



**RỒNG VÀNG  
TECHNOLOGY**



**Ultra-Small Electrical Connector**  
**ZH127 series**  
**substitutes of Russian SNTs127**

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## Description

Connectors of ZH127-1(2) type (plugs and receptacles) are designed for use in DC and AC circuits (up to 3 MHz) with voltage up to 700 V (amplitude value)

These connectors consist of three parts: Plug (female contacts only), Hermetic Jam Nut Receptacle (male contacts only) and Hermetic Square flange Receptacle (male contacts only) and have multi key positioned (1 – 20) of shell polarization (protecting from misconnection of same contact layout connectors)

Bayonet coupling system

Receptacles are manufactured without end accessories, Plugs are manufactured with metal backshells

Connectors ZH127 are interchangeable & intermateable with connectors of OHS-BC, Ohs-BC, ONTs-BS, ONTs-BS, SNTs127

Contact:  $\varnothing$  0.6 mm;  $\varnothing$  1.0 mm;  $\varnothing$  1.5 mm;  $\varnothing$  2.0 mm;  $\varnothing$  3.5 mm;  $\varnothing$  5.5 mm

Contact material:

- ZH127-1 – Gold over CuSnZn;
- ZH127-2 – Silver over CuSnZn;

These connectors are manufactured for inner mounting for all climates in accordance with the technical conditions NKTsS.434410.511 TU



## Technical features

Description	Values
Contact Resistance	≤ 10mΩ
Insulation resistance	≥ 1000 MΩ (Under normal conditions)
Operating temperature	up - 60°C to 105°C
Shell (material/plating)	Aluminium/alloy anodizing
Insulator material	PF
1 bar differential pressure, leakage	≤ 0.01 l/h
Vibration	up to 5000 HZ at 20g
Impact	1000 g (once); 150 g (multiple times)
Contact diameter	∅ 0.6 mm; ∅ 1.0 mm; ∅ 1.5 mm; ∅ 2.0 mm; ∅ 3.5 mm; ∅ 5.5 mm
Durability	250 cycles
Operating hours	15 000 hours
Guarantee period	15 years
Technical conditions	NKTsS.434410.511 TU

## Electrical

Shell number	Number of contacts	Operating current per contact (A)	Operating Voltage (V)	PC tail contact layouts
10	10	1.8	150	Yes
10	4	3.7	250	Yes
12	19	1.7	150	Yes
12	7	3.1	250	Yes
12	8	0.5/10.0	150	No
14	30	1.4	250	Yes
14	10	3.0	250	Yes
18	50	1.0	150	Yes
18	19	2.1	250	Yes
18	1	65.0	700	No
22	76	0.8	150	Yes
22	32	1.8	250	Yes
22	16	2.1/18.0	250	No
27	102	0.7	150	Yes
27	50	1.5	250	Yes
27	8	1.5/3.5	40	No

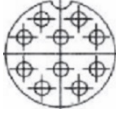
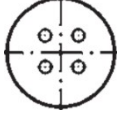
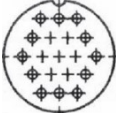


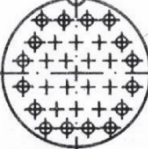
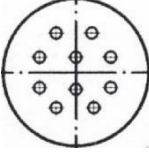
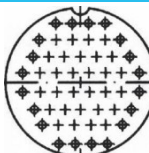
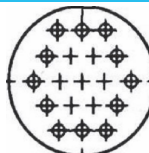
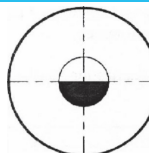
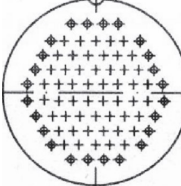
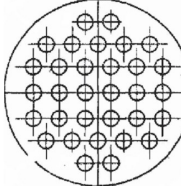
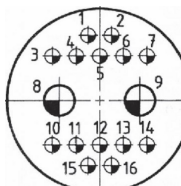
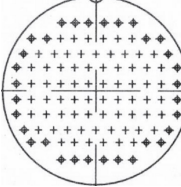
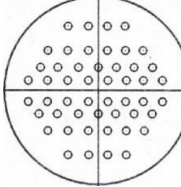
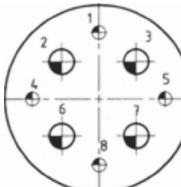
Ø contact	Contact Resistance (Solder contact layouts), mΩ	Contact Resistance (PC tail contact layouts), mΩ
0.6	10.0	15.0
1.0	5.0	5.0
1.5	2.5	–
2.0	1.6	–
3.5	0.75	–
5.5	0.3	–

## Ordering information

Basic series	ZH127	-4	/10	P	1	2	8	-1	B
Number of contacts: 1, 4, 7, 8, 10, 16, 19, 30, 32, 50, 76, 102									
Shell size: 10, 12, 14, 18, 22, 27									
Contact Type: B: Pin for Receptacle only P: Socket for Plugs only									
Mounting type: 1: Solder contacts (for types 5, 6, 7, 8) 2: PC tail contacts (for receptacle only)									
Contact plating: 1: Gold 2: Silver									
Connector Types & End Accessories: 5: Plug with elbow Backshell 6: Plug with straight Backshell 7: Hermetic Square flange Receptacle 8: Plug with Shrink Boot Adapter 9: Hermetic Jam Nut Receptacle (with PC tail contacts only)									
Orientation: 1 – 20									
All weather (Obligatory suffix)									

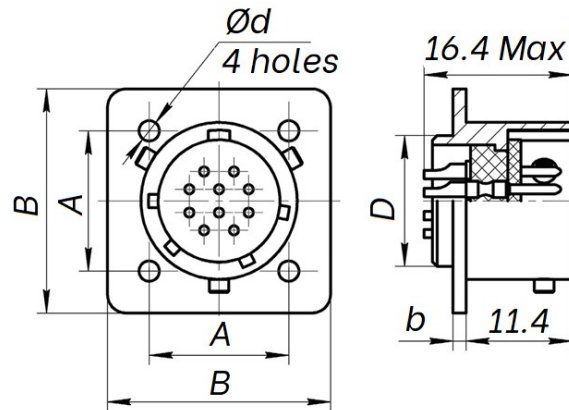
**Note: Protective caps – OHS-BC series**

# Contact layouts

Shell Size	Contact Layouts		
10	<b>10/10</b>		<b>4/10</b>
	 10 contacts Ø 0.6 mm		 4 contacts Ø 1.0 mm
12	<b>19/12</b>	<b>7/12</b>	<b>8/12</b>
	 19 contacts Ø 0.6 mm	 7 contacts Ø 1.0 mm	 6 contacts Ø 0.6 mm 2 contacts Ø 2.0 mm
14	<b>30/14</b>		<b>10/14</b>
	 30 contacts Ø 0.6 mm		 10 contacts Ø 1.0 mm
18	<b>50/18</b>	<b>19/18</b>	<b>1/18</b>
	 50 contacts Ø 0.6 mm	 19 contacts Ø 1.0 mm	 1 contact Ø 5,5 mm
22	<b>76/22</b>	<b>32/22</b>	<b>16/22</b>
	 76 contacts Ø 0.6 mm	 32 contacts Ø 1.0 mm	 14 contacts Ø 0.6 mm 2 contacts Ø 3.5 mm
27	<b>102/27</b>	<b>50/27</b>	<b>8/27</b>
	 102 contacts Ø 0.6 mm	 50 contacts Ø 1.0 mm	 4 contacts Ø 1.5 mm 4 contacts Ø 3.5 mm

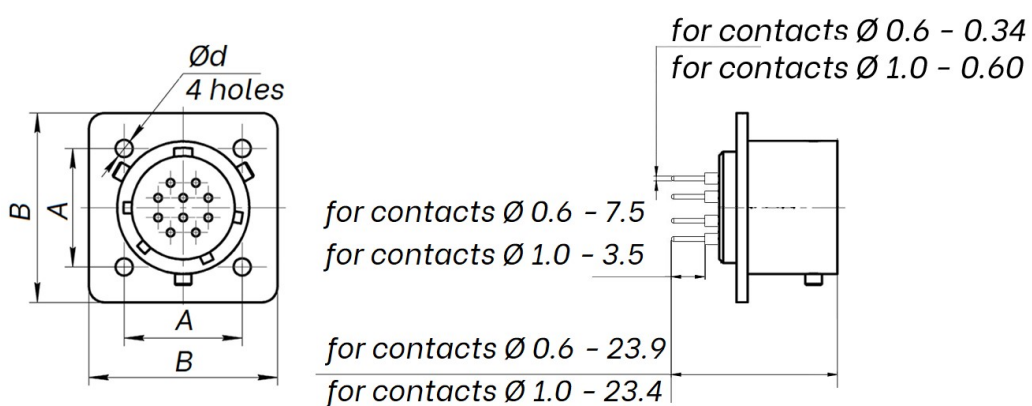
## Dimensions

Square flange receptacles, version 7, with Solder contacts



Shell size	Ø D	A	B	Ø d	b
10	10	11,8	20	2,2	1,4
12	12	13,2	21	2,2	1,4
14	14	15	24	2,2	1,4
18	18	18	27	2,2	1,4
22	22	21,5	31	2,7	1,8
27	27	26	36	3,2	2

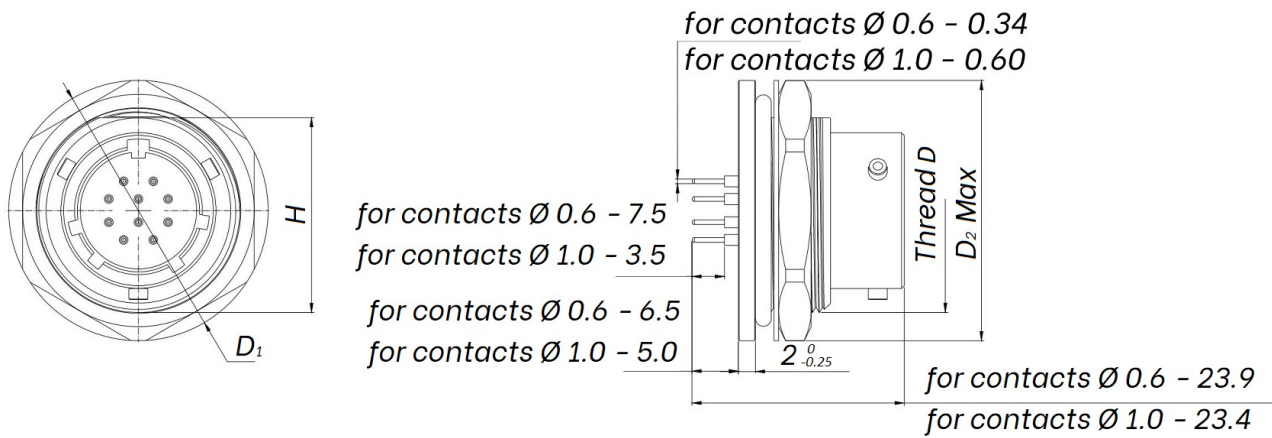
Square flange receptacles, version 7, with PC tail contacts



Shell size	A	B	Ø d
10	11,8	20	2,2
12	13,2	21	2,2
14	15	24	2,2
18	18	27	2,2
22	21,5	31	2,7
27	26	36	3,2

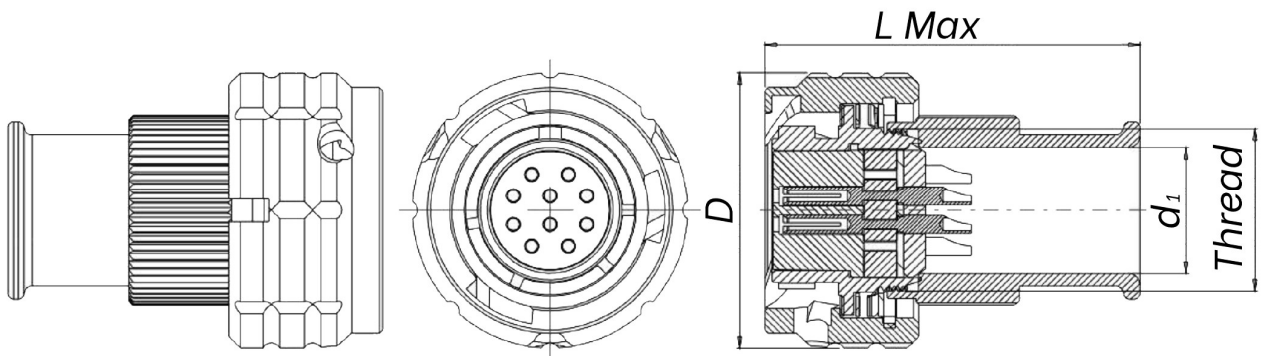


## Jam Nut Receptacles, version 9, with PC tail contacts



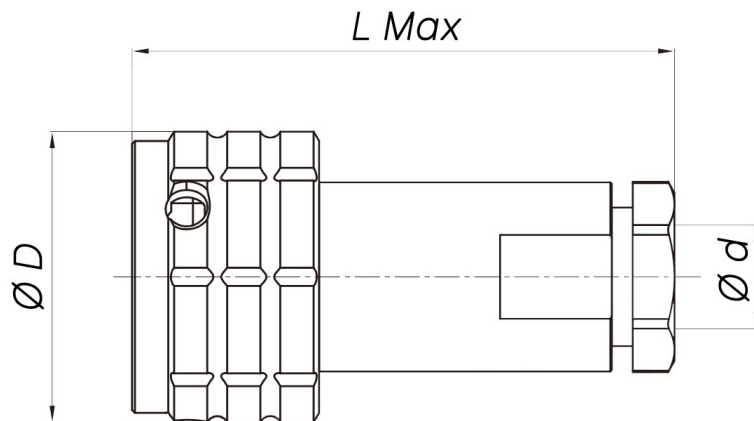
Shell size	Thread D	$\varnothing D_1$	$D_2$	H
10	M18x0.75	24.0	25.4	17.0
12	M20x0.75	25.0	27.8	19.0
14	M22x0.75	28.0	28.0	21.0
18	M24x0.75	31.0	31.0	30.0
22	M30x0.75	35.0	37.0	29.0
27	M33x0.75	40.0	41.6	32.0

### Plugs with Shrink Boot Adapter, version 8



Shell size	Thread d	$\varnothing d_1$	$\varnothing D$	L Max
10	M10x0,75	7	20	32.3
12	M12x0,75	9	21	32.3
14	M14x0,75	11	24	32.3
18	M18x0,75	13	27	41
22	M22x0,75	15	31	42
27	M27x0,75	20	36	43

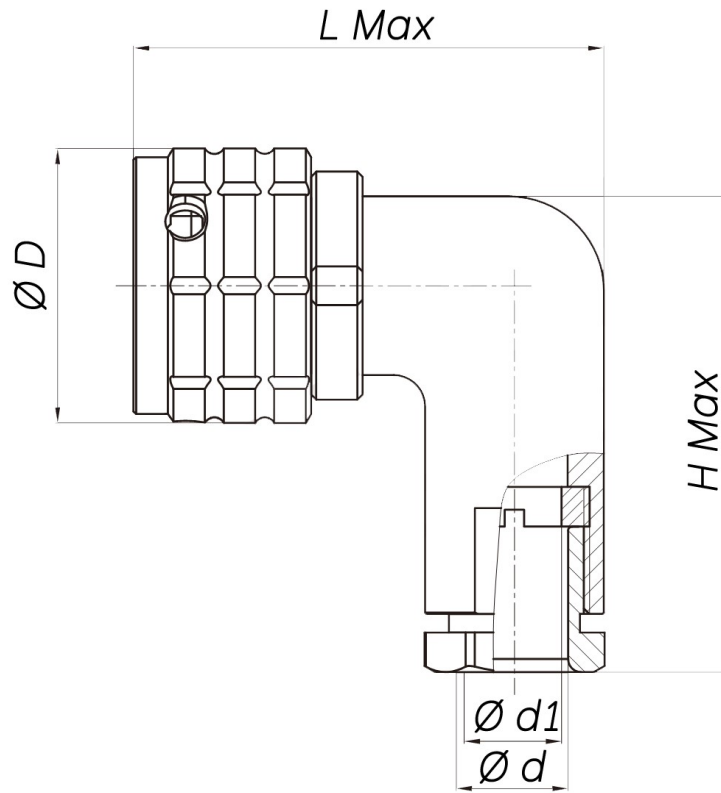
### Plugs with straight Backshell, version 6



Shell size	$\varnothing D$	$\varnothing d$	L
10	20	6	26.5
12	21	8	28.5
14	24	9	31.5
18	27	11	34.5
22	31	13	35.5
27	36	16	39.5



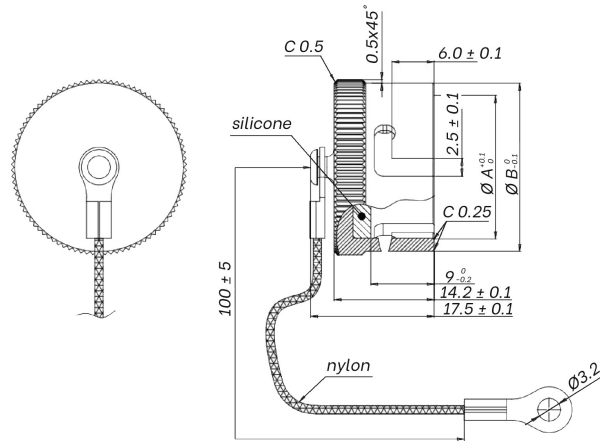
Plugs with elbow Backshell, version 5



Shell size	$\varnothing D$	$\varnothing d$	$\varnothing d_1$	H Max	L Max
10	20	6	5.5	32	23
12	21	8	7.5	34	25
14	24	9	8.5	36	27
18	27	11	10.0	40	30
22	31	13	12.0	44	33
27	36	16	15.0	50	36

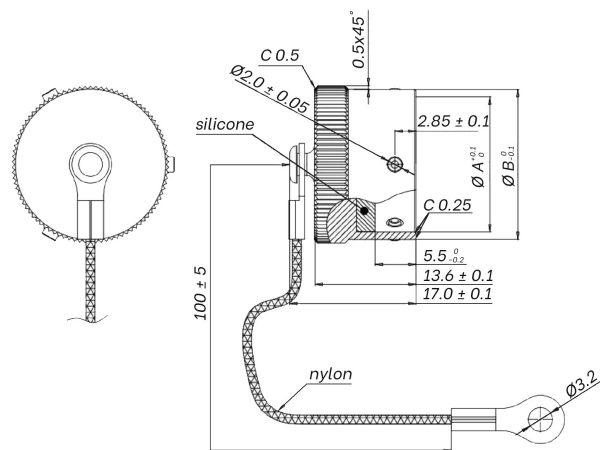
# Dimensions

## Caps for Receptacles



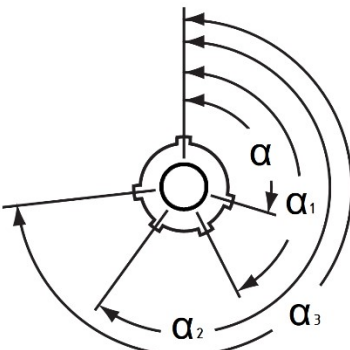
Shell size	Ø A	Ø B
EP-OHS-10	13.60	17.20
EP-OHS-12	15.00	19.00
EP-OHS-14	17.05	20.60
EP-OHS-18	20.30	23.80
EP-OHS-22	24.30	27.80
EP-OHS-27	29.30	33.80

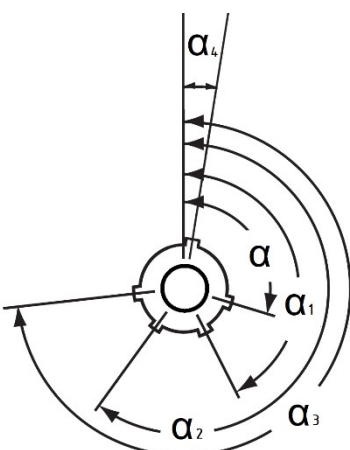
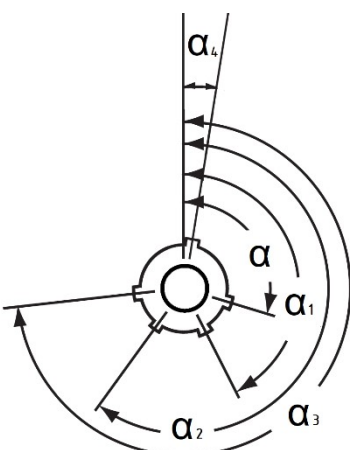
## Caps for Plugs



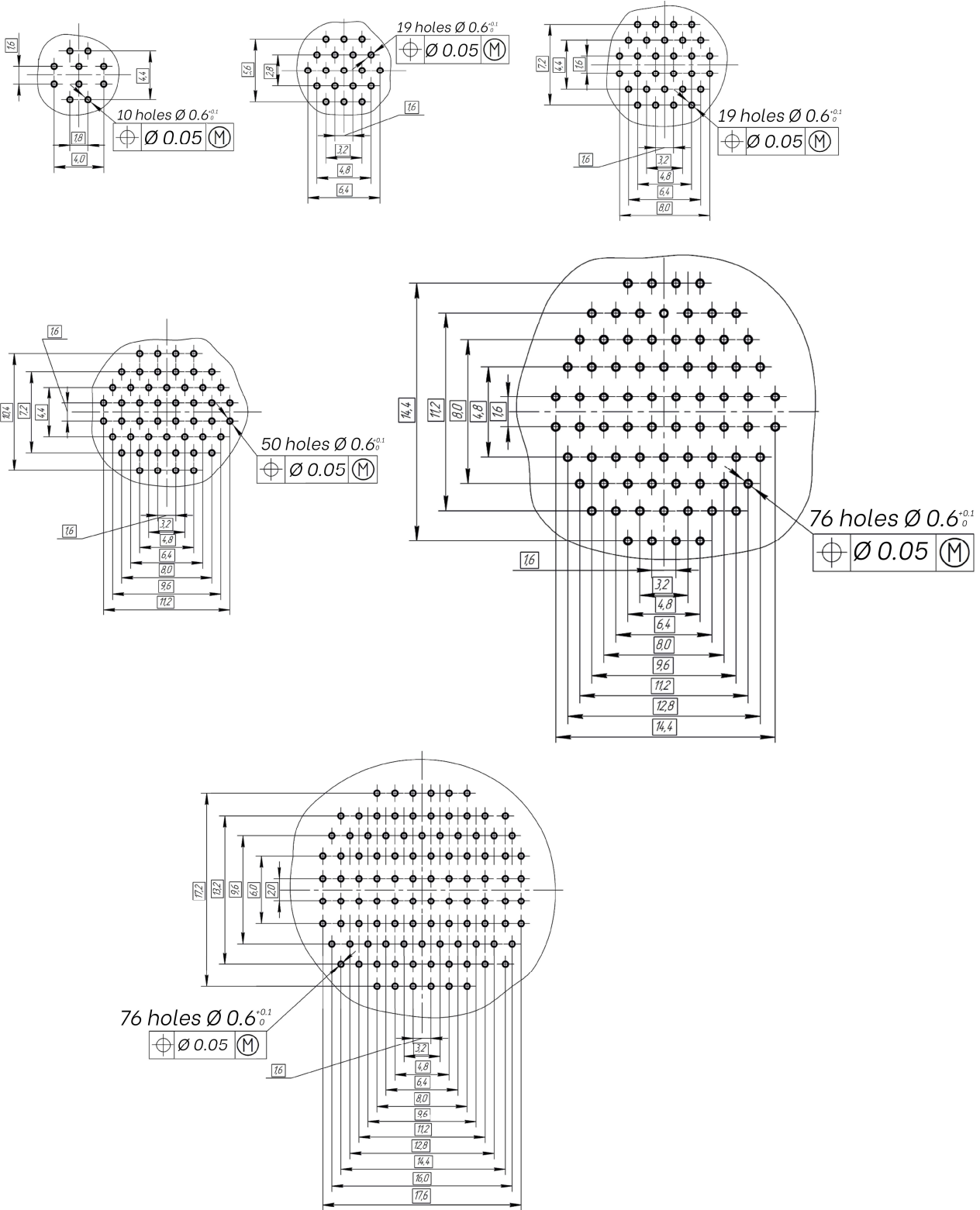
Shell size	Ø A	Ø B
EK-OHS-10	11.50	13.30
EK-OHS-12	13.00	14.80
EK-OHS-14	14.90	16.80
EK-OHS-18	18.20	20.00
EK-OHS-22	22.20	24.00
EK-OHS-27	27.20	29.00

## Orientations

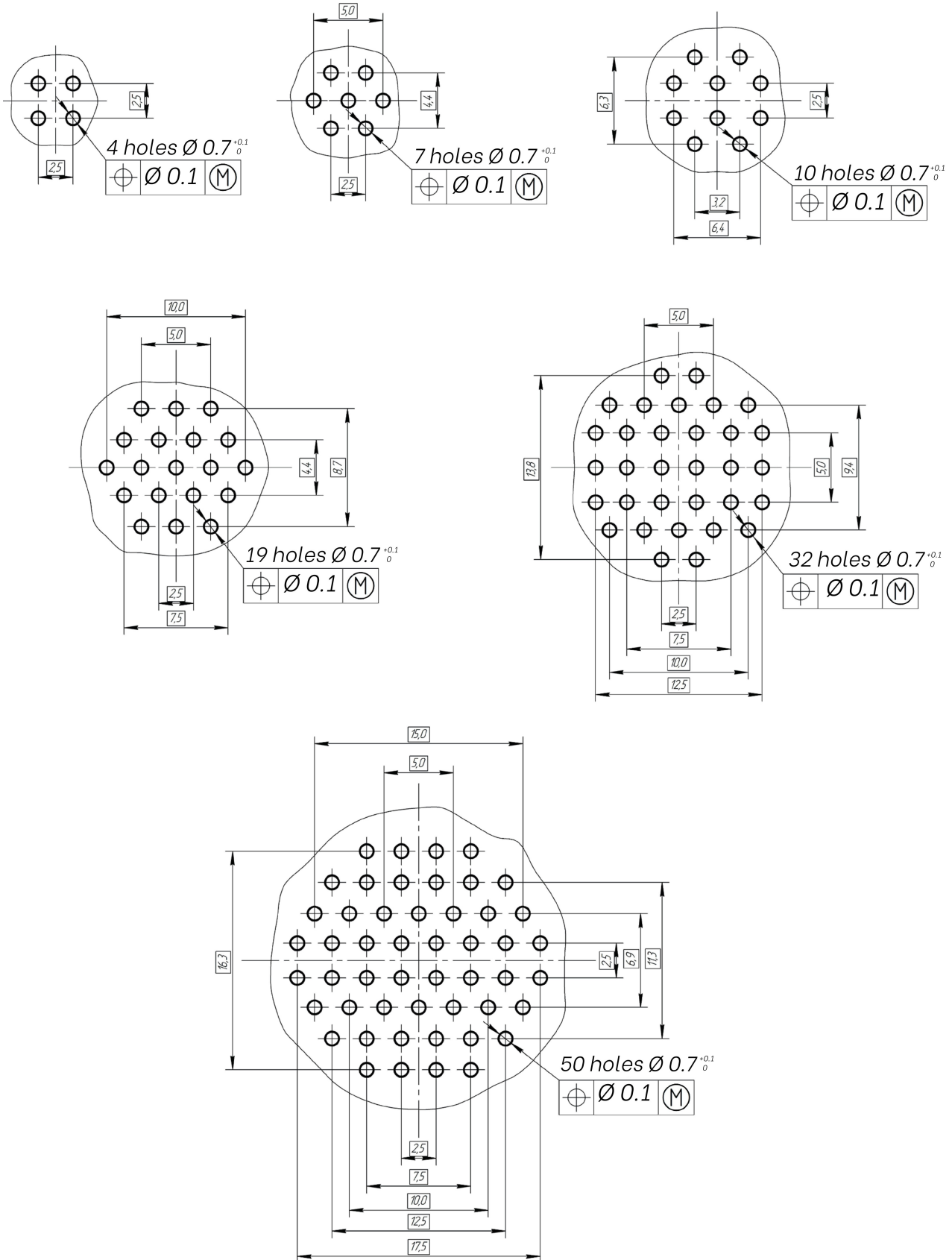
Shell size	Viewed from front face of plug	orientation angle codes	Angle in degrees			
			$\alpha$	$\alpha_1$	$\alpha_2$	$\alpha_3$
10, 12		1	105°	140°	215°	260°
14, 18, 22, 27		1	90°	135°	205°	260°
		2	105°	140°	215°	260°
		3	115°	145°	210°	250°

Shell size	Viewed from front face of plug	orientation angle codes	Angle in degrees						
			$\alpha$	$\alpha_1$	$\alpha_2$	$\alpha_3$	$\alpha_4$		
22, 27		4					11°		
		5	90°	135°	205°	260°	338°		
		6					349°		
		7					11°		
		8	105°	140°	215°	260°	22°		
		9					349°		
		10					11°		
		11					338°		
		12	115°	145°	210°	250°	349°		
		27		13					22°
				14	105°	140°	215°	260°	329°
				15					11°
16							22°		
17							329°		
18	97°			140°	205°	255°	338°		
19							349°		
20							360°		

# Coordinates for straight PC tail terminations



# Coordinates for straight PC tail terminations





## Cross reference list

### Hermetic Square flange Receptacles

Russian Part No.	ALLCONN Part No.
CHЦ127-4/10-ВП117-1-В	ZH127-4/10-B117-1-B
CHЦ127-7/12-ВП117-1-В	ZH127-7/12-B117-1-B
CHЦ127-10/14-ВП117-1-В	ZH127-10/14-B117-1-B
CHЦ127-19/18-ВП227-1-В	ZH127-19/18-B227-1-B
CHЦ127-32/22-ВП227-1-В	ZH127-32/22-B227-1-B
CHЦ127-50/27-ВП227-1-В	ZH127-50/27-B227-1-B

### Hermetic Jam Nut Receptacles

Russian Part No.	ALLCONN Part No.
CHЦ127-4/10-ВП219-1-В	ZH127-4/10-B219-1-B
CHЦ127-7/12-ВП219-1-В	ZH127-7/12-B219-1-B
CHЦ127-10/14-ВП219-1-В	ZH127-10/14-B219-1-B
CHЦ127-19/18-ВП229-1-В	ZH127-19/18-B229-1-B
CHЦ127-32/22-ВП229-1-В	ZH127-32/22-B229-1-B
CHЦ127-50/27-ВП229-1-В	ZH127-50/27-B229-1-B

### Plugs with straight backshells

Russian Part No.	ALLCONN Part No.
CHЦ127-4/10-РП116-1-В	ZH127-4/10-P116-1-B
CHЦ127-7/12-РП116-1-В	ZH127-7/12-P116-1-B
CHЦ127-10/14-РП116-1-В	ZH127-10/14-P116-1-B
CHЦ127-19/18-РП126-1-В	ZH127-19/18-P126-1-B
CHЦ127-32/22-РП126-1-В	ZH127-32/22-P126-1-B
CHЦ127-50/27-РП126-1-В	ZH127-50/27-P126-1-B

### Plugs with elbow backshells

Russian Part No.	ALLCONN Part No.
CHЦ127-4/10-РП115-1-В	ZH127-4/10-P115-1-B
CHЦ127-7/12-РП115-1-В	ZH127-7/12-P115-1-B
CHЦ127-10/14-РП115-1-В	ZH127-10/14-P115-1-B
CHЦ127-19/18-РП125-1-В	ZH127-19/18-P125-1-B
CHЦ127-32/22-РП125-1-В	ZH127-32/22-P125-1-B
CHЦ127-50/27-РП125-1-В	ZH127-50/27-P125-1-B



## Plugs with Shrink Boot Adapters

Russian Part No.	ALLCONN Part No.
СНЦ127-4/10-РП118-1-В	ZH127-4/10-P118-1-B
СНЦ127-7/12-РП118-1-В	ZH127-7/12-P118-1-B
СНЦ127-10/14-РП118-1-В	ZH127-10/14-P118-1-B
СНЦ127-19/18-РП128-1-В	ZH127-19/18-P128-1-B
СНЦ127-32/22-РП128-1-В	ZH127-32/22-P128-1-B
СНЦ127-50/27-РП128-1-В	ZH127-50/27-P128-1-B

## Caps for Receptacles

Russian Part No.	ALLCONN Part No.
ЭП-ОНЦ-10	EP-OHS-10
ЭП-ОНЦ-12	EP-OHS-12
ЭП-ОНЦ-14	EP-OHS-14
ЭП-ОНЦ-18	EP-OHS-18
ЭП-ОНЦ-22	EP-OHS-22
ЭП-ОНЦ-27	EP-OHS-27

## Caps for Plugs

Russian Part No.	ALLCONN Part No.
ЭК-ОНЦ-10	EK-OHS-10
ЭК-ОНЦ-12	EK-OHS-12
ЭК-ОНЦ-14	EK-OHS-14
ЭК-ОНЦ-18	EK-OHS-18
ЭК-ОНЦ-22	EK-OHS-22
ЭК-ОНЦ-27	EK-OHS-27

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