

Type of connectors SSHRG, SHRG, SHRG-P



Application

They are used in radio electronic and radio engineering equipment as connectors of the general type. Connectors as specified in GEO.364.040.108 Specification and bRO.364.040 Specification are mated with respected cable portions of connectors SSHR and SHR produced as specified in GEO.364.107 Specification and bRO.364.028 Specification

Standarts

OST V 11 0121-91
GEO.364.108 Specification
bRO.364.040 Specification

Design description

- screw mating
- air tight (with pressure drop up to 9.8×10^4 Pa (1 kgf/sm^2) rate of air leakage does not exceed 2 l/h

- climatic version UHL
- contacts plating: silver
- mounting method: soldering

Characteristics

Mechanical

vibration:

frequency range, Hz - 1...5000
acceleration, m/s^2 - 300 (30g)

single impacts:

acceleration, m/s^2 - 5000 (500g)

multiple impacts:

acceleration, m/s^2 - 350 (35g)

linear loads:

acceleration, m/s^2 - 2000 (200g)

Reliability requirements

minimum operating time, h
1000

with mate-unmate operations
500

minimum storage life, years
15

Electric

maximum direct current operating voltage, not more than
(ref. contact location diagrams)

operating current across the contact, not more than
(ref. contact location diagrams)

resistance of electric contact, not more than, $\text{m}\Omega$

SSHRG, SHRG as specified in GEO.364.108 Specification, bRO.364.040 Specification

$\varnothing 1,5 - 2,5$

$\varnothing 2,5 - 1,0$

$\varnothing 3,5 - 0,75$

$\varnothing 5,5 - 0,3$

$\varnothing 9,0 - 0,15$

SHRG-P as specified in GEO.364.108 Specification

$\varnothing 1,5 - 3,5$

$\varnothing 2,5 - 1,8$

$\varnothing 3,5 - 1,0$

SHRG-P as specified in bRO.364.040 Specification

$\varnothing 1,5 - 5,0$

$\varnothing 2,5 - 2,0$

$\varnothing 3,5 - 1,5$

insulation resistance in normal climatic conditions, not less than
5000 $\text{M}\Omega$

Climatic

ambient air temperature,
from minus 60 - to plus 60°C

change of temperature,
from minus 60 °C- to plus 110°C
(taking into account the temperature of contacts overheat)

atmospheric pressure decrease, operating
Pa (mm.Hg)
 $1,3 \times 10^{-4}$ (10^{-6})

Designation of connectors of the SSHRG type

	SSHRG	20	P	3	EA	G	7
Type							
Dimension type							
Design version:							
Fixed connector							
P - without pipe							
Number of contacts							
Type of nut for the pipe							
EA - for shielded cable							
In fixed connector without pipe there is no cable fixing nut.							
Designation "EA" - conventional							
Type of contacts:							
Fixed connector							
SH - plug (male connector)							
G - socket (female connector)							
Combination of contacts (ref. contact location diagrams)							

Designation of connectors of the SHRG type

	SHRG	48	PK	26	EA	SH	2
Type							
Dimension type							
Design version:							
Fixed connector							
P - without pipe							
PK - with straight pipe							
Number of contacts							
Type of nut for the pipe							
EA - for shielded cable (ref.note)							
N - for non-shielded cable							
Type of contacts:							
Fixed connector							
SH - plug (male connector)							
Combination of contacts (ref. contact location diagrams)							

Note:

In fixed connector without pipe there is no cable fixing nut.
Designation "EA" - conventional.

Designation of adapters of the SHRG-P type

	SHRG	55	PKP	31	EA	SH	3
Type							
Dimension type							
PKP - adapter							
Number of contacts							
Type of nut for the pipe							
EA - for shielded cable (there is no cable fixing nut in adapter)							
Nut designation "EA" - conventional							
Type of contacts:							
SH - plug (male connector)							
Contact combination (ref. contact location diagrams)							

Designation while placing the order:

Plug SHRG20PK4EASH8 GE0.364.108 Specification
Socket SSHRG20P3EAG7 bR0.364.040 Specification
Adapter SHRG20PKP4EASH8 GE0.364.108 Specification

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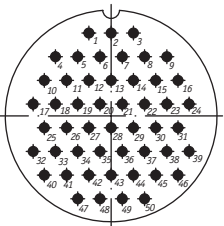
Conventional designation of the contacts

Diameter, mm	1,5	2,5	3,5	5,5	9,0
Conventional designation of the contact					














Connectors of the SSHRG type

Connector conventional dimension	Contact location diagrams	Number of contacts	Contact diameter	Contact combination number	Operating current, A	Max. operating voltage V, not more than
20		2	2,5	6	25	850
		3	2,5	7	25	850
28		4	2,5	8	25	850
		7	2,5	9	25	850
32		10	2,5	4	25	850
36		15	2,5	5	22,5	850
48		20	2,5	2	20,0	850
		26	2,5	3	20,0	850
55		30	2,5	1	17,5	850
60		45	2,5	3	17,5	800

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Connector conventional dimension	Contact location diagrams	Number of contacts	Contact diameter	Contact combination number	Operating current, A	Max. operating voltage V, not more than
60		50	2,5	3	17,5	800

Connectors of the SHRG type

Connector conventional dimension	Contact location diagrams	Number of contacts	Contact diameter	Contact combination number	Operating current, A	Max. operating voltage V, not more than
16		1	3,5	3	50	850
20		2	2,5	6	25	850
		3	1,5	6	10	850
		3	2,5	7	25	850
		4	1,5	4	10	850
		4	2,5	8	25	850
		5	1,5	7	10	800
28		1	5,5	4	100	850
		2	3,5	7	50	850
		2	2,5	5	25	850
		2	2,5		50	
		6	1,5	5	10	850
	7	1,5	7	10	850	

Type of connectors SSHRG, SHRG, SHRG-P



Connector conventional dimension	Contact location diagrams	Number of contacts	Contact diameter	Contact combination number	Operating current, A	Max. operating voltage V, not more than
28		7	2,5	9	25	850
32		1	9,0	5	200	850
		3	2,5	14	25	850
		1	5,5		100	
		8	1,5	2	10	850
		8	2,5	3	25	850
		6	1,5	1	10	850
		4	2,5		25	
		6	1,5	1	10	850
		6	2,5		25	
	36		3	2,5	13	25
1			9,0	200		
		5	3,5	11	50	850
		3	1,5	1	10	850
		3	2,5		25	
		1	3,5		50	
		13	1,5	4	10	850
		2	2,5		25	
40		3	5,5	9	100	850

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Connector conventional dimension	Contact location diagrams	Number of contacts	Contact diameter	Contact combination number	Operating current, A	Max. operating voltage V, not more than
40		8	1,5	2	10	850
		6	2,5		25	
		15	1,5	2	10	850
			14	1,5	2	10
	2		2,5	25		
	48		2	9,0	9	200
			3	1,5	2	10
		2	3,5	50		
		2	5,5	100		
		4	1,5	1	10	850
		2	2,5		25	
		2	5,5		100	
		1	9,0		200	
		5	2,5	7	25	850
		4	5,5		100	
		14	1,5	1	10	850
		6	2,5		25	
	26	1,5	2	8	850	


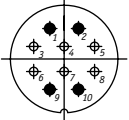
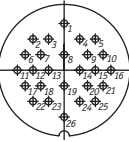
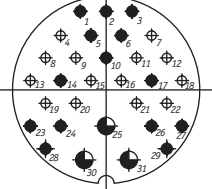
Type of connectors SSHRG, SHRG, SHRG-P



Connector conventional dimension	Contact location diagrams	Number of contacts	Contact diameter	Contact combination number	Operating current, A	Max. operating voltage V, not more than
55		3	2,5	6	25	850
		3	9,0		200	
		16	1,5	1	8	850
		2	2,5		20	
		3	3,5		40	
		2	5,5		80	
		22	1,5	1	8	850
		8	2,5		20	
		14	1,5	3	7,0	850
		14	2,5		17,5	
		3	3,5		35,0	
		33	1,5	3	7,0	850
2		3,5	35,0			
60		14	1,5	1	7,0	850
		14	2,5		17,5	
		2	3,5		35,0	
		1	5,5		70,0	
		25	1,5	2	7,0	850
		20	2,5		17,5	
		40	1,5	2	7,0	850
		7	2,5		17,5	

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Соединители (переходники) типа ШРГ-П

Connector conventional dimension	Contact location diagrams	Number of contacts	Contact diameter	Contact combination number	Operating current, A	Max. operating voltage V, not more than
20		4	2,5	8	25	850
32		6	1,5	1	10	850
		4	2,5		25	
48		26	1,5	2	8	850
55		14	1,5	3	7,0	850
		14	2,5		17,5	
		3	3,5		35,0	

Design and dimensions of the connectors SHRG and SSHRG and SHRG-P are shown in the figures 1-4 and tables 1-4.

Table 1

Connector type	Dimensions, mm						
	conventional diameter	A	B	D	D ₁	d	L
SSHRG (plug, socket)	20	22±0,1	32	20	M24x1,5	4,5	42,0
	28	30±0,2	40	28	M33x1,5	4,5	42,0
	32	32±0,2	44	32	M36x1,5	4,5	42,0
	36	34±0,2	46	36	M39x1,5	4,5	42,0
	48	48±0,2	60	48	M52x1,5	4,5	42,0
	55	52±0,2	68	55	M60x1,5	4,5	42,0
SHRG (plug)	60	54±0,2	72	60	M64x1,5	4,5	42,0
	16	19±0,1	26	16	M20x1,5	3,5	45,4
	20	22±0,1	32	20	M24x1,5	4,5	43,4
	28	30±0,2	40	28	M33x1,5	4,5	43,4; 45,4; 63,3
	32	32±0,2	44	32	M36x1,5	4,5	43,4; 63,3; 68,4
	36	34±0,2	46	36	M39x1,5	4,5	43,4; 45,4; 68,4
	40	40±0,2	52	40	M45x1,5	4,5	43,4; 63,3
	48	48±0,2	60	48	M52x1,5	4,5	43,4; 63,3; 68,4
	55	52±0,2	68	55	M60x1,5	4,5	45,4; 43,4; 63,3; 68,4
60	54±0,2	72	60	M64x1,5	4,5	43,4; 63,3	

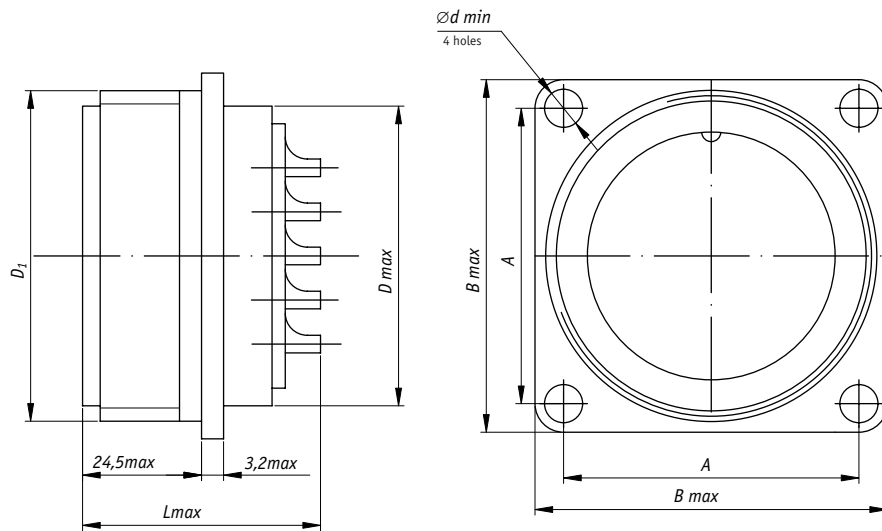


Figure 1 - Plugs and sockets of SSHrg type fixed connectors without pipe
Plugs of SHrg type fixed connectors without pipe

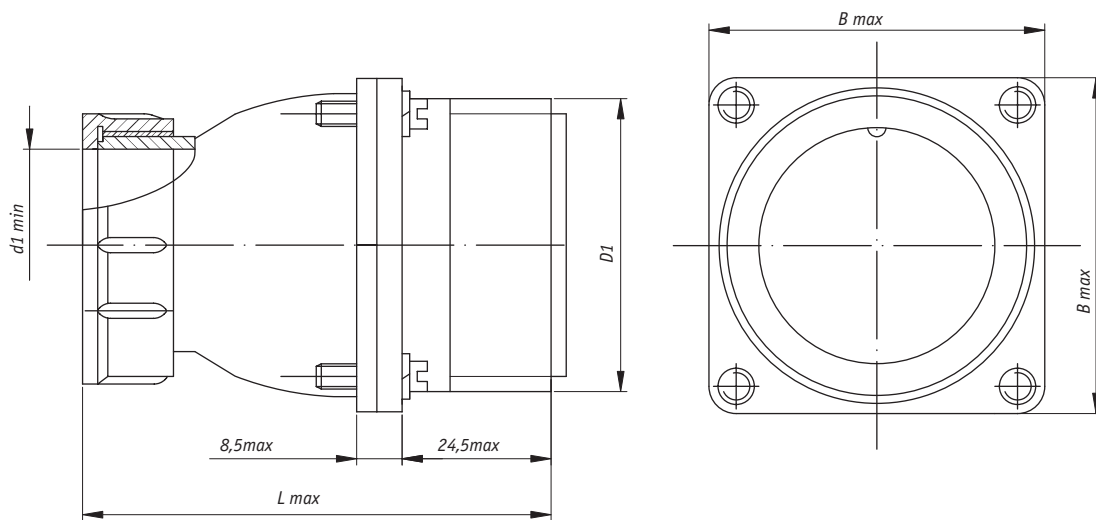


Figure 2 - Plugs of SHrg type fixed connectors with straight pipe and nut for shielded cable

Table 2

Conventional dimension	Dimensions, mm			
	B	D ₁	d ₁	L
16	26	M20x1,5	11	56,4
20	32	M24x1,5	17	59,4
28	40	M33x1,5	24	64,4
32	44	M36x1,5	24	68,4
36	46	M39x1,5	27	70,4
40	52	M45x1,5	30	70,4
48	60	M52x1,5	36	72,4
55	68	M60x1,5	45	72,4
60	72	M64x1,5	48	70,4

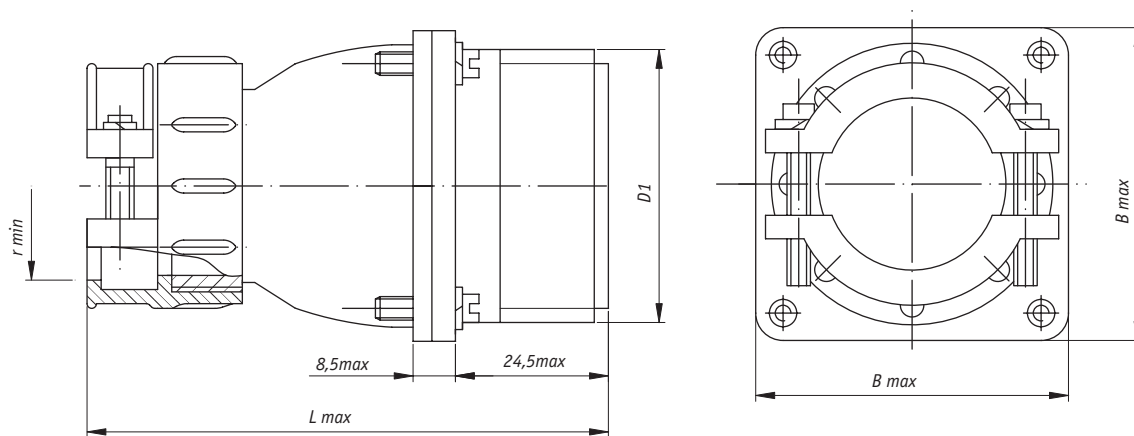


Figure 3 - Plugs of the SHRG type fixed connectors with straight pipe and nut for non-shielded cable

Table 3

Conventional diameter	Dimensions, mm			
	B	D ₁	r	L
16	26	M20x1,5	3,5	67
20	32	M24x1,5	7,0	71
28	40	M33x1,5	10,5	79
32	44	M36x1,5	10,5	83
36	46	M39x1,5	11,5	85
40	52	M45x1,5	12,0	85
48	60	M52x1,5	16,0	87
55	68	M60x1,5	20,0	87
60	72	M64x1,5	24,0	85

Table 4

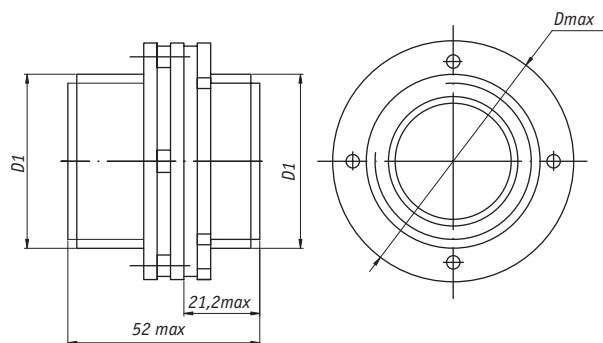


Figure 4 - Adapter of SHRG-P type (double sided branch plug)

Connector conventional dimension	Dimensions, mm	
	D ₁	D
20	M24x1,5	38
32	M36x1,5	50
48	M52x1,5	66
55	M60x1,5	74