

CONTROL UNIT



NBC filter unit control

The control unit of the NBC filter unit is a modular processor system designed to directly control the NBC filter unit, indirectly control the RAID XP detection system and to deliver information from these systems to the vehicle Battle Management Information System (BMIS). Humidity, overpressure or CO₂ sensors may be integrated directly into the NBC control unit based on the configuration, or these sensors may be connected remotely.

Purpose

The control unit of the NBC filter unit is intended to control the complete NBC system in military mobile or stationary means. All the data collected from the connected sensors are delivered to the Ethernet data interface and further distributed via data network to vehicle Battle Management Information System. The NBC control unit can control the connected subsystems directly (buttons on the panel) or indirectly via the vehicle BMIS. Even if the data connection with the vehicle Battle Management Information System is lost, the NBC control unit operates autonomously and provides automated protection of military means against NBC weapons.

Main TTD

Basic functions:	<ul style="list-style-type: none"> - communication with superior BMIS; - communication with RAID-XP; - reading values from pressure, humidity and CO₂ sensors; - activating NBC unit by-pass flap, incl. assessment of by-pass flap closing position; - activating NBC unit engine; - activating flow line heating electronics for RAID-XP detector incl. ventilator fan; - diode lights indication of operating, alarming status; - automatic chemical and radiation alert based on the data collected from RAID-XP detector.
Interface:	<ul style="list-style-type: none"> - 1 x Ethernet (BMIS) - 1 x USB (service) - 1 x RS 485 (humidity sensor) - 1 x RS 232 (RAID XP) - 1 x A/D input (CO₂ sensor) - 1 x A/D input (thermistor) - 1 x digital input (ventilator fan speed monitoring)
Power supply:	24 V DC
Pressure difference range of measurement:	0 to 500 Pa
Flow line to record pressure:	ø6 mm
Range of humidity measurement:	0 to 100 %
Alarms:	chemical radiation CO ₂
Status indication:	LED diodes or LCD display
Resistance:	vibrations and shocks for wheeled and tracked vehicles
Dimensions:	270 x 120 x 188 mm
Weight:	2.2 kg
Operating temperature:	-10°C to +44°C
Storage temperature:	-33°C to + 63°C