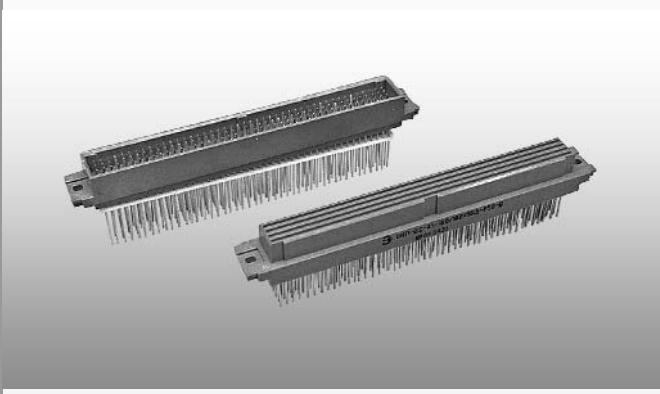


Type of connectors ONP-VS-35, ONP-VS-39



Application

Application they are used in radio electronic and radio engineering equipment as the connectors of the general type

Standarts

OST V11 0121-91
NSHCHO.364.062 Specification

Design description

- cut in type
- climatic version V
- contact plating: gold, silver

- mounting method: soldering or simultaneous soldering and wire wrappings

Characteristics

Mechanical

- vibration:
 - frequency range, Hz- 1...2000
 - acceleration, m/s^2 - 100 (10g)
- single impacts:
 - acceleration, m/s^2 - 10000 (1000g)
- multiple impacts:
 - acceleration, m/s^2 - 1500 (150g)
- linear loads:
 - acceleration, m/s^2 - 200 (20g)

Electric

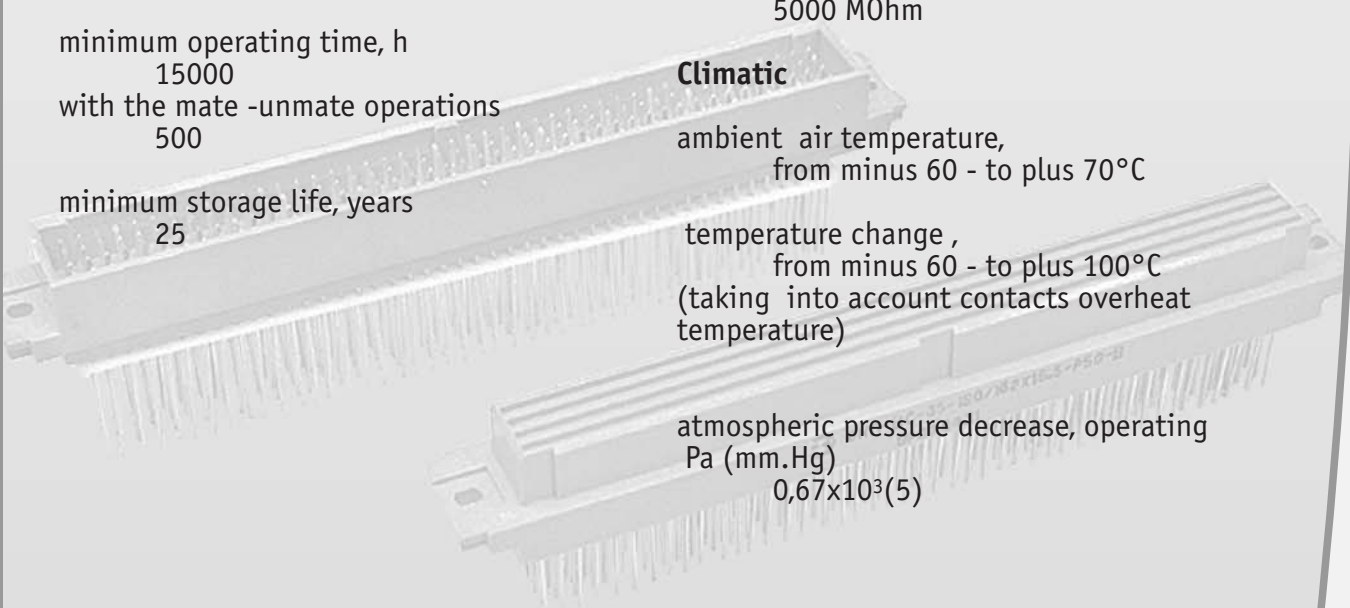
- maximum operating direct current voltage, not more than 150 V
- operating current across the contact, not more than 1,5 A
- resistance of electrical contact, not more than 20 mOhm
- insulation resistance in normal climatic conditions, not less than 5000 MOhm

Reliability requirements

- minimum operating time, h
 - 15000
 - with the mate -unmate operations 500
- minimum storage life, years
 - 25

Climatic

- ambient air temperature, from minus 60 - to plus 70°C
- temperature change, from minus 60 - to plus 100°C (taking into account contacts overheat temperature)
- atmospheric pressure decrease, operating Pa (mm.Hg) $0,67 \times 10^3(5)$



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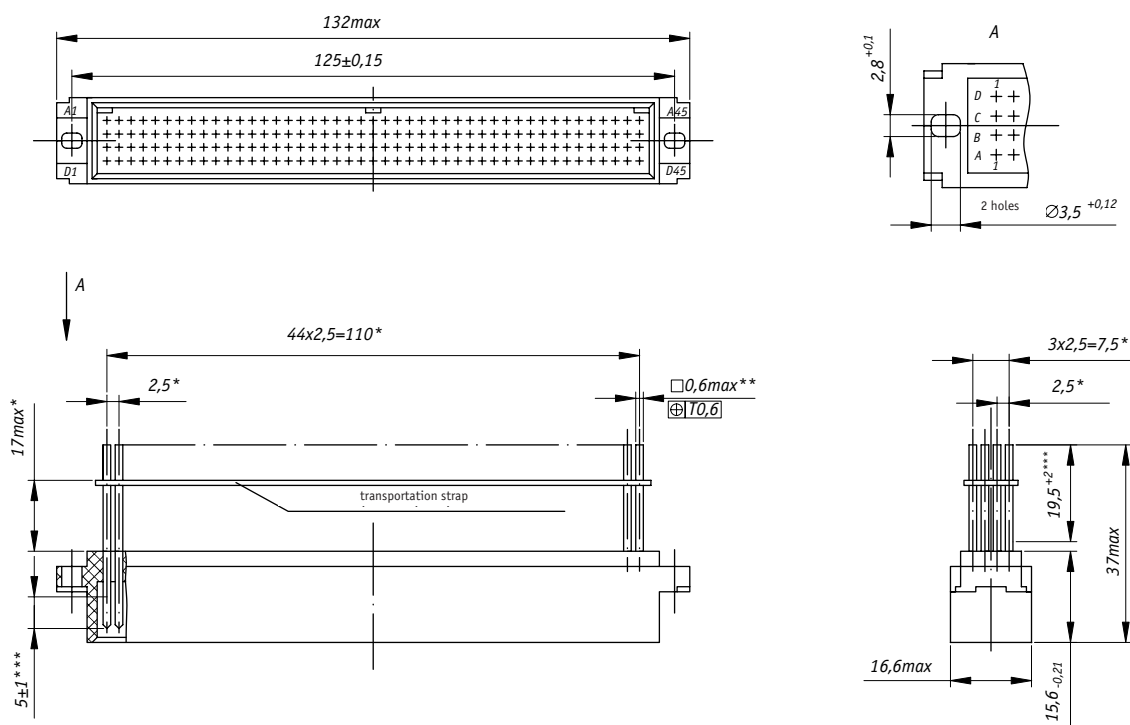
Designation

	ONP-VS-35	-180	/132 x16,5	-R	50	S	-V
Type							
Number of contacts							
Conventional dimension (length and width)							
Type of contacts: V - plug (male connector) R - socket (female connector)							
Design version: 50 - straight socket (with straight contact) 52 - straight plug (with angular contacts)							
Additional designation - only for plugs (sockets) with silver plating of contacts or working portions of male connectors (or plating of entire surface)							
Note: Plating of the contacts and the male connectors of the working portions (or plating of entire surface) without additional designation - gold							
Universal climatic version							

Designation while placing the order:

Plug ONP-VS-39-180/132x16,5-V52-V NSHCH0.364.062 Specification
 Plug ONP-VS-39-180/132x16,5-V52-S-V NSHCH0.364.062 Specification
 Socket ONP-VS-35-180/132x16,5-R50-V NSHCH0.364.062 Specification
 Socket ONP-VS-35-180/132x16,5-R50-S-V NSHCH0.364.062 Specification

Design and dimensions of connectors, their weight and unmating force are given in figures 1, 2 and table 1.



*Dimensions for reference

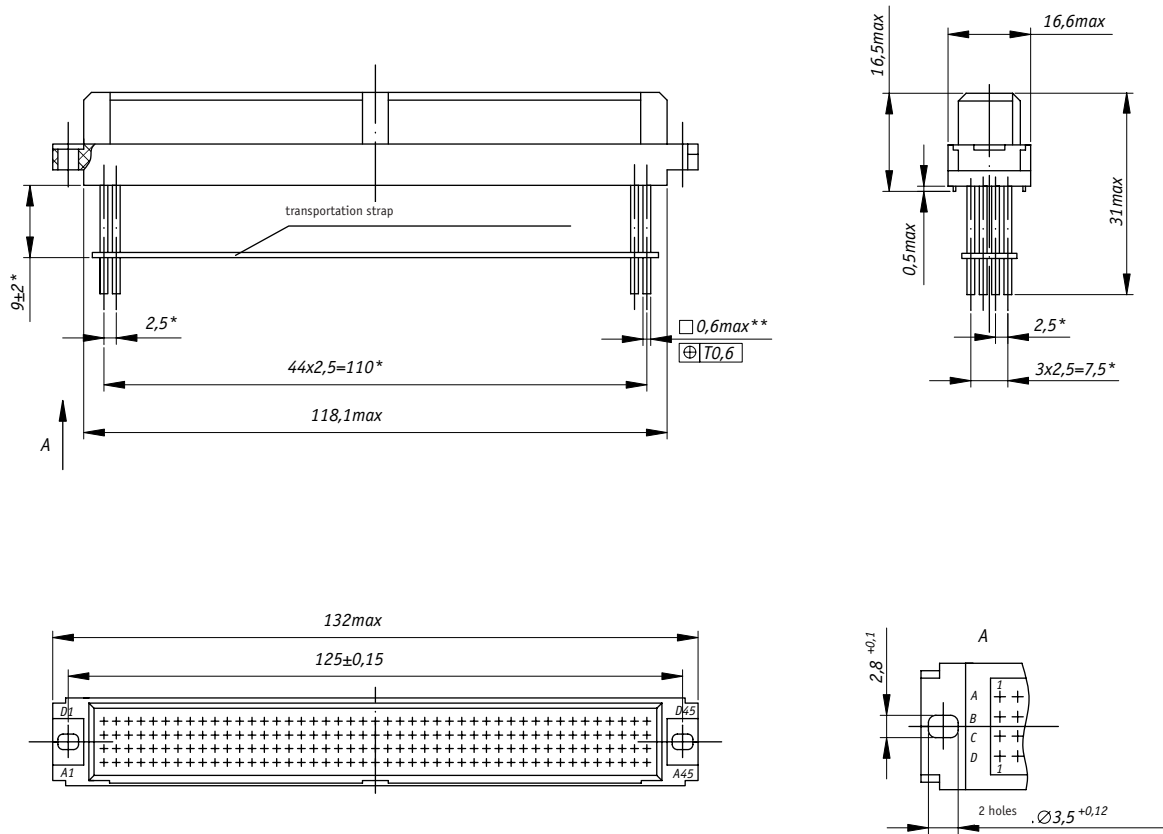
** Dimensions taking account of plating (for reference)

*** Dimensions of the local plating (for reference)

Figure1 - Plug ONP-VS-39-180/132x16,5-V52

- Plug ONP-VS-39-180/132x16,5-V52-S

Type of connectors ONP-VS-35, ONP-VS-39



*Dimensions for reference

**Dimensions taking account of plating (for reference)

Figure 2 - Socket ONP-VS-35-180/132x16,5-R50

- Socket ONP-VS-35-180/132x16,5-R50-S

Table 1

Name and conventional designation of connector	Weight, g, not more than	Force of plug with socket, unmating, N (kgf)
Plug ONP-VS-39-180/132x16,5-V52	50	350 (35)
Plug ONP-VS-39-180/132x16,5-V52-S	50	
Socket ONP-VS-35-180/132x16,5-R50	60	
Socket ONP-VS-35-180/132x16,5-R50-S	60	

Operating instructions

During application, mounting and operation of connectors one should be guided by OST V 11 0121.

Electric wiring is performed as specified in GOST V 23584.

Wrapping of the wires on the wiring tails of the contacts of socket ONP-VS-35 and plug ONP-VS-39 is performed as specified in OST 4 G0.054.268.

The sockets ONP-VS-35 and plug ONP-VS-39 are used for mounting and soldering on the printed board.

If the thickness of the printed board does not exceed 3mm it is possible to do up to 2 conventional and modified wrappings on protruding portions of the contacts wiring tails. For this purpose the solid conductor with diameter 0,2-0,25 mm is used. As this takes place the printed board is installed at the distance not exceeding 3 mm from the bottom of the socket or plug mentioned above.

If there is no printed board it is possible to do up to 3 wire wrapping on the wiring tails of the contacts.

It is also possible to connect up to two wires with cross section not exceeding $0,2 \text{ mm}^2$ or three wires with cross section not exceeding $0,12 \text{ mm}^2$ to contacts wiring tails. The connection is made by soldering at the distance not less than $1,5 \text{ mm}$ from connector insert. It is possible to do not more than 5 resolderings of the contacts wiring tails with interval at least 20s.

It is possible to solder overlapped wires.

Table 2 gives relationship of contacts overheating from current load.

Table 2

Current load across connector, % from maximum allowable as set in Specification	Temperature of contacts overheating, °C
90	27
80	24
70	21
60	18
50	15
40	12
30	9
20	6

While mounting connectors in equipment it is necessary to ensure the distance between the conductive connector parts under 150 V and the metal parts of equipment not less than $2,5 \text{ mm}$ (if there is no insulation)

Switching of alternative current with voltage up to 250 V is possible when the distance between the contacts is 5 mm .

Before mating misalignment of the male-female portions of connectors with regard their nominal position must not exceed $0,5 \text{ mm}$ while their mutual skewness should be not more than 2° .