

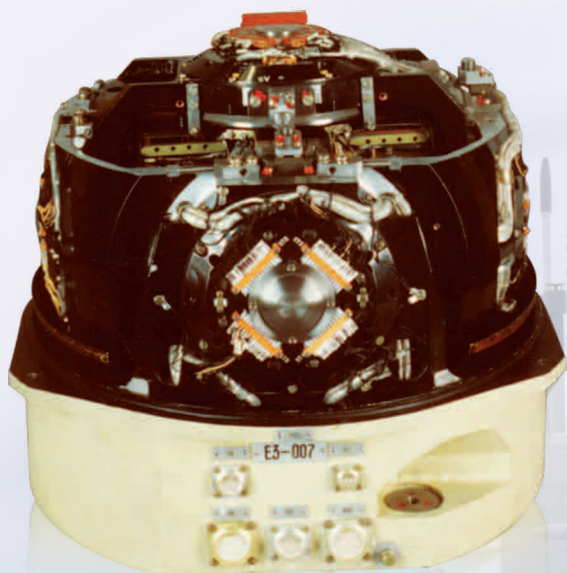
# Miniature navigation complex

## APPASSIONATA-E



IS INTENDED

to generate and output navigation data for marine navigation, shipborne weapons, technical aids and systems of the submarines



FUNCTIONS:

- Control of the navigation complex by one operator from the operating navigator panel without continuous watch at the gyro room
- Monitoring of the operational condition of the devices and automatic troubleshooting

## SPECIFICATIONS

### Errors in the main navigation parameters:

position for a 48 hour interval between corrections	5 km
course	6 arc min
speed through the water	0.15 kt
speed over the ground from the INS	0.8 kt
roll and pitch angles	3 arc min

### The complex generates navigation data under the following operational conditions:

- Speed up to 20 kt
- Heave up to 3 m/s
- Circulation with angular rate up to 3°/s
- Roll with an amplitude up to 20° and a 7–10 s period
- Pitch with an amplitude 5° and a 7–12 s period
- Long-duration trim up to 6°
- Total angle of roll up to 35°
- Total angle of pitch up to 25°

The complex is installed on conventional submarines of various projects, which determines its modification, configuration and parameters

### COMPOSITION:

- Duplicated miniature inertial navigation system (INS)
- Gyrocompass
- Log and echo sounder
- Receivers of satellite and radio navigation systems
- Magnetic compass
- EDIS
- Navigation data processing and transmission system
- Power supply system

### POWER SUPPLY:

- From ship main DC 175-320 V,
- From ship main AC 220 V 50 Hz (provision is made for redundancy)
- Power consumption – 4.5 kW

The navigation complex provides continuous operation during 2.500 h with probability  $P \geq 0.96$

The special simulator is available to train and maintain practical skills in operating the navigation complex. It can be supplied by a special order

