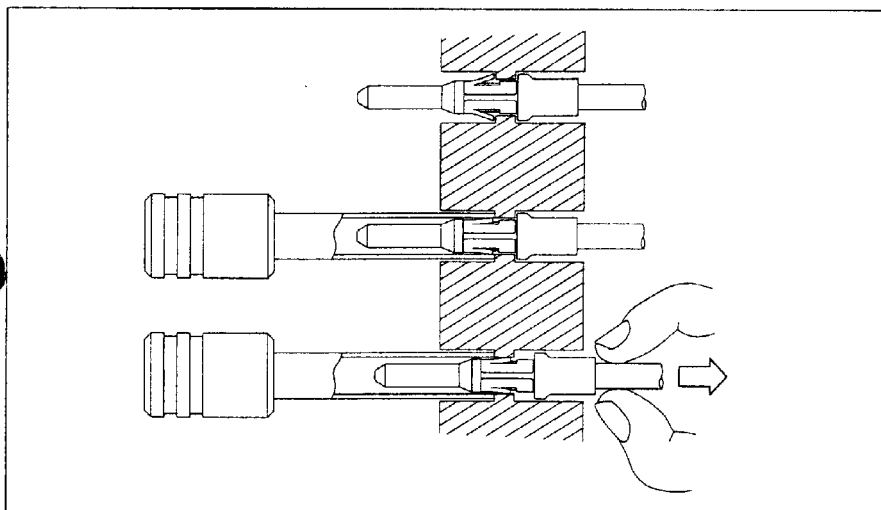
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• Manual

The extraction tool is similar for both male and female contacts.



Contact	Part number
Ø 0.7	JBX DC07
Ø 0.9	JBX DC09
Ø 1.3	JBX DC13
Ø 1.6	JBX DC16
Ø 2	JBX DC20

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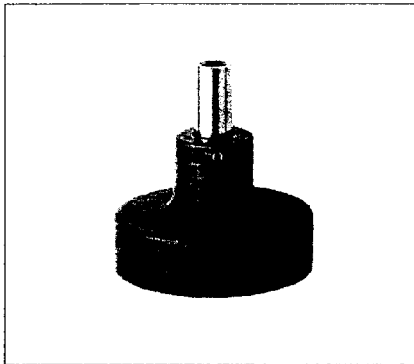
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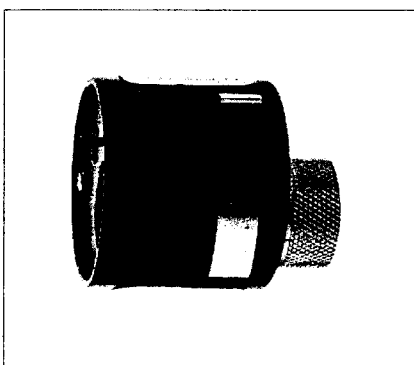
JBX-JKX Series

- Locator for pin and socket 0.7-0.9 mm and 1.3 mm contacts



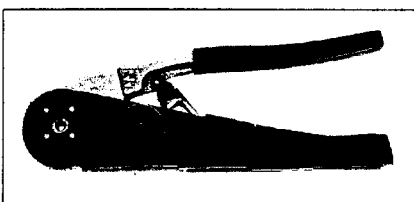
Shell size	Ø contacts	AWG	Male contact			Female contact		
			FCI P/N	DANIELS P/N	ASTRO P/N	FCI P/N	DANIELS P/N	ASTRO P/N
0	0.7	22 - 24 - 26	JBX 0 OUT LP07	86-223	/	JBX 0 OUT LS07	86-224	/
	0.9	20 - 22 - 24	JBX 0 OUT LP09	86-225	/	JBX 0 OUT LS09	86-226	/
1	0.7	22 - 24 - 26	JBX 1 OUT LP07	86-196	642-001	JBX 1 OUT LS07	86-197	642-004
	0.9	20 - 22 - 24	JBX 1 OUT LP09	86-198	642-002	JBX 1 OUT LS09	86-199	642-005
	1.3	18 - 20 - 22	JBX 1 OUT LP13	86-200	642-003	JBX 1 OUT LS13	86-201	642-006
2	0.7	22 - 24 - 26	JBX 2 OUT LP07	86-202	642-007	JBX 2 OUT LS07	86-203	642-010
	0.9	20 - 22 - 24	JBX 2 OUT LP09	86-204	642-008	JBX 2 OUT LS09	86-205	642-011
	1.3	18 - 20 - 22	JBX 2 OUT LP13	86-206	642-009	JBX 2 OUT LS13	86-207	642-012
3	0.7	22 - 24 - 26	JBX 3 OUT LP07	86-217	642-014	JBX 3 OUT LS07	86-214	642-017
	0.9	20 - 22 - 24	JBX 3 OUT LP09	86-218	642-015	JBX 3 OUT LS09	86-215	642-018
	1.3	18 - 20 - 22	JBX 3 OUT LP13	86-219	642-016	JBX 3 OUT LS13	86-216	642-019

- Turret with locator for pin and socket 1.6 mm and 2 mm contacts



Shell size	Ø contacts	AWG	Male and female contacts		
			FCI P/N	DANIELS P/N	ASTRO P/N
2	1.6	14 - 16 - 18	JBX 2 OUT LT16	TH 564	650-030
	2	12 - 14 - 16	JBX 2 OUT LT20	TH 565	650-031
3	1.6	14 - 16 - 18	JBX 3 OUT LT16	TH 566	650-038
	2	12 - 14 - 16	JBX 3 OUT LT20	TH 567	650-035

- Crimping tool

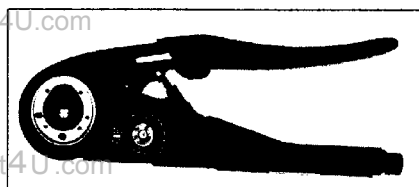


Specifications MIL-C-22520 / 7.01

Contacts 0.7 mm - 0.9 mm and 1.3 mm	MIL P/N	Supplier P/N
	MIL-22520/7-01	Daniels : MH860 Buchanan : 616 336

Specifications MIL-C-22520 / 1.01

Contacts 1.6 mm and 2 mm	MIL P/N	Supplier P/N
	MIL-22520/1-01	Daniels : AF8 Buchanan : 615 708



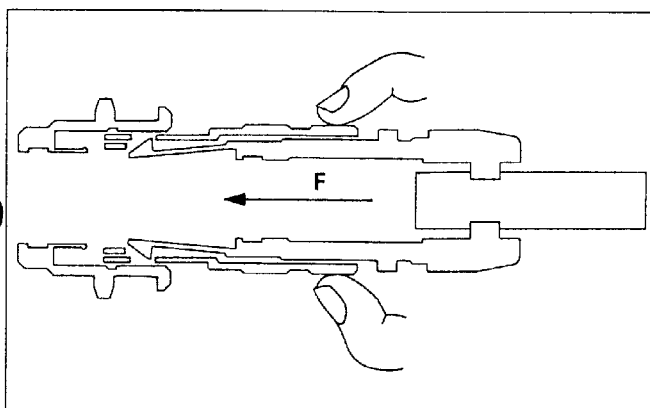
JBX-JKX Series

Engagement / Disengagement forces

Engagement (**F**) and Disengagement (**G**) by straight axial pull on the outer shell.

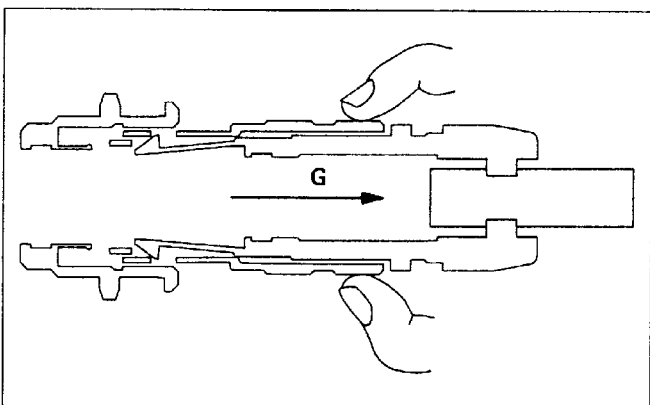
The values for pull-out forces are measured on shells not fitted with contacts, since values will change with each contact configuration.

• Engagement



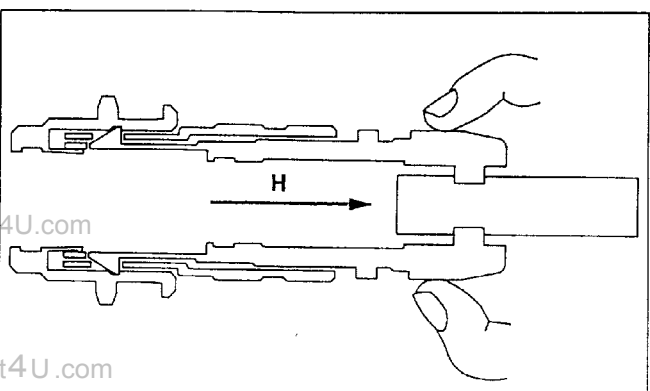
Force (N)	JBX Series					JKX Series	
	00	0	1	2	3	0	1
F	6	10	12	17	17	10	17

• Disengagement



Force (N)	JBX Series					JKX Series	
	00	0	1	2	3	0	1
G	5	6	11	17	17	8	17

• Robustness of the locking device



Force (N)	JBX Series					JKX Series	
	00	0	1	2	3	0	1
H	70	200	360	480	600	400	500

JBX-JKX Series

Keying

JBX - JKX Series are mechanically keyed to ensure correct alignment of the inserts before the contacts mate.

«G» : **normal inserts** ; 0° keying angle, plugs with pin contacts, receptacles with socket contacts

«J» : **reversed gender inserts** ; twin narrow keys, plugs with socket contacts, receptacles with pin contacts.

Key	G	J		A	B		C	
		size			size		size	
		0 - 1	2 - 3		0 - 1	2 - 3	0 - 1	2 - 3
Keying angle	0°	45°	37.5°	30°	60°	45°	90°	60°
Plug								
Receptacle								

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• Keyed shells availability : JBX-JKX Series

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Shell size	Key	ER	EA	ED	EP	EZ	SR	PC	FD	FC
00	G	●							●	
	J									
	A									
	B									
	C									
0	G	●○	●	●	●	●	●	●	●○	●
	J	●	●						●	●
	A	●							●	
	B	●							●	
	C	●							●	
1	G	●○	●	●	●	●	●	●	●○	●
	J	●							●	●
	A	●							●	
	B	●							●	
	C									
2	G	●	●	●	●		●	●	●	●
	J	●							●	●
	A	●							●	
	B									
	C									
3	G	●	●	●	●		●	●	●	●
	J									
	A									
	B									
	C									

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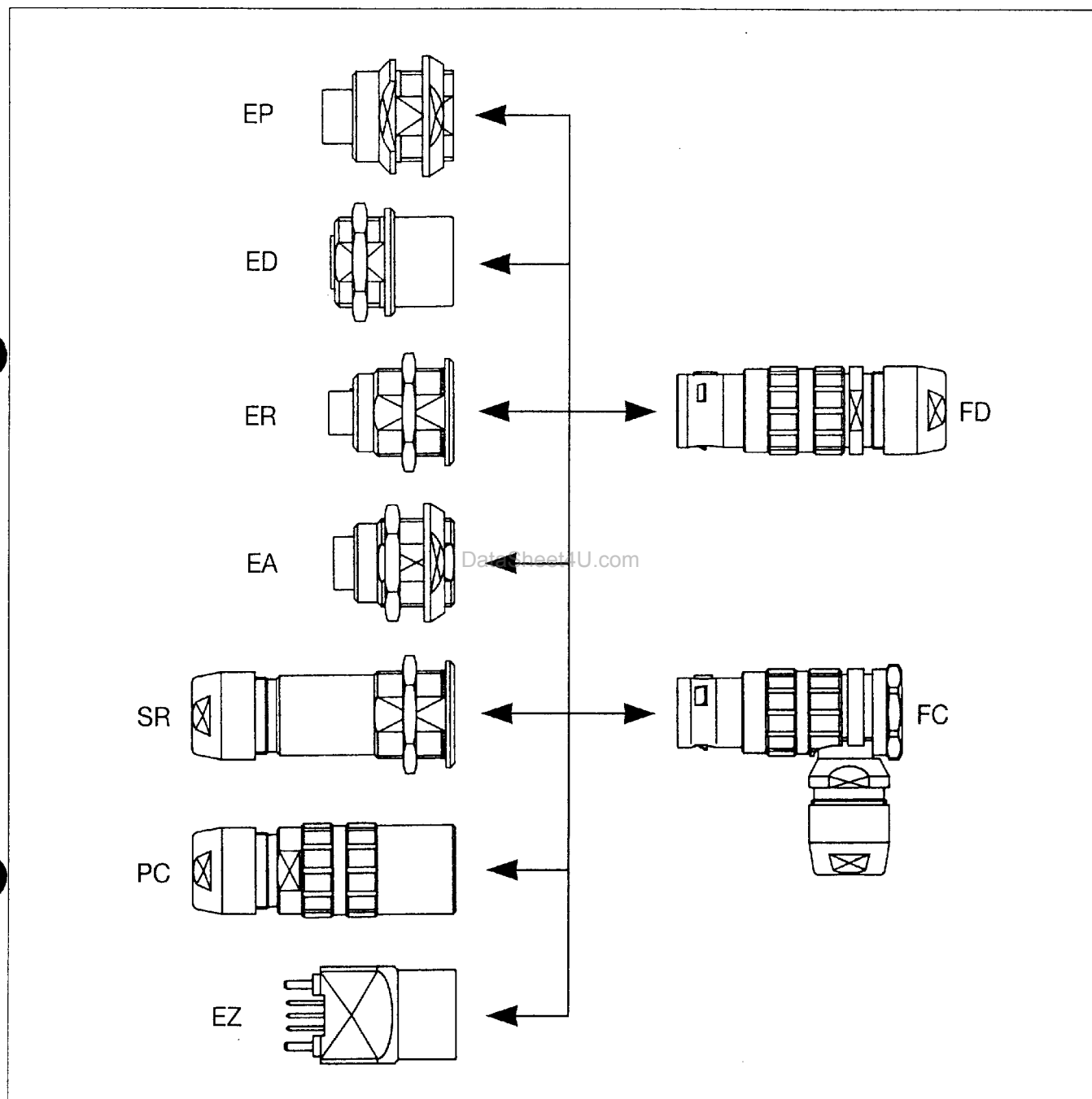
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● First availability for JBX Series, other alternatives on request to our commercial office.

○ First availability for JKX Series, other alternatives on request to our commercial office.

JBX Series

JBX shells



Model description

- **EP** : fixed receptacle, back panel mounting, nut fixing (appropriate with 90° contacts for PCB)
- **ED** : fixed receptacle, protruding shell, nut fixing
- **ER** : fixed receptacle, front panel mounting, nut fixing
- **EA** : fixed receptacle, back or front panel mounting, double nuts fixing
- **EZ** : straight receptacle for PCB
- **PC** : free receptacle with cable clamping
- **SR** : fixed receptacle with cable clamping, front panel mounting, nut fixing
- **FD** : straight plug with cable clamping
- **FC** : straight plug with cable clamping, front panel mounting, nut fixing

JBX Series

Part number system

Basic series	JBX	FD	1	G	05	M	C	SD	M
Shell configuration	FD-FC-ER-EA-SR-PC-ED-EP-EZ								
Size	00 - 0 - 1 - 2 - 3								
Keying	G - J - A - B - C (see page 14)								
Contact layout	02 ——— 30 (see page 18-20)								
Contact type	M : pin F : socket (in relation with keying)								
Contact termination	C : crimp S : solder P : print O : 90° print								
Material & surface plating	S⁽¹⁾ : Outer shell in brass alloy with glossy chrome over nickel D⁽¹⁾ : Contact in brass alloy with gold plating over nickel S : Insulator in PPS P : insulator in PEEK (for Ø 0.5 contacts only)								
Options	M : Connector with backnut for protective boot P : Connector with pilot contact R : Red dot								

(1) Other variants as outershell material, higher gold thickness on contacts, black surface treatment available upon special request.

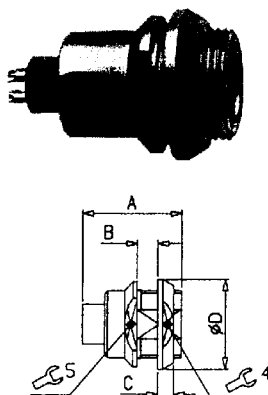
Example of coding : JBX FD 1G 07 MS SDS MPR

Straight plug, size 1, keying G, 7 contact 0.7 mm each, solder pin, protective boot one pilot contact, red dot.

* For receptacles with female contacts only.

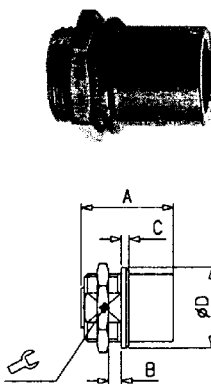
Dimensions

EP : Fixed receptacle



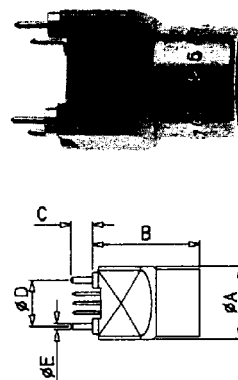
Size	0	1	2
A	19	21	24
B	4.5	6	6.5
C	2.5	3.2	3.8
Ø D	12	16	20

ED : Protruding receptacle



Size	0	1	2
A	19	21	24
B	3	4.5	6.3
C	1.2	1.5	1.8
Ø D	10	14	18

EZ : Receptacle for PCB

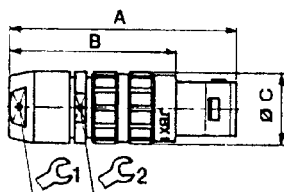


Size	0	1
Ø A	10	12
B	16	19
C	3	3.8
Ø D	7.62	7.62
Ø E	0.7	1

JBX Series

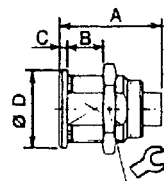
Dimensions

FD : Straight plug



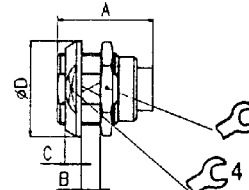
Size	00	0	1	2	3
A	31	39	45	52	62
B	23	29	34	40	47
Ø C	7	10	12	15	18

ER : Fixed receptacle



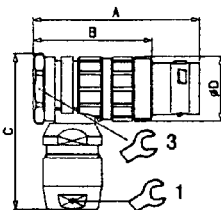
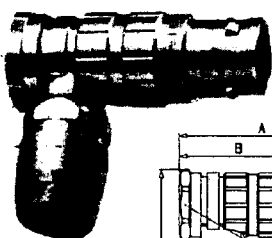
Size	00	0	1	2	3
A	14	19	21	24	28
B	6	8	10	10	12
C	0.8	1.2	1.5	1.8	2.0
Ø D	8	10	14	18	22

EA : Double nut receptacle



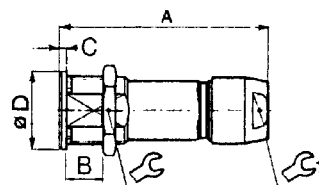
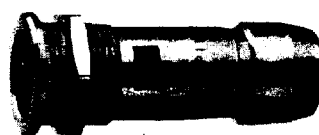
Size	00	0	1	2	3
A	-	19	21	24	28
B	-	6.7	8.3	8	9.5
C	-	2.5	3.2	3.8	4.5
Ø D	-	12	16	20	24

FC : 90° elbow plug



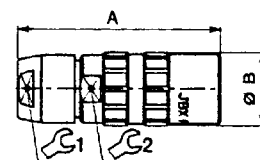
Size	00	0	1	2	3
A	-	30.5	36.5	42.5	50.5
B	-	20.5	25.5	30.5	35.5
C	-	29.5	33.5	36.5	45
Ø D	-	10	12	15	18

SR : Cable clamp receptacle



Size	00	0	1	2	3
A	-	38	43	50	59
B	-	8	10	10	12
C	-	1.2	1.5	1.8	2
Ø D	-	10	14	18	22

PC : Free receptacle



Size	00	0	1	2	3
A	-	38	43	50	59
Ø B	-	10	13	16	19.5

Advised torques* in Nm

Size	00	0	1	2	3
	0.5	0.7	1.3	1.7	2
	0.7	0.8	1	1.5	2
	-	0.4 to 0.5		0.5 to 0.7	

Tools (jaw dimensions)	7 x 0.5	9 x 0.6	12 x 1	15 x 1	18 x 1
Size	00	0	1	2	3
	7	11	14	17	21
	6	8	10	13	15
	6	9	11	14	16
	-	10	12	15	17
	-	10	13	17	20
	-	9	13	15	-

JBX Series

Multi-contact inserts

Shell size	Insulator Viewed from wiring side		Contact layout	Contact types available				Ø Contact	Max. intensity (A)	Working voltage (Vdc)	Working voltage (Vrms)
	Male	Female		S solder	C crimp	P print	Q* 90° print (see p23)				
00			02	S				0.5	5	500	350
			03	S				0.5	3	500	350
			04	S				0.5	2	500	350
0			02	S	C	P		0.9	10	660	460
			03	S	C	P		0.9	8	600	420
			04	S	C	P	Q	0.7	7	660	460
			05	S	C	P	Q	0.7	6.5	400	260
			06	S				0.5	2.5	320	220
			07	S				0.5	2.5	320	220
1			02	S	C			1.3	15	760	530
			03	S	C			1.3	12	600	420
			04	S	C	P		0.9	10	900	630
			05	S	C	P		0.9	9	660	460
			06	S	C	P	Q	0.7	7	660	460
			07	S	C	P	Q	0.7	7	600	460
			08	S	C	P	Q	0.7	5	600	420
			10	S				0.5	2.5	300	200

JBX Series

Multi-contact inserts

Shell size	Insulator Viewed from wiring side		Contact layout	Contact types available				Ø Contact	Max. intensity (A)	Working voltage (Vdc)	Working voltage (Vrms)
	Male	Female		S solder	C crimp	P print	Q* 90° print (see p23)				
2			02	S	C			2	30	1000	700
			03	S	C			1.6	17	830	560
			04	S	C			1.3	15	1000	800
			05	S	C			1.3	14	900	630
			06	S	C			1.3	12	900	630
			07	S	C			1.3	11	730	500
			08	S	C	P		0.9	10	830	560
			10	S	C	P	Q	0.9	8	830	560
			12	S	C	P		0.7	7	830	560
			16	S	C	P		0.7	6	730	500
			18	S	C	P		0.7	5.5	660	460
			19	S	C	P		0.7	5	660	460
3			03	S	C			2	25	1600	1200
			04	S	C			2	22	1100	830

* Please consult us for availability.

JBX Series

Multi-contact inserts

Shell size	Insulator Viewed from wiring side		Contact layout	Contact types available				Ø Contact	Max. intensity (A)	Working voltage (Vdc)	Working voltage (Vrms)
	Male	Female		S solder	C crimp	P print	Q* 90° print (see p 23)				
3			07	S	C			1.6	15	1000	730
			08	S	C			13	13	660	460
			10	S	C			1.3	12	660	460
			14	S	C	P		0.9	9	830	560
			18	S	C	P		0.9	7	660	460
			22	S	C	P		0.7	5.5	560	400
			30	S	C	P		0.7	3.5	400	260

* Please consult us for availability.

• Voltage Test Procedure

Procedure for determining test voltages and working voltages is :

Test voltage :

- test voltages are measured between 2 contacts or 1 contact and connector housing (shortest distance).

Working voltage :

- working voltages are determined by taking test voltages and reducing them further by 1/3.

• Current ratings are noted per contact

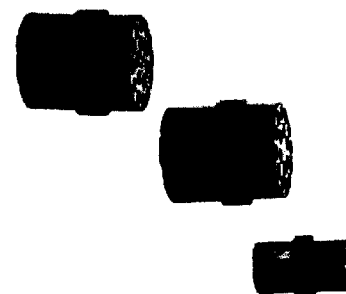
Nominal current depends mainly on the contacts diameter and the density of contacts.

JBX Series

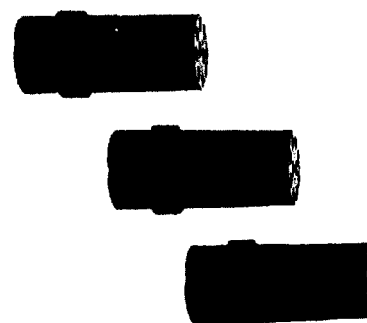
Inserts for removable solder and crimp contacts (if ordered separately)

Shell size	Insert	Insert Part Number	
		Pin contacts	Socket contacts
0	02	JBX 0 BI 02 MS	JBX 0 BI 02 FS
	03	JBX 0 BI 03 MS	JBX 0 BI 03 FS
	04	JBX 0 BI 04 MS	JBX 0 BI 04 FS
	05	JBX 0 BI 05 MS	JBX 0 BI 05 FS
1	02	JBX 1 BI 02 MS	JBX 1 BI 02 FS
	03	JBX 1 BI 03 MS	JBX 1 BI 03 FS
	04	JBX 1 BI 04 MS	JBX 1 BI 04 FS
	05	JBX 1 BI 05 MS	JBX 1 BI 05 FS
	06	JBX 1 BI 06 MS	JBX 1 BI 06 FS
	07	JBX 1 BI 07 MS	JBX 1 BI 07 FS
	08	JBX 1 BI 08 MS	JBX 1 BI 08 FS
2	02	JBX 2 BI 02 MS	JBX 2 BI 02 FS
	03	JBX 2 BI 03 MS	JBX 2 BI 03 FS
	04	JBX 2 BI 04 MS	JBX 2 BI 04 FS
	05	JBX 2 BI 05 MS	JBX 2 BI 05 FS
	06	JBX 2 BI 06 MS	JBX 2 BI 06 FS
	07	JBX 2 BI 07 MS	JBX 2 BI 07 FS
	08	JBX 2 BI 08 MS	JBX 2 BI 08 FS
	10	JBX 2 BI 10 MS	JBX 2 BI 10 FS
	12	JBX 2 BI 12 MS	JBX 2 BI 12 FS
	16	JBX 2 BI 16 MS	JBX 2 BI 16 FS
3	03	JBX 3 BI 03 MS	JBX 3 BI 03 FS
	04	JBX 3 BI 04 MS	JBX 3 BI 04 FS
	07	JBX 3 BI 07 MS	JBX 3 BI 07 FS
	08	JBX 3 BI 08 MS	JBX 3 BI 08 FS
	10	JBX 3 BI 10 MS	JBX 3 BI 10 FS
	14	JBX 3 BI 14 MS	JBX 3 BI 14 FS
	18	JBX 3 BI 18 MS	JBX 3 BI 18 FS
	22	JBX 3 BI 22 MS	JBX 3 BI 22 FS
	30	JBX 3 BI 30 MS	JBX 3 BI 30 FS

Insert for pin contacts



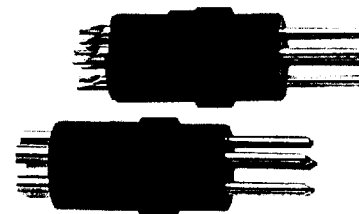
Insert for socket contacts



Inserts with fixed solder contacts (if ordered separately)

Shell size	Insert	Insert Part Number	
		Pin contacts	Socket contacts
00	02	JBX 00 BI 02 MPS	JBX 00 BI 02 FPS
	03	JBX 00 BI 03 MPS	JBX 00 BI 03 FPS
	04	JBX 00 BI 04 MPS	JBX 00 BI 04 FPS
0	04	JBX 0 BI 04 MSS	JBX 0 BI 04 FSS
	05	JBX 0 BI 05 MSS	JBX 0 BI 05 FSS
	06	JBX 0 BI 06 MPS	JBX 0 BI 06 FPS
	07	JBX 0 BI 07 MPS	JBX 0 BI 07 FPS
1	07	JBX 1 BI 07 MSS	JBX 1 BI 07 FSS
	08	JBX 1 BI 08 MSS	JBX 1 BI 08 FSS
	10	JBX 1 BI 10 MPS	JBX 1 BI 10 FPS
2	12	JBX 2 BI 12 MSS	JBX 2 BI 12 FSS
	16	JBX 2 BI 16 MSS	JBX 2 BI 16 FSS
	18	JBX 2 BI 18 MSS	JBX 2 BI 18 FSS
	19	JBX 2 BI 19 MSS	JBX 2 BI 19 FSS
3	22	JBX 3 BI 22 MSS	JBX 3 BI 22 FSS
	30	JBX 3 BI 30 MSS	JBX 3 BI 30 FSS

Insert for pin contacts



Insert for socket contacts



JBX Series

Crimp contacts (if ordered separately)

Shell size	Ø contact	Part Number	
		Crimp pin	Crimp socket
0	0,9	JBX 0 CT MC 09	JBX 0 CT FC 09
	0,7	JBX 0 CT MC 07	JBX 0 CT FC 07
1	1,3	JBX 1 CT MC 13	JBX 1 CT FC 13
	0,9	JBX 1 CT MC 09	JBX 1 CT FC 09
	0,7	JBX 1 CT MC 07	JBX 1 CT FC 07
2	2	JBX 2 CT MC 20	JBX 2 CT FC 20
	1,6	JBX 2 CT MC 16	JBX 2 CT FC 16
	1,3	JBX 2 CT MC 13	JBX 2 CT FC 13
	0,9	JBX 2 CT MC 09	JBX 2 CT FC 09
	0,7	JBX 2 CT MC 07	JBX 2 CT FC 07
3	2	JBX 3 CT MC 20	JBX 3 CT FC 20
	1,6	JBX 3 CT MC 16	JBX 3 CT FC 16
	1,3	JBX 3 CT MC 13	JBX 3 CT FC 13
	0,9	JBX 3 CT MC 09	JBX 3 CT FC 09
	0,7	JBX 3 CT MC 07	JBX 3 CT FC 07

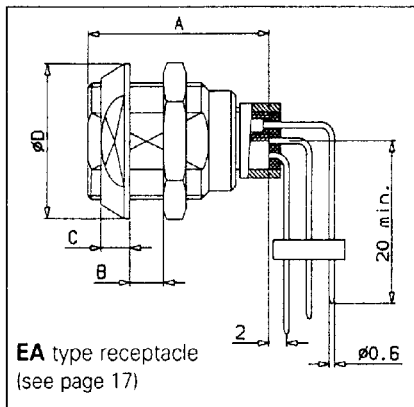
Solder contacts (if ordered separately)

Shell size	Ø contact	Part Number	
		Crimp pin	Crimp socket
0	0,9	JBX 0 CT MS 09	JBX 0 CT FS 09
1	1,3	JBX 1 CT MS 13	JBX 1 CT FS 13
	0,9	JBX 1 CT MS 09	JBX 1 CT FS 09
2	2	JBX 2 CT MS 20	JBX 2 CT FS 20
	1,6	JBX 2 CT MS 16	JBX 2 CT FS 16
	1,3	JBX 2 CT MS 13	JBX 2 CT FS 13
	0,9	JBX 2 CT MS 09	JBX 2 CT FS 09
3	2	JBX 3 CT MS 20	JBX 3 CT FS 20
	1,6	JBX 3 CT MS 16	JBX 3 CT FS 16
	1,3	JBX 3 CT MS 13	JBX 3 CT FS 13
	0,9	JBX 3 CT MS 09	JBX 3 CT FS 09

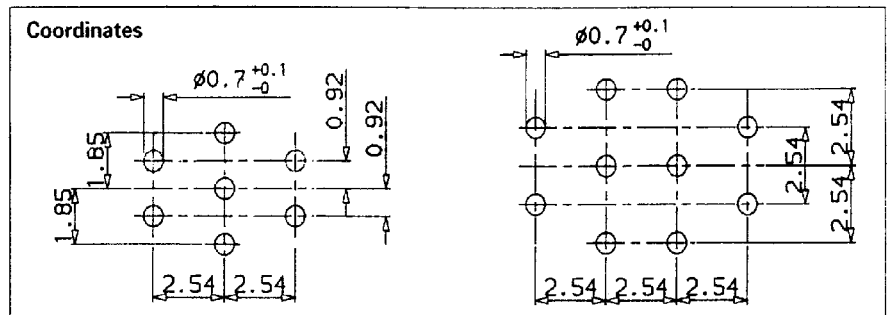
Nota : JKB Series uses the same contacts as JBX Series.

JBX Series

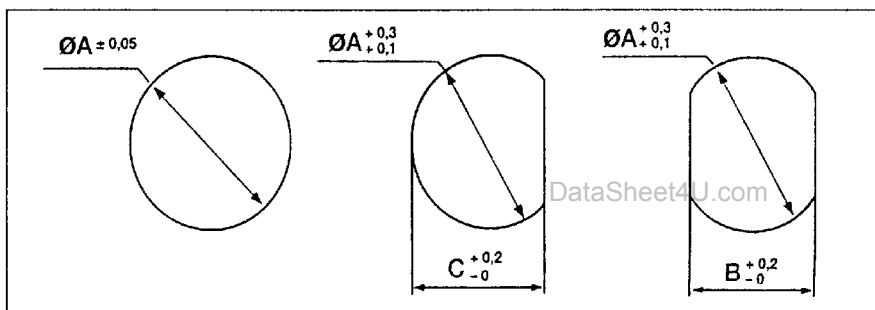
Receptacle with 90° contacts for PCB



Shell size 1, 7 contacts 0,7 mm each and shell size 2, 10 contacts 0.7 mm each are used on HF microphones :

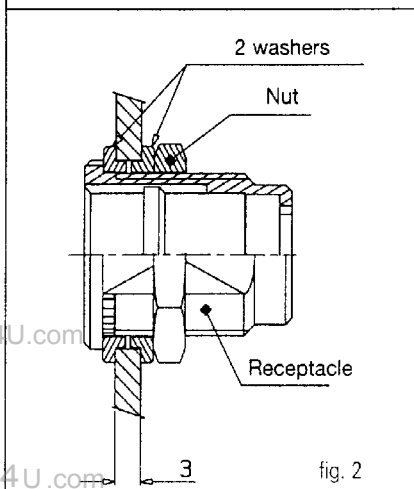
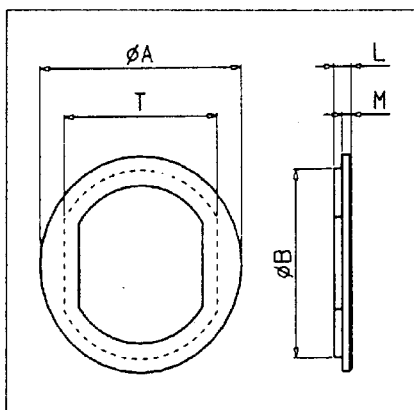


Panel cut-out



Size	00	0	1	2	3
Ø A	7.1	9.1	12.1	15.1	18.1
B	6.4	8.3	10.6	13.6	16.6
C	6.8	8.7	11.4	14.4	17.4

Insulating washer



Part number	Shell size	Ø A	B	L	M	N	T	E
JBX 00 RI*	00	10	8.8	1.8	1	0.8	8	4.4
JBX 0 RI*	0	12	10.8	1.8	1	0.8	9,9	6.4
JBX 1 RI*	1	16	13.8	1.8	1	0.8	12,2	8.4
JBX 2 RI*	2	21	17.8	2.2	1.2	0.8	16.2	8.2
JBX 3 RI*	3	25	21.8	2.2	1.2	0.8	20.2	10.1

* Washer colors as protective boots

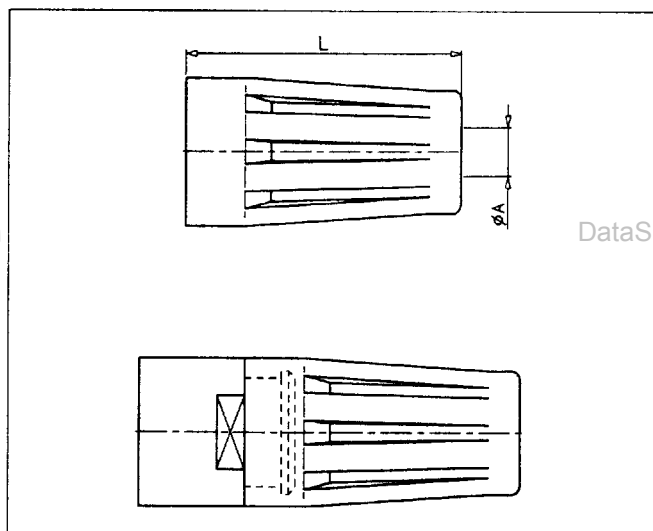
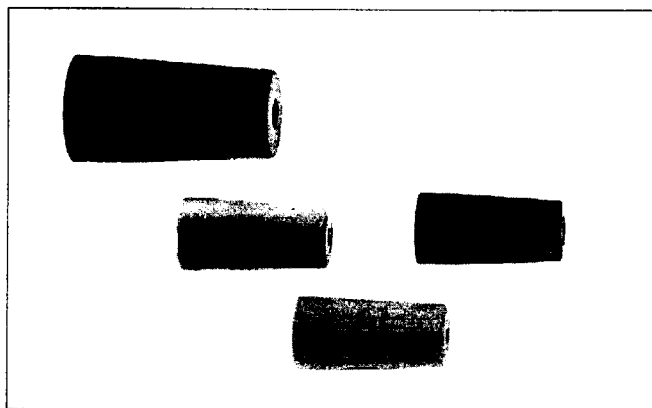
Material : PA 6/6

Working temperature : -40°C ; +170°C

-104°F; +348°F

JBX Series

Protective boot



Part number	Shell size	Dimensions			
		Ø A	L	Ø Câble	
				min	Max.
JBX 00 MP*	00	1,5	15	1	3,8
JBX 0 MP*	0	2,2	20	1,5	5,5
JBX 1 MP*	1	2,6	25	2	7,5
JBX 2 MP*	2	4	30	3,5	9,7
JBX 3 MP*	3	5	35	4,9	12

* : color code

Color code	Colors
A	blue
B	white
G	grey
J	yellow
M	brown
N	black
R	red
V	green
O	orange

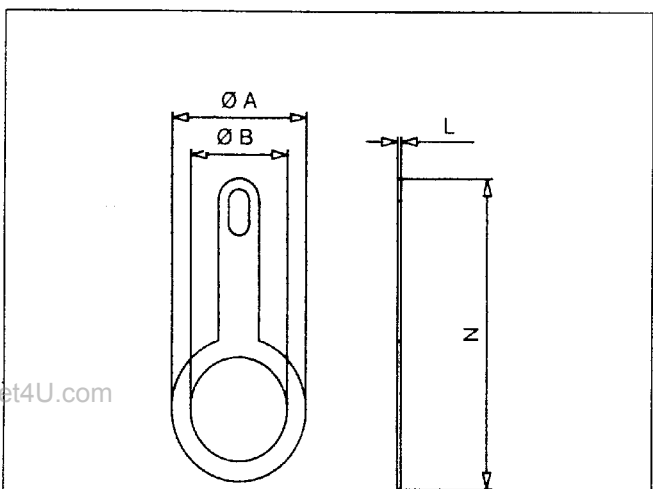
Material : ELASTOLLAN

Working temperature : -40°C ; +80°C
-104°F ; +176°F

With each JBX connector, only one protective boot can accept diverse cable diameters thus the end-user can manage various cable diameters without bothering with multiple part numbers.

JKX Series uses the same protective boots as JBX Series.

Grounding washer



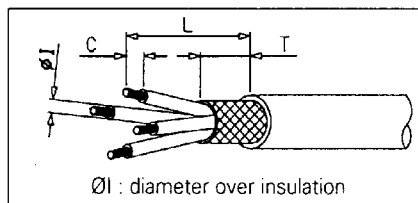
Part number	Shell size	Dimensions			
		Ø A	Ø B	L	N
JAX RA 00 251	00	10	7,2	0,3	21,5
JAX RA 0 251	0	13	9,1	0,3	24
JAX RA 1 251	1	16	12,2	0,3	24
JAX RA 2 251	2	21	15,1	0,8	35
JAX RA 3 251	3	25	18,1	0,8	37

Material : - Brass

JBX Series

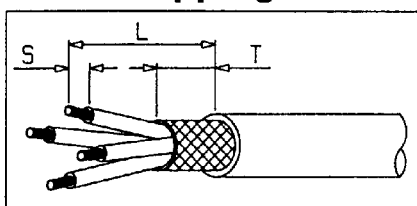


Cable stripping for connectors with crimp contacts



Shell size	Ø contacts	Ø I	Stripping for FD, SR, PC			Stripping for FC		
			L	C	T	L	C	T
0	0.7	≤ 1,35 > 1,35	15	4 5,5	7	19	4 5,5	7
	0.9	≤ 1,6 > 1,6	15	4 5,5	7	19	4 5,5	7
1	0.7	≤ 1,35 > 1,35	16	4 5,5	8	22	4 5,5	8
	0.9	≤ 1,6 > 1,6	16	4 5,5	8	22	4 5,5	8
	1.3	≤ 2,1 > 2,1	16	4 5,5	8	22	4 5,5	8
2	0.7	≤ 1,35 > 1,35	19	4 5,5	9	28	4 5,5	9
	0.9	≤ 1,6 > 1,6	19	4 5,5	9	28	4 5,5	9
	1.3	≤ 2,1 > 2,1	19	4 5,5	9	28	4 5,5	9
	1.6	≤ 2,6 > 2,6	21	5,5 7	9	28	5,5 7	9
	2.0	≤ 3,2 > 3,2	21	5,5 7	9	28	5,5 7	9
	2.0	≤ 3,2 > 3,2	21	5,5 7	9	28	5,5 7	9
3	0.7	≤ 1,35 > 1,35	25	4 7	10	35	4 7	10
	0.9	≤ 1,6 > 1,6	25	4 7	10	35	4 7	10
	1.3	≤ 2,1 > 2,1	25	4 7	10	35	4 7	10
	1.6	≤ 2,6 > 2,6	27	5,5 8,5	10	35	5,5 8,5	10
	2.0	≤ 3,2 > 3,2	27	5,5 8,5	10	35	5,5 8,5	10
	2.0	≤ 3,2 > 3,2	27	5,5 8,5	10	35	5,5 8,5	10

Cable stripping for connectors with solder contacts



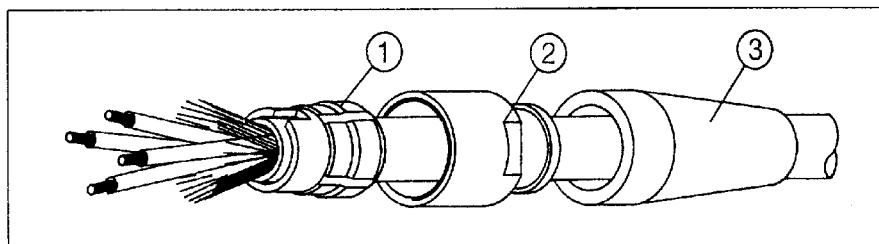
Shell size	Ø Contacts	Stripping for FD, SR, PC			Stripping for FC		
		L	S	T	L	S	T
00	0.5	9	2	4	/	/	/
0	0.5	11	2	7	16	2	7
	0.7	12	3	7	16	3	7
	0.9	12	3	7	16	3	7
1	0.5	12	2	8	19	2	8
	0.7	13	3	8	19	3	8
	0.9	13	3	8	19	3	8
	1.3	13	3,5	8	19	3,5	8
2	0.7	16	3	9	25	3	9
	0.9	16	3	9	25	3	9
	1.3	16	3,5	9	25	3,5	9
	1.6	18	4	9	25	4	9
	2	18	4	9	25	4	9
3	0.7	20	3	10	30	3	10
	0.9	20	3	10	30	3	10
	1.3	20	3,5	10	30	3,5	10
	1.6	22	4	10	30	4	10
	2	22	4	10	30	4	10

JBX Series

Assembly instructions : Straight plug

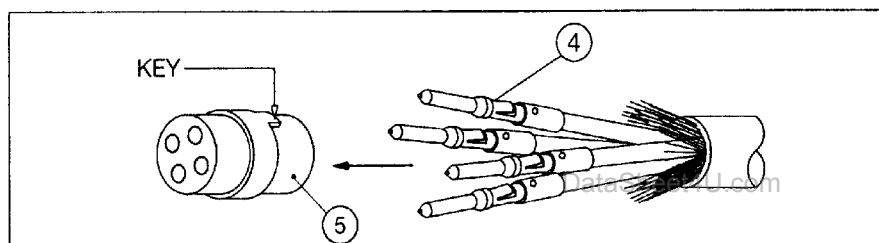
• **Cable stripping** : see page 25

• **Connector preparation**



- 1 - Select proper collet ①.
- 2 - Slide protective boot ③, backnut ② and collet ① onto cable.
- 3 - In case of a screened cable, comes out screen and fold back over the collet ①.

• **Contacts wiring : crimp contacts**

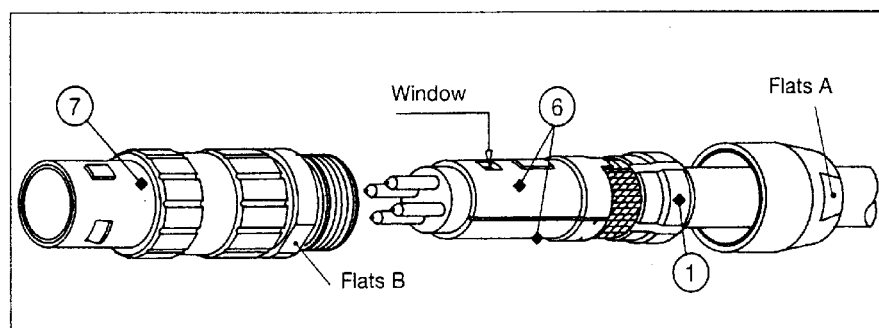


- 1 - Select the proper crimping tool and locator according to connectors involved.
- 2 - Adjust tool selector for the corresponding conductor AWG.
- 3 - Crimp contacts ④ then engage them into insert cavities ⑤ till clip tightening.

• **Contacts wiring : solder contacts**

Fixed solder contacts 0.5 mm and 0.7 mm	Removable solder contacts from 0.9 mm to 2 mm
1 - Terminate bucket contacts using solder method	1 - Solder conductors to the contact buckets then engage them into insert cavities ⑤ till clip holding

• **Connector assembly**

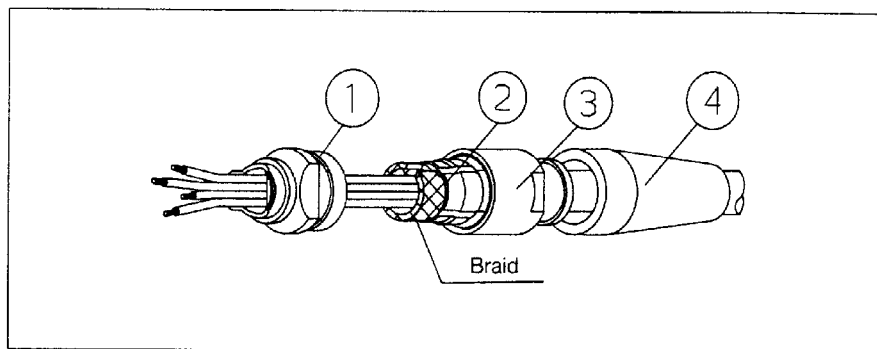


- 1 - Position 2 half bushes ⑥ on insert ⑤ making sure that insert key appears through window of one bush.
- 2 - Position collet and half bushes while maintaining shield.
Bush keys are seated in collet keying slots.
- 3 - Position all sub-assembly in connector housing ⑦ making sure to keep sub-assembly will aligned.
- 4 - Install backnut ② and screw it. Use 2 wrenches well positioned on the flats A and B. Place a wrench to grip flats B, use the other wrench to tighten the backnut at the flats A following the torque values on page 17.
- 5 - Install protective boot ③ if exists.

JBX Series

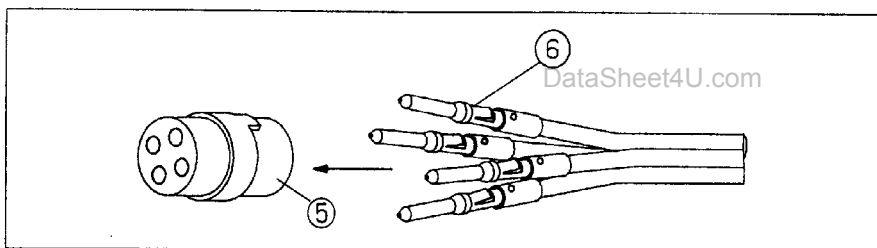
Assembly instructions : 90° elbow plug

- **Cable stripping** : see page 25
- **Connector preparation**



- 1 - Select proper collet ②.
- 2 - Slide protective boot ④, backnut ③, collet ② and elbow outlet ① onto cable.
- 3 - In case of a screened cable, comb out screen and fold back over the collet ②.
- 4 - Position in elbow outlet making sure the anti-rotating keys are well aligned (clock wise 12 hours)
- 5 - Screw backnut ③ till bottoming.
- 6 - Install protective boot ④ if exists.

- **Contacts wiring : crimp contacts**

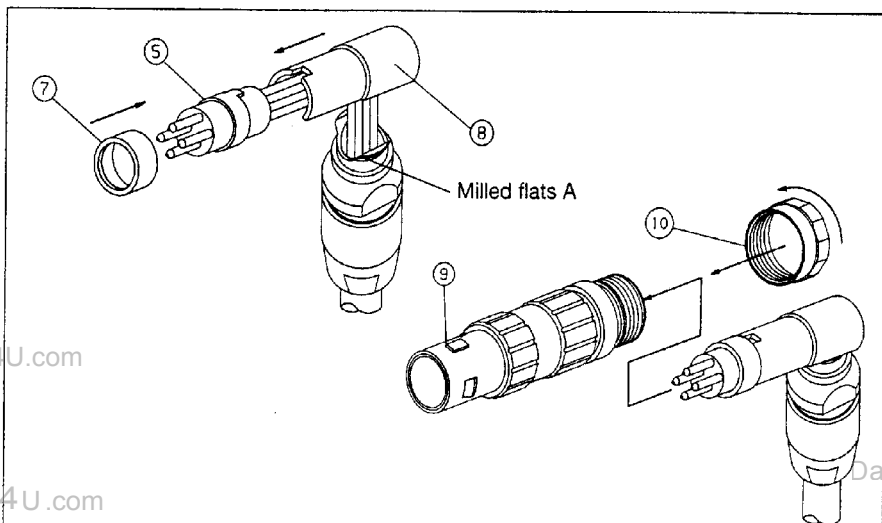


- 1 - Select the proper crimping tool and positionner according to connectors involved.
- 2 - Adjust tool selector for the corresponding conductor AWG.
- 3 - Crimp contacts ⑥ then engage them into insert cavities ⑤ till clip tightening.

- **Contacts wiring : solder contacts**

Fixed solder contacts 0.5 mm and 0.7 mm	Removable solder contacts from 0.9 mm to 2 mm
1 - Terminate bucket contacts using solder method	1 - Solder conductors to the contact buckets then engage them into insert cavities ⑤ till clip holding

- **Connector assembly**

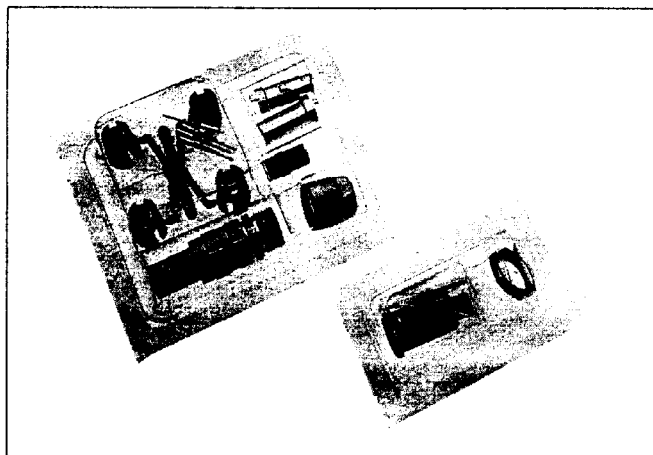


- 1 - Position ring ⑦ on insert ⑤ then engage all in spacer ⑧.
- 2 - Position all sub-assembly in connector housing ⑨ with milled flats A of elbow outlet facing to the rear of plug housing.
- 3 - Tighten screw ⑩ at the torque values defined on page 17.

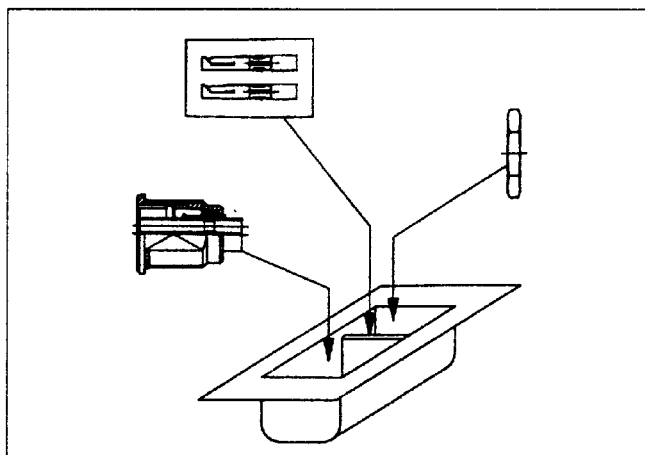
JBX Series

Packaging

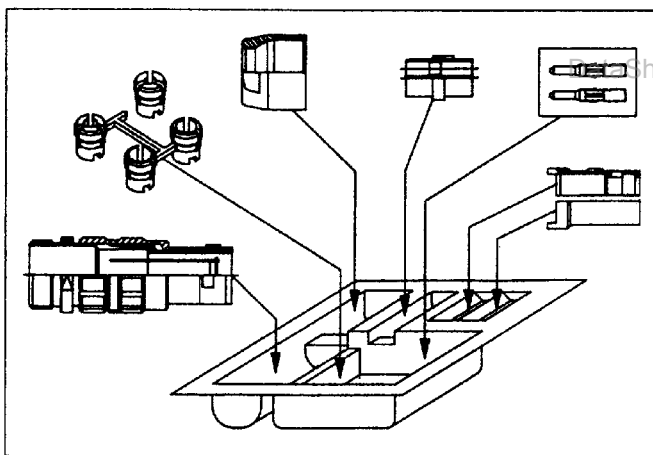
• Blister presentation



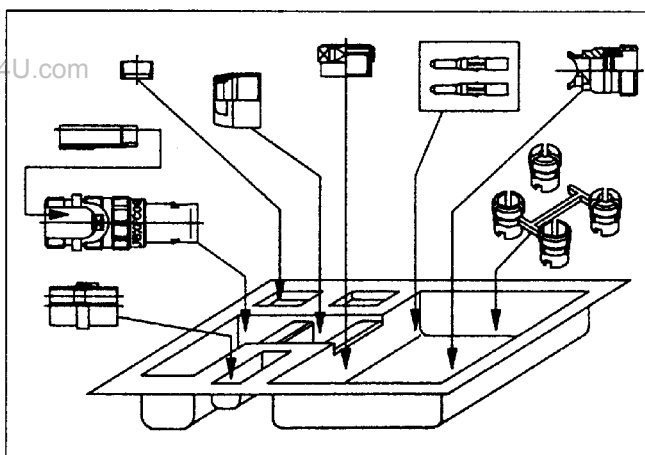
• For connectors EA, ER, ED and EP



• For connectors FD, PC and SR

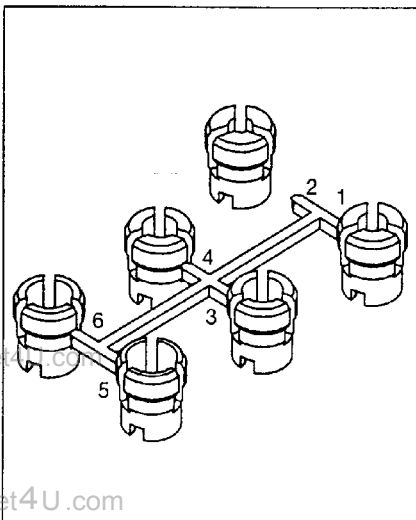


• For connectors FC



Collets selection according to cable diameters ✂

4 or 6 collets per shell size allow a wide range of cable diameters for a single connector ; cable outer diameters are for information only, since values will change with each cable connector (stiff, flexible).



Collet number	Cable diameter				
	Shell size 00	Shell size 0	Shell size 1	Shell size 2	Shell size 3
1	1.1 - 1.9	1.5 - 2.5	2.0 - 2.5	3.5 - 4.7	4.9 - 6
2	2 - 2.8	2.6 - 3.5	2.6 - 3.5	4.8 - 5.7	6.1 - 7.2
3	2.9 - 3.5	3.6 - 4.5	3.6 - 4.5	5.8 - 6.7	7.3 - 8.4
4	-	4.6 - 5.5	4.6 - 5.5	6.8 - 7.7	8.5 - 9.6
5	-	-	5.6 - 6.6	7.8 - 8.7	9.7 - 10.8
6	-	-	6.7 - 7.5	8.8 - 9.7	10.9 - 12.0