

XT Series Electrical Connector

Description

XT products are divided into common and shore power: [Common XT]

It is widely used in sonar transducer in deepwater environment, watertight junction boxes and electrical connection between underwater equipment and cable and between cables .

Features: sealing under 0~450 meter of the freshwater or seawater, reliable contact, new structure, advanced process, thread coupling, wire spring socket, solder termination.

The products can accept five shell sizes of 30, 39, 52, 56 and 72 and various insert arrangements, Its performance is in accordance with CB1177-87

[Shore power XT]

Shore power sealed connector is used in high current product in ship and submarine. After the ship and submarine are in shore, the product is connected with shore power equipment and charged them.

During un-mating the plug and receptacle, the receptacle and sealing cap is sealed down to 380 meters of water. Over-washing proof and rain proof can be achieved with reliable contact. Wire spring socket and thread coupling can be used.

Two types: namely UO100 (single contact) 、 XT72-3 (three contacts)

Its performance is in accordance with MIL-C-24368A Connector Assemblies, Plug and Receptacle, Electric Power Transfer, Shore to Ship and Ship to Ship.

[Technology]

- Plug and receptacle sealed structure
- Shell and insulator sealed structure
- Contact and insulator sealed structure
- Protective cap and shell sealed structure
- Flange and transducer sealed structure
- Cable and connector sealed technology
- Precision process technology
- Material: long-term seawater immersion resistance

Technical characteristic

[Common XT]

- Operating temperature: -40℃~+110℃
- Vibration: frequency 10~2000Hz, acceleration 196m/s²
- Impact: acceleration 100m/s²
- Tensile strength: axial tensile strength P≥9.8dN (d is outer diameter of cable)
- Bend: 100 cycles
- Insulation resistance: normal≥500MΩ heat & damp≥100MΩ
- Withstanding voltage: 1500V (1000V for coaxial contacts)
- Endurance: 500 cycles
- Hydrostatic pressure resistance: shallow water 0~0.5Mpa; deep water 0~4.5Mpa
- Contact resistance and rated current

Dia. of contact (mm)	Φ0.8	Φ1.0	Φ1.5	Φ3	Φ4 (Φ0.8)	Φ5.5
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Contact resistance (Ω)	≤0.0125	≤0.005	≤0.0025	≤0.00075	Inner conductor ≤0.0125	≤0.3
Rated current (A)	2	5	10	40	(Inner conductor) 2	100

[Shore power XT]

—Operating temperature: -55°C~+125°C

—Vibration: frequency 10~2000Hz, acceleration 196m/s²

—Impact: acceleration 100m/s²

—Contact resistance and rated current

Dia. of contact (mm)	Φ9.1	Φ12	Φ20	Φ24
Contact resistance (mΩ)	≤1.0	≤0.5	≤0.13	≤0.05
Rated current (A)	150	250	600	800

—Insulation resistance: norma≥500MΩ heat & damp≥100MΩ

—Withstanding voltage: 2500V

—Endurance: 500 cycles

—Hydrostatic pressure resistance: 0~4.5Mpa

Ordering information

Basic series	XT	30	T	4	K	-S
XT - Underwater sealed connector (with non-coaxial contact)						
OUV- Underwater sealed connector (with coaxial contact)						
Shell size	30-39-52-56-72					
Connector type	T-Plug TW-Right angle plug					
	Z-Receptacle GZ-Fixed receptacle					
Contact No.:	1, 3, 4, 10, 13, 22, 23, 26, 56					
Contact type:	Z-Pin K-Socket					
Service level	-S deep water (Blank-shallow water)					
Key (Current phase sign) only for XT products)	Five keys for UO100: U, V, W, ⊕, ○					

Note: 1. Fraction from is used to designate P/N. The receptacle is marked as numerator and plug is marked as denominator (only plug shell plating is marked), slash is used between them.

2. Part numbers are marked on the plug and receptacle. Customer ordering, manufacture and management refer to the part number.

3. When selecting shore power XT product, the current phrase sign should be marked (key number)








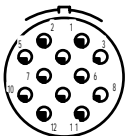
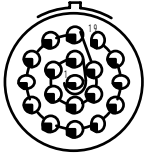
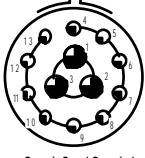
For example:

XT30GZ4K-S: XT series receptacle, shell size: 30, contact type: socket, number of contact:

4, for deep water



Insert arrangement

22	<p>22-2</p>  <p>2-φ 1.0</p>	<p>22-3</p>  <p>3-φ 1.0</p>	<p>22-4</p>  <p>4-φ 1.0</p>
24	<p>24-7</p>  <p>7-φ 1.0</p>		
30	<p>30-3</p>  <p>3-φ 1.5</p>	<p>30-4</p>  <p>4-φ 1.5</p>	<p>30-5</p>  <p>5-φ 1.5</p>
33	<p>33-12</p>  <p>12-φ 1.0</p>		
36	<p>36-19</p>  <p>19-φ 1</p>		
39	<p>39-13</p>  <p>3-φ 3, 10-φ 1</p>		

○ φ 0.8

◐ φ 1.0

◑ φ 1.5

◒ φ 3.0

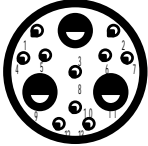
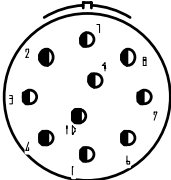
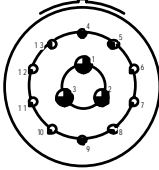
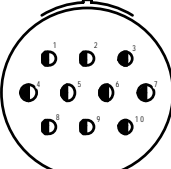
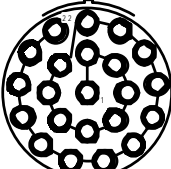
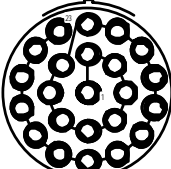
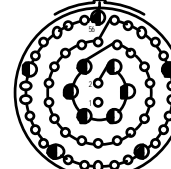
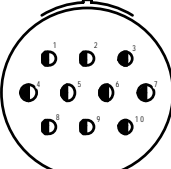
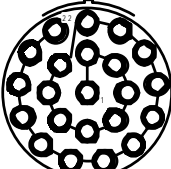
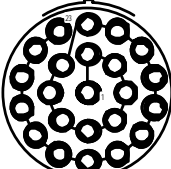
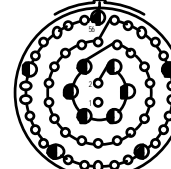
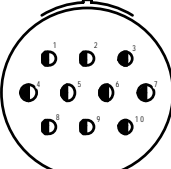
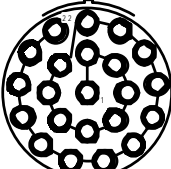
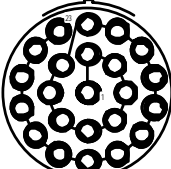
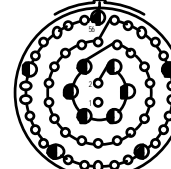
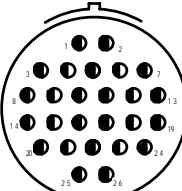
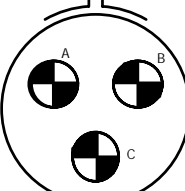
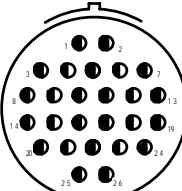
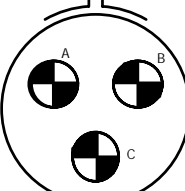
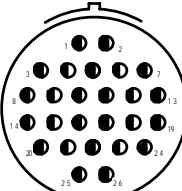
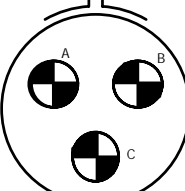
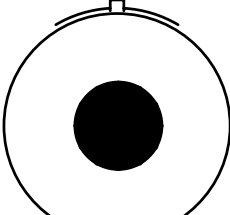
◓ φ 0.8 Coaxial contacts

◔ φ 5.5

◕ φ 9.1

◖ φ 24



42	<p>42-13</p>  <p>3-ϕ5.5, 10-ϕ1</p>				
45	<p>45-10</p>  <p>10-ϕ1.5</p>				
52	<p>52-13</p>  <p>3-ϕ3, 10-ϕ1</p>				
56	<table border="0"> <tr> <td data-bbox="427 969 608 1207"> <p>56-10</p>  <p>10-ϕ1.5</p> </td> <td data-bbox="635 969 815 1207"> <p>56-22</p>  <p>22-ϕ0.8同轴接触件</p> </td> <td data-bbox="842 969 1023 1207"> <p>56-23</p>  <p>23-ϕ0.8同轴接触件</p> </td> <td data-bbox="1050 969 1230 1207"> <p>56-56</p>  <p>11-ϕ1.5, 45-ϕ0.8</p> </td> </tr> </table>	<p>56-10</p>  <p>10-ϕ1.5</p>	<p>56-22</p>  <p>22-ϕ0.8同轴接触件</p>	<p>56-23</p>  <p>23-ϕ0.8同轴接触件</p>	<p>56-56</p>  <p>11-ϕ1.5, 45-ϕ0.8</p>
<p>56-10</p>  <p>10-ϕ1.5</p>	<p>56-22</p>  <p>22-ϕ0.8同轴接触件</p>	<p>56-23</p>  <p>23-ϕ0.8同轴接触件</p>	<p>56-56</p>  <p>11-ϕ1.5, 45-ϕ0.8</p>		
72	<table border="0"> <tr> <td data-bbox="405 1220 596 1514"> <p>72-26</p>  <p>26-ϕ1.5</p> </td> <td data-bbox="635 1220 842 1514"> <p>72-3</p>  <p>3-ϕ9.1</p> </td> </tr> </table>	<p>72-26</p>  <p>26-ϕ1.5</p>	<p>72-3</p>  <p>3-ϕ9.1</p>		
<p>72-26</p>  <p>26-ϕ1.5</p>	<p>72-3</p>  <p>3-ϕ9.1</p>				
100	<p>100-1</p>  <p>1-ϕ24</p>				

○ ϕ 0.8

● ϕ 1.0

● ϕ 1.5

● ϕ 3.0

○ ϕ 0.8 Coaxial contacts

● ϕ 5.5

● ϕ 9.1

● ϕ 24

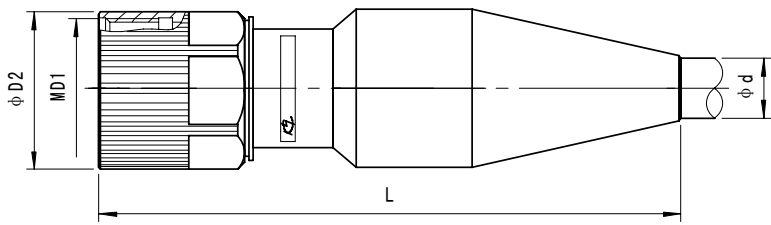
Outline and installation dimensions

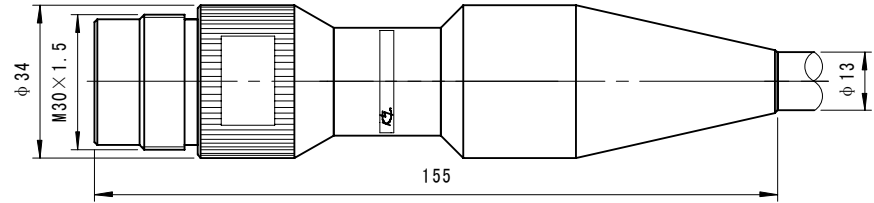
[Common]

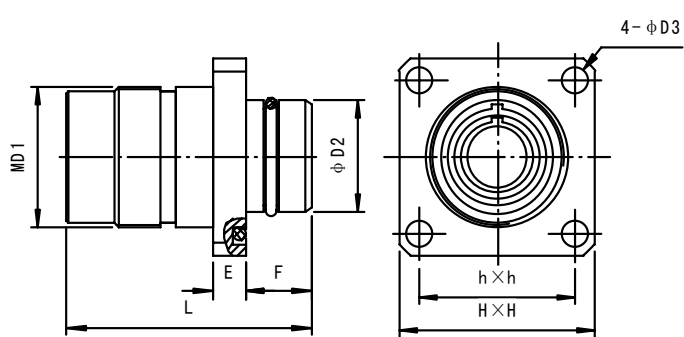
*XT30Z3Z-S, XT30GZ3Z-S, XT30T3K-S / XT30Z4Z-S, XT30GZ4Z-S, XT30T4K-S

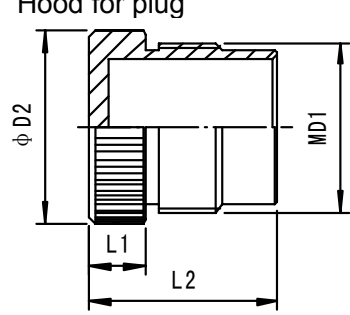
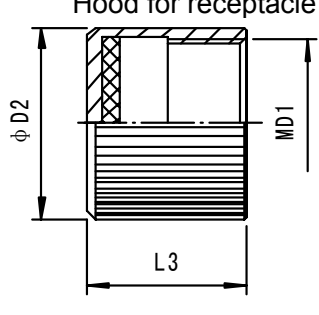
*XT45GZ10Z-S, XT45T10K-S

*XT72GZ26Z-S, XT72T26K-S

Plug	Type	XT30	XT45	XT72
		D1	30×1.5	45×2
	D2	34	50	80
	d	13	20	28.5
	L	134	154	270

Receptacle XT30Z3Z-S / XT30Z4Z-S	
	

Fixed receptacle	Type	XT30	XT45	XT72
		D1	30×1.5	45×2
	D2	24	36	60
	D3	5.5	6.6	9
	E	7	7	10
	F	14	14	14
	L	53	59	65
	H	42	56	82
	h	33	44	66

Hood for plug	Hood for receptacle	Type	XT30	XT45	XT72
				D1	30×1.5
		D2	34	50	80
		L1	9.5	10	20
		L2	33	37	50
		L3	28.5	33	35



- *XT39GZ13Z-S, XT39T13K-S, XT39TW13K-S
- *XT39GZ13Z-01S, XT39T13K-01S, XT39TW13K-01S
- *XT52GZ13Z-S, XT52T13K-S

Plug	Type	XT39	XT52
	D1	39	52
	D2	47	56
	d	16	25
	L	85	101

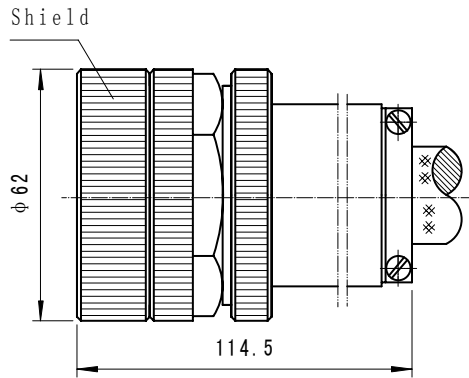
Right-angle plug XT39TW13K-S / XT39TW13K-01S	Type	XT39	XT52
	D1	39	—
	D2	47	—
	D3	48	—
	d1	10	—
	d2	8	—
	L	85	—

Fixed receptacle	Type	XT39	XT52
	D1	39	52
	D2	35	44
	D3	59	72
	B	5	8
	E	30	24
	F	17	17
	L	47	47

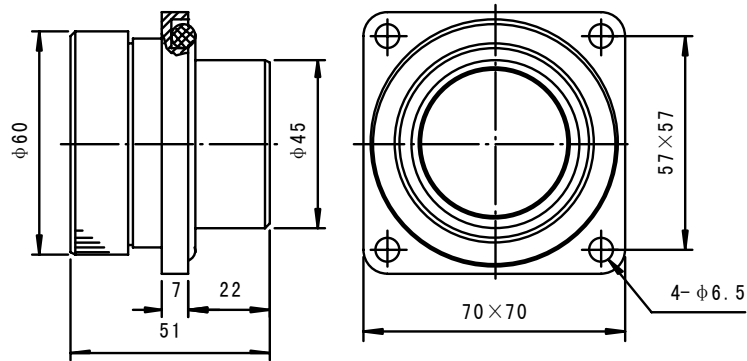
Cap of plug	Cap of receptacle	Type	XT39	XT52
		D1	39	52
		D2	47	56
		D3	43	56
		L1	19.5	19.5
		L2	30	30
		L3	15	16

*XT56GZ10Z, XT56T10K / XT56GZ56Z, XT56T56K
 *XTV56GZ22Z, XTV56T22K / XTV56GZ23Z, XTV56T23K

Plug

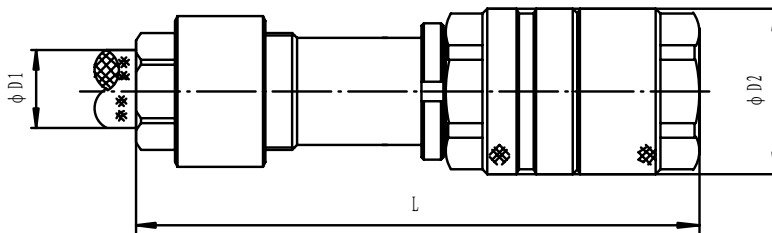


Fixed receptacle

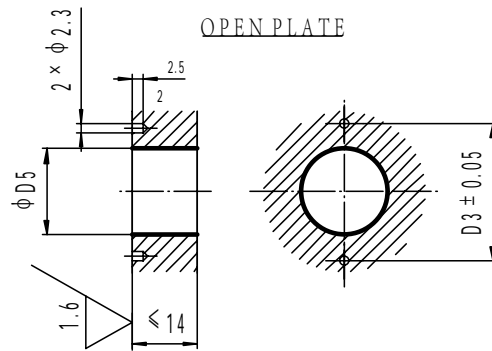
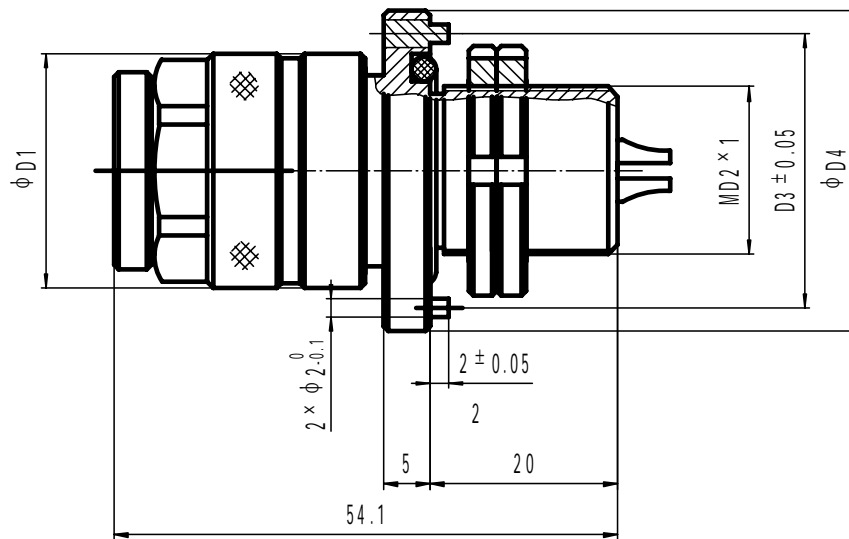


*XT22GZ2Z-02S, XT22T2K-02S-8.5/ XT22GZ3Z-02S, XT22T3K-02S-8.5
 *XT22GZ4Z-02S, XT22T4K-02S-8.5/ XT24GZ7Z-02S, XT24T7K-02S-12
 *XT33GZ12Z-02S, XT33T12K-02S-12/ XT36GZ19Z-02S, XT36T19K-02S-8.5
 *XT36GZ19Z-02S, XT36T19K-02S-12

Plug

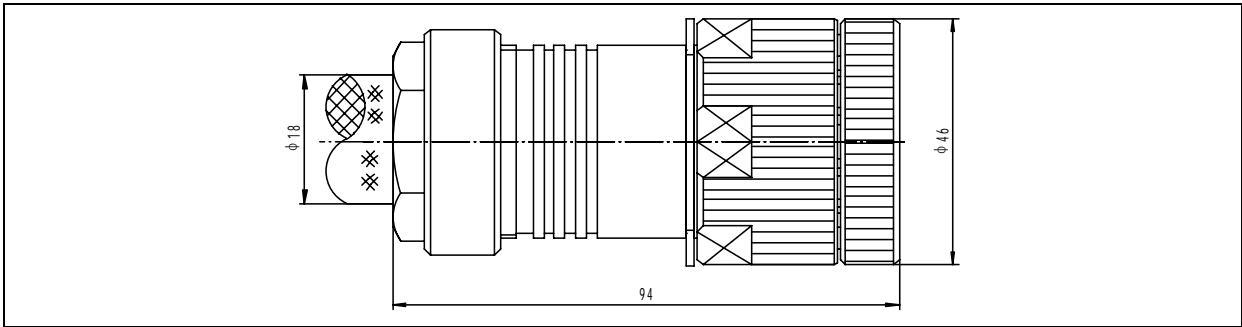


Part number	D1	D2	L
XT22T2K-02S-8.5	8.5	25	86
XT22T3K-02S-8.5	8.5	25	86
XT22T4K-02S-8.5	8.5	25	86
XT24T7K-02S-12	12	27	86
XT33T12K-02S-12	12	37	86
XT36T19K-02S-8.5	8.5	40	86
XT36T19K-02S-12	12	40	86

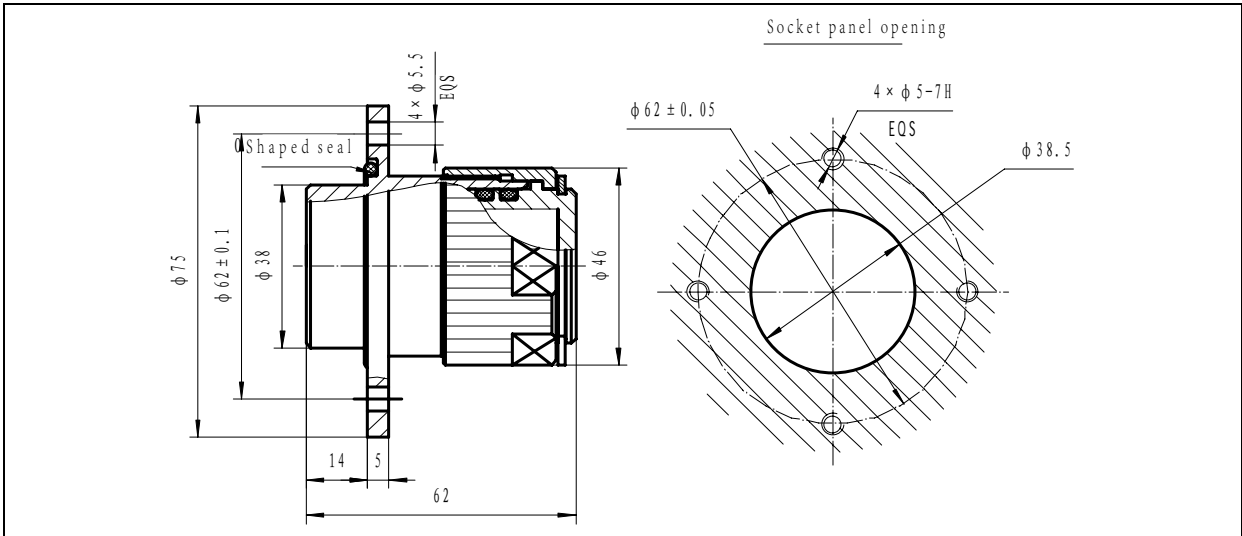
Receptacle


Part number	D1	D2	D3	D4	D5
XT22GZ2Z-02S	25	18	29.5	34.5	18.5
XT22 GZ3Z -02S	25	18	29.5	34.5	18.5
XT22 GZ4Z -02S	25	18	29.5	34.5	18.5
XT24 GZ7Z -02S	27	22	34	39	22.5
XT33 GZ12Z -02S	37	27	39.5	44.5	27.5
XT36 GZ19Z -02S	40	30	42	47	30.5

[Plug XT42T13K-S]



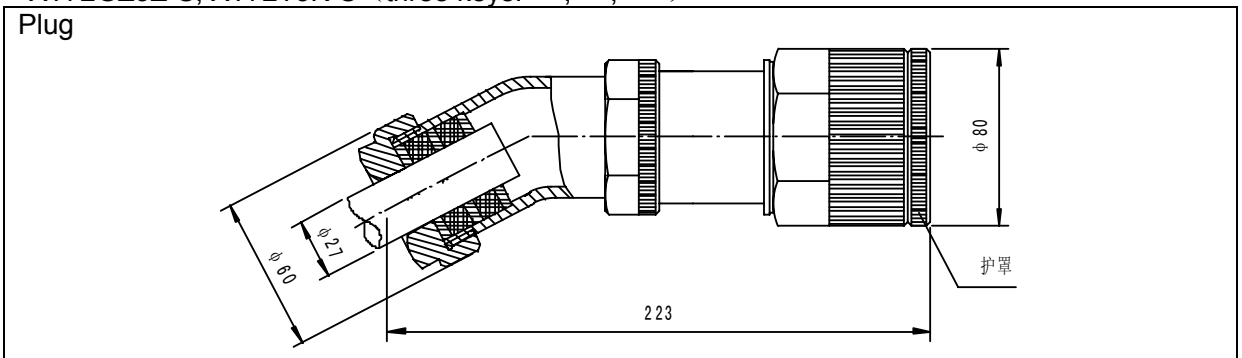
[Receptacle XT42GZ13Z-S]



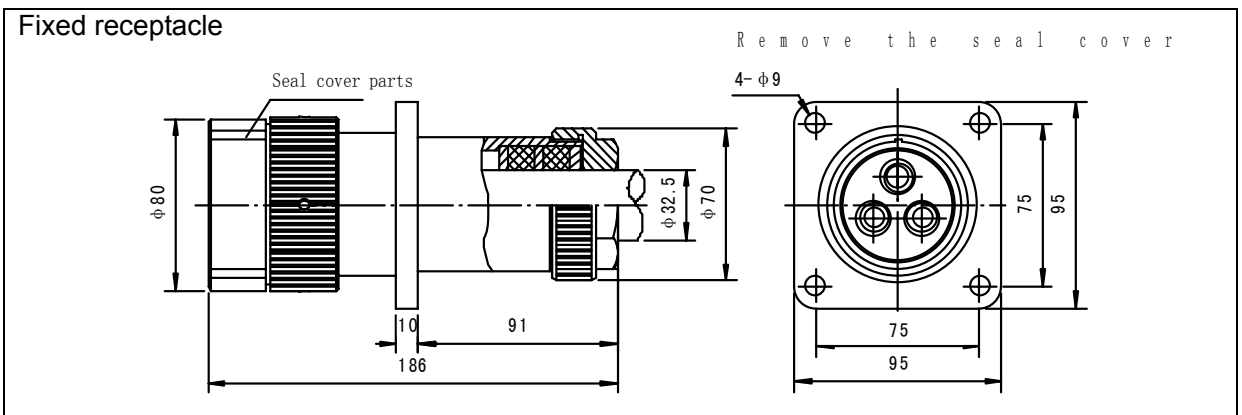
[Shore power]

*XT72GZ3Z-S, XT72T3K-S (three keys: ○+, ○-, ○~)

Plug

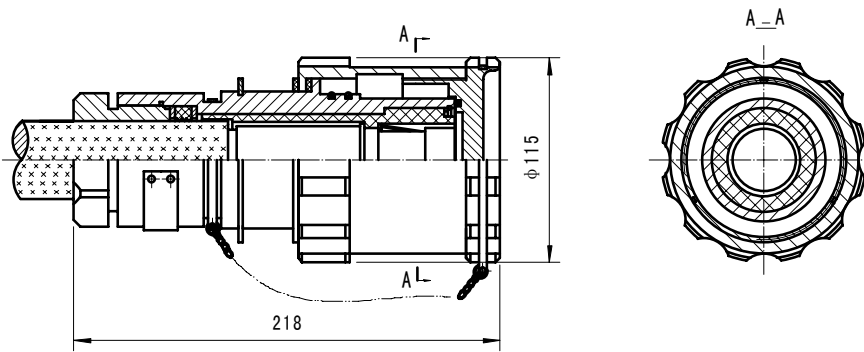


Fixed receptacle



*XT100GZ1Z-S, XT100T1K-S (Five keys: U, V, W, o+, o-)

Plug



Fixed receptacle

