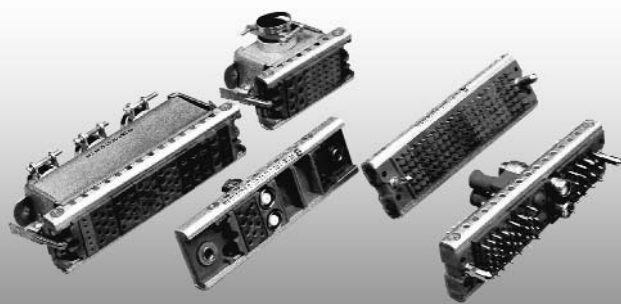


Type of connectors RG, RSH (stack)



Application

They are used in radio electronic and radio engineering equipment as connectors of general type

Standarts

OST V 11 0121-91
OYUO.364.008 Specification
NSHCHO.364.008 Specification

Design description

- plug in or self-closing type
- stack-combination type
(low frequency, radio frequency, high voltage)

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

Characteristics

Mechanical

vibration:

frequency range, Hz - 1...2000
acceleration, m/s^2 - 300 (30g)

single impact:

acceleration, m/s^2 - 1500 (150g)

multiple impacts:

acceleration, m/s^2 - 1500 (150g)

linear loads:

acceleration, m/s^2 - 1000 (100g)

Reliability requirements

minimum operating time, h
1000

with mate -unmate operations
500

minimum storage life, years
15 (for connectors without high voltage standard blocks)
8 (for connectors with high voltage standard blocks)

Electrical

maximum operating voltage,
not more than
(ref. contacts location diagrams)

operating current across the contact
(ref. contacts location diagrams)

resistance of electric contact, not more than
low frequency contacts,
 $\varnothing 1,0$ - 5,0 mOhm
 $\varnothing 1,5$ - 2,5 mOhm
 $\varnothing 2,5$ - 1,0 mOhm
 $\varnothing 3,5$ - 0,75 mOhm
radio frequency contacts
10 mOhm

insulation resistance with maximum operating voltage, not less than
up to 500 V - 5000 Mohm
more than 500 V - 10000 MOhm

Climatic

ambient air temperature,
from minus 60 - to plus 70

decrease of atmospheric pressure operating,
Pa (mm.Hg)
 $0,4 \times 10^3$ (3,0)

Designation						
	R	SH	7	P	(SH2T, P2, SH6T, SH63T, SH67T)	-V
Connector type						
Type of contacts:						
SH - plug (male connector)						
G - socket (female connector)						
Conventional dimension type of housing:						
7 (1, 2, 3, 4, 5, 6, 9, 11)						
Housing version:						
P - fixed type without backshell (plug)						
PKP - fixed-cable type with straight backshell (plug)						
PKU - fixed-cable type with angled backshell (plug)						
KP - cable type with straight backshell (socket)						
KU - cable type with angled backshell (socket)						
B - modular type without backshell (plug, socket)						
BKP - modular type with straight backshell (socket)						
BKU - modular type with angled backshell (socket)						
Note						
In conventional designation of the housings of modular plugs without backshells which are mated only with modular socket without backshells and socket without backshells and locks there is no designation of the housing design version						
Conventional designation of standard blocks assembled in the housing						
Universal climatic version						

Designation of standard blocks			
	SH	61	T
Type of contact:			
G - female connector			
SH - male connector			
P - without contacts (empty)			
Number of contacts combination:			
1, 2, 3, 4, 5, 6, 51, 62, 63, 64, 65, 66, 67, 68, 69, 70, 75, 76, 77, 78, 79, 80, 81, 82			
T - designation for standard blocks with enhanced heat resistance			

Note
In conventional designation of the standard blocks without contacts (empty) numeric character of contact combination denotes:

- 1 - single,
- 2 - double,
- 3 - triple.

Indication sequence of the standard blocks designation in conventional designation of connector (plug, socket) corresponds the location sequence of standard blocks in the housing with respect to index mark "A" marked next to guide pins (for plugs) or the guide pin holes (for sockets).

Example of designation:

Plug RSH7B (5SH2T)-V OYU0.364.008 SpecificationY

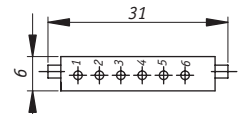
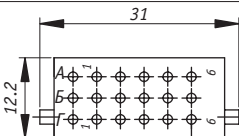
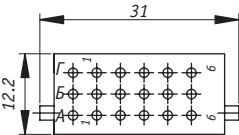
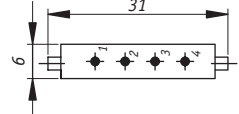
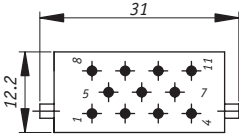
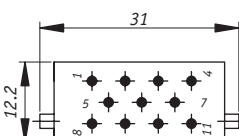
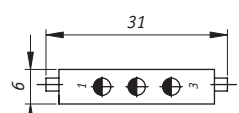
Socket RG1KP (G1T, G4T, P1)-V NSHCH0.364.008 Specification

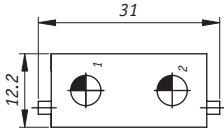
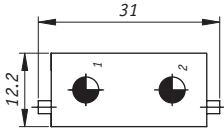
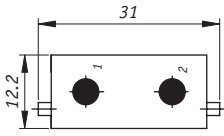
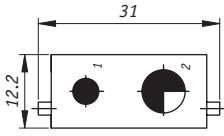
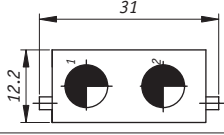
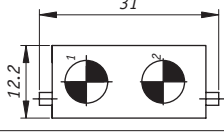
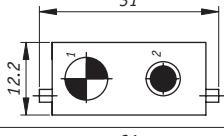
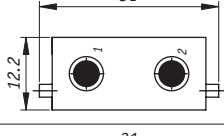
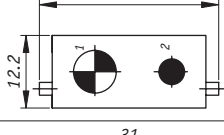
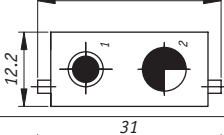
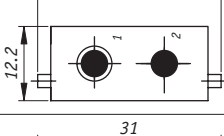
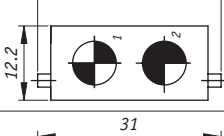
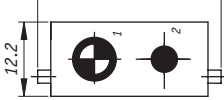
Note

Numeric character preceding designation of the standard blocks denotes the number of the blocks of one type assembled together.

Housing dimension type	The number of assembled standard blocks, pcs
1	4
2	5
3	6
4	7
5	8
6	9
7	10
9	12
11	14

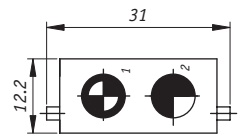
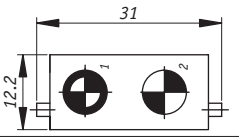
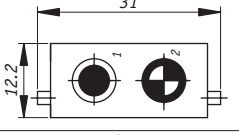
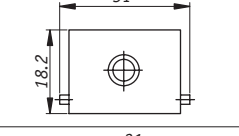
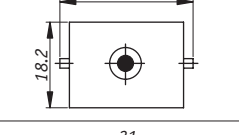
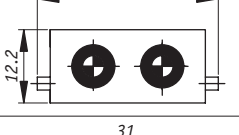
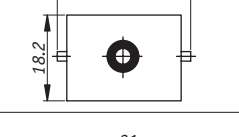
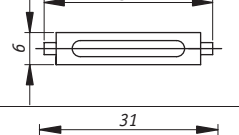
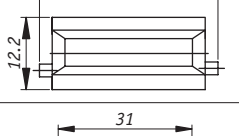
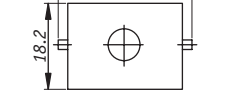
Diagrams of contacts location in the blocks

Block conventional designation		Contacts location diagram	Contact diameter, mm	Number of contacts, pcs.	Operating current across each contact	Maximum effective voltage (effective value), V	Wire cross section, mm ² , not more than or the wire grade
With male connector	With female connector						
Low frequency standard blocks							
SH1T	G1T		1,0	6	2,5	250	0,5
SH2T	G2T		1,0	18	2,5	250	0,5
							
SH3T	G3T		1,5	4	5,0	250	1,0
SH4T	G4T		1,5	11	5,0	250	1,0
							
SH5T	G5T		2,5	3	15	500	3,0

SH6T	G6T		3,5	2	25	500	10,0
High voltage standard blocks							
SH51	G51		2,0	2	*	3000	V3M-250-4,5
Radio frequency standard blocks							
SH61T	G61T		1,4	2	*	250	RK-50-2
SH62T	G62T		1,4	1 1	*	250 300	RK-50-2 RK-50-3
SH63T	G63T		1,4	2	*	300	RK-50-3
SH64T	G64T		0,8	2	*	250	RK-75-2
SH65T	G65T		0,8	1 1	*	250 300	RK-75-2 RK-75-3
SH66T	G66T		0,8	2	*	300	RK-75-3
SH67T	G67T		0,8 1,4	1 1	*	250 250	RK-75-2 RK-50-2
SH68T	G68T		0,8 1,4	1 1	*	300 300	RK-75-3 RK-50-3
SH69T	G69T		0,8 1,4	1 1	*	300 250	RK-75-3 RK-50-2
SH70T	G70T		0,8 1,4	1 1	*	250 300	RK-75-2 RK-50-3
SH75T	G75T		0,8 1,4	1 1	*	500 250	RK-75-4 RK-50-2

Type of connectors RG, RSH (stack)



SH76T	G76T		0,8 1,4	1 1	*	500 300	RK-75-4 RK-50-3
SH77T	G77T		0,8	1 1	*	500 250	RK-75-4 RK-75-2
SH78T	G78T		0,8	1 1	*	300 500	RK-75-3 RK-75-4
SH79T	G79T		2,6	1	*	1000	RK-50-7
SH80T	G80T		1,2	1	*	1000	RK-75-7
SH81T	G81T		0,8	2	*	500	RK-75-4
SH82T	G82T		2,6	1	*	500	RK-50-4
P-1	-		-	-	-	-	-
P-2	-		-	-	-	-	-
P-3	-		-	-	-	-	-

* - not standardised

Design and dimensions of connectors RG, RSH (stack) are given in the figures 1-11 and tables 1-11

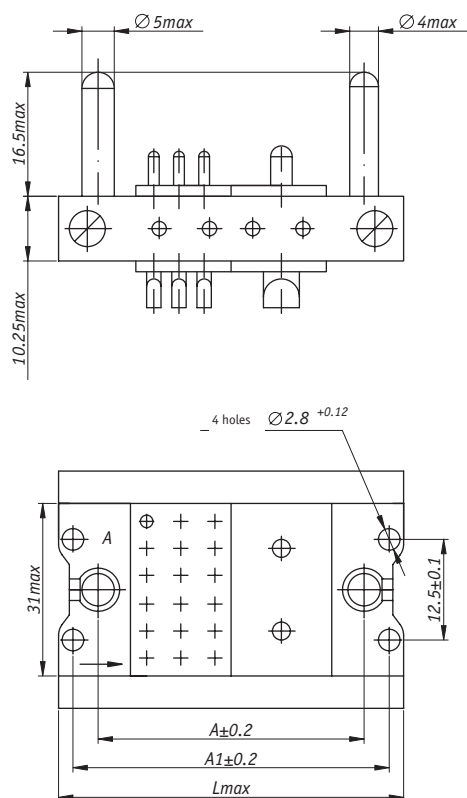


Table 1

Connector design type	Dimensions, mm		
	A	A1	L max
RSH1	34,0	39,0	46,1
RSH2	40,2	45,2	52,3
RSH3	46,4	51,4	58,5
RSH4	52,6	57,6	64,7
RSH5	58,8	63,8	70,9
RSH6	65,0	70,0	77,1
RSH7	71,2	76,2	83,3
RSH9	83,6	88,6	95,7
RSH11	96,0	101,0	108,1

Figure 1 - Modular plug without backshell. It is used only for mating with modular socket without backshell

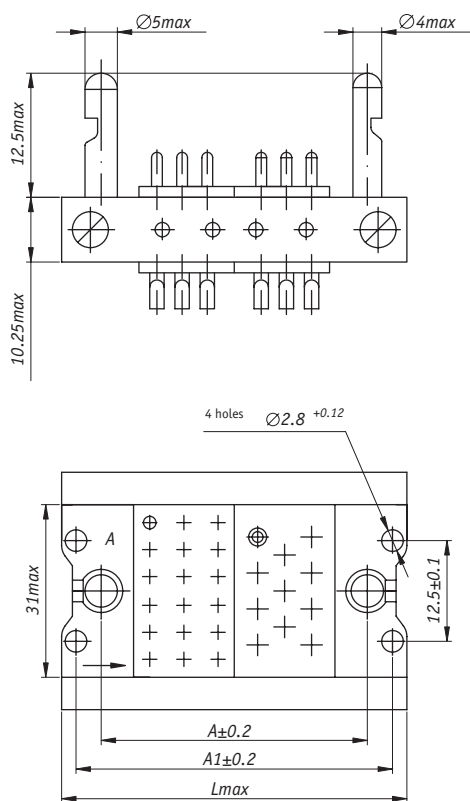


Table 2

Connector design type	Dimensions, mm		
	A	A1	L max
RSH1П	34,0	39,0	46,1
RSH2П	40,2	45,2	52,3
RSH3П	46,4	51,4	58,5
RSH4П	52,6	57,6	64,7
RSH5П	58,8	63,8	70,9
RSH6П	65,0	70,0	77,1
RSH7П	71,2	76,2	83,3
RSH9П	83,6	88,6	95,7
RSH11П	96,0	101,0	108,1

Figure 2 - Fixed plug without backshell.

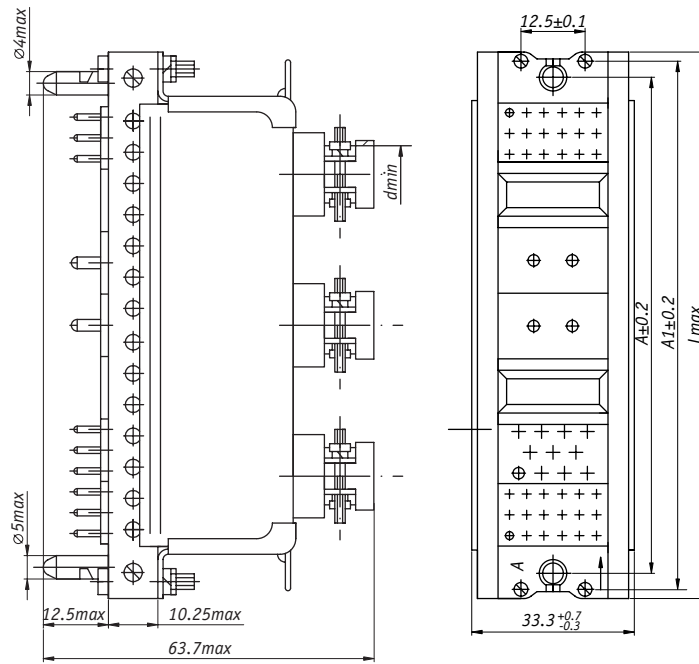


Figure 3 - Fixed cable plug with straight backshell.

Table 3

Connector design type	Dimensions, mm			
	A	A1	L max	dmin
RSH1PKP	34,0	39,0	46,1	12,5
RSH2PKP	40,2	45,2	52,3	16,5
RSH3PKP	46,4	51,4	58,5	16,5
RSH4PKP	52,6	57,6	64,7	12,5
RSH5PKP	58,8	63,8	70,9	16,5
RSH6PKP	65,0	70,0	77,1	16,5
RSH7PKP	71,2	76,2	83,3	16,5
RSH9PKP	83,6	88,6	95,7	16,5
RSH11PKP	96,0	101,0	108,1	16,5

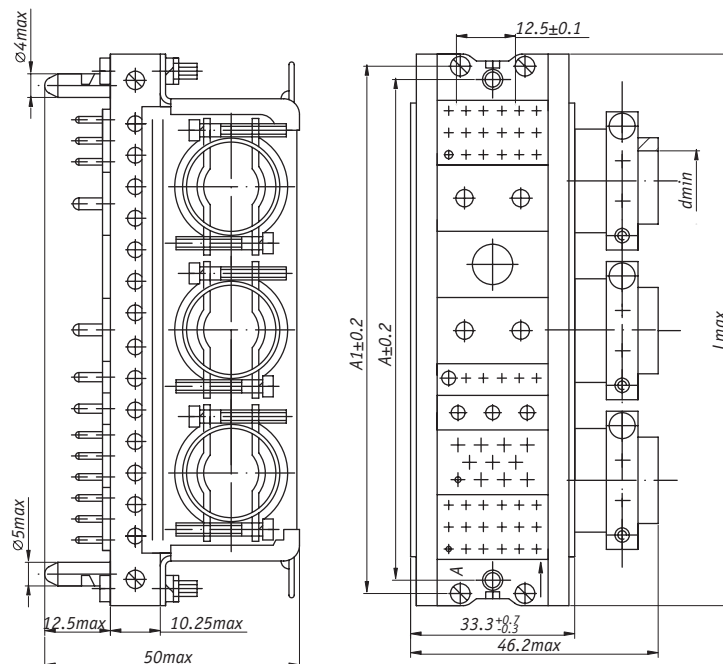


Figure 4 - Fixed cable plug with angled backshell.

Table 4

Connector design type	Dimensions, mm			
	A	A1	L max	dmin
RSH1PKU	34,0	39,0	46,1	12,5
RSH2PKU	40,2	45,2	52,3	16,5
RSH3PKU	46,4	51,4	58,5	16,5
RSH4PKU	52,6	57,6	64,7	12,5
RSH5PKU	58,8	63,8	70,9	16,5
RSH6PKU	65,0	70,0	77,1	16,5
RSH7PKU	71,2	76,2	83,3	16,5
RSH9PKU	83,6	88,6	95,7	16,5
RSH11PKU	96,0	101,0	108,1	16,5

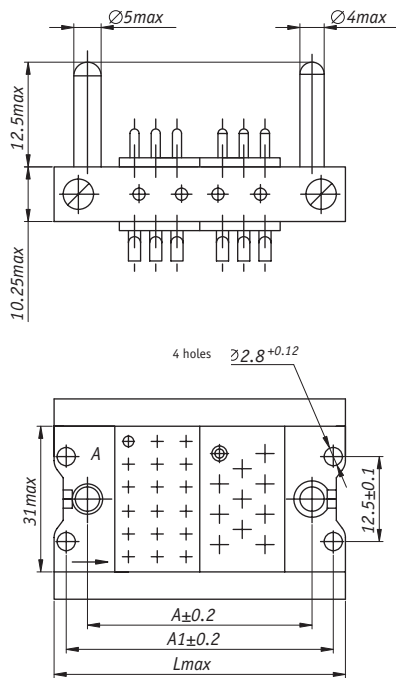


Table 5

Connector design type	Dimensions, mm		
	A	A1	L max
RSH1B	34,0	39,0	46,1
RSH2B	40,2	45,2	52,3
RSH3B	46,4	51,4	58,5
RSH4B	52,6	57,6	64,7
RSH5B	58,8	63,8	70,9
RSH6B	65,0	70,0	77,1
RSH7B	71,2	76,2	83,3
RSH9B	83,6	88,6	95,7
RSH11B	96,0	101,0	108,1

Figure 5 - Fixed plug without backshell.
It is used for mating with the modular socket

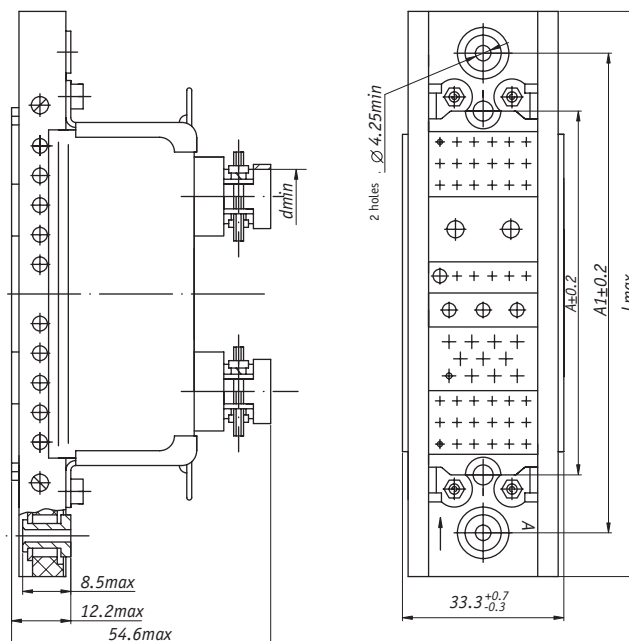


Figure 6 - Modular socket with straight backshell.

Table 6

Connector design type	Dimensions, mm			
	A	A1	L max	dmin
RG1BKP	34,0	59,2	76,1	12,5
RG2BKP	40,2	65,4	82,3	16,5
RG3BKP	46,4	71,6	88,5	16,5
RG4BKP	52,6	77,8	94,7	12,5
RG5BKP	58,8	84,0	100,9	16,5
RG6BKP	65,0	90,2	107,1	16,5
RG7BKP	71,2	96,4	113,3	16,5
RG9BKP	83,6	108,8	125,7	16,5
RG11BKP	96,0	121,2	138,1	16,5

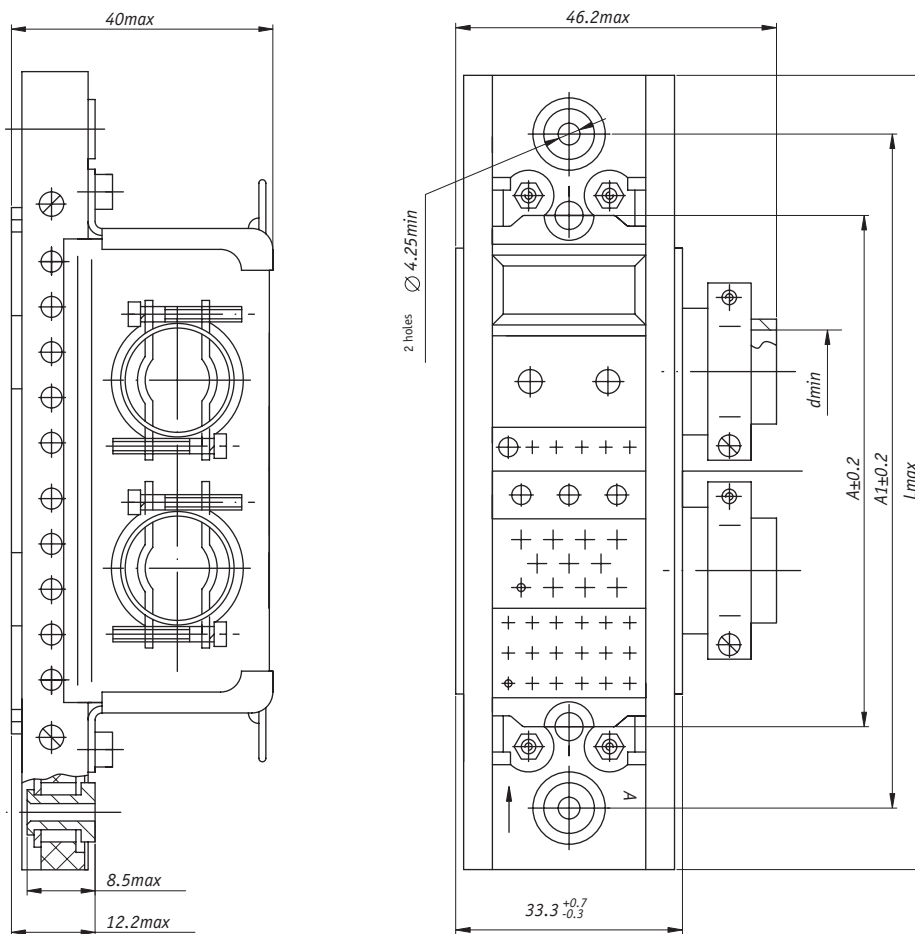


Figure 7 - Modular socket with angled backshell.

Table 7

Connector design type	Dimensions, mm			
	A	A1	L max	dmin
RG1BKU	34,0	59,2	76,1	12,5
RG2BKU	40,2	65,4	82,3	16,5
RG3BKU	46,4	71,6	88,5	16,5
RG4BKU	52,6	77,8	94,7	12,5
RG5BKU	58,8	84,0	100,9	16,5
RG6BKU	65,0	90,2	107,1	16,5
RG7BKU	71,2	96,4	113,3	16,5
RG9BKU	83,6	108,8	125,7	16,5
RG11BKU	96,0	121,2	138,1	16,5

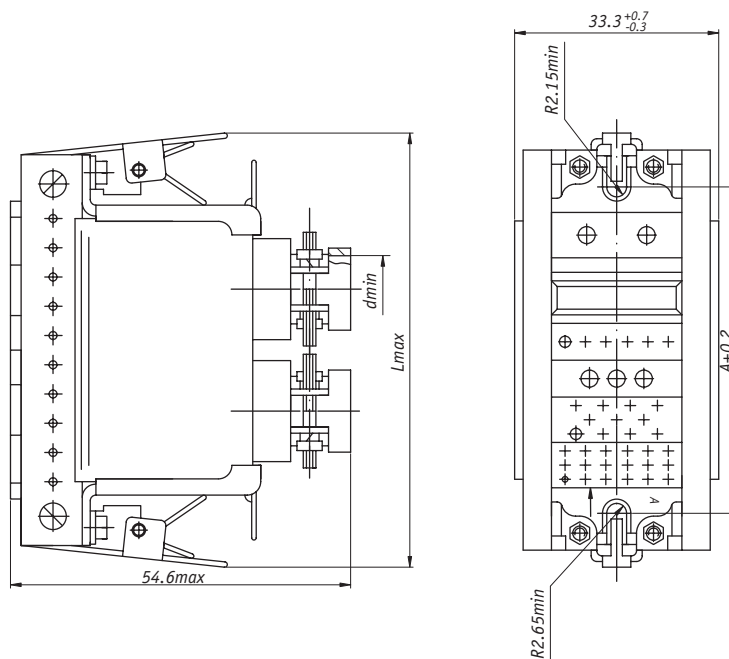


Figure 8 - Cable socket with straight backshell.

Table 8

Connector design type	Dimensions, mm		
	A	L max	d min
RG1KP	34,0	60,5	12,5
RG2KP	40,2	66,5	16,5
RG3KP	46,4	73,0	16,5
RG4KP	52,6	78,0	12,5
RG5KP	58,8	85,0	16,5
RG6KP	65,0	91,5	16,5
RG7KP	71,2	97,5	16,5
RG9KP	83,6	109,0	16,5
RG11KP	96,0	122,5	16,5

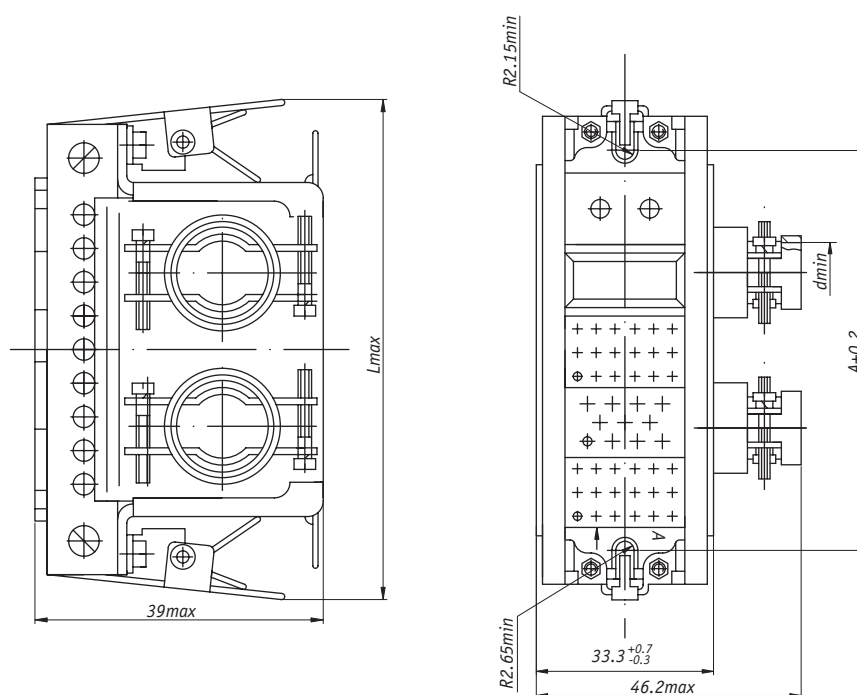


Figure 9 - Cable socket with angled backshell.

Table 9

Connector design type	Dimensions, mm		
	A	L max	d min
RG1KU	34,0	60,5	12,5
RG2KU	40,2	66,5	16,5
RG3KU	46,4	73,0	16,5
RG4KU	52,6	78,0	12,5
RG5KU	58,8	85,0	16,5
RG6KU	65,0	91,5	16,5
RG7KU	71,2	97,5	16,5
RG9KU	83,6	109,0	16,5
RG11KU	96,0	122,5	16,5

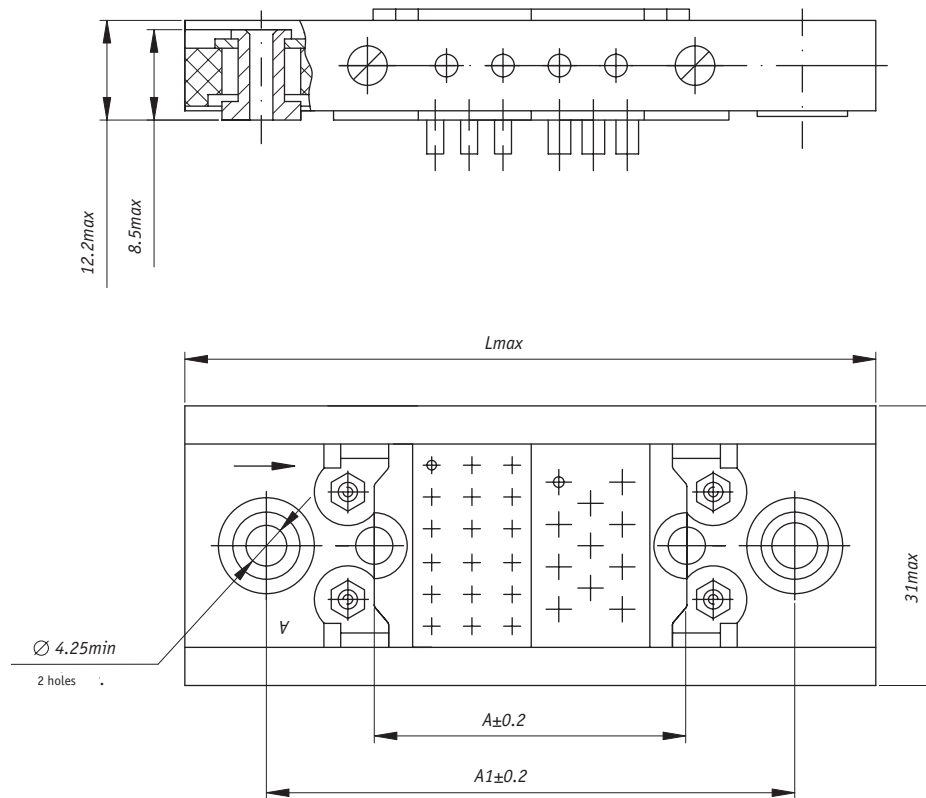


Figure 10 - Modular socket without backshell.

Table 10

Connector design type	Dimensions, mm		
	A	A1	L max
RG1B	34,0	59,2	76,1
RG2B	40,2	65,4	82,3
RG3B	46,4	71,6	88,5
RG4B	52,6	77,8	94,7
RG5B	58,8	84,0	100,9
RG6B	65,0	90,2	107,1
RG7B	71,2	96,4	113,3
RG9B	83,6	108,8	125,7
RG11B	96,0	121,2	138,1

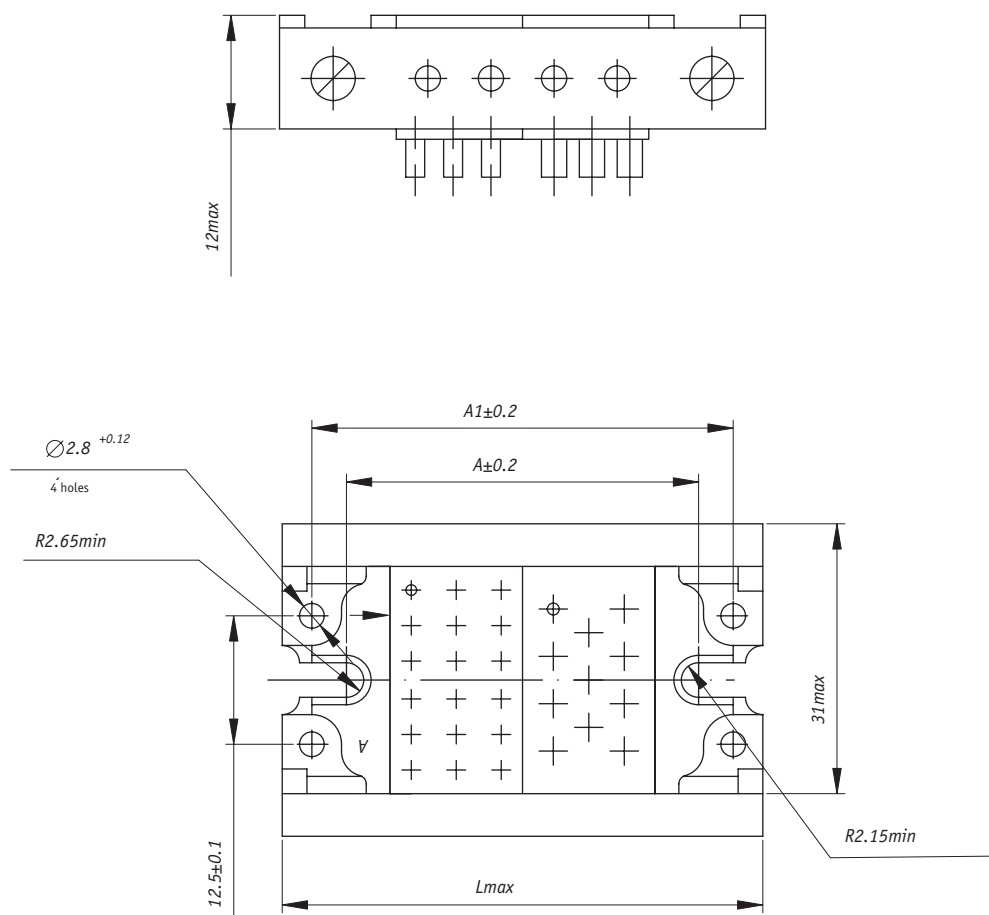


Figure 11 - Socket without backshell and locks

Table 11

Connector design type	Dimensions, mm		
	A	A1	L max
RG1	34,0	39,0	46,1
RG2	40,2	45,2	52,3
RG3	46,4	51,4	58,5
RG4	52,6	57,6	64,7
RG5	58,8	63,8	70,9
RG6	65,0	70,0	77,1
RG7	71,2	76,2	83,3
RG9	83,6	88,6	95,7
RG11	96,0	101,0	108,1