

# MACH1000 Über-Rugged™ Switches

## MACH1000

### Why Über-Rugged™?

It is the only means of describing a switch that goes above and beyond the already rugged capabilities of Hirschmann's switches by being extremely immune to noise and able to provide maximum uptime in extreme ambient conditions. The MACH1000 features a 24-port custom configurable/modular design that is also available with two Gigabit uplink ports (RJ45 and/or SFP for fiber). The modular design can meet almost any media-mix need — all copper, all fiber (multimode and/or singlemode) or any combination of copper and fiber.

### Standard features include:

- 19" rack-mount, fan-less design
- -40° to +85° C standard operating temperature (conformal coating available)
- Exceeds IEC 61850-3 and IEEE 1613 standards for electric power substation communication equipment
- Exceeds NEMA TS-2 standard for traffic control equipment
- Redundant 24/36/48V DC or 120/250V DC and 110/230V AC
- Extremely efficient components for minimal heat generation and high MTBF (mean time between failure)

1 2 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

**MAR1030 - C C M M M M M V V Z Z T T T T T T T T T T T T T T T 99 U G C H P H H 0 3 . 0**

**Model**

**MAR1020** 100 Mbps uplinks (add "99" in next field)

**MAR1030** 1000 Mbps uplinks (add "CC" in next field)

**100 Mbps ports 1 - 24**

**99** Not installed (must be grouped together)

**TT** 2x 10/100 RJ45

**MM** 2x 100 Mbps multimode SC

**JJ** 2x 100 Mbps multimode MTRJ

**NN** 2x 100 Mbps multimode ST

**VV** 2x 100 Mbps singlemode SC

**UU** 2x 100 Mbps singlemode ST

**LL** 2x 100 Mbps long-haul singlemode SC

**GG** 2x 100 Mbps long-haul+ singlemode SC

**ZZ** 2x 100 Mbps SFP

**Gigabit ports 1 & 2**

**99** Not installed (MAR1020)

**CC** 2x SFP/RJ45 combo ports (MAR1030)  
A combo ports is a 10/100/1000 Mbps RJ45 and 100/1000 Mbps SFP. The RJ45 is disabled when SFP is utilized. See Accessories on page 19 for SFPs.

**Temperature rating**

**S** 0° to +60° C

**U** -40° to +85° C

**F** -40° to +85° C w/ conformal coating

**Power Supply 1**

**C** 24/36/48VDC

**G** 110/250VDC / 110/230VAC

**Power Supply 2 (optional)**

**C** 24/36/48VDC

**G** 110/250VDC / 110/230VAC

**9** Empty

**Approvals**

**H** UL508, GL, IEC 61850-3, IEEE 1613

**Software Version**

**P** Professional: Enhanced software plus security, extended diagnostics and redundancy

**Custom Configuration**

Omit unless you are ordering with pre-configured management (added fee), unique housing colors and specific firmware revisions. Contact Hirschmann for more information.

It is highly recommended that configurations are checked/verified using the online Configurator that can be found at [www.hirschmann-usa.com](http://www.hirschmann-usa.com)