

Command and Control

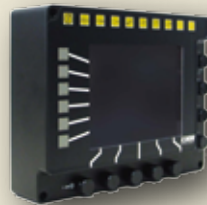
Control stations of AIFV PUMA.

The primary elements of the Human-Machine Interface for commander and gunner are system control devices (so called SBG) and the central control device (so called ZBG).

- Commander and gunner are each equipped with an SBG. The SBG has different programmable menus (e.g. combat menu), submenus and control/display functionalities such as:
 - control of main optics
 - various parameters for the fire control system
 - control of active self-protection system
 - management of navigation tasks
 - built in test equipment
- The central control device is located between the gunner and commander, so it can be operated by both. The ZBG incorporates functionalities such as:
 - control of operating modes for turret
 - active self-protection system
 - weapon functions
 - emergency shutdown



Control units of gunner and commander of AIFV PUMA



SBG



ZBG

C⁴I network components

- The integration of the Battlefield Management System (BMS) is a core element of modern tactical leadership. Currently, the AIFV PUMA is fitted with the IFIS system used by the German Bundeswehr. The BMS is integrated as a separate IT-system into the PUMA and corresponds with the vehicle IT-System (e.g. for transfer of navigation tasks). This modular concept allows integrating other BMS used by other Defence Forces.
- The AIFV PUMA uses SOTAS IP digital intercom units for an optimal voice and data on-board communication between all crew members including the infantry squad.
- The AIFV PUMA is designed to integrate Future Soldier Systems and provides interfaces for voice/data communication and power supply.
- The digital radio SOLAR 400 V provides, as part Future Soldier System, the voice/data communication link for dismounted missions between the infantry squad and the PUMA.
- The AIFV PUMA is equipped with a communication server which chooses the correct radio communication channel (e.g. UHF, VHF or SATCOM) for each voice/data transfer. This assists the soldier to concentrate on his combat tasks.

Interfaces for Government Furnished Equipment

The concept for the AIFV PUMA has been from the beginning to develop a highly modular vehicle system, which is fitted with international standardised interfaces like CAN-Bus architecture or Ethernet connections. The AIFV PUMA clearly stands out with its state-of-the-art-technology and provides the German Bundeswehr or other customers the flexibility to be used in additional roles.

Vision concept

Various optical and optronic devices provide the entire crew with an excellent 360° all-around surveillance, recognition and identification of targets by day and night and all weather conditions.

Commander:

- 1 glass optical sight commander-periscope
- 1 optronic day sight
- 1 thermal image
- 1 laser range finder
 - rear-mounted cameras
 - images on monitors: optronic day sight and thermal image of commander and gunner
- 2 6 optic periscopes
 - open hatch view

Gunner:

- 3 optronic day sight
- 3 thermal image
- 3 laser range finder
 - rear-mounted cameras
- 4 2 optic periscopes
 - images on monitors: optronic day sight and thermal image of gunner and commander

Driver:

- open hatch view
- 5 3 optic periscopes
 - 1 image amplifier
 - 1 display for rear vision camera



Infantry Squad:

- 6 vision via two men hatch
 - 4 optic periscopes
 - 2 displays for optronic images
- 7 vision via glass block in rear ramp
 - 4 rear mounted cameras
 - 1 rear vision camera
 - 1 image amplifier

