



RES16-28

VEHICLE ELECTRONICS

## Rugged Ethernet Switch – RES

The Rugged Ethernet Switch RES is a compact, high performance Ethernet switch designed for use in military combat vehicles. The unit is configured with up to 24 GbE ports and up to four 10GBASE optical fiber ports or power output on up to ten ports as option. The unit is a fully managed Layer 2+ Ethernet switch with powerful carrier networking software and several software options. The RES is designed to comply with contemporary standards such as DEF STAN 23-09 GVA and STANAG 4754 NGVA.

SAAB is able to meet specific customer needs for highly specialized products and services in a number of technical areas. Our rugged vehicle computer- and video- systems are designed to provide high levels of performance and reliability in the toughest environments. Whether your need is minimum space or maximum capability, we can provide a system to meet your specific application.



Rear view



Front view

## Main design features

The RES is a compact, high performance Ethernet switch designed for applications where space is limited such as military vehicles and vessels.

- Flexible configuration
- Fully rugged
- MIL-C-38999 connectors
- Compact design
- Climatically sealed housing, IP65

- High performance
- Designed for compliance to GVA and NGVA Standards
- Qualified according to: MIL-STD-810, MIL-STD-461 and MIL-STD-1275

## Dimensions

Height	58,5 mm
Width	350 mm
Depth	144 mm
Weight	2,8 kg

## Configuration

### Switch functions

- L2+ managed switching
- VLAN (802.11Q and port based)
- Multicast (IGMP snooping)
- Per-port data rate policer
- Flexible link aggregation
- STP/RSTP (IEEE 802.1w)
- SNMP v1/v2c/v3
- Port mirroring
- Quality of Service
- IGMP filtering
- Web & CLI administration
- Management via SSH
- Internal status supervisory & log

- Up to 24 x 10/100/1000BaseT(x) ports

### Power input

- According to MIL-STD-1275
- Reverse voltage protection
- RS232 administration

## External connectors

The RES16 includes up to nine connectors, type MIL-C-38999 series 3.

<b>X1:</b>	Power input & serial console
<b>X2-X9:</b>	2 or 4 1GbE ports per connector
<b>X8-X9:</b>	Optional fiber connectors
<b>X5-X9:</b>	Optional power outputs

## Mechanical interface

The RES units are assumed to be fixed mounted in the vehicle. External damping devices are not required.

## Options

### Switch function options

- L3 switching
- DHCP opt 82
- uPnP
- DHCP server acc. to RFC2131
- Advanced security options
- Power input according to DEF STAN 61-5 Part6 Issue 6
- IEEE-1588v2

### Optional fiber ports, up to 4

- Different 10GBASE standards supported with SFP+ transceivers such as:
- Multimode 850 nm
- Singlemode Tx/Rx 1270/1330 nm

### Power output option

- Up to 10 power outputs
- Up to 2 x 5A per connector
- Up to 20A total output
- Over voltage, over current and short-circuit protection

## Environmental

- Operating temperature: -40°C to +70°C
- Storage temperature: -46°C to +70°C

Specifications subject to change without notice

