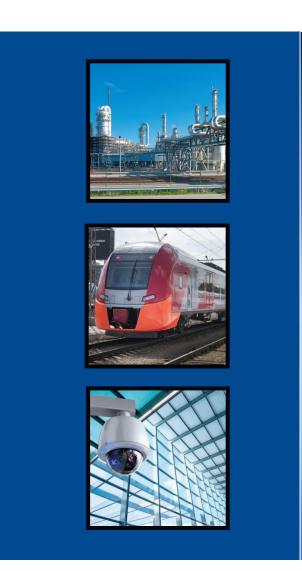# HIRSCHMANN
A **BELDEN** BRAND

Industrial Networking Solutions for Mission Critical Applications

Be certain.
Belden.

Edition 2016

Industry-specific solutions that can improve productivity and operational efficiency today, while laying the foundations for tomorrow's IIoT opportunities.

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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 ports
- SPIDER III Premium Line up to 9 ports

RS20, RS30

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

- 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
- GECKO 5TX 5 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, MSP40, MSP42

Full Gigabit 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
- MSP40/42 HiOS advanced Layer 2 and Layer 3 switch, up to 28 Gigabit ports, four of which on the first slot can be 2.5 Gigabit
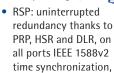
RED25

Cost-effective Fast Ethernet redundancy entry-level switch supporting PRP, HSR or DLR. Offered in two, four-port versions:
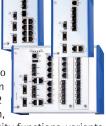
- Four FE TX ports
- Two FE TX ports, plus two FE small form-factor pluggable (SFP) ports

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, M12 D-code
- OCTOPUS 8TX-EEC unmanaged configurable, 8 ports, M12 D-code
- OCTOPUS 8TX PoE-EEC unmanaged configurable, 8 ports, M12 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)

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19" Rack Mount Switches

GREYHOUND

Fast/Gigabit
Ethernet switch
designed for use in harsh industrial
environments.

- From entry level types with 16 Fast Ethernet up 28 ports Full Gigabit Layer 3 versions
- Field exchangeable media modules
- Versions with hot swap power supplies
- 2.5 Gigabit uplink and full wire speed Layer 3 options

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
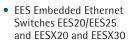
MACH4000

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
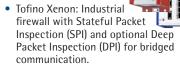
Embedded Ethernet

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 family - BAT-R and BAT-F - rugged configurable wireless LAN access points and/or clients
- BAT450-F rugged compact and lightweight configurable wireless LAN access points and/or clients
- BAT867-R configurable wireless LAN access point and/or client featuring IEEE 802.11ac
- BAT Controller WLC for centralized management of large WLAN networks
- 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
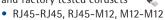and configuration
software with
integrated OPC server.

- Automatic topology dectection
- MultiConfig™ for simultaneous configuration of multiple devices
- Security Status Visualization
- Network dashboard
- Annual Maintenance Plan

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

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Product, Feature and Approval Matrix

The following matrix lists product families with their mounting options (DIN RAIL, PANEL, 19" RACK), maximum data speed, maximum port density, management type (UNMANAGED, MANAGED/LAYER 2, MANAGED/LAYER 3 ROUTING), power inputs, PoE options, temperature ranges and approvals.

Product	DIN RAIL	PANEL	19" RACK	MAX DATA SPEED	MAX PORT DENSITY
Unmanaged Switches					
SPIDER	●	○	○	G	18
SPIDER III-Standard Line	●	○	○	G	8
SPIDER III-Premium Line	●	○	○	G	9
RS20	●		○	100	25
RS30	●		○	G	26
OCTOPUS		●		100	10
Lite Managed Switch					
GECKO	●	○	○	100	5
Managed Switches					
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
Embedded Ethernet Modules					
Embedded Ethernet				G	10
Firewall Systems					
EAGLE One	●		○	100	2
Tofino Xenon	●		○	100	2
EAGLE20/30	●		○	G	2
Wireless LAN					
OpenBAT	●	○	○	450	2
BAT450-F		●		450	2
BAT867-R	●		○	867	1
BAT-C		●		100	1
WLAN Controller		●		G	4
Serial to Ethernet Converters					
IOLAN DS/SDS	○	○	●	G	2
FiberINTERFACES					
Fieldbus Repeater	●				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**. Please forward purchase orders or ammendments to **inetsalesops@belden.com**.
For technical support, please call **+1 213-799-0906** or contact **inet-support.us@belden.com** - Alternatively, please refer to our website, **www.belden.com**, for further assistance.

Additional support may be obtained from the following links: Web: **http://www.hirschmann.com** - Support Portal: **https://hirschmann-support.belden.eu.com**
FTP Resource Site: **ftp://ftp.hirschmann-usa.com/INET-IndustrialNetworking** - Online Demo Switch Management: **http://demo.hirschmann-usa.com**

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