

DATA SHEET

<p>Manufacturer: Hatteland Technology AS Product: Industrial Ethernet Switch Type: HN G9812</p>	<p>i Dimensions might be shown with or without decimals and indicated as mm [inches]. Tolerance on drawings is +/- 1mm. For accurate measurements, check relevant DWG file.</p>
---	--

HN G9812 - Industrial Ethernet Switch

The HATTELAND® industrial range of high quality reliable Network Switches can be used in connecting several Ethernet devices like Ethernet I/O, IP-Camera or other Ethernet switches. The HN G9812 is managed redundant ring Ethernet switch with 8x10/100/1000Base-T(X) ports and 12x100/1000Base-X SFP ports. With completely support of Ethernet Redundancy protocol, O-Ring (recovery time < 30ms) and MSTP (RSTP/STP compatible) can protect your mission-critical applications from network interruptions or temporary malfunctions with its fast recovery technology. It supports wide operating temperatures from -40°C to 75°C. The HN G9812 can also be managed centralized and convenient by Open-Vision, Except the Web-based interface, Telnet and console (CLI) configuration.



IP 30
 Protection against Tools, thick wires, etc.



Gigabit Ethernet switch



5 Years Warranty

Technology

- MAC Table: 8192 MAC addresses
- Priority Queues: 8
- Processing: Store-and-Forward
- Share Data Buffer: 4Mbit
- Jumbo frame: Up to 9.6k bytes
- Software Features:
 - STP/RSTP/MSTP (IEEE 802.1D/w/s)
 - Redundant Ring (O-Ring) recovery time > 20ms (Fast Ethernet), recovery time > 30 ms (1 Gigabit)
 - TOS/DiffServ supported
 - Quality of Service (802.1p) for real-time traffic
 - VLAN (802.1Q) with VLAN tagging
 - IGMP Snooping
 - Application-based QoS management
 - DOS/DDOS auto prevention
 - Port configuration, status, statistics, monitoring, security
 - DHCP Server/Client/Relay
 - SMTP Client
 - Modbus TCP
 - NTP server
- Switch Properties:
 - Switching latency: 7 us
 - Switching bandwidth: 40Gbps
 - Throughput (packet per second): 17.856Mpps@64Bytes packet
 - Max. Number of Available VLANs: 4095
 - VLAN ID Range: VID 0 to 4094
 - IGMP multicast groups: 128 for each VLAN
 - Port rate limiting: User Define
- Security Features:
 - Device Binding security feature
 - Enable/disable ports
 - MAC based port security
 - Port based network access control (802.1x)
 - VLAN (802.1Q) to segregate and secure network traffic
 - Radius centralized password management
 - SNMPv3 encrypted authentication and access security
 - Https / SSH enhance network security
 - Web and CLI authentication and authorization
 - IP source guard
- Network Redundancy:
 - O-Ring
 - O-Chain
 - MRP (Media Redundancy Protocol) ^[1]
 - MSTP (RSTP/STP compatible) ^[4]

^[1]This function is available by request

^[4]This function is available by request only

Technology

- RS-232 Serial Console Port:
 - RS-232 in RJ45 connector with console cable
 - Baud rate setting: 115200bps, 8, N, 1
- Ethernet Standards:
 - IEEE 802.3 for 10Base-T
 - IEEE 802.3u for 100Base-TX and 100Base-FX
 - IEEE 802.3ab for 1000Base-T
 - IEEE 802.z for 1000Base-X
 - IEEE 802.3x for Flow control
 - IEEE 802.3ad for LACP
 - IEEE 802.1p for COS
 - IEEE 802.1Q for VLAN Tagging
 - IEEE 802.1w for RSTP
 - IEEE 802.1s for MSTP
 - IEEE 802.1x for Authentication
 - IEEE 802.1AB for LLDP

Physical Characteristics

- Enclosure: IP30
- Dimensions: W:108.30 [4.26"] x H:145.10 [5.71"] x D:108.30 [4.26"] mm [inch]
- Weight: 1210g

Physical Ports and Controls

- DIP - Switch
- LED Indicators
- 8 x 10/100/1000Base-T(X) Ports in RJ45 Auto MDI/MDIX
- 12 x 100/1000Base-X with SFP port
- Relay output to carry capacity of 1A at 24VDC

Power Specifications

- Redundant Input power: Dual DC inputs. 12 - 48VDC on 6-pin terminal block.
- Power consumption (Typ.): 10 Watts
- Overload current protection: Present
- Reverse polarity protection: Present

Additional Specifications

- | | |
|------------|--------------|
| • MTBF | 670184 hours |
| • Warranty | 5 years |

i All specifications are subject to change without prior notice! Please visit www.hattelandtechnology.com for the latest electronic version.

Available Accessories

• SDR-120-24	1 x Power supply 24 VDC, 5A, 6-pin Terminal Block 5.08, Type Approved ^[2] : DNV
• SDR-120-48	1 x Power supply 48 VDC, 2.5A, 6-pin Terminal Block 5.08, Type Approved ^[2] : DNV
• SDR-240-24	1 x Power supply 24 VDC, 10A, 6-pin Terminal Block 5.08, ^[2]
• SDR-240-48	1 x Power supply 48 VDC, 5A, 6-pin Terminal Block 5.08, ^[2]
• SDR-480-24	1 x Power supply 24 VDC, 20A, 6-pin Terminal Block 5.08, Type Approved ^[2] : DNV
• SDR-480-48	1 x Power supply 48 VDC, 10A, 6-pin Terminal Block 5.08, Type Approved ^[2] : DNV
• HN SFP1G-LX10	1 x 1Gbps SFP optical transceiver, single-mode / 10km, 1310nm, -40 ~ +75°C
• HN SFP1G-SX	1 x 1Gbps SFP optical transceiver, multi-mode / 550m, 850nm, -40 ~ +75°C
• HN SFP1G-RJ	1 x 1Gbps SFP to 1000 Base-T transceiver, -40 ~ +75°C

^[2]Note: CCS - China Classification Society: Network switches and related power supplies are not required to be Type Approved.

Contents of Package

• 1 X HN G9812	
• 1 X Wall-Mount Kit	:2 X Wall-Mount Plate :6 X screw
• 1 X 6-Pin Terminal block	
• 1 X Console Cable	
• 1 X Quick Installation Guide	
• 1 X DIN-Rail kit / Factory Mounted	

Maritime:

- Environment Specification

- Storage Temperature: -40 to 85°C (-40 to 185°F)
- Operating Temperature: -15 to +55°C (5 to 131°F)
- Operating Humidity: 5% to 95% Non-condensing
- Air Pressure Maximum Altitude: Operating: 4000m - Storage: 12912m
- Compass Safe Distance: Standard: 30cm - Steering: 15cm

- Regulatory approvals

- EMC: CE EMC (EN55024, EN 55032)
- EMI: EN55032
- EMS: EN55024 (IEC/EN 61000-4-2 (ESD), IEC/EN 61000-4-3 (RS), IEC/EN 61000-4-4 (EFT), IEC/EN 61000-4-5 (Surge), IEC/EN 61000-4-6 (CS), IEC/EN 61000-4-8 (PFMF), IEC/EN 61000-4-11 (DIP))
- Shock: IEC60068-2-27
- Vibration: IEC60068-2-6
- Safety: EN62368-1 compliant

- Type Approvals

These products have been tested / type approved by the following classification societies:
IEC 60945 4th (EN 60945:2002), **IACS E10**
DNV - Det Norske Veritas, **KR** - Korean Register of Shipping
ClassNK - Nippon Kaiji Kyokai, **BV** - Bureau Veritas
CCS - China Classification Society, **LRS** - Lloyd's Register of Shipping

Industrial:

- Environment Specification

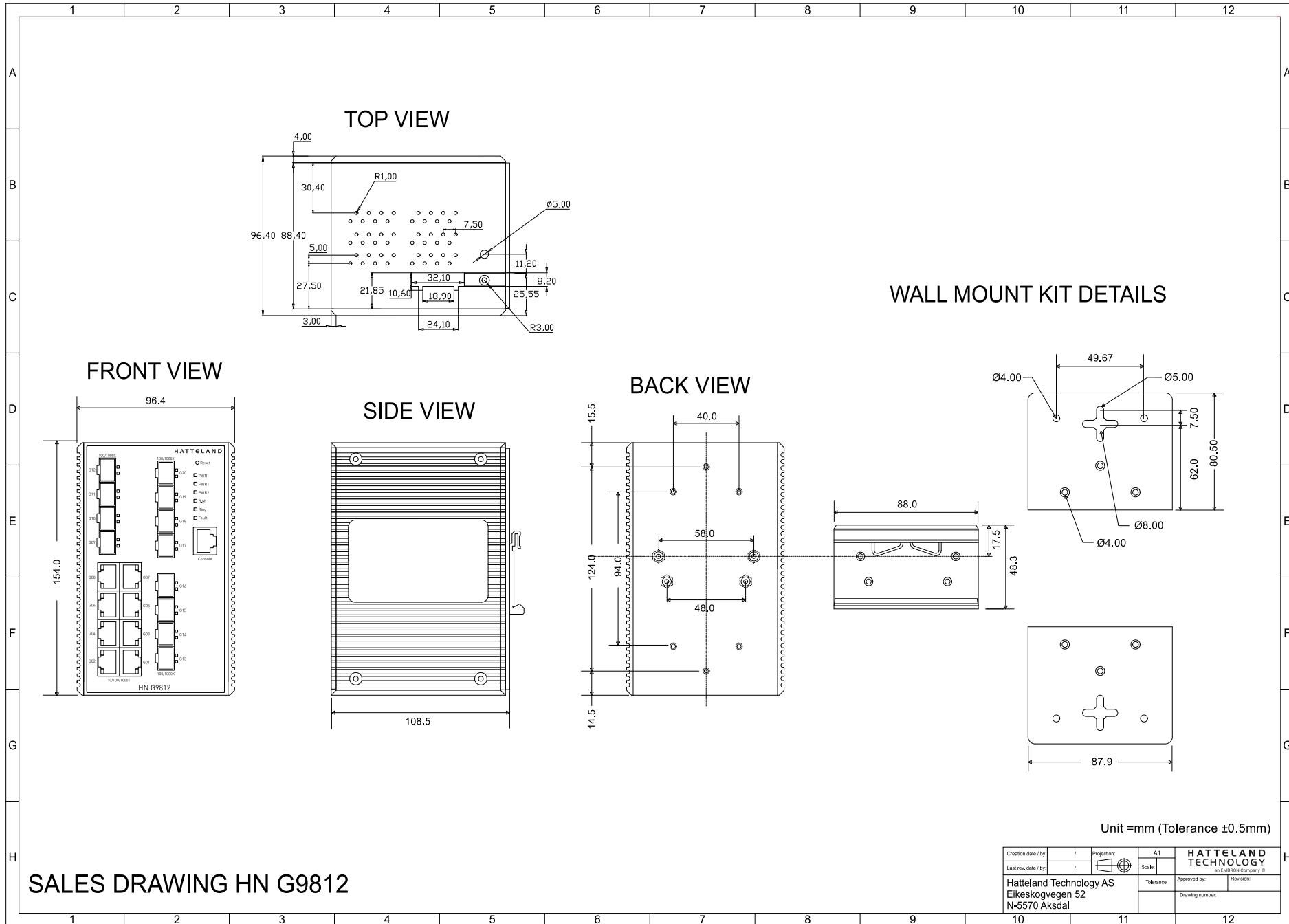
- Storage Temperature: -40 to 85°C (-40 to 185°F)
- Operating Temperature: -40 to +75°C (-40 to 167°F)
- Operating Humidity: 5% to 95% Non-condensing

- Regulatory approvals

- EMC: CE EMC (EN 55024, EN 55032), FCC Part 15 B, EN 50155(EN 50121-3-2), EN 50121-4, AS/NZS CISPR 22, EN 61000-6-2&EN 61000-6-4
- EMI: EN 550232, CISPR32, EN 61000-3-2, EN 61000-3-3, FCC Part 15B class A
- EMS: EN 55024 (IEC/EN 61000-4-2 (ESD), IEC/EN 61000-4-3 (RS), IEC/EN 61000-4-4 (EFT), IEC/EN 61000-4-5 (Surge), IEC/EN 61000-4-6 (CS), IEC/EN 61000-4-8(PFMF), IEC/EN 61000-4-11(DIP))
- Shock: IEC60068-2-27
- Free Fall: IEC60068-2-31
- Vibration: IEC60068-2-6
- Safety: EN62368-1 compliant
- Other: EN50155, IEC/EN 60945

i All specifications are subject to change without prior notice! Please visit www.hattelandtechnology.com for the latest electronic version.

i Dimensions might be shown with or without decimals and indicated as mm [inches]. Tolerance on drawings is +/- 1mm. For accurate measurements, check relevant DWG file.



Unit =mm (Tolerance ±0.5mm)

Creation date / by	/ /	Projection:	A1	HATTELAND TECHNOLOGY an EMERSON Company
Last rev. date / by	/ /	Scale:		Approved by: _____ Revision: _____
Hatteland Technology AS Eikeskogvegen 52 N-5570 Aksdal			Tolerance:	Drawing number: