

RES-SCE-8EMG - Enhanced Managed miniature portable Ethernet switch - 8 Gigabit ports

Military ethernet switch for harsh environment - Fully MIL-STD compliant

Description

Amphenol's RES-SCE-8EMG is a MIL-STD rugged, managed-military-grade Ethernet switch, offering 8 or 4 Gigabit Ethernet 10/100/1000 Ports. The portable rugged Ethernet switch is intended for unmanned vehicles or man packable command post.

Developed for SWaP (Size Weight and Power) and mobile portable military applications, the RES-SCE-8EMG features mechanical packaging enhancements designed for MIL-STD-810F airborne and ground environmental compliance and high reliability. The unit has been especially hardened to improve ingress, impact, and shock/vibration protection, as well as eliminate all moving parts through passive cooling, and interface through sealed miniature SCE circular connectors.

Leveraging best-in-class switching technology, the RES-SCE-8EMG serves as a robust solution for providing local area network (LAN) connectivity to IP-enabled computing and net-centric devices. Compact in size, the RES-SCE-8EMG is particularly useful for expanding port density in space-constrained airborne and ground vehicle environments.



Ethernet Switch & Media Converter

Military Ethernet Switch for Harsh Environment

Military Ethernet Switch for Harsh Environment with Industrial EMI Compliance

Main features

ETHERNET PORTS

- Managed 8 or 4 x switched 10/ 100/ 1000 ports

NETWORKING

- Spanning Tree (802.1d), RSTP (802.1w) and multiple Spanning Tree (802.1S) for fast recovery rings
- Security via Radius Authentication 802.1x, Port Security, Port Mirroring
- Multicasting (IGMP Snooping), GARP, GMRP, and GVRP Broadcasting and flooding Control up to 8K Groups
- 802.1q Tagged based VLAN up to 4K VLAN groups
- QoS Multi-Layer Classifier, 802.1p, ToS/DSCP traffic classification. WFQ, Strict Queuing.
- Bridge support for Q-in-Q
- Link Aggregation 802.3AD
- WEB, CLI, Telnet Management
- L3 static routing *
- Rmirror *
- Port Protection: 1+1 port protection, 1:1 port protection, 1:N port protection *
- G.8032 ring protection *
- DHCP option 82 relay *
- L2CP tunnelling *
- Protocol-based VLAN *
- 1588v2 PTP with two-step clock *

CONNECTORS

- Power connector type: SCE2-B-76A06-07SN
- LAN connector type: SCE2-B-76A07-14SN-001
- LED indication per port (speed, link/activity)

CHASSIS

- Low profile rugged aluminium extrusion
- Conductively cooled w/ custom internal heat-sinks
- Ingress protection against sand, dust and moisture
- Polyurethane Paint, Per MIL-C-83286 type II, matt texture, color:
 - Nato green or olive green or Stone RAL 7032

STANDARDS

- MIL-STD-1275D/E, MIL-STD-704A, MIL-STD-461E, MIL-STD-810F GM, IP67/68

PERFORMANCE

- 26.8 Mpps wire speed forwarding rate
- 20 Gbps maximum forwarding bandwidth
- 8K MAC address

VOLTAGE OPERATION

- 16-36VDC

ACTIVITY STATUS

- Indicators for Power and LAN activity (light off by default)
- STATUS pushbutton to turn on the indicators

(*): Available on Enhanced units only

MILITARY RUGGED SWITCH

MIL-STD-1275D/E
MIL-STD-704A
MIL-STD-461E
MIL-STD-810F/GM IP67
RTCA/DO-160F



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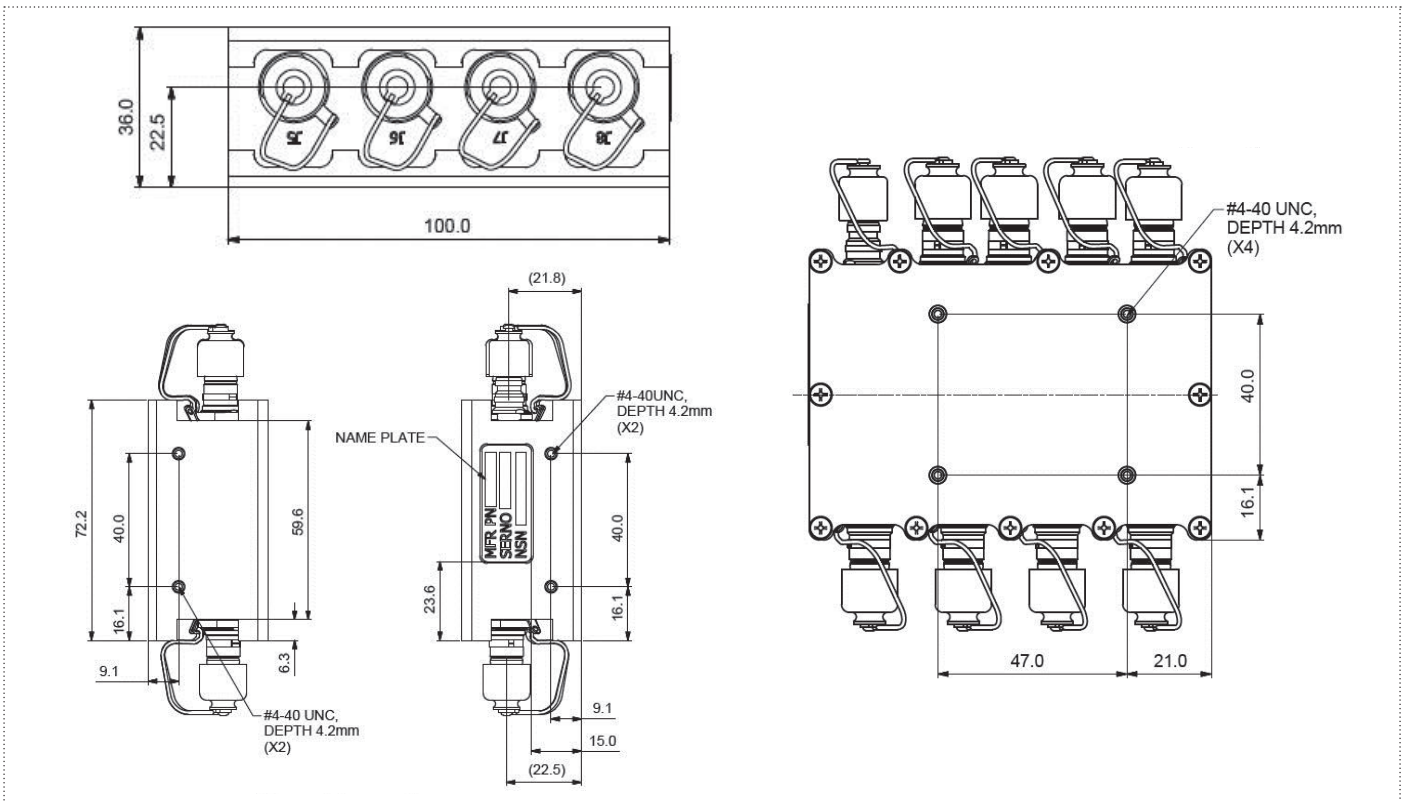
Product specifications

Standards compliance	<ul style="list-style-type: none"> IEEE 802.1x MAC based Authentication IEEE 802.1Q Vlan Tagging IEEE 802.1P QoS IEEE 802.1S Multiple STP IEEE 802.1W Rapid STP IEEE 802.3 AD Link Aggregation
Power	<ul style="list-style-type: none"> Exceed MIL-STD-1275B Surge and Spike protection Voltage Input: 24Vdc Nominal (16-36 VDC) Power Consumption: 7.2W Max - 5W Typical Chassis grounding
Electromagnetic	<ul style="list-style-type: none"> EMI and Power protection MIL-STD-461F Electromagnetic compatibility <ul style="list-style-type: none"> CE101, CE102, RE101, RE102, RS101, RS103 CS101, CS106, CS114, CS115, CS116 MIL-STD-1275D <ul style="list-style-type: none"> Steady-State input voltage, Ripples, Spikes +/- 250 V, Surges, Reverse Polarity MIL-STD-1275E <ul style="list-style-type: none"> Initial Engagement Surges, Cranking level
Environmental	<ul style="list-style-type: none"> MIL-STD-810F/G/GM <ul style="list-style-type: none"> Random vibration (514.5I), Bench handling (516.6VI), High temp (501.5I, II), Low temp (502.5I), Humidity (507.5II), Air pressure (500.5I, II), Blowing rain (506.5I), Immersion (512.5I), Salt atmosphere (509.5I), Blowing dust (510.5I), Loose cargo vibration (514.6II), Wind analysis IP67/68 RTCA/DO-160F <ul style="list-style-type: none"> Low temperature 2 hours @ -55°C, operating, chap 4, cat B2 Vibrations, section 8, cat. S, curve M Shocks, cat. A, 6g, 11ms
Physical	<ul style="list-style-type: none"> Dimensions: 100mm (L) x 89 (W) x 36 (H), including connectors & hardware. Weight: 390g
Installation	<ul style="list-style-type: none"> Set of Four 4-40 threads on bottom for mounting to any flat surface
Cooling	<ul style="list-style-type: none"> No moving parts. Passive cooling.
Operating temp	<ul style="list-style-type: none"> -55°C to +75°C (-67°F to +167°F)
Storage temp	<ul style="list-style-type: none"> -55°C to +85°C (-67°F to +185°F)

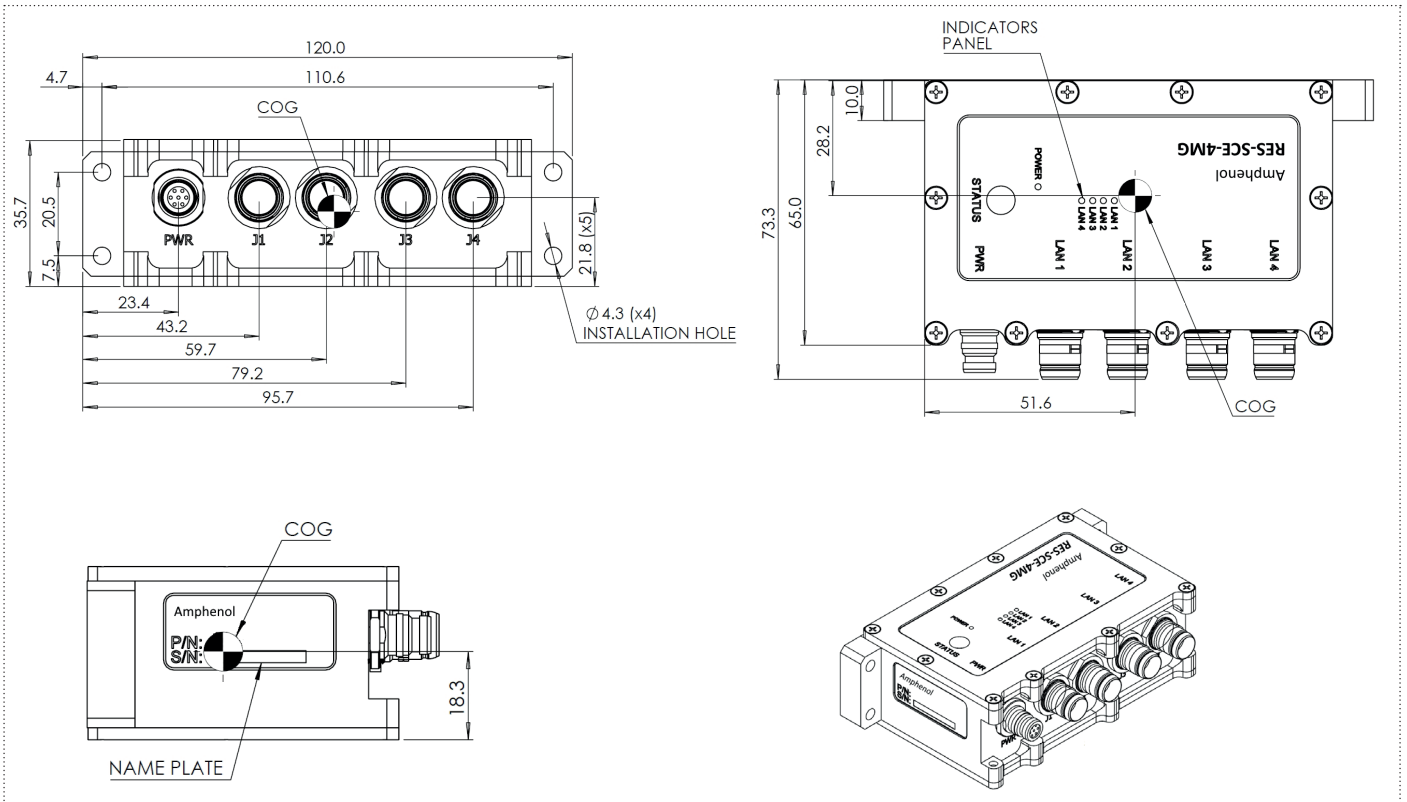
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Overall dimension

Dimensional Line drawing for 8 ports models



Dimensional Line drawing for 4 ports models



Dimensional line drawing - All measurements are in millimeters

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How to order

Part number	Description
Ethernet switches Part number	
RES-SCE-8MG	MIL-STD Portable Managed Ethernet switch with 8 ports 10/100/1000TX, Nato green color, with attached rubber caps ✓
RES-SCE-8EMG	MIL-STD Portable Managed Ethernet switch with 8 ports 10/100/1000TX with Enhanced features, Nato green color, with attached rubber caps ✓
RES-SCE-8MG-7032	MIL-STD Portable Managed Ethernet switch with 8 ports 10/100/1000TX, Stone RAL 7032 color, with attached rubber caps ✓
RES-SCE-4MG	MIL-STD Portable Managed Ethernet switch with 4 ports 10/100/1000TX, Olive green color, with attached rubber caps ✓
RES-SCE-4EMG	MIL-STD Portable Managed Ethernet switch with 4 ports 10/100/1000TX with Enhanced features, Olive green color, with attached rubber caps ✓
Cable assemblies Part number	
RESSCE8MG-CBL-PWR-2M	Power cordset for RES-SCE-8MG, 1 side with SCE2B-L1K-0607-PN Latch release, 1 side with 4mm plugs for power supply, cable 2m long
RESSCE8MG-CBL-ETH-RJ45-2M	LAN cordset for RES-SCE-8MG, valid for LAN 1 to 8, 1 side with SCE2B-L1K-0714-PN Latch release, 1 side with RJ45 civilian, cable RJFSFTP5E cat 5E, 2m long
RESSCE8MG-CBL-MNG-1M	Management cable for RES-SCE-8MG, 1 side with SCE2B-L1K-0714-PN Latch release, 1 side with DB9, 1m long
Complete set Part number	
KIT RES-SCE-8MG with cables	Set including 1x RES-SCE-8EMG + 1x RESSCE8MG-CBL-PWR-2M + 4x RESSCE8MG-CBL-ETH-RJ45-2M + 1x RESSCE8MG-CBL-MNG-1M

For specific cable harnesses, please consult us.