MS650

Mariner Kit for use with HP ProCurve Switches 1400-8G and 1700-8

HP ProCurve Switches 1400-8G and 1700-8 are marine type-approved by all of the major international marine Classification Societies when installed in conjunction with our Mariner Kit MS650.

The MS650 Mariner Kit affords protection against the effects of vibration and shock experienced in the offshore marine environment and has been type-tested against IACS Unified Requirement E10 and the relevant sections of IEC60945 (see below right for test details).

This type-approved combination of hardware and Mariner Kit can be used as the platform for your critical navigation, control, loading and general purpose applications (please check individual type-approval certificates for any restrictions).

"Proven solutions for a demanding environment"

WHAT IS SO SPECIAL ABOUT HP PROCURVE SWITCHES 1400-8G AND 1700-8?

- ProCurve Switch 1400-8G is an unmanaged small form factor switch with 8 off 10/100/1000 ports
- ProCurve Switch 1700-8 is a web-managed small form factor switch with 7 off 10/100 ports and 1 off 10/100/1000 port
- Silent operation via a fanless design
- Wire-speed performance maximises throughput for all PCs and servers (1400-8G)
- ProCurve/IEEE Auto-MDIX: automatically adjusts for straight-through or crossover cables on all 10/100/1000 ports
- 10/100/1000 auto-sensing per port: automatically detects and sets the speed for any 10Base-T or 100Base-TX, or 1000Base-T device (1400-8G)
- Comprehensive LED display with per-port indicators: provides an at-a-glance view of status, activity, speed, and full-duplex operation
- HP lifetime warranty: for as long as you own the product, with next business day advance replacement (available in most countries)

Every Mariner system is type-tested against the consolidated, 'worst-case' requirements of all the major international marine Classification Societies:

ABS, BV, CCS, DNV, GL, KR, LR, NKK, PRS, RINA

Type-tests included on the test programme are as follows:

> Vibration, Shock, Static and Dynamic Inclination
> Dry & Damp Heat, Low Temperature
> Acoustic Noise, Compass Safe Distance
> High Voltage, Power Supply Variation & Power Supply Failure
> Conducted LF & RF, Electromagnetic Field
> Radiated & Conducted Emissions, Electrostatic Discharge
> Insulation Resistance, Burst / Fast Transients
> Surge Immunity, Access to Dangerous Voltages

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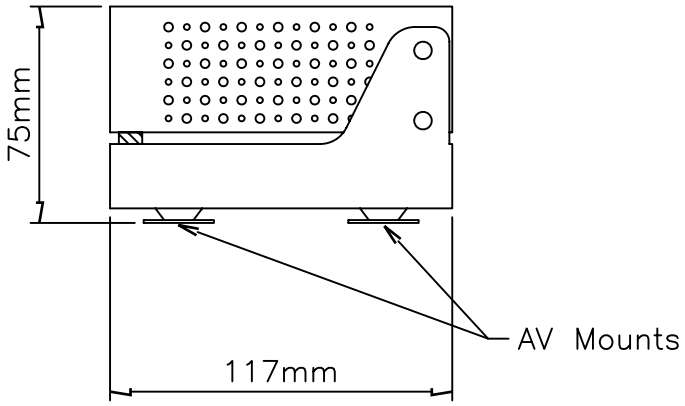

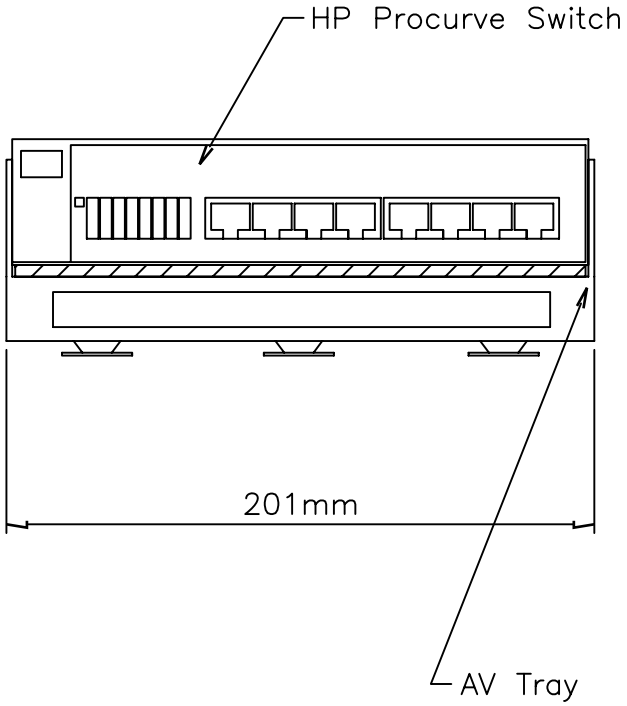

OPERATING GUIDELINES

Although all our equipment is tested against extreme environmental conditions for the purposes of marine type-approval, installation should take into account the following guidelines:

> Keep the switch away from excessive moisture, direct moisture and the extremes of heat and cold to ensure, where possible, that the unit is within the following operating/non-operating ranges:

	Operating	Non-Operating
Temperature	+0° to +40°C (+32° to +104°F)	-40° to +70°C (-40° to +158°F)
Humidity	15% to 95% at 40°C (104°F), non-condensing	10% to 90% at 65°C (149°F), non-condensing

> Leave clearance on all vented sides of the switch to permit the required airflow

> Never restrict airflow into the switch by blocking any vents or air intakes

> If the switch is to be operated within a separate enclosure, suitable ventilation should be provided

By following these guidelines you will maximise the life of your equipment and minimise service costs.

STATISTICS

Overall Fitted Dimensions	**201mm (w) x 75mm (h) x 117mm (d)**
Weight (Mariner Kit only)	**Approx 0.4 Kg**
Weight (including hardware)	**Approx 0.8 Kg**
Ports	**1400-8G: 8 auto-sensing 10/100/1000 ports (IEEE 802.3 Type 10Base-T; IEEE 802.3u Type 100Base-TX; IEEE 802.3ab 1000Base-T); Media Type: IEEE Auto-MDIX; Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only** **1700-8: 7 auto-sensing 10/100 ports (IEEE 802.3 Type 10Base-T; IEEE 802.3u Type 100Base-TX); Media Type: Auto-MDIX; Duplex: half or full** **1 auto-sensing 10/100/1000 port (IEEE 802.3 Type 10Base-T; IEEE 802.3u Type 100Base-TX; IEEE 802.3ab 1000Base-T); Media Type: Auto-MDIX; Duplex: 10Base-T/100Base-TX: half or full; 1000Base-T: full only**
Latency	**1400-8G & 1700-8: 100MB <3.9 µs; 1000MB <2.1 µs (64-byte packets)**
Throughput	**1400-8G: up to 11.9 million pps** **1700-8: up to 2.0 million pps (64-byte packets)**
Switching capacity	**1400-8G: 16 Gbps** **1700-8: 3.4 Gbps**
MAC address table size	**1400-8G & 1700-8: 8,000 entries**
Max heat dissipation	**1400-8G & 1700-8: 61 BTU/hr (64 kJ/hr)**
AC Voltage	**1400-8G & 1700-8: 100-127 / 200-240 VAC**
Power	**1400-8G & 1700-8: 18 W**
Current	**1400-8G & 1700-8: 1.0 / 0.8 A**
Frequency	**1400-8G & 1700-8: 50 / 60 Hz**

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