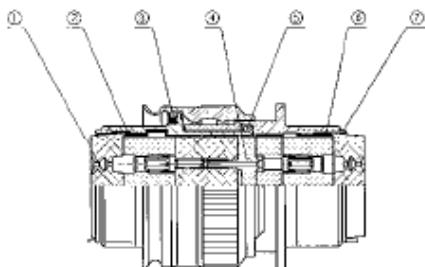


IQ83723 Series Electrical Connectors

GJB4337-2002 (MIL-C-83723E)

Product introduction

This series of products fully comply with the technical requirements of GJB4337-2002, MIL-C-83723E, and reclassification. This series of products are widely used in electrical connectors between aviation, aerospace and other electronic equipment.



1. Self-sealing wire seals with triple rib holes provide a reliable seal and prevent moisture from entering the interior of the connector.
2. The combined insulator is bonded with the shell by the method of injecting glue.
3. Self-locking mechanism prevents mated connectors from loosening.
4. Interface seals ensure reliable interface sealing after connector assembly.
5. "O" - Ring seal ensures reliable circumferential sealing of mating connectors.
6. The combined insulator is bonded with the shell by the method of injecting glue.
7. Three teeth on the end of the housing prevent the clamp plate from rotating and the nut compresses the insulator to provide a secure seal for each wire.

Technical performance

- Withstand voltage (V)

Working height	Condition I	Condition II
Sea level	1500	2300
15000m	500	750
21000m	375	500
33000m	200	200

- Contact resistance and rated current

Contact part number	20	16	12
Contact resistance (mΩ)	7.4	3.8	2.2
Rated current (A)	7.5	13	23

- Insulation resistance: normal condition $\geq 5000\text{ M}\Omega$
hot and humid conditions $\geq 100\text{ M}\Omega$
- RFI shielding: 100 MHz 65dB
- Ambient temperature: $-65^{\circ}\text{C} \sim +200^{\circ}\text{C}$
 $-65^{\circ}\text{C} \sim +260^{\circ}\text{C}$ (seal)
- Air tightness: 1 atmospheric pressure difference
- Salt spray resistant: 500 hours or 48 hours
- Relative humidity: $20\pm 5^{\circ}\text{C}$ 95-98%



How to order

Name	IQ	83723	0	K	10	05	P	N	F
Serial Number Indicates the 83723 series									
Connector type <ul style="list-style-type: none"> 0 – Square flange mounting receptacle (equivalent to MIL-C-83723/ ⁸²/₈₃) (Service Class A, R, W, K) 2 – Square Pan Hermetic socket (equivalent to MIL-C-83723/88) (Service Class Y) 4 – Self-locking plug (equivalent to MIL-C-83723/ ⁹⁵/₉₆) (Service Class A, R, W, K) 6 – Plug (equivalent to MIL-C-83723/ ⁸⁶/₈₇) (Service Class A, R, W) 7 – Nut Mount Socket (equivalent to MIL-C-83723/ ⁸⁴/₈₅) (Service Class A, R, W, K) I – Disc hermetically sealed socket (equivalent to MIL-C-83723/90) (Service Class Y) 									
Service Class <ul style="list-style-type: none"> A – Black anodized aluminum alloy R – Nickel-plated aluminum alloy W – Military green cadmium plated aluminum alloy K – Passivated stainless steel (fireproof) Y – Stainless steel (Hermetic type) 									
Shell size 08, 10, 12, 14, 16, 18, 20, 22, 24									
Insulator hole arrangement See insulator hole arrangement diagram									
Contact Type <ul style="list-style-type: none"> P – Pin S – Socket 									
Key polarization N. 1.2.3.4.5.6.7.8.9.Y									
Sealing body material <ul style="list-style-type: none"> F – Grey silicone rubber(200°C) G – High temperature silicone rubber(260°C) V – Fluorosilicone (200°C) 									

Plugs and sockets for bayonet connection







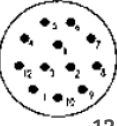
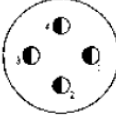
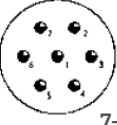
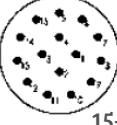

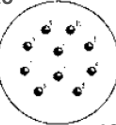

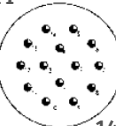
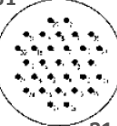

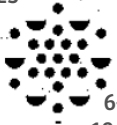
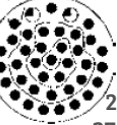

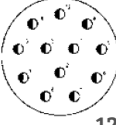
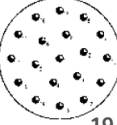
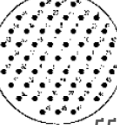
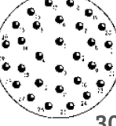
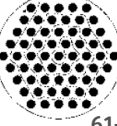
Serial Number	IQ	83723	/ 75R	12	12	N
Connector type						
71(A;R;W;K) Service Class – Socket-mounted square plate socket						
72(A;R;W;K) Service Class – Pin square socket						
75(A;R;W;K) Service Class – Socket plug						
76(A;R;W;K) Service Class – Pin plug						
79(H;Y) Service Class – Hermetically Sealed Square Disc Socket						
Shell size						
08, 10, 12, 14, 16, 18, 20, 22, 24						
Insulator hole arrangement						
See insulator hole arrangement diagram						
Key change						
See insulator hole arrangement diagram						

Tail attachment

Series name	IQ	8527	02	10	A
Serial Number					
Indicates the 8527 series rear attachment					
Type of tail attachment					
01 - Simple tail attachment					
02 - Straight Clamp Tail Attachment					
13 - Hybrid Bent Wire Tail Attachment (Steel Nut, Aluminum Clamp Post)					
Shell size					
08, 10, 12, 14, 16, 18, 20, 22, 24					
Processing methods (Type 02 only):					
Blank: Die Casting					
A: Machining					

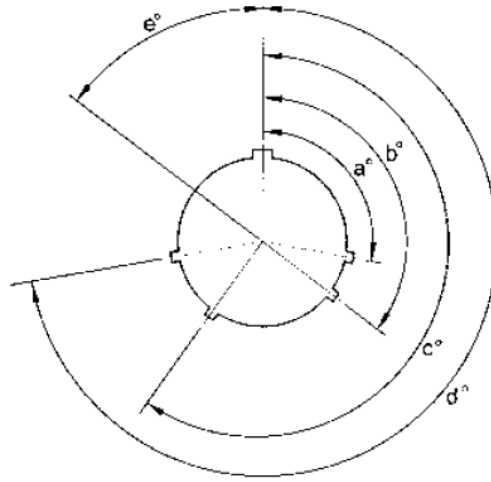
Insulator hole arrangement (pin insulator mating surface)

 Symbols corresponding to contact body specifications ● ◐ ◑
 20# 16# 12#

08	08-03  I 3-20#	08-98  I 3-20#			
10	10-02  I 2-20#	10-05  I 5-20#	10-06  I 6-20#		
12	12-03  I 3-16#	12-12  I 12-20#			
14	14-04  I 4-12#	14-07  I 7-16#	14-15  I 15-20#	14-12  I 9-20# 3-16#	
16	16-10  I 10-16#	16-24  I 24-20#			
18	18-14  I 14-16#	18-31  I 31-20#			
20	20-16  I 16-16#	20-25  I 6-12# 19-20#	20-39  I 2-16# 37-20#	20-41  I 41-20#	
22	22-12  I 12-12#	22-19  I 19-16#	22-55  I 55-20#		
24	24-30  I 30-16#	24-61  I 61-20#			

Shell key

Key position (plug front view)



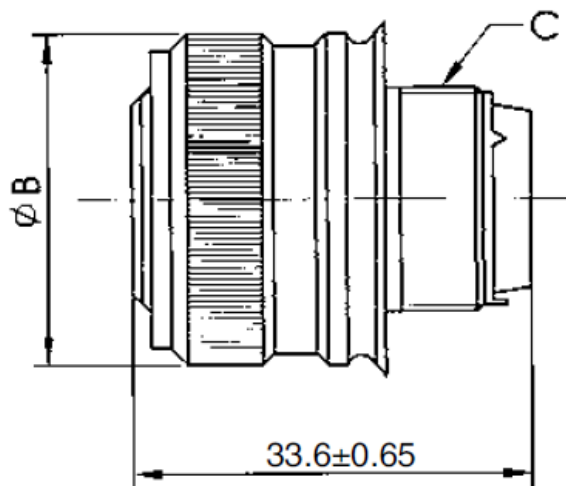
Key	08					10				12				14			
	N ₂	e°	a°	b°	c°	d°	a°	b°	c°	d°	a°	b°	c°	d°	a°	b°	c°
N	0	105	140	215	265	105	140	215	265	105	140	215	265	105	140	215	265
1	10	–	–	–	–	105	140	215	265	105	140	215	265	105	140	215	265
2	20	–	–	–	–	105	140	215	265	105	140	215	265	105	140	215	265
3	30	–	–	–	–	105	140	215	265	105	140	215	265	105	140	215	265
4	40	–	–	–	–	105	140	215	265	105	140	215	265	105	140	215	265
5	50	–	–	–	–	105	140	215	265	105	140	215	265	105	140	215	265
6	0	102	132	248	320	102	132	248	320	18	149	192	259	18	149	192	259
7	0	80	118	230	312	80	118	230	312	92	152	222	342	92	152	222	342
8	0	35	140	203	275	35	140	205	275	84	152	204	334	84	152	204	334
9	0	64	155	234	305	64	155	234	304	24	135	199	240	24	135	199	240
Y	0	–	–	–	–	25	115	220	270	98	152	268	338	98	152	268	338
Key	16					18				22				24			
N ₂	e°	a°	b°	c°	d°	a°	b°	c°	d°	a°	b°	c°	d°	a°	b°	c°	d°
N	0	105	140	215	265	105	140	215	265	105	140	215	265	105	140	215	265
1	10	105	140	215	265	105	140	215	265	105	140	215	265	105	140	215	265
2	20	105	140	215	265	105	140	215	265	105	140	215	265	105	140	215	265
3	30	105	140	215	265	105	140	215	265	105	140	215	265	105	140	215	265
4	40	105	140	215	265	105	140	215	265	105	140	215	265	105	140	215	265
5	50	105	140	215	265	105	140	215	265	105	140	215	265	105	140	205	265
6	0	18	149	192	259	18	149	192	259	18	149	192	259	18	149	192	259
7	0	92	152	222	342	92	152	222	342	92	152	222	342	92	152	222	342
8	0	84	152	204	334	84	152	204	334	84	152	204	334	84	152	204	334
9	0	24	135	199	240	24	135	199	240	24	135	199	240	24	135	199	240
Y	0	98	152	268	338	98	152	268	338	98	152	268	338	98	152	268	338



Connector outline and installation dimensions

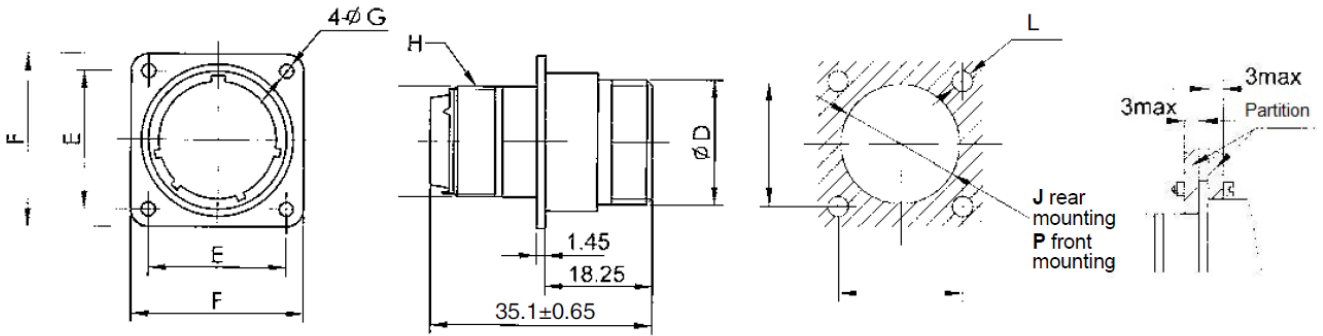
Threaded plugs and sockets

- IQ83723 4, 6 Type Plug



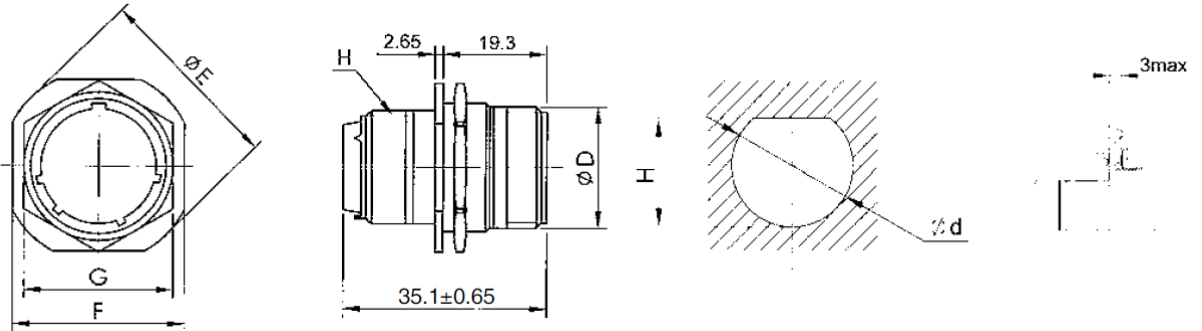
Shell size	B	C
08	19.20	0.5-20UNEF·2A
10	23.00	0.625-24UNEF·2A
12	27.38	0.75-20UNEF·2A
14	28.98	0.875-20UNEF·2A
16	32.16	1-20UNEF·2A
18	34.90	1.0625-18UNEF·2A
20	38.17	1.1875-18UNEF·2A
22	41.28	1.3125-18UNEF·2A
24	44.55	1.4375-18UNEF·2A

• IQ83723 0 Type Square Mount Socket



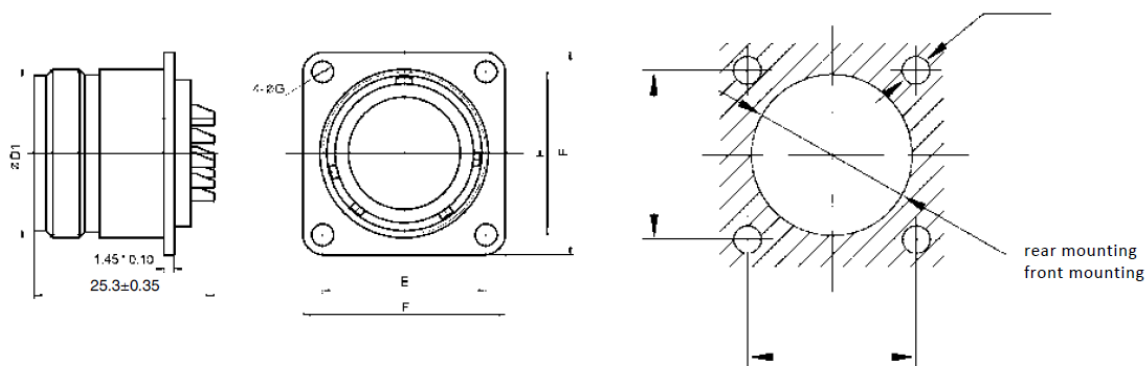
Shell size	D	E	F	G	H	P	J	L
08	14.26	15.09	20.75	3.10	0.5-20UNEF·2A	13.20	15.80	3.20
10	17.43	18.26	23.95	3.10	0.625-24UNEF·2A	16.60	18.70	3.20
12	22.19	20.62	26.31	3.10	0.75-20UNEF·2A	19.80	23.30	3.20
14	23.78	23.01	28.69	3.10	0.875-20UNEF·2A	23.00	24.90	3.20
16	26.95	24.61	31.88	3.10	1-20UNEF·2A	26.10	28.30	3.20
18	30.12	26.97	32.24	3.10	1.0625-18UNEF·2A	27.70	31.10	3.20
20	33.29	29.4	38.00	4.30	1.1875-18UNEF·2A	34.00	34.20	4.40
22	36.47	31.75	39.80	3.10	1.3125-18UNEF·2A	37.30	37.50	3.20
24	39.65	34.92	43.38	3.90	1.4375-18UNEF·2A	30.90	40.60	4.00

• IQ83723 7 Type Nut Mounting Socket



Shell size	D	E	F	G	H	d3	H
08	14.26	26.98	24.49	20.65	0.5-20UNEF·2A	16.00	15.24
10	17.43	29.87	27.64	23.82	0.625-24UNEF·2A	19.18	18.42
12	22.19	34.65	32.39	26.93	0.75-20UNEF·2A	23.93	23.16
14	23.78	38.1	34.93	30.17	0.875-20UNEF·2A	25.53	24.76
16	26.95	41.28	38.10	33.32	1-20UNEF·2A	28.70	27.90
18	30.12	44.45	41.28	36.52	1.0625-18UNEF·2A	31.88	30.99
22	36.47	52.38	49.23	42.87	1.3125-18UNEF·2A	38.23	37.34

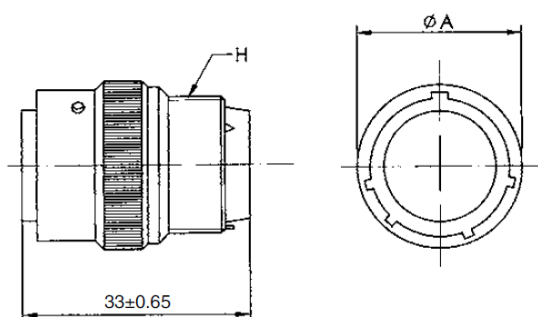
- IQ83723 2Y Type Square Disc Hermetic Socket



Shell size	D1	E	F	G	J	L	P
08	14.18	15.09	20.75	3.10	15.80	3.20	13.20
10	17.35	18.26	23.95	3.10	18.70	3.20	16.60
12	22.11	20.62	26.31	3.10	21.70	3.20	19.80
14	23.70	23.01	28.69	3.10	24.90	3.20	23.00
16	26.87	24.61	31.88	3.10	28.30	3.20	26.10
18	30.04	26.97	32.24	3.10	30.10	3.20	27.70
20	33.29	29.4	38.00	4.30	34.20	4.40	24.00
22	36.47	31.75	39.80	3.10	36.50	3.20	37.30
24	39.65	34.92	43.38	3.90	40.60	4.00	30.90

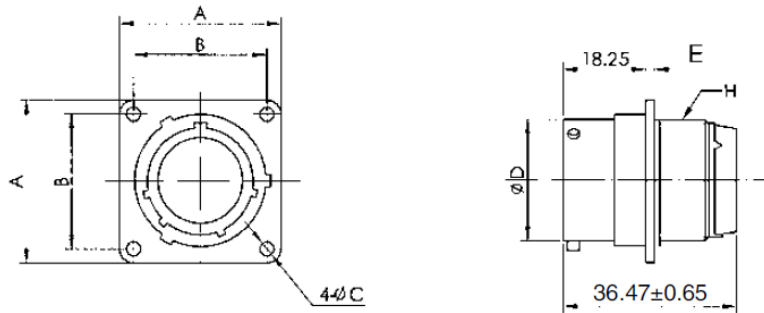
Bayonet connection plugs and sockets

- IQ83723/ ^{75R} _{76R}

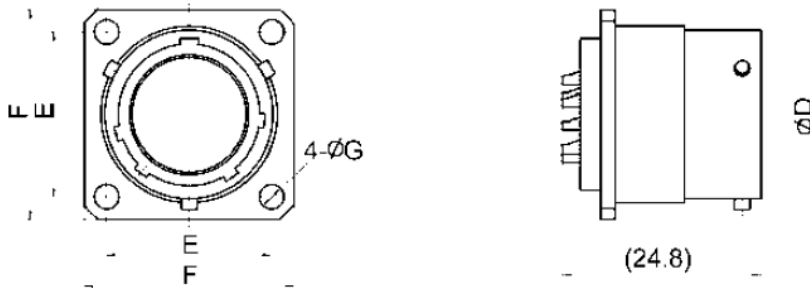


Shell size	A	H
08	19.72	0.5-20UNEF·2A
10	23.00	0.625-24UNEF·2A
12	27.40	0.75-20UNEF·2A
14	28.99	0.875-20UNEF·2A
16	32.30	1-20UNEF·2A
18	35.00	1.0625-18UNEF·2A
20	38.36	1.1875-18UNEF·2A
22	41.30	1.3125-18UNEF·2A
24	44.71	1.4375-18UNEF·2A

- IQ83723/ ^{71R}_{72R} Bayonet connection square socket



- IQ83723/ **79H** Bayonet Connection Hermetically Sealed Square Disc Receptacle

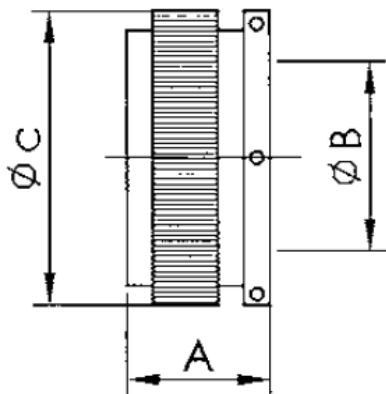


Shell size	A	B	C	D	H
08	20.62	15.09	3.10	13.61 – 13.49	0.5–20UNEF·2A
10	23.82	18.26	3.10	16.74 – 16.61	0.625–24UNEF·2A
12	26.18	20.62	3.10	21.06 – 20.93	0.75–20UNEF·2A
14	28.58	23.01	3.10	22.81 – 22.68	0.875–20UNEF·2A
16	31.75	24.61	3.10	26.04 – 25.91	1–20UNEF·2A
18	34.11	26.97	3.10	28.73 – 28.60	1.0625–18UNEF·2A
20	36.50	29.36	3.10	31.90 – 31.78	1.1875–18UNEF·2A
22	39.67	31.75	3.10	35.08 – 34.95	1.3125–18UNEF·2A
24	43.26	34.92	3.90	38.25 – 38.13	1.4375–18UNEF·2A



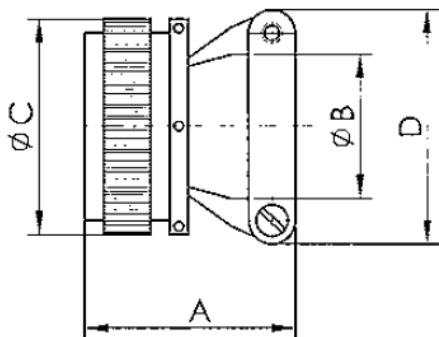
Tail attachment dimensions

- IQ8527 01 Simple tail attachment



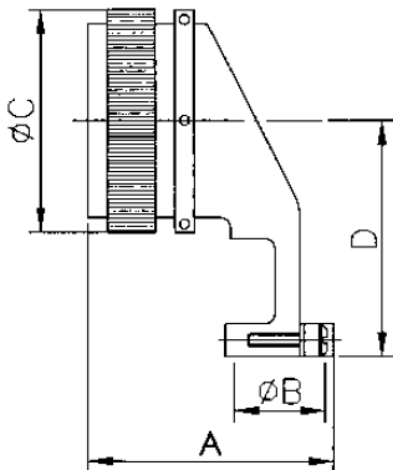
Shell size	A	B	C
08	12.70	11.10	15.20
10	12.70	14.62	18.30
12	12.70	17.50	21.50
14	12.70	20.60	24.70
16	12.70	23.25	28.10
18	12.70	25.25	29.60
22	12.70	37.60	36.00
24	12.70	29.55	40.50

- IQ8527 02 Straight Clamp Tail Attachment



Shell size	A	B	C	D
08	22.25	6.2	15.20	19.10
10	24.85	8.8	18.30	21.15
12	28.00	11.7	21.50	25.10
14	28.00	13.2	24.70	26.50
16	31.20	18.3	28.10	33.40
18	37.55	18.3	29.60	36.80
22	43.30	24.5	36.00	41.90
24	47.6	26.2	40.50	45.10

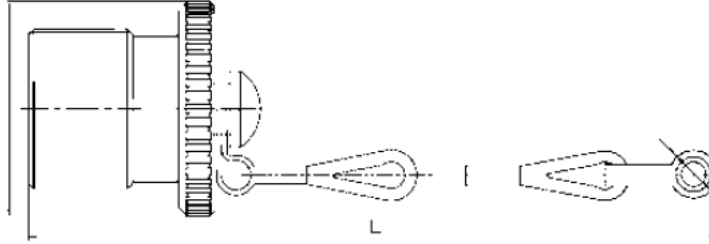
- IQ8527 13 Hybrid Bent Wire Tail Attachment



Shell size	A	B	C	D
08	24.90	4.00	15.20	20.00
10	27.80	6.85	18.30	22.20
12	31.70	10.15	21.50	24.00
14	32.60	11.70	24.70	25.50
16	36.40	15.50	28.10	27.00
18	38.40	17.50	29.60	28.60
22	44.80	23.90	36.00	31.90
24	—	—	—	—

Metal dust cover

- Plug protection cover



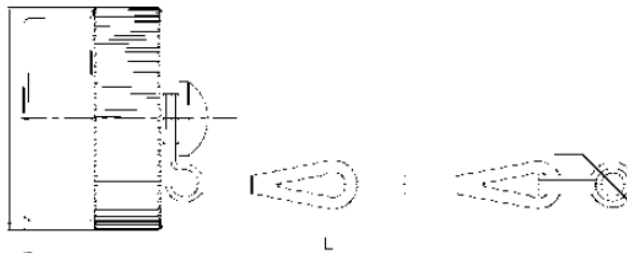
Plug protection cover model	Shell size	A	L
IQ83723 22(A;R;W) A08(C;R;N)	08	19.40	132
IQ83723 22(A;R;W) A10(C;R;N)	10	24.09	132
IQ83723 22(A;R;W) A12(C;R;N)	12	27.10	118
IQ83723 22(A;R;W) A14(C;R;N)	14	28.90	
IQ83723 22(A;R;W) A16(C;R;N)	16	32.10	
IQ83723 22(A;R;W) A18(C;R;N)	18	34.30	
IQ83723 22(A;R;W) A20(C;R;N)	20	38.30	168
IQ83723 22(A;R;W) A22(C;R;N)	22	41.90	
IQ83723 22(A;R;W) A24(C;R;N)	24	44.60	

Note: IQ83723 22A08(C;R;N) :

C – metal chain (key chain), R – brocade rope, N – cordless and chainless

A – plating is black anodized, R – electroless nickel plating, W – army green cadmium plated

- Socket cover



Socket protection cover model	Shell size	A	L
IQ83723 21(A;R;W) A08(C;R;N)	08	19.40	84
IQ83723 21(A;R;W) A10(C;R;N)	10	24.09	100
IQ83723 21(A;R;W) A12(C;R;N)	12	27.10	
IQ83723 21(A;R;W) A14(C;R;N)	14	28.90	
IQ83723 21(A;R;W) A16(C;R;N)	16	32.10	
IQ83723 21(A;R;W) A18(C;R;N)	18	34.30	116
IQ83723 21(A;R;W) A20(C;R;N)	20	38.30	
IQ83723 21(A;R;W) A22(C;R;N)	22	41.90	
IQ83723 21(A;R;W) A24(C;R;N)	24	44.60	

Note: IQ83723 21A08(C;R;N) :

C – metal chain (key chain), R – brocade rope, N – cordless and chainless

A – plating is black anodized, R – electroless nickel plating, W – army green cadmium plated