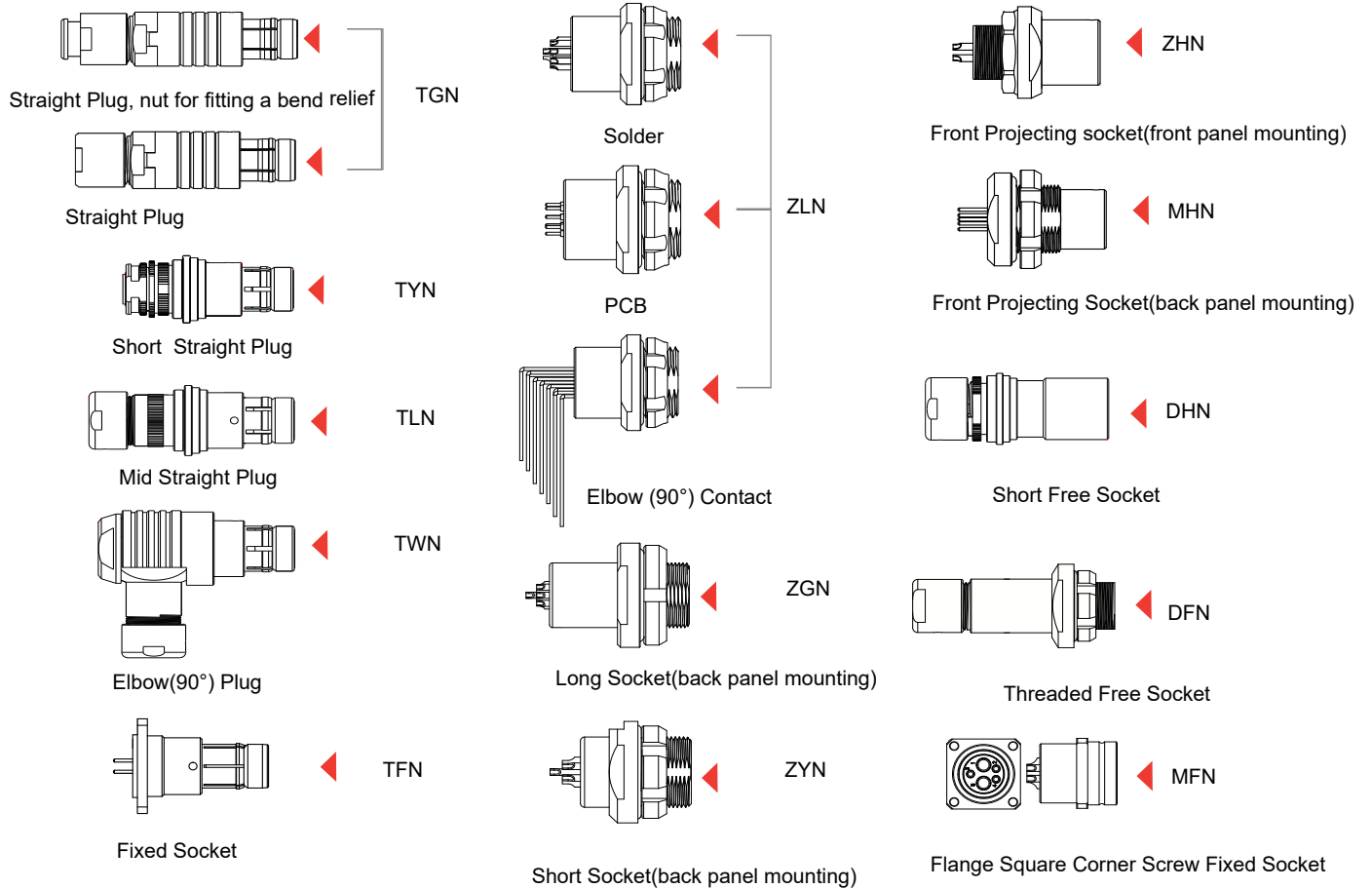


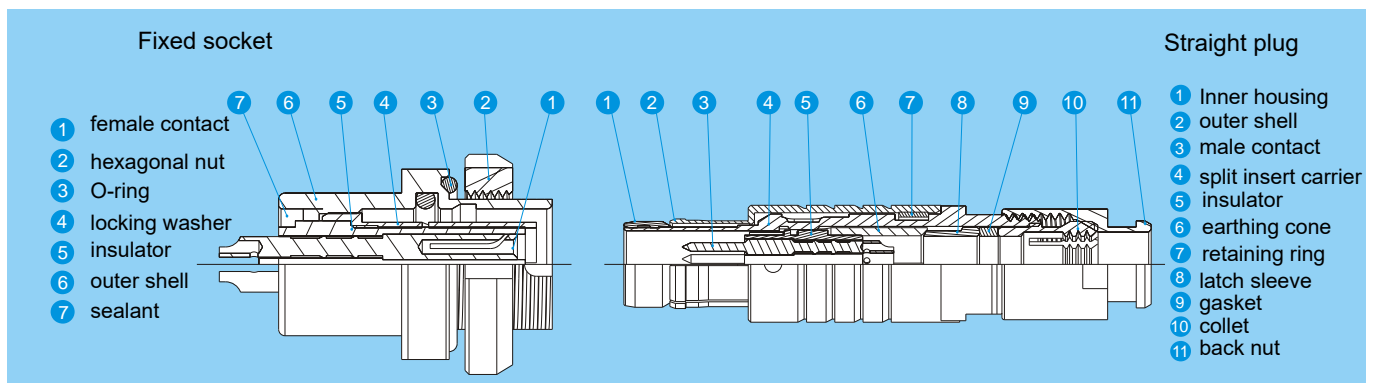
## F SERIES (Outdoor, Multipole Mechanical Coding)



### F SERIES Metal housing models (page 9)



## Part Section Showing Internal Components



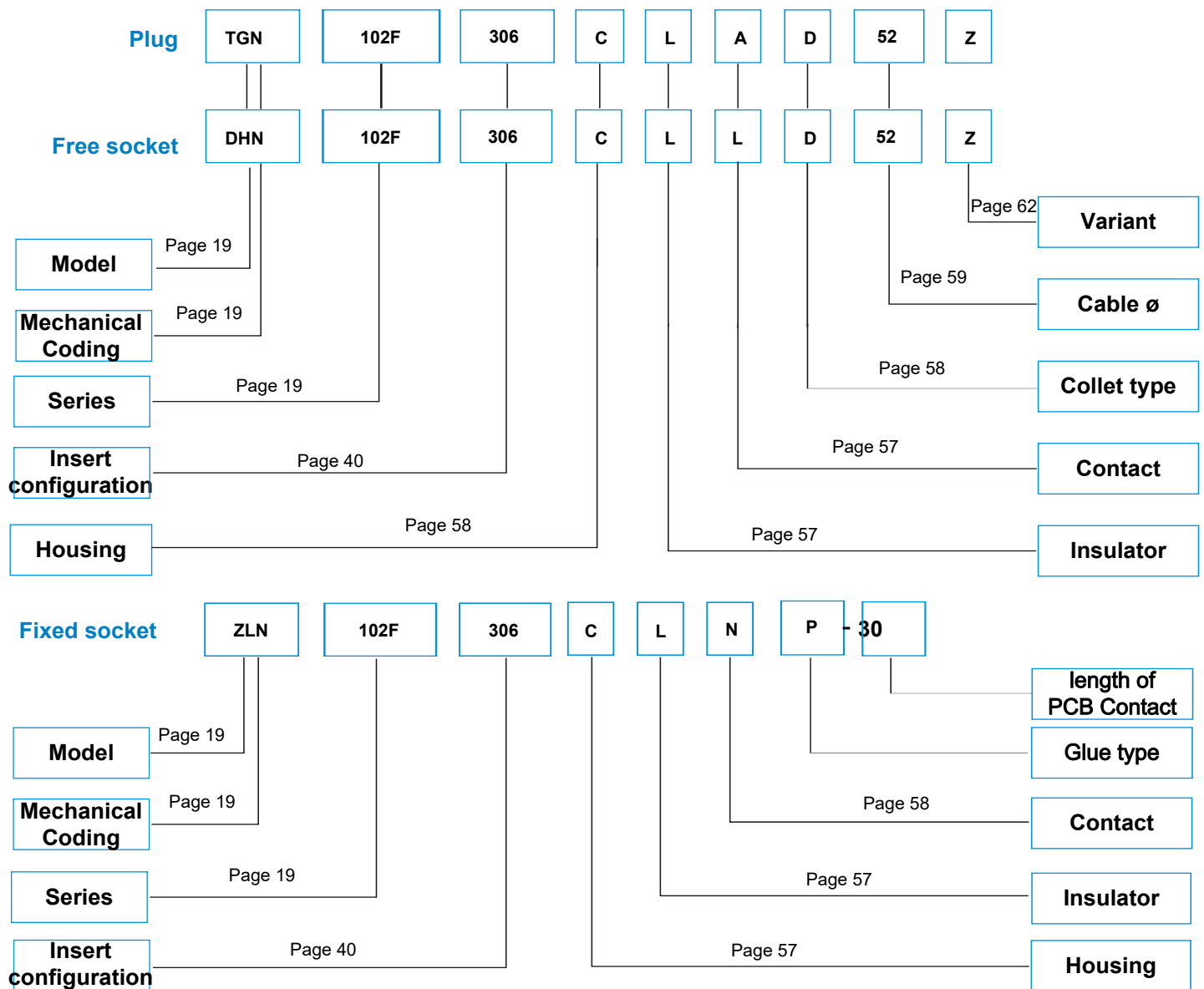
## F series connectors have main features as follows:

- security of the Push-Pull self-latching system
- multipole types 1 to 40 contacts
- Easy mating, can be blind-mated (guiding mechanism ensures precise alignment)
- Increased equipment life span (guiding mechanism optimally protects the contacts)
- Robust and shock resistant (designs ideal for equipment used in the field)
- watertight connection (IP 68/IP 66), waterproof and sandproof;
- solder, print (straight or elbow) contacts
- high packing density for space savings
- 360° screening for full EMC shielding.

## F Series Connectors Technical Characteristics :

- Endurance: > 3000 cycles
- Humidity: up to 95% at 40° C
- Temperature range: - 55° C, + 145° C
- Vibration: frequency 10-20000HZ, acceleration 147m/s<sup>2</sup>, ≤1um instantaneous break
- Impact: acceleration 490m/s<sup>2</sup>, ≤1um instantaneous break
- Protection index (mated): IP 68

## F Series Part Numbering System:



### Part number example

#### Straight plug with cable collet:

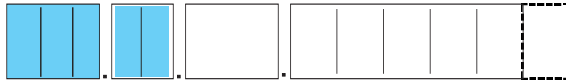
**TGN.102F.306.CLAD52** = straight plug, mechanical coding(N), 102F series, multipole type with 6 contacts, outer shell in chrome-plated brass, PPS insulator, solder male contacts, D type collet for a 5.2 mm diameter cable.

#### Free socket:

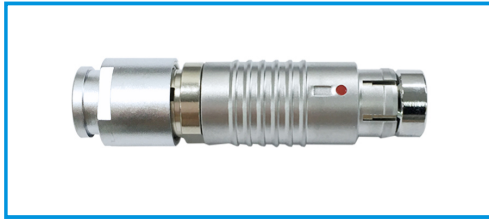
**DHN.102F.306.CLAD52Z** = free socket, mechanical coding(N), 102F series, multipole type with 6 contacts, outer shell in chrome-plated brass, PPS insulator, solder male contacts, D type collet for a 5.2 mm diameter cable and nut for fitting a bend relief.

#### Fixed socket:

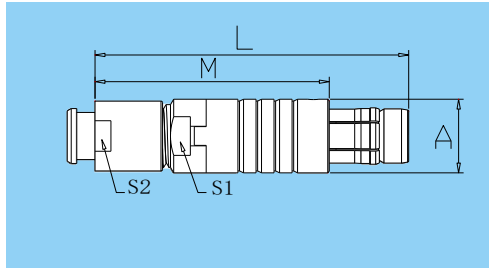
**ZLN.102F.306.CLNP-30** = fixed socket, mechanical coding(N), 102F series, multipole type with 6 contacts, outer shell in chrome-plated brass, PPS insulator, solder female contacts, Epoxy resin (P) PCB contacts length is 30mm



## Metal Housing Models



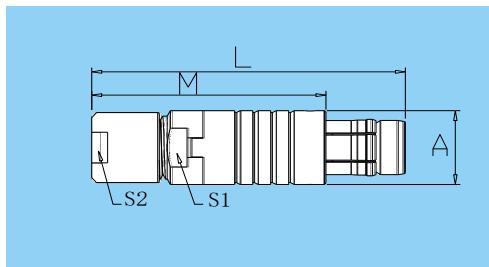
**TGN Straight long plug, cable collet and nut for fitting a bend relief, with arc-shape metal guides, collet style clamp system for cable.**



Reference		Dimensions (mm)				
Series	Model	A	L	M	S	S1
102F	TGN	9	36	26	7	7
103F	TGN	12	46	35	10	10
1031F	TGN	13	48	38	12	11
104F	TGN	15	50	38	12	13
105F	TGN	18	62	47	15	16



**TGN Straight long plug, cable collet, with arc-shape metal guides, collet style clamp system for cable. (without bend relief)**

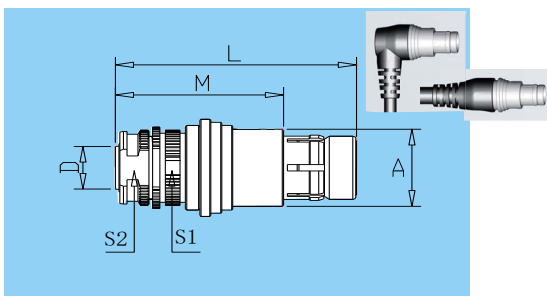


Reference		Dimensions (mm)				
Series	Model	A	L	M	S	S1
102F	TGN	9	36	26	7	7
103F	TGN	12	46	35	10	10
1031F	TGN	13	48	38	12	11
104F	TGN	15	50	38	12	13
105F	TGN	18	62	47	15	16

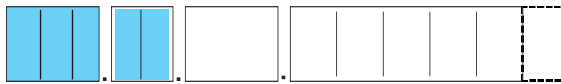


**TYN Straight short plug, with arc-shape metal guides, back nut with threaded.**

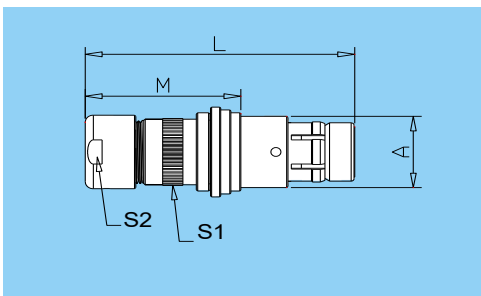
### Cable Assembly: Overmolding Options



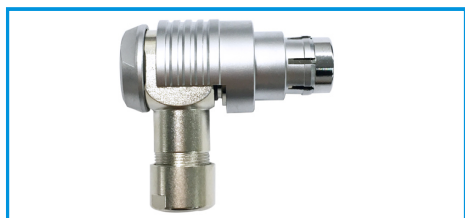
Reference		Dimensions (mm)					
Series	Model	A	L	M	S1	S1	D(max)
102F	TYN	9	30	20	8	7	3.8
103F	TYN	12	33	22	11	10	6
1031F	TYN	12.4	33	23	11	10	6.2
104F	TYN	15	38	26	13	12	8
105F	TYN	18	44	29	16	15	10



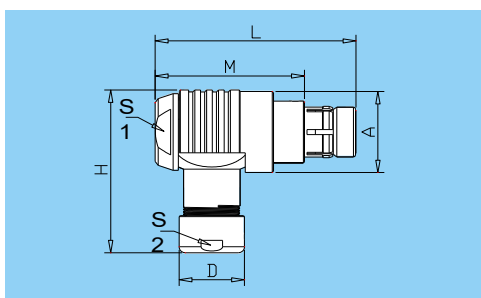
**TLN Straight short plug, with arc-shape metal guides, back nut with threaded.**



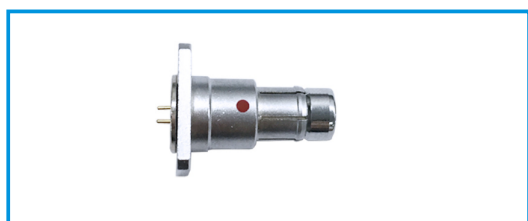
Reference		Dimensions (mm)				
Series	Model	A	L	M	S1	S1
102F	TLN	9	33	20	8	7
103F	TLN	12	37	22	11	10
1031F	TLN	12.4	40	23	11	10
104F	TLN	15	46	26	13	12
105F	TLN	18	53	29	16.5	16



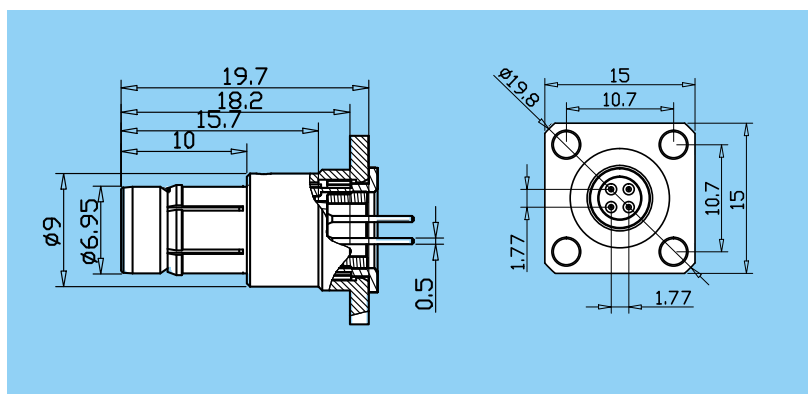
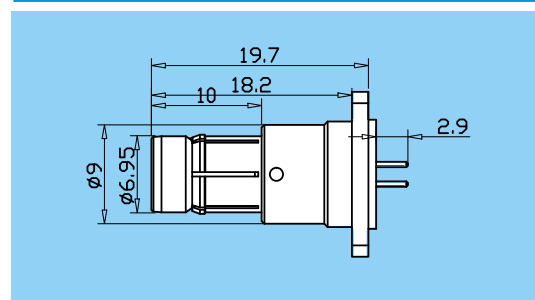
**TWN Elbow(90°) plug, with arc-shape metal guides, collet style clamp system for cable.**

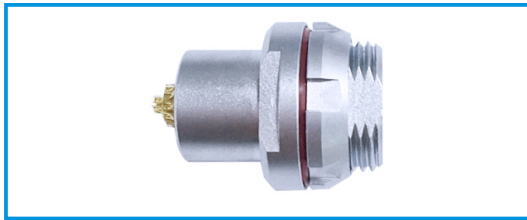
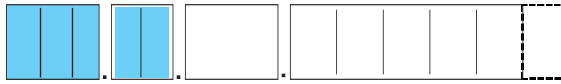


Reference		Dimensions (mm)					
Series	Model	A	L	M	H	S1	S1
102F	TWN	11.2	33	23	25	8	7
103F	TWN	15	38	27	31	11	10
1031F	TWN	17	39	29	33	12	12
104F	TWN	19	45	32	37	14	12
105F	TWN	23	53	38	45	17	15

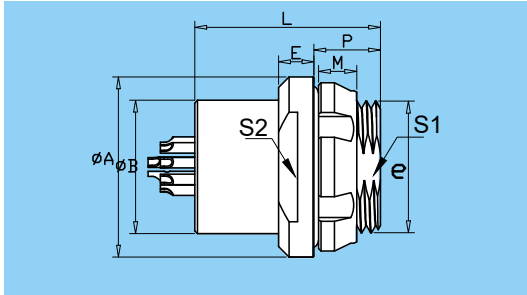


**TFN Fixed Socket with square flange,**

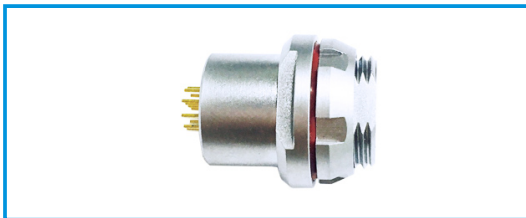




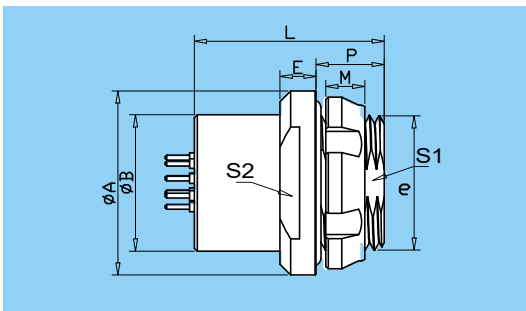
**ZLN Hermetic Socket, back panel mounting, with arc-shape metal guides,**



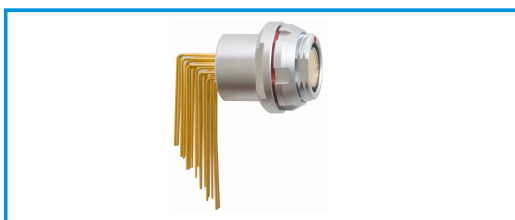
Reference		Dimensions (mm)								
Series	Model	A	B	e	L	E	M	P	S1	S2
102F	ZLN	13	9.0	M9x0.5	17	3.5	3	6.5	8.2	12
103F	ZLN	18	12	M14*1.0	21	4	4	8	12	15
1031F	ZLN	19	14	M14*1.0	19.5	4	4	7	12	15
104F	ZLN	22	16	M16*1.0	21.5	3.7	3.5	8	14.5	18
105F	ZLN	27	21	M20x1.0	22.5	4.5	5	10	18	22



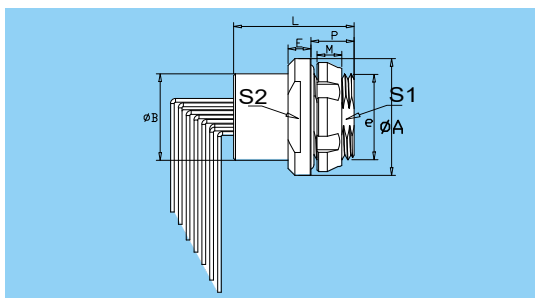
**ZLN Hermetic Socket, back panel mounting, with arc-shape metal guides, (print contacts)**



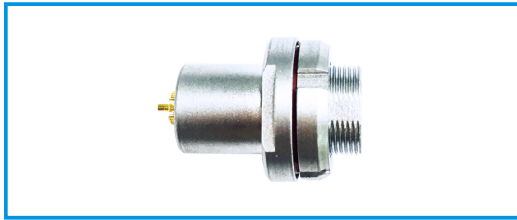
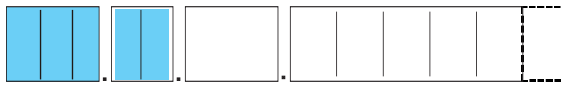
Reference		Dimensions (mm)								
Series	Model	A	B	e	L	E	M	P	S1	S2
102F	ZLN	13	9.0	M9x0.5	17	3.5	3	6.5	8.2	12
103F	ZLN	18	12	M14*1.0	21	4	4	8	12	15
1031F	ZLN	19	14	M14*1.0	19.5	4	4	7	12	15
104F	ZLN	22	16	M16*1.0	21.5	3.7	3.5	8	14.5	18
105F	ZLN	27	21	M20x1.0	22.5	4.5	5	10	18	22



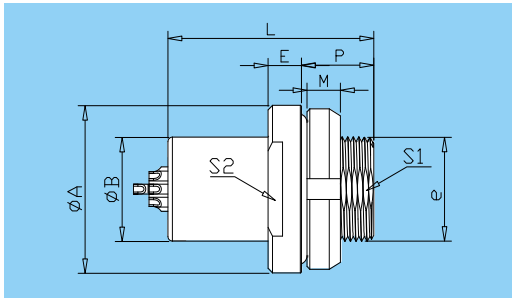
**ZLN Hermetic Socket, back panel mounting, with arc-shape metal guides, (Elbow (90°) print Contacts)**



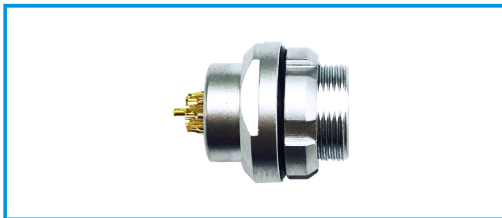
Reference		Dimensions (mm)								
Series	Model	A	B	e	L	E	M	P	S1	S2
102F	ZLN	13	9.0	M9x0.5	17	3.5	3	6.5	8.2	12
103F	ZLN	18	12	M14*1.0	21	4	4	8	12	15
1031F	ZLN	19	14	M14*1.0	19.5	4	4	7	12	15
104F	ZLN	22	16	M16*1.0	21.5	3.7	3.5	8	14.5	18
105F	ZLN	27	21	M20x1.0	22.5	4.5	5	10	18	22



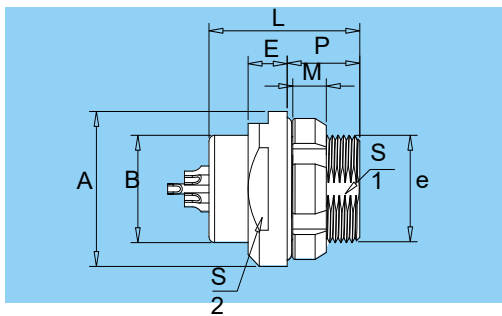
**ZGN Hermetic Socket, back panel mounting, with arc-shape metal guides.**



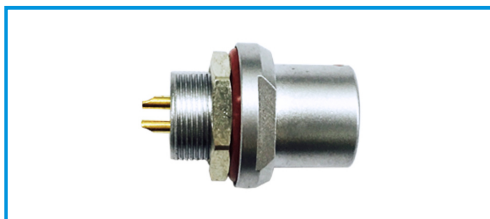
Reference		Dimensions (mm)								
Series	Model	A	B	e	L	E	M	P	S1	S2
102F	ZGN	14.5	9	M9x0.5	18.5	3	3	6.5	8.2	12
102F	ZGN	14.5	9	M10x0.5	18.5	3	3	6.5	9.0	12
103F	ZGN	18	14	M14*1.0	22	3	4	9	12.5	15



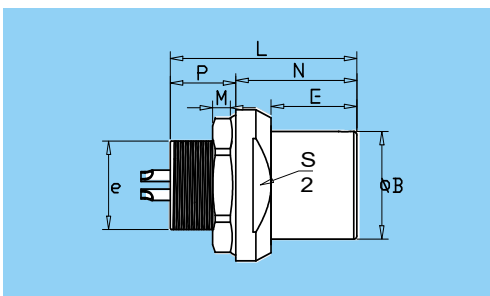
**ZYN Hermetic Short Socket, back panel mounting, with arc-shape metal guides. waterproof (IP68)**



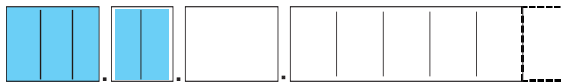
Reference		Dimensions (mm)								
Series	Model	A	B	e	E	L	M	P	S1	S2
102F	ZYN	13	9.0	M9x0.5	3.5	13.5	3.0	6.5	8.2	11
103F	ZYN	18	12	M14x1.0	4.0	17	4	6.5	12	15



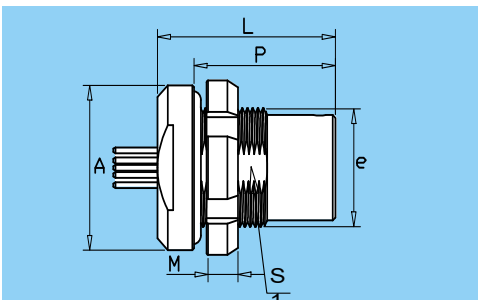
**ZHN Front Projecting Socket, front panel mounting, with arc-shape metal guides. waterproof (IP68)**



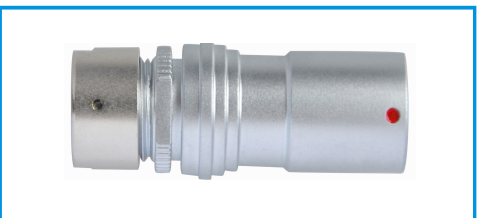
Reference		Dimensions (mm)								
Series	Model	A	B	e	L	E	M	P	S1	S2
102F	ZHN	14	10	M9x0.5	18.5	3.5	2.0	6.5	8.2	11
103F	ZHN	18	14	M14x1.0	21.0	3.5	2.5	6.5	12.5	15



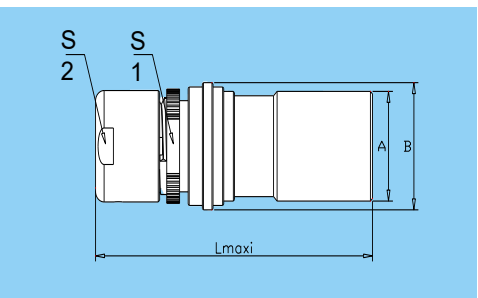
**MHN Front Projecting Socket, back panel mounting, with arc-shape metal guides. waterproof (IP68)**



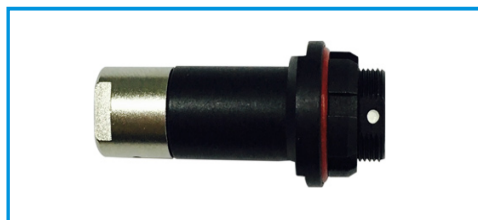
Reference		Dimensions (mm)					
Series	Model	A	e	E	M	P	S1
102F	MHN	14	M10x0.5	3.5	3.0	13.5	9
103F	MHN	18	M14x1.0	2	4.0	19	12.5



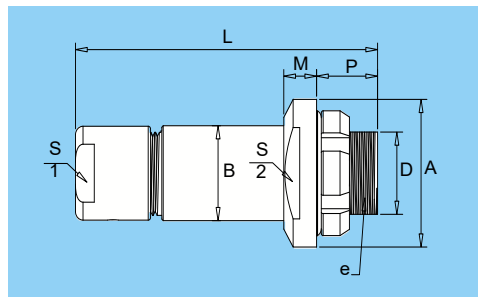
**DHN Free Socket, with arc-shape metal guides, collet style clamp system for cable.**



Reference		Dimensions (mm)				
Series	Model	A	B	L	S1	S2
102F	DHN	10	12	32	8	7
103F	DHN	12.5	14.5	39	11	12
1031F	DHN	13.5	15.5	40	11.5	12
104F	DHN	16	18	45.5	14	14
105F	DHN	19	21	51	16.5	11

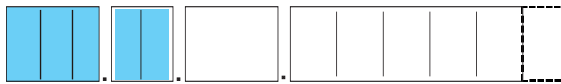


**DFN Free Socket, with arc-shape metal guides, collet style clamp system for cable.**

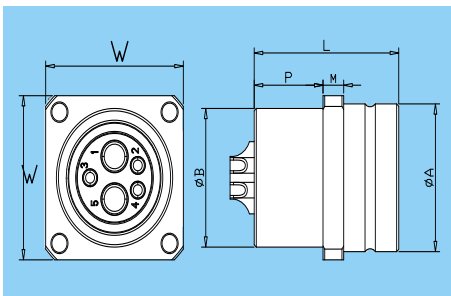


Reference		Dimensions (mm)								
Series	Model	A	B	e	E	L	M	D	S1	S2
102F	DFN	14	9.0	M9x0.5	3	32	3.5	11	7	7.5

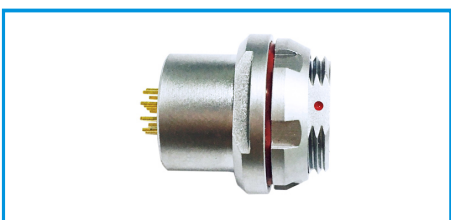




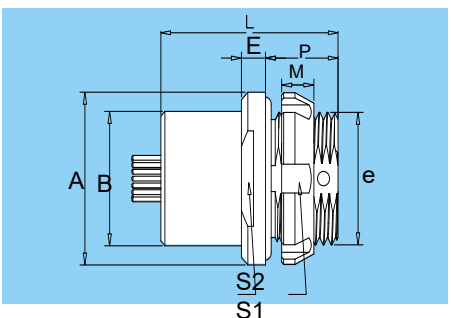
## MFN Front Projecting Flange Square Corner Screw Socket, front panel mounting, with arc-shape metal guides. waterproof (IP68)



Reference		Dimensions (mm)					
Series	Model	A	B	M	P	L	W
103F	MFN	10.6	11.6	2.5	10	21	18
1031F	MFN	13	13	3.0	9.5	19.5	19
105F	MFN	18	17	3.0	10.0	21	20



## GBN Hermetic Socket, back panel mounting, with arc-shape metal guides,



Reference		Dimensions (mm)								
Series	Model	A	B	e	L	E	M	P	S1	S2
102F	GBN	14	9	M9x0.5	21	3.5	3	6.5	8.0	11
103F	GBN	18	14	M14*1.0	22	3	4	9.0	12	15
1031F	GBN	19	14	M14*1.0	19.5	4	4	7	12	15
104F	GBN	21	14.5	M16*1.0	23	4	3.5	8	14.4	18
105F	GBN	27	21	M20x1.0	26.5	4.5	5	10	18	22

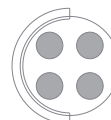


### For Easy Connect / Disconnect Operations

Our contact blocks are engineered with arc-shape metal guides, which ensure precise alignment of connectors during the mating process.

This guiding mechanism provides:

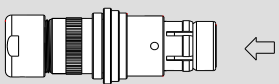
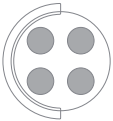


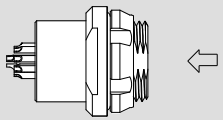
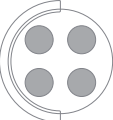


- Increased safety and user friendliness (by preventing misconnection).
- Easy mating cycles, can be blind-mated.
- Increased equipment life span by optimally (protecting the contacts).



### Keying Codes Options

All Multipole body styles are mechanically coded.

Code 1 is the standard, but other codes can be requested (See table below).

Plug/Socket			
	single metal guides 	double metal guides 1 	double metal guides 2 
			
Reference	N	A	B



Level voltage rating M=AC500V; = AC750V; = AC875V; =AC1000V

	A		B		Reference	Number of LV contacts	Contact $\phi$ A (mm)	Contact type			level		Rated current (A)	Resistance(m $\Omega$ )
	solder contact	$\phi$ A	solder contact	$\phi$ A				Solder	Print (straight)	Print (elbow)	Rated Voltage(V)	Withstanding voltage(V)		
102F					302	2	0.9	•	•	•			10.0 <sup>1)</sup>	$\leq 5.0$
					303	3	0.9	•	•	•			8.0 <sup>1)</sup>	$\leq 5.0$
					304	4	0.7	•	•	•			7.0 <sup>1)</sup>	$\leq 12.5$
					305	5	0.7	•	•	•			6.5 <sup>1)</sup>	$\leq 12.5$
					307	7	0.5	•	•	•	M	M	2.5	$\leq 15.0$
					309	9	0.5	•	•	•	M	M	2.0	$\leq 15.0$

• First choice alternative

**Note:** 1):rated current = 6A for socket with elbow (90°) contacts for printed circuit.

	A		B		Reference	Number of LV contacts	Contact $\phi$ A (mm)	Contact type			level		Rated current (A)	Resistance(m $\Omega$ )
	solder contact	$\phi$ A	solder contact	$\phi$ A				Solder	Print (straight)	Print (elbow)	Rated Voltage(V)	Withstanding voltage(V)		
1031F					310	10	0.7	•	•	•			6.0	$\leq 12.5$
					312	12	0.7	•	•	•			6.0	$\leq 12.5$
					319	19	0.5	•	•	•	M	M	2.5	$\leq 15.0$

• First choice alternative

**Note:** 1):rated current = 6A for socket with elbow (90°) contacts for printed circuit.



Level voltage rating: M=AC500V; I = AC750V; II = AC875V; III=AC1000V

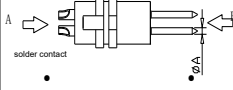
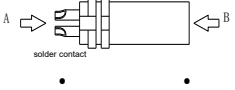
















































					Reference	Number of LV contacts	Contact øA (mm)	Contact type			level		Rated current (A)	Resistance (mΩ)
	Solder	Print (straight)	Print (elbow)	Rated Voltage(V)				Withstanding voltage(V)						
103F					302	2	1.3	•	•	•	III	III	12.0	≤5.0
					303	3	1.3	•	•	•	III	III	12.0	≤5.0
					304	4	0.9	•	•	•	II	II	10.0 <sup>1)</sup>	≤5.0
					305	5	0.9	•	•	•	II	II	9.0 <sup>1)</sup>	≤5.0
					306	6	0.7	•	•	•	II	II	7.0 <sup>1)</sup>	≤12.5
					307	7	0.7	•	•	•	II	II	7.0 <sup>1)</sup>	≤12.5
					308	8	0.7	•	•	•	M	M	5.0	≤12.5
					310	10	0.5	•	•	•	400V	400V	2.5	≤15.0
					312	12	0.5	•	•	•	400V	400V	2.0	≤15.0

• **First choice alternative**

**Note:** 1):rated current = 6A for socket with elbow (90°) contacts for printed circuit.



Level voltage rating: M=AC500V; I = AC750V; II = AC875V; III=AC1000V

					Reference	Number of LV contacts	Contact øA (mm)	Contact type			level		Rated current (A)	Resistance (mΩ)
	A side	B side	A side	B side				Solder	Print (straight)	Print (elbow)	Rated Voltage(V)	Withstanding voltage(V)		
104F					302	2	1.6	●	●	●	III	III	15.0 <sup>2)</sup>	≦3.0
					303	3	1.6	●	●	●	III	III	15.0 <sup>2)</sup>	≦3.0
					304	4	1.3	●	●	●	II	II	14.0 <sup>2)</sup>	≦5.0
					305	5	1.3	●	●	●	II	II	12.0	≦5.0
					306	6	0.9	●	●	●	II	II	10.0	≦5.0
					307	7	0.9	●	●	●	II	II	10.0	≦5.0
					308	8	0.9	●	●	●	II	II	8.0 <sup>1)</sup>	≦5.0
					309	8+1	0.9	●	●	●	II	II	6.0	≦5.0
							1.3	●	●	●	II	II	10.0 <sup>1)</sup>	≦3.0
					311	11	0.9	●	●	●	II	II	6.0	≦5.0
					316	16	0.7	●	●	●	I	I	5.0	≦12.5
					319	19	0.7	●	●	●	I	I	4.5	≦12.5

● First choice alternative

**Note:** 1):rated current = 6A for socket with elbow (90°) contacts for printed circuit.

2):rated current = 12A for socket with elbow (90°) contacts for printed circuit.

Level voltage rating: M=AC500V; I = AC750V; II = AC875V; III=AC1000V

			Reference	Number of LV contacts	Contact øA (mm)	Contact type			level		Rated current (A)	Resistance (mΩ)
						Solder	Print (straight)	Print (elbow)	Rated Voltage(V)	Withstanding voltage(V)		
105F			302	2	3.0	●	●	○	III	III	30.0 <sup>2)</sup>	≤1.0
			303	3	2.0	●	●	○	III	III	25.0 <sup>2)</sup>	≤2.0
			304	4	2.0	●	●	○	II	II	18.0 <sup>2)</sup>	≤2.0
			307	6	1.3	●	●	○	II	II	7.0	≤5.0
				1	2.0	●	●	○	II	II	18.0 <sup>2)</sup>	≤3.0
			308	8	1.3	●	●	○	II	II	10.0	≤5.0
			309	8	1.3	●	●	○	II	II	5.0	≤5.0
				1	2.0	●	●	○	II	II	18.0 <sup>2)</sup>	≤3.0
			310	10	1.3	●	●	○	II	II	9.0 <sup>1)</sup>	≤5.0
			312	12	1.3	●	●	○	II	II	8.0 <sup>1)</sup>	≤5.0
			318	18	0.9	●	●	○	II	II	7.0 <sup>1)</sup>	≤5.0
			319	19	0.9	●	●	○	II	II	7.0 <sup>1)</sup>	≤5.0
			324	24	0.7	●	●	○	I	I	5.0	≤12.5
			327	27	0.7	●	●	○	I	I	5.0	≤12.5
			337	27	0.5	●	●	○	400	400	4.0	≤15.0
				10	0.7	●	●	○	M	M	4.0	≤12.5
		340	40	0.5	●	●	○	400	400	3.5	≤15.0	

- First choice alternative
- Special order alternative

**Note:** 1):rated current = 6A for socket with elbow (90°) contacts for printed circuit.

2):rated current = 12A for socket with elbow (90°) contacts for printed circuit.



Ref.	Outer shell and collet nut		Latch sleeve + earthing crown		Other metallic components		Note
	Material	Surf. treatment	Material	Surf. treatment	Material	Surf. treatment	
C	Brass	chrome	brass/bronze	nickel	Brass	nickel	
N	Brass	chrome	brass/bronze	nickel	Brass	nickel	
H	Brass	black chrome	brass/bronze	nickel	Brass	nickel	
S	Stainless steel 304	anodized	brass/bronze	-	Brass	nickel	
L	Stainless steel 316L	anodized	Stainless steel 316L	-	Stainless steel 316L	-	
T	Brass	satin nickel	brass/bronze	nickel	Brass	nickel	
G	Brass	brown and black	brass/bronze	nickel	Brass	nickel	
F	Brass	High phosphorus chemical nickel	brass/bronze	nickel	Brass	nickel	
Z	Aluminium alloy	High phosphorus chemical nickel	brass/bronze	nickel	Brass	nickel	
Y	Brass	golden yellow	brass/bronze	nickel	Brass	nickel	

### Note:

#### Brass

Connectors are mostly brass case, which can meet most military or civil application requirements. The white surface of brass shell has nickel-chromium protective layer, which has remarkable effect in resisting industrial waste, salt spray and most corrosives.

In addition, we also have nickel plating, nickel-gold plating, nickel-black chromium plating and other options for application in specific environments of the anti-corrosion coatings.

#### Aluminium alloy

In the aviation, aerospace industry, portable mobile devices and so on. It is suitable for the connector with aluminium alloy shell.

In addition to its high mechanical lightness and excellent corrosion resistance, the surface of aluminium alloys can be protected by anodic plating, with a variety of colors to choose from.

#### Stainless steel

For the use of harsh environment, the surface coating is easy to be damaged. We recommend the use of stainless steel materials. AISI304 stainless steel and AISI316L stainless steel are usually used.

AISI304 stainless steel is recommended for special fields such as nuclear industry. It can resist radiation and nitric acid corrosion.

AISI316L stainless steel is recommended for medical and shipping industries. It has no surface treatment and strong corrosion resistance.



Ref.	Material	Contact type	Note
T	Teflon	Solder or print	
L	PPS	Solder or print	

## Contacts (F series)



### Soldering characteristics

- no need to order specific tools, a simple soldering iron is sufficient
- ideal for very small and fragile conductors
- contacts with solder cups to allow the solder to flow

### Contacts reference for plugs, free or fixed sockets

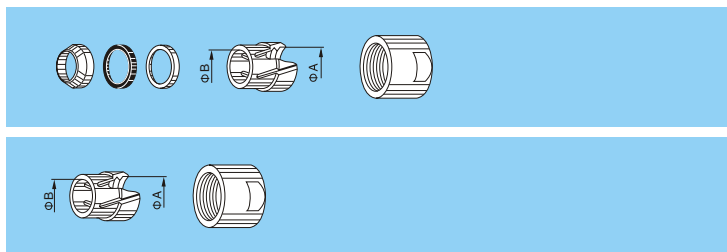
Contact type	Reference		Contact			Conductor					
	Male	Female	Φ A (mm)	Φ C (mm)	Form per fig.	Solid		Stranded			
						AWG min.	Section max. (mm <sup>2</sup> )	AWG		Section (mm <sup>2</sup> )	
							min.	max.	min.	max.	
<b>Solder</b> 	A	L	0.5	0.40	-	28	0.09	-	30	-	0.05
			0.5	0.45	-	28	0.09	-	28	-	0.09
			0.7	0.60	-	24	0.25	-	26	-	0.14
			0.7	0.80	-	22	0.34	-	22	-	0.34
			0.9	0.80	-	22	0.34	-	22	-	0.34
			1.3	1.00	-	20	0.50	-	20	-	0.50
			1.6	1.40	-	16	1.00	-	18	-	1.00
			2.0	1.80	-	14	1.50	-	16	-	1.50
			3.0	2.70	-	10	4.00	-	12	-	4.00
			4.0	3.70	-	10	6.00	-	10	-	6.00
<b>Print</b> 	D	N	L dimensions and C are detailed in the section on PCB drilling pattern.								
<b>Print (elbow)</b> 	V	V	L dimensions and C are detailed in the section on PCB drilling pattern.								





### D type collets for F series

Reference	Collet ø		Cable ø			
	Type	Code	Φ A	Φ B	max.	min.
102F	D <sub>TGN</sub>	45	4.5	-	4.3	3.5
	D <sub>TGN</sub>	52	5.2	-	5.0	4.1
	D <sub>TLN</sub>	45	4.5	-	4.3	3.5
	D <sub>TLN</sub>	52	5.2	-	5.0	4.1
	D <sub>TYN</sub>	32	3.2	-	3.0	2.1
	D <sub>TYN</sub>	42	4.2	-	4.0	3.1
	D <sub>TYN</sub>	52	5.2	-	5.0	4.1
103F	D <sub>TGN</sub>	42	4.2	-	4.0	3.1
	D <sub>TGN</sub>	52	5.2	-	5.0	4.1
	D <sub>TGN</sub>	62	6.2	6.2	6.0	5.6
	D <sub>TGN</sub>	72	7.2	-	7.0	6.6
	D <sub>TLN</sub>	55	5.5	-	5.5	4.5
	D <sub>TLN</sub>	72	7.2	-	7.0	6.6
1031F	D <sub>TGN</sub>	55	5.5	-	5.5	4.5
	D <sub>TGN</sub>	55	5.5	-	5.5	4.5
	D <sub>TLN</sub>	65	6.5	-	6.5	5.5
	D <sub>TLN</sub>	82	8.2	-	8.5	7.2

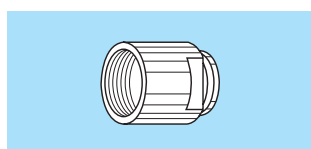


Reference	Collet ø		Cable ø			
	Type	Code	Φ A	Φ B	max.	min.
104F	D <sub>TGN</sub>	52	5.2	-	5.0	4.1
	D <sub>TGN</sub>	62	6.2	-	6.0	5.1
	D <sub>TGN</sub>	72	7.2	-	7.0	6.1
	D <sub>TGN</sub>	82	8.2	-	8.0	7.1
	D <sub>TGN</sub>	92	9.2	8.6	9.0	8.1
	D <sub>TGN</sub>	99	9.9	8.6	9.7	9.1
	D <sub>TLN</sub>	52	5.2	-	5.0	4.1
	D <sub>TLN</sub>	62	6.2	6.2	6.0	5.6
	D <sub>TLN</sub>	72	7.2	-	7.0	6.6
	D <sub>TLN</sub>	82	8.2	-	8.0	7.1
105F	D <sub>TGN</sub>	55	5.5	-	5.5	4.5
	D <sub>TLN</sub>	9.5	9.5	-	9.5	8.5
	D <sub>TLN</sub>	11.5	11.5	-	11.5	9.5

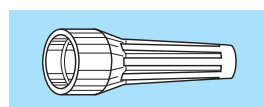
## >>> Variant (F series)



### Bend relief for F series models with collet

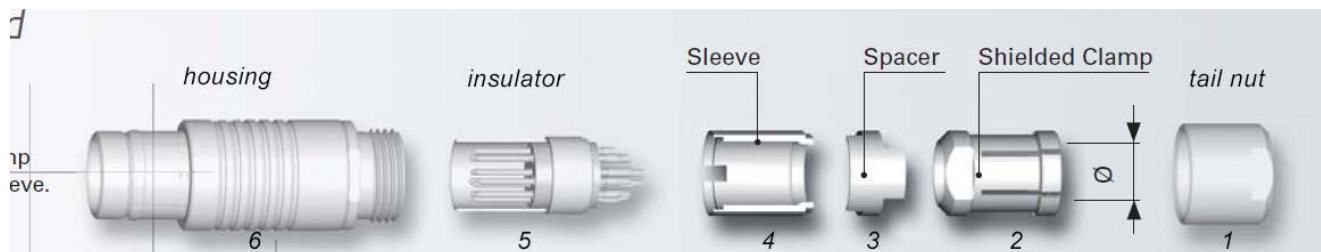


Need to be ordered



Ref.	Collet		Need to be ordered separately (see page)
	Type	Code	
102F	Z	D 17 to 35	GMA.00.***.** GMB.00.***.**
103F	Z	D 21 to 52	GMA.0B.***.**
104F	Z	M 21 and 31	GMA.0B.***.**
		D 24	GMA.2B.***.**
		D 52 to 92	GMA.2B.***.**

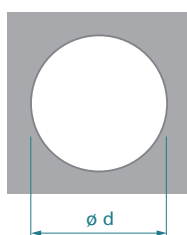
### Plug assembly instructions for F series



1. the cable is passed through the tail nut①, shielded clamp②, spacer③ and then soldered to the insulator⑤
2. Assemble the sleeve④ and the soldered insulator⑤, noting that the window on the Sleeve④ corresponds to the protrusion on the insulator⑤.
3. Insert the insulator⑤ with the sleeve④ into the housing⑥, and then install the spacer③, shielded clamp②, and the tail nut① into the housing⑥, and tighten.

## >>> Panel cut-out: (F series)

### F Series



#### Cut-out types

series	D1
	$\varnothing d$
102F	9.1
103F	12.1
1031F	14.1
104F	15.1
105F	18.1

Model	Type
ZLN	D1
ZGN	D1
ZYN	D1
ZHN	D1
MHN	D1
GBN	D1