



**HIRSCHMANN**

A **BELDEN** BRAND

## Line Card - Industrial Networking Solutions



**Be certain.  
Belden.**

**Hirschmann™ Networking Equipment  
Maximizes Throughput, Simplifies  
Installation, and Reduces Total Cost  
of Ownership**

Edition 2016



# HIRSCHMANN

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## Ethernet Products at a Glance

### Unmanaged DIN Rail Mount Switches

#### SPIDER, SPIDER II, SPIDER III

Cost-effective, plug & play unmanaged switches

- SPIDER 2, 3, 5 or 8 ports
- SPIDER 2 or 5 ports with PoE PD
- SPIDER PoE Injector
- SPIDER II 8, 9, 10, 16 and 18 ports
- SPIDER II PoE 4 PoE and 4 standard ports
- SPIDER II GIGA 5 or 7 ports, all Gigabit
- SPIDER III Standard Line up to 8 Gigabit ports



#### RS2, RS20, RS30

Feature-rich unmanaged switches with selectable port types, features and approvals

- RS2 5 and 8 ports
- RS20 4, 8, 9, 16, 17, 24 or 25 ports
- RS30 10, 18, or 26 ports, two of which are Gigabit



### Managed DIN Rail Mount Switches

#### GECKO

Lite managed switch

- GECKO 4TX 4 ports



#### RSB20

Fast Ethernet RSB switches with basic software version

- RSB20 8 or 9 ports



#### RS20, RS30, RS40, RS22, RS32

Fully configurable managed switches with selectable features and approvals

- RS20 4, 8, 9, 16, 17, 24 or 25 ports
- RS30 10, 18, or 26 ports, two of which are Gigabit
- RS40 9 ports, all Gigabit
- RS22 4, 8, 9, 16, 17, 24 or 25 ports, four of which are PoE
- RS32 10, 18, or 26 ports, four of which are PoE and two are Gigabit



#### MS20, MS30, MSP30, MSP32

Managed modular switches with selectable features and approvals as well as user hot-swappable media modules for almost limitless copper/fiber combinations.

- MS20/30 up to 26 ports, two of which can be Gigabit
- MSP30/32 HiOS advanced Layer 2 and Layer 3 switch, up to 28 ports, four of which can be Gigabit



#### RED25

Cost-effective Fast Ethernet redundancy entry-level switch supporting PRP, HSR or DLR. Offered in two, four-port versions:

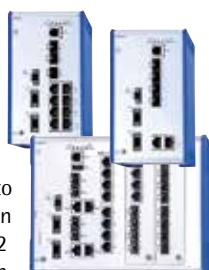
- Four FE TX ports
- Two FE TX ports, plus two FE small form-factor pluggable (SFP) ports



#### RSP Series

Hardened managed switches with the new HiOS operating system

- RSP: uninterrupted redundancy thanks to PRP, HSR and DLR, on all ports IEEE 1588v2 time synchronization, comprehensive security functions, variants with 3 GE SFP and 8 FE ports, up to 7 FE SFP slots, Layer 2 and Layer 3 versions
- RSPS: optional PRP, HSR and DLR, on all ports IEEE 1588v2 time synchronization, variants with 6 FE ports, up to 4 FE SFP slots
- RSPL: comprehensive security functions, variants with 2 GE combo and 8 FE ports, up to 4 FE SFP slots
- RSPE: best-possible investment protection thanks to the maximum flexibility provided by the media modules, Layer 2 and Layer 3 versions



#### RSR20, RSR30

Ultra-hardened switches, operating temperature -40°C to +85°C, DC or AC power input

- RSR20: 8 or 9 ports
- RSR30: 9 or 10 ports, two or three of which are Gigabit



### IP67 Waterproof Switches

#### OCTOPUS

- OCTOPUS 5TX unmanaged, 5-ports, 12 D-code
- OCTOPUS 8M/16M/24M managed, 8, 16 and 24 ports, M12 D-code
- OCTOPUS 8M-6PoE and 8M-8PoE managed, 8 ports, M12 D-code, 6 and 8 of which are PoE
- OCTOPUS 16M-8PoE and 24M-8PoE managed, 16 and 24 ports, M12 D-code, 8 of which are PoE
- OCTOPUS OS2x/3x IP65/67; from 8 up to 28 ports; M12 D-code; several options available: multi- or singlemode fiber ports, Power over Ethernet with up to 15 PoE/PoE+ ports, 2 or 4 GE ports M12 X-code, managed or unmanaged types, Layer 3 software support, power supply options from 24 to 110 V DC and 100 to 230 V AC, certified for trains, ships and for use in road vehicles.



### 19" Rack Mount Switches

#### MACH100

Hardened Enterprise-grade switches

- MACH102-8TP modular switch, up to 26 ports, 10 fixed ports, two of which are Gigabit (modules available for MM/SM fiber, RJ45, PoE/PoE+ and SFP)
- MACH102-8TP-F 10 fixed ports, two of which are Gigabit
- MACH102-24TP-F 26 fixed ports, two of which are Gigabit
- MACH104 – All Gigabit, 4 RJ45/SFP combo ports and 20 RJ45 ports (4 of which can be PoE)
- MACH104 – All Gigabit, 4 RJ45/SFP combo ports, 16 RJ45 PoE+ ports (optional with 2 XFP 10G uplink ports)



# Be Certain with Belden



Product Overview



## 19" Rack Mount Switches

### GREYHOUND

Fast/Gigabit Ethernet switch designed for use in harsh industrial environments with a need for cost-effective, entry-level devices.

- 16 Fast Ethernet TX ports
- Eight Fast Ethernet TX ports, plus eight Fast Ethernet SFP ports
- Also possible to add four Gigabit Ethernet Combo ports

### MACH1000

Ultra-hardened switches, fully configurable, operating temperature -40°C to +85°C, optionally for all variants 4 PoE ports

- MAR1020, up to 24 ports
- MAR1030, up to 28 ports, up to four of which are Gigabit
- MAR1120, up to 20 ports on rear of switch
- MAR1130, up to 24 ports on rear of switch, up to four of which are Gigabit
- MAR1040, 16 Gigabit RJ45/SFP combo ports, in Layer 2 or Layer 3 version

### MACH4000

High density and high speed backbone switch w/Layer 3/routing and speeds up to 10 Gigabit

- MACH4002-24G up to 24 Gigabit ports
- MACH4002-24G+3X, up to 24 Gigabit ports and three 10 Gigabit XFP ports
- MACH4002-48G up to 48 Gigabit ports
- MACH4002-48G+3X up to 48 Gigabit ports and three 10 Gigabit XFP ports

## Embedded Ethernet

### Switches

- EES Embedded Ethernet Switches EES20/EES25 and EESX20 and EESX30
- EES Development Kit



## Security, Firewall and VPN Appliance

### EAGLE/Tofino Xenon

Network segmentation, VPN and deep packet inspection.

- Tofino Xenon: Industrial firewall with Stateful Packet Inspection (SPI) and optional Deep Packet Inspection (DPI) for bridged communication.
- EAGLE20-0400 and EAGLE30-0402: Multi-port Stateful Packet Inspection (SPI) firewalls optional Deep Packet Inspection (DPI) in convection-cooled metal DIN Rail housings which support 6 LAN ports – two of which are Gigabit and two SHDSL ports
- EAGLE One: Industrial firewall providing Stateful Packet Inspection (SPI) for bridged or routed communication combined with a unique Firewall Learning Mode and comprehensive Network Address Translation (NAT) techniques.



## Industrial Wireless LAN



### BAT Access Points/Clients

- OpenBAT Rugged wireless LAN access point and/or client for use in industrial environments.
- BAT450-F wireless LAN access point
- Wireless Local Area Network (WLAN) Controllers
- BAT-C Wireless LAN Access Client
- Extensive antenna and accessory offering

## Serial to Ethernet Media Converters

### IOLAN DS/SDS

End devices with a serial interface can be easily and reliably connected to Ethernet networks.



## Hardened Fiber Transceivers/Modems

### FiberINTERFACES

Extending the reach of copper for serial and fieldbus protocols via fiber.



## Industrial-strength Patch Panel

### MIPP

- Single Modules: 6 x SC Duplex, 6x LC Duplex, 12x LC Duplex, 4 x RJ45 Keystone Jack unshielded or shielded
- Double Modules: 12 x SC Duplex and 12 x LC Duplex
- Accessories: Pigtails



## Secure Remote Access Solution

### Secure Remote Access Solution

A simple and secure way to provide remote network access and diagnostics through a three-component system:

- GateManager
- SiteManager
- LinkManager



## Network Management Software

### Industrial HiVision

Network visualization and configuration software with integrated OPC server.

- Optimized for Hirschmann devices
- Integration of third-party devices
- Enhanced Auto-Topology Discovery
- MultiConfig™ for simultaneous configuration of multiple devices
- Security Status Visualization



## Industrial Ethernet Media Cord Sets

### Ethernet Cord Sets

Hardened pre-terminated and factory tested cordsets

- RJ45-RJ45, RJ45-M12, M12-M12
- Unshielded and Shielded Versions
- PVC, TPE and TPE High-Flex Cat 5e UTP
- 17 lengths - from 0.3 to 50 meters
- M12 bulkhead termination also available





## Product, Feature and Approval Matrix

	DIN RAIL PANEL 19" RACK	MAXIMUM DATA SPEED MAXIMUM PORT DENSITY	UNMANAGED MANAGED/LAYER 2 MANAGED/LAYER 3 (ROUTING)	12 V DC 24 V DC 36 V DC 48 V DC 110/250 V DC 60/120/250 V DC 24 V AC 110/230 V AC	REDUNDANT POWER INPUTS PoE (POWER SOURCE) PoE+ (POWER SOURCE) PoE (POWERED DEVICE)	-40 °C/-40 °F -20 °C/-4 °F 0 °C/32 °F 50 °C/122 °F 60 °C/140 °F 70 °C/158 °F 85 °C/185 °F	cUL508/cUL61010-1/-2-201 cUL1604/ISA 12.12.01/ FM3611 (CLASS 1 DIV 2) GL (Germanischer Lloyd) IEC 61850-3 (SUBSTATION) IEEE 1613 (SUBSTATION) EN 50155, EN 45545 (RAIL, ONBOARD) EN 50121-4 (RAIL, TRACK-SIDE) ATEX 100a, ZONE 2 (HAZARDOUS LOCATION) cUL60950
<b>Unmanaged Switches</b>							
SPIDER	● ○ ○	G 18	●	● ● ●	● ● ● ●	● ● ● ● ● ● ● ●	● ●
SPIDER III	● ○ ○	G 24	●	● ● ● ●	● ● ●	● ● ● ● ● ● ● ●	● ● ●
RS2	● ○ ○	100 8	●	● ● ●	●	● ● ● ● ● ● ● ●	● ● ●
RS20	● ○	100 25	●	● ● ● ● ●	● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
RS30	● ○	G 26	●	● ● ● ● ●	● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
OCTOPUS	● ●	100 10	●	● ● ● ● ● ● *	● ● ●	● ● ● ● ● ● ● ●	● ● ● ●
<b>Lite Managed Switch</b>							
GECKO	● ○ ○	100 4	●	● ●		● ● ●	●
<b>Managed Switches</b>							
RSB	● ○ ○	100 9	●	● ● ● ●	●	● ● ● ● ● ● ● ●	● ●
RS20	● ○	100 25	●	● ● ● ● ●	● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
RS30	● ○	G 26	●	● ● ● ● ●	● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
RS40	● ○	G 9	●	● ● ● ● ●	● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
MS20	● ○	100 24	●	● ● ● ● ●	● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
MS30	● ○	G 26	●	● ● ● ● ●	● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
MSP	● ○	G 28	● ●	● ● ● ● ●	● ● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
RED	● ○	100 4	●	● ● ● ● ●	● ●	● ● ● ● ● ● ● ●	●
RSP	● ○	G 11	● ●	● ● ● ● ● ● ●	● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
RSPS	● ○	100 6	●	● ● ● ● ● ● ●	● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
RSPL	● ○	G 10	●	● ● ● ● ● ●	● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
RSPE	● ○	G 28	● ●	● ● ● ● ● ● ●	● ● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
RSR	● ○ ○	G 10	●	● ● ● ● ● ● ●	● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
OCTOPUS	● ●	G 28	● ●	● ● ● ● ● ● *	● ● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
MACH100	● ●	10G 26	● ●	●	● ● ●	● ● ●	● ● ● ● ●
GREYHOUND	● ●	G 28	●	● ● ● ● ● ●	● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
MACH1000	● ●	G 28	● ●	● ● ● ● ● ●	● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
MACH4000	● ●	10G 51	● ●	● ● ●	● ●	● ● ●	● ● ● ● ●
<b>Embedded Ethernet Modules</b>							
Embedded Ethernet		G 10	●			● ● ● ● ● ● ● ●	
<b>Firewall Systems</b>							
EAGLE One	● ○	100 2	● ●	● ● ● ● ●	● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
Tofino Xenon	● ○	100 2	●	● ● ● ● ●	● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
EAGLE20/30	● ○	G 2	● ●	● ● ● ● ●	● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
<b>Wireless LAN</b>							
OpenBAT	● ● ○	450 2	● ●	● ● ● ● ● ● ● ●	● ●	● ● ● ● ● ● ● ●	● ● ● ● ●
WLAN Controller	●	G 4	● ●		● ●	● ● ●	
BAT-C	●	100 1	●	●		● ● ● ● ● ● ● ●	●
<b>Serial to Ethernet Converters</b>							
IOLAN DS/SDS	○ ● ●	G 2	●	● ● ●	● ●	● ● ● ● ● ● ● ●	● ●
<b>Hardened Fiber Transceivers/Modems</b>							
FiberInterfaces	●	3	●	●	●	● ● ● ● ●	● ● ●

○ ○ Hollow markers indicate that a non-standard/accessory mounting option is available.

●\* only 110 V DC

Note: To advance to the appropriate product configurator, click on the product family name (first column) in the table above.

For Hirschmann and GarrettCom sales support, please call +1 855-400-9071 or email [inetsalesops@belden.com](mailto:inetsalesops@belden.com). Please forward purchase orders or amendments to [inetsalesops@belden.com](mailto:inetsalesops@belden.com).  
For technical support, please call +1 213-799-0906 or contact [inet-support.us@belden.com](mailto:inet-support.us@belden.com) - Alternatively, please refer to our website, [www.belden.com](http://www.belden.com), for further assistance.

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