



# HIRSCHMANN

A BELDEN BRAND

## New Product Bulletin

NP 309

### Belden® Introduces the Hirschmann™ RSB20 Series of Basic Managed Switches

The RSB20 Series is a cost-efficient, yet versatile series of managed switches designed to meet your specific application requirements without compromising quality or system performance.



### The RSB20 Series of Managed Switches Optimizes Price/Performance Ratio

The new Hirschmann™ RSB20 series of managed switches consists of 16 models that are distinguished by the number and type of ports offered, factory settings for EtherNet/IP and specific operating temperature ranges. This provides an economically attractive entry into the segment of managed switches, where customers only pay for their exact equipment (feature and function) needs. The RSB20 portfolio permits customized, hardened and reliable communications solutions without compromising quality.

The RSB20 series provides customized communications solutions with design features that adapt to any application without compromising quality or system performance. Special versions have been optimized for specific applications in addition to a "universal version" with three small form-factor pluggable (SFP) transceiver ports.

### Applications

Ideally suited for OEM and network-edge level managed performance. Plug & Play features allow for quick commissioning without sacrificing switch or network diagnostics and performance.

### Key Benefits of the RSB20 Basic Switch Series

- Design and feature-set optimizes cost/performance ratio
- Tailored functionality for all industrial Ethernet applications including EtherNet/IP and PROFINET installations
- Same switch management look and feel as all other Hirschmann managed devices
- Can be integrated into HiVision network management/visualization software
- High Mean Time Between Failure (MTBF) >60 years
- Broad selection of media redundancy (ring and/or mesh), dual power inputs and multicast filtering
- Models range from the 8TX port up to a flexible version with 6TX + 3 100BASE SFP sockets



Versatile and cost-efficient solutions for use in various applications and markets.

### The Basic Configuration

All 16 models of the Hirschmann™ RSB20 family of Basic Switches support Fast Ethernet (10/100 BASE-TX, 100 BASE-FX) and offer extensive management and redundancy options as well as a variety of functions for convenient configuration and diagnostics. Every model meets current industrial standards including cUL508, NEMA TS 2 and cUL1604 for Class I Division 2 applications.

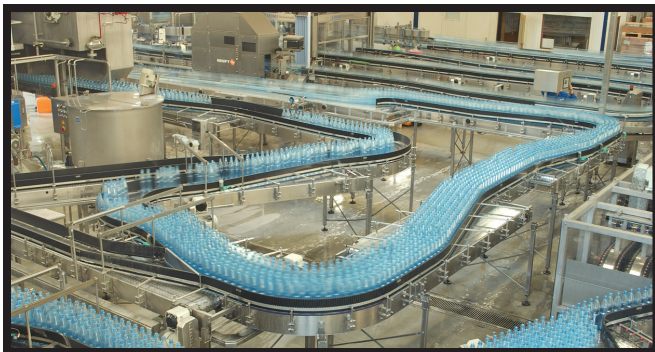
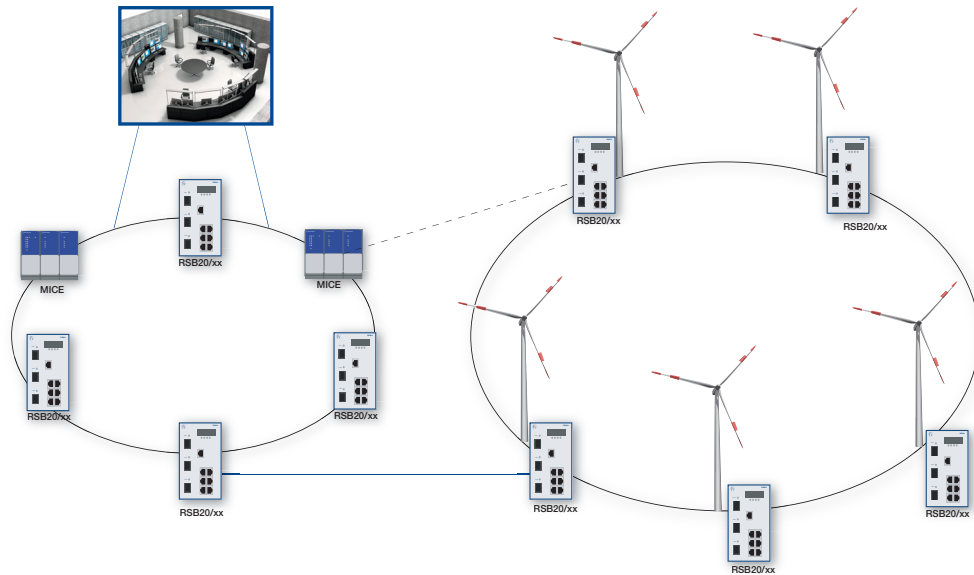
Supplied in a rugged, compact, DIN rail mount housing. Passive fan-less cooling and redundant 12/24VDC power connections ensure high network availability.

All configuration data can be saved and restored, if required, through a serial interface connecting to the ACA 11 auto-configuration adapter. This feature permits for extremely low mean time to recover/replace (MTTR) values in the event of any failures.

### Product Features

- 8 and 9 port versions (10/100 BASE-TX, 100 BASE-FX)
- Variety of fiber port solutions (MM, SM and SFP)
- Available as Plug & Play for EtherNet/IP
- Fanless operational Temperature ranges from 0 to +60 °C or -40 to +70 °C
- Redundant 12/24VDC power inputs
- Broad management and redundancy modes
- Various configuration and diagnostic functionality – standard
- Industrial standards: cUL508 and cUL1604 Class I Div. 2 and NEMA TS 2

### Managed 8/9 Port RSB Switches





## Technical Data

Product Description	
Product designation	RSB20-xx
Key features	10/100BASE managed industrial Ethernet switch per IEEE 802.3, store-and-forward switching, compact design for DIN rail mounting, passive cooling, Layer 2 Basic firmware
Types and number of ports	<b>8 Ports:</b> 8x 10/100BASE TX 6x 10/100BASE TX + 2x 100BASE FX MM or SM (SC socket)  <b>9 Ports:</b> 8x 10/100BASE TX x 1x 100BASE FX MM or SM (SC socket) 6x 10/100BASE TX + 3x 100BASE FX MM or SM (SC socket) 6x 10/100BASE TX + 3x FE SFP slots
Network Reach / Wiring Distance	
Twisted Pair (TP)	0 - 100m
Multi-mode fiber (MM) 50/125 μm	0-5,000 m, 8 dB link budget at 1,300 nm, A = 1 dB/km, 3 dB buffer (fiber version)
Multi-mode fiber (MM) 62.5/125 μm	0-4,000m, 11 dB link budget at 1,300 nm, A = 1 dB/km, 3 dB buffer (fiber version)
Single-mode fiber (SM) 50/125 μm	0-32.5 km, 16 dB link budget at 1,300 nm, A = 0.4 dB/km, 3 dB buffer (fiber version)
SFP	Depending on SFP version
Network Cascading Depth	
Line/Star topology	Any
Ring structure	100 (<0.3 sec reconfiguration time)
Power Supply	
Operating voltage and current draw	12/24 VDC (9.6V to 32V). 215 mA current draw (plus 50 mA/fiber port) at 24 VDC
Power output in BTU(IT)/h	18 (plus 4/fiber port)
Software	
Management	Serial interface, web interface, SNMP v1/v2, HiVision, file transfer per HTTP/TFTP
Diagnostics	LEDs, log file, relay contact, RMON, port mirroring, 802.1AB topology discovery
Configuration	Command Line Interface (CLI), BootP, DHCP, DHCP option 82, HiDiscovery, ACA11 auto-configuration adaptor, HTTP/TFTP file transfer configuration
Redundancy functions	HIPER-Ring (Manager or Client), MRP (Manager or Client), RSTP
Filter	QoS Level 4, Port Priority (IEEE 802.1D/p), Multicast (IGMP snooping and query), fast aging
Real-time	SNTP Client and Server, PTP IEEE 1588 v1, v2 Client
Environmental Conditions	
Operating temperature range	0°C to +60 °C; optionally -40°C to +70 °C (EEC)
Storage/Transportation temperature range	-40°C to +70°C; -40°C to 85°C (EEC)
PCB conformal coating	Optional
Relative humidity (non-condensing)	10 to 95 %
MTBF (MIL HDBK-217F)	>60 years
Design	
Dimensions (WxHxD)	8TX version: 47x131x111 mm. All other versions: 74x131x111 mm
Mounting	DIN rail
Weight	400 g
Protection class	IP20
Approvals	
Safety for industrial control equipment	cUL 508 (pending)
Hazardous locations	cUL 1604 Class 1 Div 2 (pending)
Traffic/ITS	NEMA TS 2 (pending)

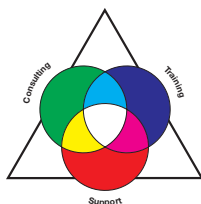
## Ordering Information

Product Designation	Type	Ordering Number
RSB20-0800T1T1SAAB	8TX	942 014 001
RSB20-0800M2M2SAAB	6TX/2FX MM	942 014 002
RSB20-0800S2S2SAAB	6TX/2FX SM	942 014 003
RSB20-0900ZZ6SAAB	6TX/3SFP	942 014 004
RSB20-0900M2T2SAAB	8TX/1FX MM	942 014 005
RSB20-0900S2T2SAAB	8TX/1FX SM	942 014 006
RSB20-0900MMM2SAAB	6TX/3FX MM	942 014 007
RSB20-0900VM2SAAB	6TX/2FX SM/1 FX MM	942 014 008
RSB20-0800T1T1TAAB	8TX EEC	942 014 009
RSB20-0800M2M2TAAB	6TX/2FX MM EEC	942 014 010
RSB20-0800S2S2STAB	6TX/2FX SM EEC	942 014 011
RSB20-0900ZZ6TAAB	6TX/3SFP EEC	942 014 012
RSB20-0900M2TTAAB	8TX/1FX MM EEC	942 014 013
RSB20-0900S2TTAAB	8TX/1FX SM EEC	942 014 014
RSB20-0900MMM2TAAB	6TX/3FX MM EEC	942 014 015
RSB20-0900VM2TAAB	6TX/2FX SM/1 FX MM EEC	942 014 016

**NOTE:** All models available with optional Conformal Coating



Auto-Configuration Adapter  
 ACA11 EEC Order No. 943 751 002



## Belden® Competence Center

Get the complete economic business solution for your network. In addition to our proven product portfolio, Belden offers you a comprehensive range of multi-supplier network services. Whether it is consulting, training or support – the Belden® Competence Center provides a single source of services customized to your needs.

Regardless of the technology you are using, our experts will support you from network design to the optimization of system performance throughout the operational process. State-of-the-art manufacturing expertise, a global service network and fast access to external specialist ensure that you receive the best assistance possible. Bundle your individual service package, today!